

Initial Study for the

1139 Karlstad Drive Residential Project



Prepared by:



In Consultation with:



July 2017



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ACRONYMS AND ABBREVIATIONS

ABAG	Association of Bay Area Governments
AIA	Airport Influence Area
BAAQMD	Bay Area Air Quality Management District
BFE	Base Flood Elevation
BMP	Best Management Plans
CAP	Clean Air Plan
CAP	Climate Action Plan
CBSC	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
cfs	Cubic feet per second
CLUP	Comprehensive Land Use Plan
CNEL	Community Noise Equivalent Level
CO ₂ e	Carbon dioxide equivalents
CRR	California Code of Regulations
dBA	A-weighted sound level
DPM	Diesel Particulate Matter
DPS	Department of Public Safety
du/ac	Dwelling units per acre
EIR	Environmental Impact Report
EPA	Environmental Protection Act
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
in/sec	Inches per second
ITR	Industrial-To-Residential
L _{dn}	Day-Night Level
L _{eq}	Noise Equivalent Level
LID	Low Impact Development
LUTE	Land Use and Transportation Element
MBTA	Migratory Bird Treaty Act
MEI	Maximally Exposed Individual
MND	Mitigated Negative Declaration

MRP	Municipal Regional Stormwater Permit
MT	Metric tons
NPDES	National Pollutant Discharge Elimination System
NOD	Notice of Determination
NOI	Notice of Intent
NO _x	nitrogen oxides
PM _{2.5}	fine particulate matter
PM ₁₀	respirable particulate matter
PPV	Peak Particle Velocity
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SMaRT	Sunnyvale Materials Recover and Transfer Station
SMC	Sunnyvale Municipal Code
SMP	Site Management Plan
STLC	Soluble threshold limit concentration
SWPPP	Stormwater Pollution Prevention Plan
TAC	Toxic Air Contaminants
TCLP	Toxicity characteristic leaching procedure
TDM	Transportation Demand Management
UFMP	Urban Forest Management Plan
USFWS	United States Fish and Wildlife Service
VOC	Volatile organic compounds
VTA	Santa Clara Valley Transportation Authority
WM	Waste Management
WPCP	Water Pollution Control Plant
WSA	Water Supply Assessment
µm/m ³	micrograms per cubic meter

SECTION 1.0 INTRODUCTION AND PURPOSE

1.1 PURPOSE OF THE INITIAL STUDY

The City of Sunnyvale, as the Lead Agency, has prepared this Initial Study for the 1139 Karlstad Drive project in compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations §15000 et. seq.), and the regulations and policies of the City of Sunnyvale, California.

The project proposes to demolish the existing improvements on-site and construct 250 apartment units. This Initial Study evaluates the environmental impacts that might reasonably be anticipated to result from implementation of the proposed project.

1.2 PUBLIC REVIEW PERIOD

Publication of this Initial Study marks the beginning of a 20-day public review and comment period. During this period, the Initial Study will be available to local, state, and federal agencies and to interested organizations and individuals for review. Written comments concerning the environmental review contained in this Initial Study should be sent to:

George Schroeder, Associate Planner
City of Sunnyvale
456 W. Olive Avenue
Sunnyvale, CA 94086
gschroeder@sunnyvale.ca.gov

1.3 CONSIDERATION OF THE INITIAL STUDY AND PROJECT

Following the conclusion of the public review period, the City of Sunnyvale will consider the adoption of the Initial Study/Mitigated Negative Declaration (MND) for the project at a regularly scheduled meeting. The City of Sunnyvale shall consider the Initial Study/MND together with any comments received during the public review process. Upon adoption of the MND, the City may proceed with project approval actions.

1.4 NOTICE OF DETERMINATION

If the project is approved, the City of Sunnyvale will file a Notice of Determination (NOD), which will be available for public inspection and posted within 24 hours of receipt at the County Clerk's Office for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15075(g)).

SECTION 2.0 PROJECT INFORMATION

2.1 PROJECT TITLE

1139 Karlstad Drive Residential Project

2.2 LEAD AGENCY CONTACT

City of Sunnyvale
Community Development Department
George Schroeder, Associate Planner
456 West Olive Avenue
Sunnyvale, CA 94086
(408) 730-7443
gschroeder@sunnyvale.ca.gov

2.3 PROJECT APPLICANT

The Sobrato Organization
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Cupertino, CA 95014
(408) 446-0700
rtruempler@sobrato.com

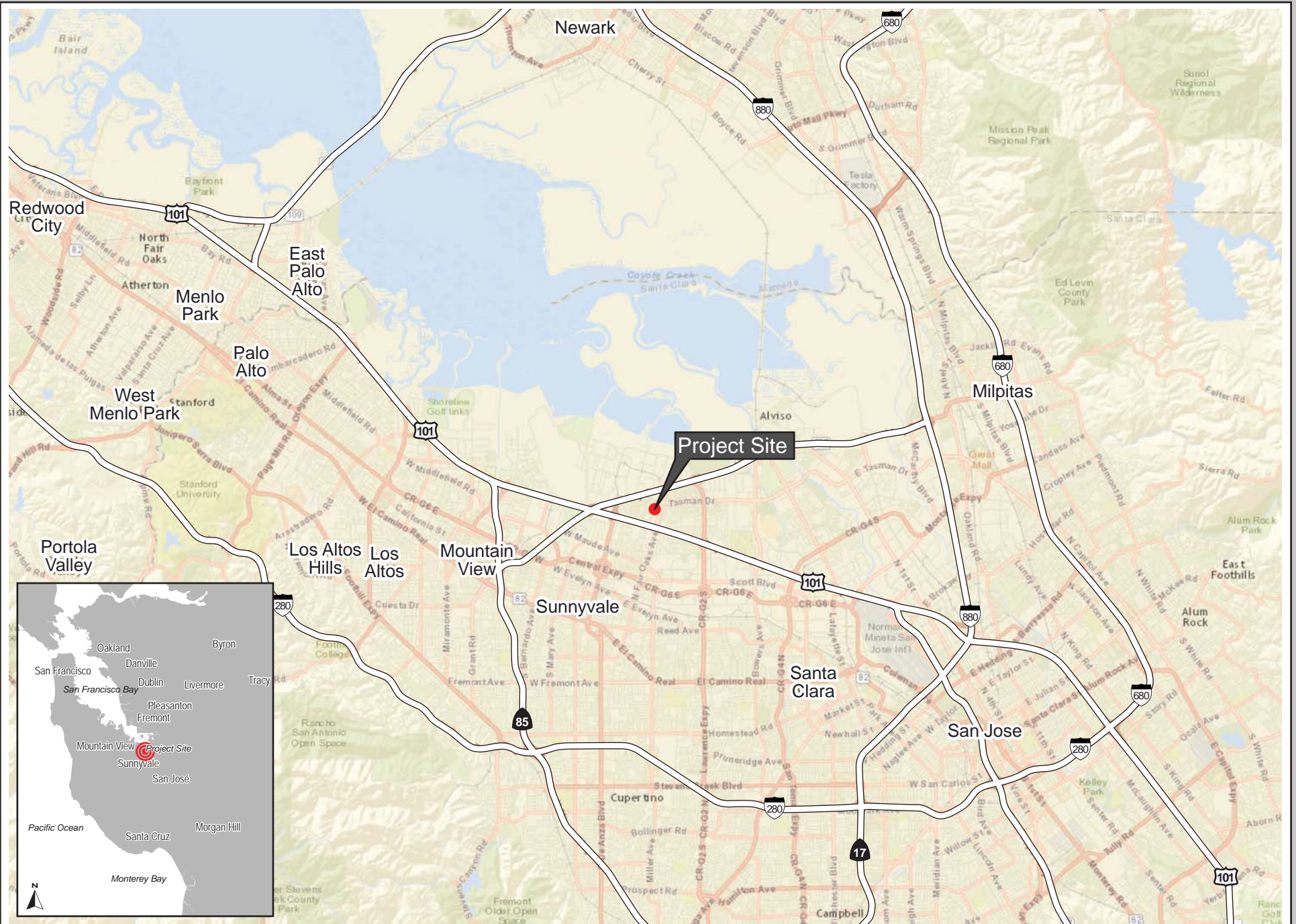
2.4 PROJECT LOCATION AND SUMMARY OF EXISTING SITE CONDITIONS

The approximately five-acre project site is located at 1139 Karlstad Drive in the City of Sunnyvale. The project site is located within the larger Tasman/Fair Oaks Area Pedestrian and Bicycle Circulation Plan area that is bound by SR 237 and US 101 to the north and south, and Morse Avenue and the East Channel/Fair Oaks Avenue to the west and east. The site is also approximately 0.3 miles from the Santa Clara Valley Transportation Authority (VTA) Fair Oaks light rail station. Regional and vicinity maps of the project site and Tasman/Fair Oaks Area Pedestrian and Bicycle Circulation Plan area are shown on Figure 2.4-1 and 2.4-2.

The project site is currently developed with a one-story, approximately 100,520 square foot, industrial office building, surface parking, and landscaping. Surrounding land uses include residential uses to the north, east, and west and an industrial office use to the south. An aerial map of the project site and surrounding land uses is shown in Figure 2.4-3. Views of the project site and surrounding uses are shown in Photos 1 through 4.

2.5 ASSESSOR'S PARCEL NUMBER

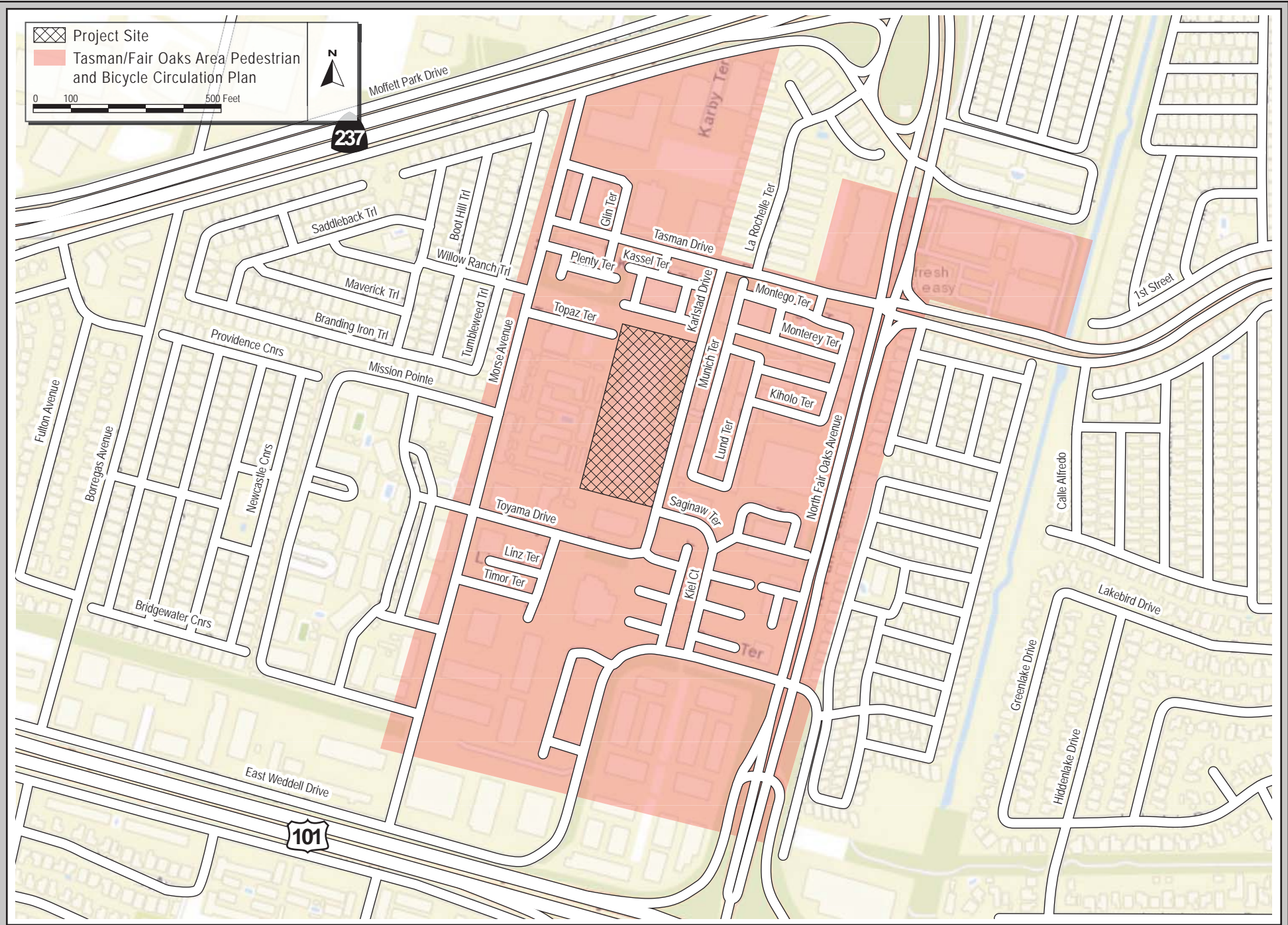
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REGIONAL MAP

FIGURE 2.4-1

4



VICINITY MAP

FIGURE 2.4-2

5



AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 2.4-3



PHOTO 1: View of the project site from Karlstad Drive looking south.



PHOTO 2: View of the multi-family residential development adjacent to the north of the project site from Karlstad Drive.



PHOTO 3: View of the multi-family residential development located east of the project site looking across Karlstad Drive.



PHOTO 4: View of the residential development located on the east side of Karlstad Drive from the project site.

2.6 GENERAL PLAN DESIGNATION AND ZONING DISTRICT

- General Plan designation: *High Density Residential* (25-36 dwelling units/acre [du/ac])
- Zoning designation: *R-4/PD (High Density Residential [no greater than 36 du/ac] with a Planned Development combining district)*

2.7 PROJECT-RELATED APPROVALS, AGREEMENTS, AND PERMITS

- Special Development Permit

SECTION 3.0 PROJECT DESCRIPTION

3.1 PROJECT OVERVIEW

The project proposes to demolish the existing improvements on-site and construct 250 apartment units. Of the 250 units, 20 units would be for households that meet the Very Low Income qualifications. The apartment units would be located in a four-story building on top of a podium parking garage. The podium parking garage would include one level of partially subterranean parking. The maximum building height proposed is 55 feet, with rooftop features up to 60 feet. The project would result in a density of about 50 du/ac and a lot coverage of 40 percent, not including the garage. The project would utilize the state's Density Bonus Law and City's Green Building Incentive program and, therefore, would not require a General Plan amendment or rezoning to exceed the permitted density under the current General Plan and zoning designations.¹ The state's Density Bonus Law also allows for incentives (or concessions) and flexibility with development standards.

The project components, including the residential building, amenity space within the residential building, common open space, landscaping, site access and parking, public right-of-way and utility improvements, and construction details are described below. A conceptual site plan and conceptual cross-sections are shown in Figures 3.1-1 and 3.1-2, respectively.

3.2 PROJECT COMPONENTS

3.2.1 Residential Building

The 250 apartment units would be located in a four-story, approximately 316,840 square foot building located on a podium over a one-level, approximately 109,700 square foot partially subterranean parking garage. The parking garage would extend to approximately five feet above grade. The residential building (including rooftop features) would be up to 60 feet tall and set back approximately 25-30 feet from Karlstad Drive, approximately 78 feet from the northern property line, approximately 84 feet from the southern property line, and approximately 70 feet from the western property line.

The proposed residential building would front Karlstad Drive and include a small parking plaza facing the street that would provide direct access to the leasing office. First floor residential units would include stoops to the sidewalk on Karlstad Drive.

The proposed units would be situated around three common courtyards and include studio, one-bedroom, and two-bedroom units ranging from approximately 540 to 1,180 square feet in size. Each unit would have a private, outdoor balcony.

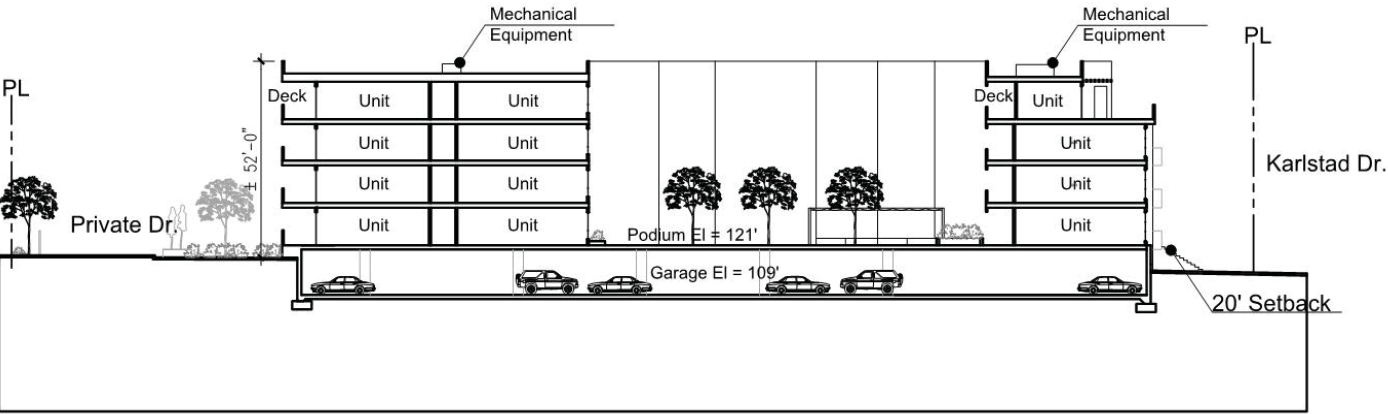
¹ The state's Density Bonus Law gives developers who agree to build a certain percentage of low-income housing the opportunity to build more residences than would otherwise be permitted by applicable local regulations. The City's Green Incentive Program offers incentives to projects that exceed the minimum green building standards with incentives such as receiving a density bonus. Details on the applicability of these incentives are further discussed in Section 4.10.2 *Land Use and Planning*.



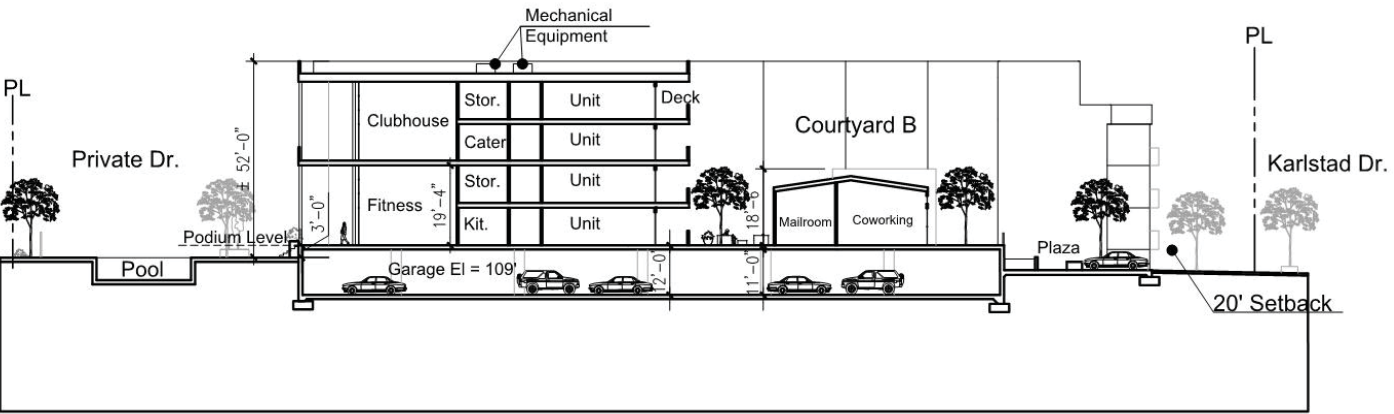
Source: Ktgy Architecture + Planning, March 28, 2017.

CONCEPTUAL SITE PLAN

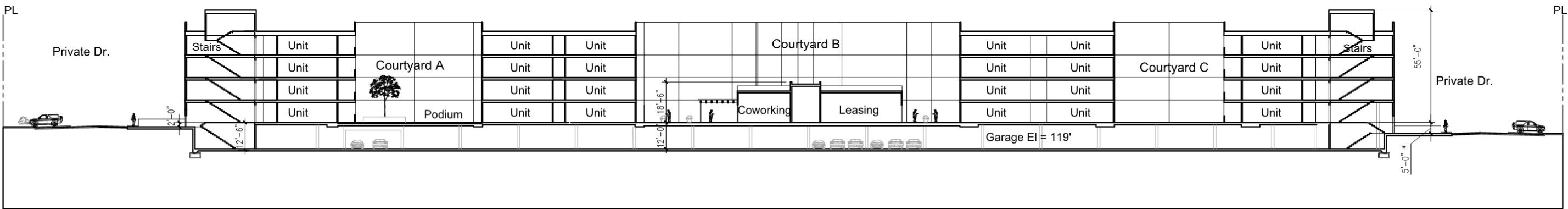
FIGURE 3.1-1



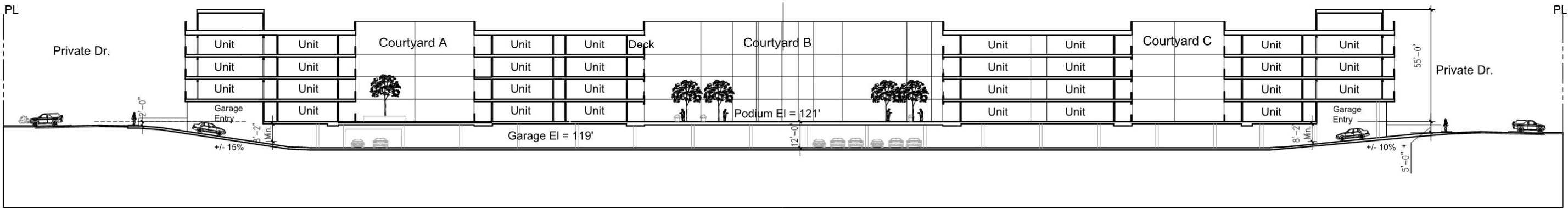
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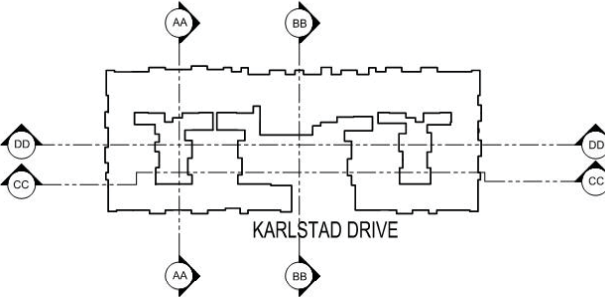
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Cross Section DD



Source: ktgy Architecture + Planning, March 28, 2017.

CONCEPTUAL CROSS SECTIONS

FIGURE 3.1-2

3.2.2 Amenity Space within the Residential Building

The residential building would include common amenity space on each floor. The first floor (podium level) would include approximately 2,545 square feet of indoor amenities including a fitness center, pet salon, bicycle repair station, and restrooms, as well as approximately 990 square feet of outdoor fitness amenities and seating areas. The third floor would include approximately 2,550 square feet of indoor amenities, including a clubroom with a kitchen/bar, dining area, and restrooms. An approximately 1,020 square foot outdoor club terrace is also proposed on the third floor. The fourth floor includes a rooftop deck with seating areas and a kitchen/bar. A total of 250 storage lockers would be provided and distributed on each floor.

3.2.3 Common and Private Open Space

The project includes a total of approximately 58,990 square feet of common open space area. As described above, the proposed apartments would be situated around three outdoor courtyards. The courtyards would be at podium level and include passive open space areas with seating. The project also includes a common open space area on the ground level on the west side of the site that would include a pool, spa, barbeque area, dining area, and a dedicated pet play, lawn, and recreation area, including a tot lot.

The project also includes a total of approximately 24,095 square feet of private open space in the form of private patios and balconies for each unit. The total combined useable open space is 83,085 square feet.

3.2.4 Landscaping

The project proposes approximately 94,870 square feet of landscaping throughout the site, including along the perimeter of the site and building, within the courtyards, and on the rooftop deck. The landscaping would include 166 new trees, shrubs, groundcover, and grasses. The new trees include 13 36-inch box brisbane trees along the northern property line of the project site. The project includes preserving nine existing trees on-site including four canary island pine trees (tree numbers 71, 73, 91, 93) at the southeast and northeast corners of the project site, one redwood tree (tree number 96) at the northwest corner of the site, two acacia trees (tree numbers 60 and 63) on the south side of the project site, and two acacia trees (tree numbers 58 and 59) at the southwest corner of the site (refer to Figure 3.1-1). The project would remove the remaining 40 existing on-site trees.

3.2.5 Site Access and Parking

The project site would be accessible from four driveways on Karlstad Drive. The northern and southern driveways on Karlstad would provide two-way access to surface parking lots and the parking garage. The middle driveways on Karlstad Drive would provide one-way access to a small surface parking lot located in front of the leasing office for guests and prospective residents. A total of 422 vehicle parking spaces would be provided on-site, including 116 spaces in surface parking lots and 306 spaces in the parking garage. The project proposes 112 bicycle parking spaces: 84 secured bicycle parking spaces in the parking garage and 28 bicycle parking spaces along the project site's frontage.

Two additional two-way access driveways are proposed on the west side of the project site for emergency and trash vehicle access. Vehicular and pedestrian circulation paths are shown in Figure 3.2.-1.

3.2.6 Transportation Demand Management Plan

The project proposes a Transportation Demand Management (TDM) plan that includes the following strategies to promote the use of transit, bicycling, and walking during peak commute hours:

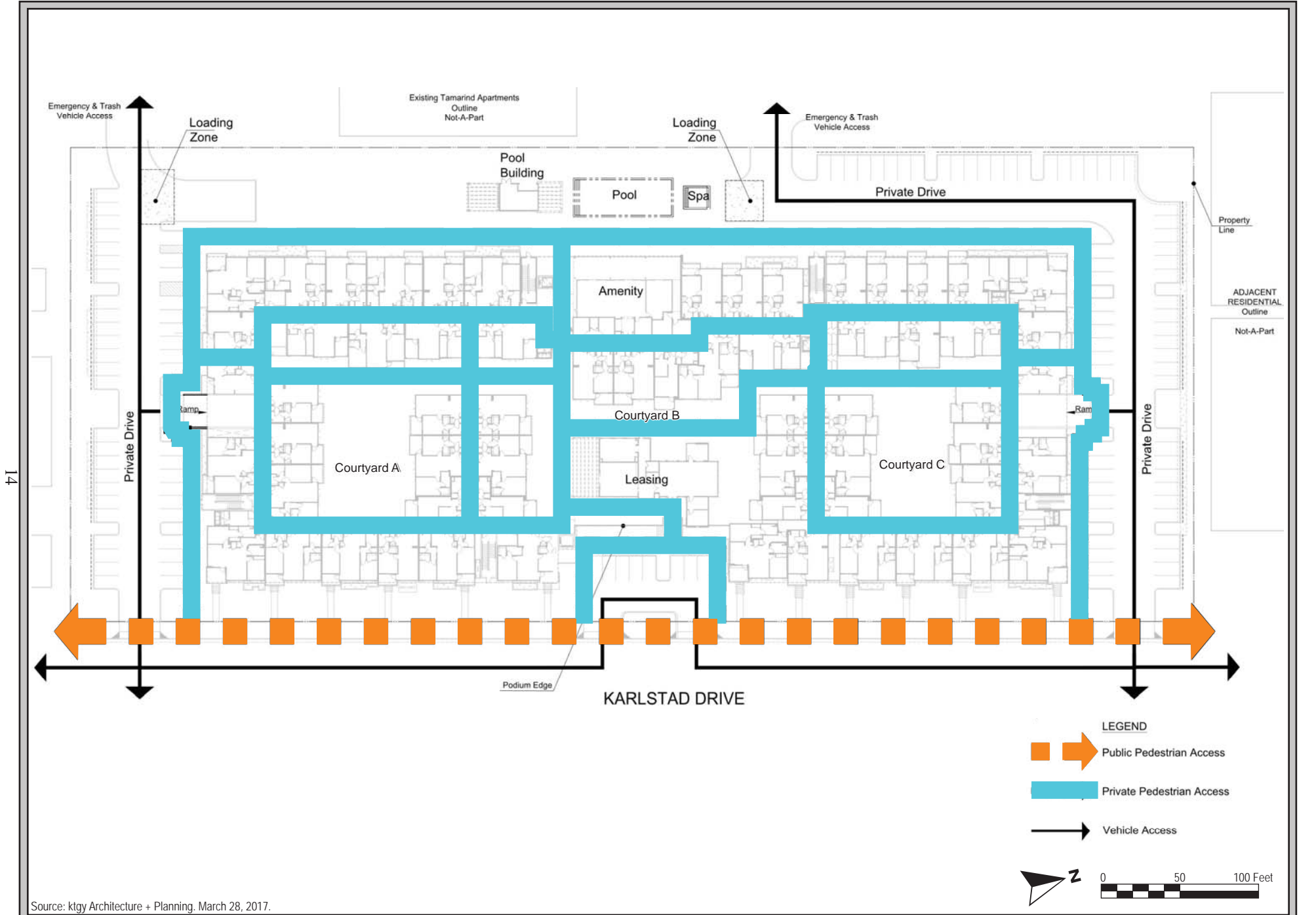
- A new sidewalk along the project site frontage on Karlstad Drive,
- 84 secured bicycle parking spaces and 28 bicycle spaces along the project site's frontage near site entrances,
- An on-site bicycle repair station,
- A bike share program (e.g., community bicycles),
- An on-site TDM coordinator that would provide rideshare matching services and coordinate walking/biking groups for residents,
- An on-site transportation kiosk that would provide information to residents and visitors about multi-modal wayfinding and transit information,
- VTA Eco Passes with emergency ride home program for all residents for the first three years following project completion, and
- At least one reserved stall for a car-share program.

In addition, the project would install a total of eight electrical vehicle charging stations and pre-wire 12.5 percent of the required parking stalls for future EV charging stations. Refer to Appendix H for additional details about the TDM plan.

3.2.7 Green Building and Bird Safe Measures

The project proposes to achieve a minimum of 110 points on the GreenPoint Rated checklist by incorporating green building measures such as post-consumer construction materials, drought tolerant non-invasive landscaping, water efficient fixtures, and would be 10 percent more energy efficient than required by Title 24 energy code by incorporating solar hot water heating, energy efficient Heating, Ventilating, and Air Conditioning systems, smart meters, added insulation, a cool roof, and high-efficiency lighting.

The project also includes bird-safe building design measures of setting back tall landscaping (i.e., trees) approximately 65 feet from the large glass facade on the north face of the building that fronts the pool, applying a bird safe application (e.g., fritting) to the glazing on the building's glass facade facing the pool, prohibiting up-lighting and spotlights, shielding outdoor lighting, incorporating blinds for all windows and complying with Title 24 that requires smaller lighting zones inside buildings. Additional detail about the project's bird safe measures are included in *Section 4.4* and Appendix G.



Source: ktgy Architecture + Planning, March 28, 2017.

PROPOSED CIRCULATION PLAN

FIGURE 3.2-1

3.2.8 Public Right-Of-Way and Utility Improvements

The project includes public right-of-way (ROW) improvements including installation of new curb, gutter, and sidewalk with street trees along the project's frontage on Karlstad Drive in accordance with the Tasman/Fair Oaks Area Pedestrian and Bicycle Circulation Plan. Streetlight fixtures on Karlstad Drive would be upgraded to light-emitting diode (LED) fixtures.

The project requires new lateral connections from the project site to existing utility systems (sanitary sewer, water, and storm drain) located in the public right-of-way.

3.2.9 Construction

Construction of the project is estimated to take approximately 30 months to complete, possibly starting in November 2017 and concluding in April 2020. Demolition of the existing improvements on-site would occur in the first several months, followed by preparation of the site and construction of the residential building and other site improvements. The project would excavate and off-haul approximately 40,950 cubic yards of soil (to a maximum depth of 10 feet).

SECTION 4.0 ENVIRONMENTAL CHECKLIST AND IMPACT DISCUSSION

This section presents the discussion of impacts related to the following environmental subjects in their respective subsections:

4.1	Aesthetics	4.10	Land Use and Planning
4.2	Agricultural and Forestry Resources	4.11	Mineral Resources
4.3	Air Quality	4.12	Noise and Vibration
4.4	Biological Resources	4.13	Population and Housing
4.5	Cultural Resources	4.14	Public Services
4.6	Geology and Soils	4.15	Recreation
4.7	Greenhouse Gas Emissions	4.16	Transportation/Traffic
4.8	Hazards and Hazardous Materials	4.17	Utilities and Service Systems
4.9	Hydrology and Water Quality	4.18	Mandatory Findings of Significance

The discussion for each environmental subject includes the following subsections:

- Environmental Checklist** – The environmental checklist, as recommended by CEQA, identifies environmental impacts that could occur if the proposed project is implemented. The right-hand column of the checklist lists the source(s) for the answer to each question. The sources are identified at the end of this section.
- Impact Discussion** – This subsection discusses the project’s impact as it relates to the environmental checklist questions. For potentially significant impacts, feasible mitigation measures are identified. “Mitigation measures” are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered using an alphanumeric system that identifies the environmental issue. For example, Impact HAZ-1 denotes the first potentially significant impact discussed in the Hazards and Hazardous Materials section. Mitigation measures are also numbered to correspond to the impact they address. For example, MM NOI-2.3 refers to the third mitigation measure for the second impact in the Noise section.

Important Note to the Reader

The California Supreme Court in a December 2015 opinion [*California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369 (No. S 213478)] confirmed that CEQA, with several specific exceptions, is concerned with the impacts of a project on the environment, not the effects the existing environment may have on a project. Therefore, the evaluation of the significance of project impacts under CEQA in the following sections focuses on impacts of the project on the environment, including whether a project may exacerbate existing environmental hazards.

The City of Sunnyvale currently has policies that address existing conditions (e.g., air quality, noise, and hazards) affecting a proposed project, which are also addressed in this section. This is consistent with one of the primary objectives of CEQA and this document, which is to provide objective information to decision-makers and the public regarding a project as a whole. The CEQA Guidelines and the courts are clear that a CEQA document (e.g., EIR or Initial Study) can include information of interest even if such information is not an “environmental impact” as defined by CEQA.

Therefore, where applicable, in addition to describing the impacts of the project on the environment, this chapter will discuss planning considerations that relate to policies pertaining to existing conditions. Such examples include, but are not limited to, locating a project near sources of air emissions that can pose a health risk, in a floodplain, in a high noise environment, or on/adjacent to sites involving hazardous substances.

4.1 AESTHETICS

4.1.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,5
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,3,4
d) Create a new source of substantial light or glare which will adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,3,6

4.1.2 Impact Discussion

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

A scenic vista is a view of natural environment, historic, and/or architectural features possessing visual and aesthetic qualities of value to the community. The term “vista” generally implies an expansive view, usually from an elevated point or open area.

The project area is located in an urbanized area that is relatively flat in nature and does not provide expansive views of the natural environment. The project site is currently developed with an industrial building and is surrounded by one- to three-story development. The project site does not provide scenic open space. As a result, views from the project site include views of the immediate, surrounding development. The project site is not located in a designated scenic vista. The development of the project, therefore, would not impact a scenic vista. **(No Impact)**

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

The project site does not include rock outcroppings or historic buildings. The project site is not located within a state scenic highway.² The project, however, does include mature landscape trees on-site. As discussed in *Sections 3.2 and 4.2*, the project would result in the removal of 40 of the 49 existing trees on-site. The project shall comply with the City’s Tree Preservation Ordinance (Sunnyvale Municipal Code [SMC], Chapter 19.94) and the Urban Forest Management Plan (UFMP) to reduce the project’s impact to trees to a less than significant level by replacing any mature trees unable to be preserved on-site at a 3:1 (planted:removed) ratio. The project includes planting 166

² California Department of Transportation. “California Scenic Highway Mapping Program.” Accessed: March 24, 2017. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm.

new trees on-site. For these reasons, the project would not substantial damage scenic resources.
(Less Than Significant Impact)

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

The project site is currently developed with a one-story, approximately 100,520 square foot industrial office building. The project site frontage on Karlstad Drive is landscaped with a grass berm and trees. There is no sidewalk on Karlstad along the project site's frontage.

As discussed in *Section 4.10 Land Use*, the project site is part of a larger area designated by the City for industrial to residential conversion. The project site is one of the last properties within the Industrial-To-Residential (ITR) 7 area to redevelop with residential uses. The surrounding development north, east, and west of the site includes two to three -story multi-family residential developments, as shown in Photos 2 through 4 in *Section 2.4*. The existing industrial office use south of the site was recently approved for residential development (1111 Karlstad Drive, File No. 2015-7810). The development of the project would complete the planned conversion of the project site and surroundings to a residential neighborhood, and would not degrade the existing visual character.

The proposed multi-family residential use is consistent with the surrounding multi-family land uses in the neighborhood. While the project proposes a higher density development than the surrounding developments (18 to 27 du/ac vs. 50 du/ac), and a taller building than the surrounding residential buildings (60 feet vs 35-48 feet), the fourth story of the proposed residential building would be set back further from the street to minimize the height of the building to pedestrians on Karlstad Drive and to better blend with the existing building heights of the surrounding residential developments. In addition, the project proposes to complete the sidewalk network with street trees along the project site frontage. For these reasons, the project would complete the existing residential character of the neighborhood. **(Less Than Significant Impact)**

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

The project site is located in an urbanized area with existing sources of light, including exterior lighting sources from the current development on-site and surrounding developments. The proposed redevelopment with a four-story residential building would incrementally increase the level of illumination in the area. The project, however, shall adhere to SMC restrictions on lighting to reduce exterior light and glare impacts by requiring outside lighting be directed in a way not to cause significant glare or light spillover onto adjacent properties. In addition, the project would comply with the City's Bird Safe Building Design Guidelines that prohibit uplighting and require shielding of lighting. For these reasons, the project would not result in significant light and glare impacts.

Glare can also be caused by sunlight or artificial light reflecting from finished surfaces such as window glass or other reflective materials. The project would not be constructed with highly reflective materials, such as mirrored glass. In addition, the project does not propose any large, uninterrupted expanses of glass or other highly reflective materials. The primary building materials for the project include primarily stucco with veneer accents. For these reasons, it is not anticipated that the project would result in significant glare impacts.

Based on the above discussion, the project would not result in a new source of substantial light or glare that would adversely affect day or nighttime views in the area. **(Less Than Significant Impact)**

4.2 AGRICULTURAL AND FORESTRY RESOURCES

4.2.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,7
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,3,28
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,3
d) Result in a loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,3
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,3

4.2.2 Impact Discussion

a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use?**

The project site is not designated or used as farmland. According to the Santa Clara County Important Farmland 2014 map, the project site is designated as *Urban and Built-Up Land*.³ The project site is designated and zoned for urban development in the City's General Plan Land Use Map and Zoning Map. The project site is currently developed with an industrial office building. For these reasons, implementation of the project would not convert farmland to non-agricultural use.

³ Urban and Built-Up Land is defined as occupied by structures with a building density of at least one unit to 1.5 acres or approximately six structures to a 10-acre parcel. Source: California Department of Conservation, Division of Land Resource Protection. *Santa Clara County Important Farmland 2014*. October 2016.

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

The project site is currently zoned for high density residential uses and is not the subject of a Williamson Act contract.⁴ For these reasons, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?

The project site is not zoned for forest land or timberland. The project site is zoned for high density residential uses. The implementation of the project, therefore, would not conflict with existing zoning for (or cause rezoning of) forest land or timberland.

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

The project site and surrounding properties are developed and located in an urban setting (refer to Figure 2.4-3). The implementation of the project, therefore, would not 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?

The project site and surrounding area are developed and there are no properties within proximity that are used for agricultural or forestry uses. The implementation of the project, therefore, would not result in conversion of farmland or forest land to non-agricultural or non-forest uses. **(No Impact)**

⁴ County of Santa Clara, Department of Planning and Development. "ArcGIS – Williamson Act Properties." Accessed: March 8, 2017. Available at: <https://www.arcgis.com/home/webmap/viewer.html?webmap=328429a3701a444485f31982cbdd9c71&extent=-122.5019,36.6904,-120.9103,37.6838>.

4.3 AIR QUALITY

The following discussion is based on an air quality assessment prepared by *Illingworth & Rodkin, Inc.* on April 14, 2017. A copy of the assessment is provided in Appendix A of this Initial Study.

4.3.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,9
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,8
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,8
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,8
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

As previously discussed in *Section 4.0*, in December 2015, the California Supreme Court issued an opinion in “CBIA vs. BAAQMD” holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project’s future users or residents unless the project risks exacerbating those environmental hazards or risks that already exist. Nevertheless, the City has policies and regulations (including Policy EM-11.3 which requires all new development to utilize site planning to protect citizens from unnecessary exposure to air pollutant) that address existing conditions affecting a proposed project, which are discussed below as planning considerations.

The Bay Area Air Quality Management District (BAAQMD) adopted threshold of significance to assist the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD believe air pollution emissions would cause significant environmental impacts. The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 4.3-1.

Table 4.3-1: BAAQMD Air Quality Significance Thresholds			
Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82 (Exhaust)	82	15
PM _{2.5}	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards for Single Sources			
Excess Cancer Risk	>10 per one million		
Hazard Index	>1.0		
Incremental annual PM _{2.5}	>0.3 µg/m ³		
Health Risks and Hazards for Combined Sources (Cumulative from all sources within 1,000 foot zone of influence)			
Excess Cancer Risk	>100 per one million		
Hazard Index	>10.0		
Annual Average PM _{2.5}	>0.8 µg/m ³		
Notes: ROG = reactive organic gases, NO _x = nitrogen oxides, PM ₁₀ = coarse particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, PM _{2.5} = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less, µm/m ³ = micrograms per cubic meter.			

4.3.2 Impact Discussion

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

BAAQMD is the agency primarily responsible for assuring the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. BAAQMD's most recent adopted plan is the Bay Area 2017 Clean Air Plan (CAP). Determining consistency with the 2010 CAP involves assessing whether applicable control measures in the 2017 Clean Air Plan are implemented. Implementation of control measures improve air quality and protect health. Applicable control measures and the project's consistency with them are summarized in Table 4.3-2, below. As discussed in Table 4.3-2 below, the project is consistent with applicable control measures by developing a high density transit oriented infill development with bicycle parking, completed sidewalk network on Karlstad Drive, energy efficient features, by reducing heat island effect, and planting a net increase of 149 trees. In addition, the project would not exceed the BAAQMD thresholds for operational criteria air pollutant emissions, as discussed below. For these reasons, the

project would not conflict with or obstruct implementation of the CAP. **(Less Than Significant Impact)**

Table 4.3-2: Bay Area 2017 Clean Air Plan Applicable Control Measures

Control Measures	Description	Project Consistency
Transportation Control Measures		
Trip Reduction Programs	Encourage trip reduction policies and programs in local plans, e.g., general and specific plans. Encourage local governments to require mitigation of vehicle travel as part of new development approval, to develop innovative ways to encourage rideshare, transit, cycling, and walking for work trips.	The project proposes residential development at about 50 du/ac at an infill, urban location in proximity to the Fair Oaks Light Rail Station and bus routes 26 and 200. The project also proposes a TDM plan that would promote automobile-alternative modes of transportation. The project, therefore, is consistent with this measure.
Bicycle and Pedestrian Access and Facilities	Encourage planning for bicycle and pedestrian facilities in local plans, e.g., general and specific plans, fund bike lanes, routes, paths and bicycle parking facilities.	The project would include 112 bicycle parking spaces. The project also proposes a TDM plan that would include a bicycle repair facility and bike share program (e.g., community bicycles). The project would complete the sidewalk network on Karlstad Drive, as well as including pedestrian walkways along the site driveways around the perimeter of the residential building. The project, therefore, is consistent with this measure.
Land Use Strategies	Support implementation of Plan Bay Area, maintain and disseminate information on current climate action plans and other local best practices.	The project proposes residential development at about 50 du/ac at an infill, urban location in proximity to the Fair Oaks Light Rail Station and bus routes 26 and 200.
Building Control Measures		
Green Building	Identify barriers to effective local implementation of the CalGreen (Title 24) statewide building energy code; develop solutions to improve implementation/enforcement. Engage with additional partners to target reducing emissions from specific types of buildings.	The project would comply with the City's Green Building Program and the California Green Building Standards Code (CalGreen) and achieve a minimum of 110 points on the GreenPoint Rated checklist. In addition, the project proposes to be 10 percent more energy efficient than required by Title 24 energy code by incorporating solar hot water heating, energy efficient Heating, Ventilating, and Air Conditioning systems, smart meters, added insulation, a cool roof, and high-efficiency lighting. The project, therefore, is consistent with this measure.
Decarbonize Buildings	Update Air District guidance documents to recommend that commercial and multi-family developments install ground source heat pumps and solar hot water heaters.	The project would be constructed to be "solar ready" with pre-wiring for solar water heating and solar electricity. The project, therefore, is consistent with this measure.

Table 4.3-2: Bay Area 2017 Clean Air Plan Applicable Control Measures

Control Measures	Description	Project Consistency
Urban Heat Island Mitigation	Develop and urge adoption of a model ordinance for “cool parking” that promotes the use of cool surface treatments for new parking facilities. Develop and promote adoption of model building code requirements for new construction or re-roofing/roofing upgrades for commercial and residential multi-family housing.	The project would locate most of the vehicle parking for the residents in a subterranean parking garage. In addition, the project would plant new landscaping and trees. These features would reduce the project’s heat island effect. The project, therefore, is consistent with this measure.
Waste Management Control Measures		
Recycling and Waste Reduction	Develop or identify and promote model ordinances on community-wide zero waste goals and recycling of construction and demolition materials in commercial and public construction projects.	The project shall provide recycling services to project residents as mandated by Assembly Bill 341 and the City’s Multi-family Recycling Program. The project, therefore, is consistent with this measure.
Water Control Measures		
Support Water Conservation	Develop a list of best practices that reduce water consumption and increase on-site water recycling in new and existing buildings; incorporate into local planning guidance.	The project would comply with CalGreen and reduce potable indoor water consumption and outdoor water use by including water efficient fixtures and planting drought tolerant non-invasive landscaping. The project, therefore, will be consistent with this measure.

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

As discussed below under threshold c), the project would have emissions below the BAAQMD thresholds for ozone precursors and particulate matter. The project, therefore, would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level.

Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below state and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the carbon monoxide standard.

BAAQMD screening guidance indicates that a project would have a less than significant impact with respect to carbon monoxide levels if project traffic would not increase traffic at any affected intersection to more than 44,000 vehicles per hour. It is estimated that the project would result in a net increase in 962 average daily trips (refer to Table 4.16-2 in *Section 4.16*). Because intersections

near the project site have substantially less than 44,000 vehicles per hour,⁵ it is concluded that the project would have a less than significant impact with respect to carbon monoxide. **(Less Than Significant Impact)**

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

The Bay Area is considered a non-attainment area for ground-level ozone and fine particulate matter (PM_{2.5}) under both the federal Clean Air Act and California Clean Air Act. The area is also considered non-attainment for respirable particulate matter (PM₁₀) under the California Clean Air Act, but not the federal act. The area has attained both state and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and particulate matter, BAAQMD has established thresholds of significance for these air pollutants and their precursors (refer to Table 4.3-1). These thresholds are for ozone precursor pollutants (reactive organic gases [ROG] and nitrogen oxides [NOx]), PM₁₀, and PM_{2.5} apply to both construction period and operational period impacts.

Construction Period Emissions

Construction period emissions were modeled based on equipment list and schedule information provided by the applicant. Refer to Appendix A for more detail about the modeling, data inputs, and assumptions. Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. Table 4.3-3 below summarizes the project's estimated construction emissions of ROG, NOx, PM₁₀ exhaust, and PM_{2.5} exhaust. BAAQMD considers construction emissions impacts that are below the thresholds of significance (such as those of the project) less than significant if Best Management Practices (BMPs) are implemented.

Table 4.3-3: Summary of Project Construction Period Emissions				
Scenario	ROG	NOx	PM₁₀ Exhaust	PM_{2.5} Exhaust
	(pounds per day)			
Average daily emissions (pounds) ¹	9.1	14.1	0.4	0.4
<i>BAAQMD Thresholds (pounds per day)</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>
Exceed Threshold?	No	No	No	No

⁵ City of Sunnyvale. *Land Use and Transportation Element Final Environmental Impact Report*. SCH# 2012032003. January 2017. Figure 3.4-2A.

Impact AIR-1: The project would result in significant construction air pollutant emissions without the implementation of BAAQMD's standard construction BMPs. **(Potentially Significant Impact)**

Mitigation Measure: The project proposes to implement the following standard BAAQMD construction BMPs to control dust and exhaust during construction:

MM AIR-1.1: During any construction period ground disturbance, the applicant shall ensure that the project contractor implement the following BMPs:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The project, with the implementation of the above mitigation measure, would reduce construction-related emissions to a less than significant level by controlling dust and exhaust and limiting exposed soil surfaces. **(Less Than Significant Impact with Mitigation Incorporated)**

Operational Period Emission

Operational air emissions from the project were modeled and would be generated primarily from automobiles driven by future residents. Evaporative emissions from architectural coatings and maintenance products are also typical emissions from residential uses. In addition, emissions from energy use, solid waste generation, water/wastewater use, and two boilers on-site were included in the modeling. Refer to Appendix A for more detail about the model and data inputs and assumptions.

Table 4.3-4 below summarizes the project's estimated operational emissions and shows that the project's annual and daily operational emissions would not exceed the BAAQMD significance thresholds. **(Less Than Significant Impact)**

Table 4.3-4: Summary of Project Operational Emissions				
Scenario	ROG	NOx	PM₁₀	PM_{2.5}
Proposed Project Operational Emissions (tons/year)	2.05	2.29	1.51	0.49
Existing Industrial Office Operational Emissions (tons/year)	0.71	0.69	0.59	0.17
Net Project Emissions (tons/year)	1.34	1.60	0.92	0.32
<i>BAAQMD Thresholds (tons/year)</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>10</i>
Exceed Threshold?	No	No	No	No
Average Daily Net Project Operational Emissions (pounds)	7.34	8.76	5.04	1.75
<i>BAAQMD Thresholds (pounds/day)</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>
Exceed Threshold?	No	No	No	No

d) Expose sensitive receptors to substantial pollutant concentrations?

Project effects related to increased community risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of toxic air contaminants (TACs) or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity.⁶ The project would introduce a new source of temporary TACs during project construction near existing sensitive receptors and would introduce new sensitive

⁶ Toxic air contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level. Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). Additional details about air pollutants and their regulations are included in Appendix A.

receptors in proximity to air pollutant or contaminant sources.⁷ BAAQMD recommends using a 1,000-foot screening radius around a project site for purposes of identifying community health risk from siting a new sensitive receptor or a new source of TACs.

Community Health Risk from the Project

In addition to the project's generation of PM₁₀ and PM_{2.5} during construction activities (which is discussed under threshold c) above) construction equipment and associated heavy-duty truck traffic would generate diesel exhaust, a known TAC. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to PM_{2.5}. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A community risk assessment was completed to evaluate potential health effects of sensitive receptors at nearby residences from project construction emissions of diesel particulate matter (DPM)⁸ and PM_{2.5}, as well as existing, stationary sources. A review of BAAQMD's stationary source tool showed that there is one existing TAC source within 1,000 feet of the project site: a generator operated at 444 Toyama Drive.

The closest sensitive receptors to the site include the residences to the east, north and west of the project site. The vacant industrial building located just to the south of the project site at 1111 Karlstad Drive is also planned for residential use. The demolition of this building and subsequent development of 18 condominium units on the same site was recently approved by the City (File No. 2015-7810).

Project Construction Activity

The construction schedule for the adjacent 1111 Karlstad Drive condominium project is unknown. It is possible that the adjacent condominium project would be constructed concurrent with the proposed project, resulting in a cumulative impact on nearby sensitive receptors. This cumulative impact is discussed in *Section 4.18.2*. Alternatively, the 1111 Karlstad Drive project could be constructed first and occupied with residents before the construction of the project (if approved). If this were to occur, the residents at the 1111 Karlstad Drive project would be exposed to construction emissions from the proposed project.

Emissions and dispersion modeling was completed to predict the off-site DPM concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated. Exposure parameter and model assumptions are detailed in Appendix A. Results of the health risk assessment show that the excess residential cancer risk would be 40.4 in one million at the maximally exposed individual (MEI), which exceeds the BAAQMD threshold of 10 excess cases of cancer per one million. The maximum annual PM_{2.5} concentration would be 0.26 micrograms per cubic meter (µg/m³), which is below the BAAQMD threshold of significance of 0.3 µg/m³. Other non-cancer hazards are measured in a computed Hazard Index (HI), which for the proposed project construction would be less than 0.04. The estimated HI from project construction would be below the BAAQMD significance threshold of 1.0.

⁷ The project would not be introducing a substantial source of operational-related, localized TACs. No stationary sources of TACs, such as generators, are proposed as part of the project. Therefore, an impact analysis of project operational TACs on existing sensitive receptors was not completed.

⁸ DPM is identified by California as a TAC due to its potential to cause cancer.

Impact AIR-2: The construction of the proposed project would result in a significant health risk impact to nearby sensitive receptors. **(Potentially Significant Impact)**

Mitigation Measure: The project proposes to implement mitigation measure MM AIR-1.1 and the following mitigation measure to reduce construction-related TAC to nearby sensitive receptors to a less than significant level:

MM AIR-2.1: The project shall develop a plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average 75 percent reduction in PM_{2.5} exhaust emissions or more. One feasible plan to achieve this reduction would include the following:

- All mobile diesel-powered off-road equipment larger than 25 horsepower and operating on the site for more than two days continuously shall meet, at a minimum, U.S. EPA particulate matter emissions standards for Tier 2 engines or equivalent and include the use of equipment that includes CARB-certified Level 3 Diesel Particulate Filters.
- Use of alternatively-fueled equipment (i.e., non-diesel)
- Other measures may be the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the City and demonstrated to reduce community risk impacts to a less than significant level.

The implementation of mitigation measure MM AIR-1.1 would reduce project construction exhaust emissions by five percent. The implementation of MM AIR-2.1 would further reduce on-site diesel exhaust emissions by approximately 90 percent. This would reduce the cancer risk proportionally, such that the maximum mitigated risk would not exceed 4.1 excess cases in one million, which is below the BAAQMD significance threshold of 10 excess cases in one million. For these reasons, the project would have a less than significant impact with respect to community risk caused by construction activities. **(Less Than Significant Impact with Mitigation Incorporated)**

Cumulative Construction Risk Assessment

The cumulative health risk to the MEI would occur from project construction and emissions from the existing, stationary source located at 444 Toyama Drive. The cumulative maximum cancer risk, maximum annual PM_{2.5} concentration, and maximum HI were found to all be below BAAQMD's cumulative significance thresholds. Refer to Appendix A for more details about the cumulative construction risk assessment and results. **(Less Than Significant Impact)**

Community Health Risk to the Project (Planning Consideration)

As discussed above, there is one stationary source (a generator operated at 444 Toyama Drive) within 1,000 feet of the project site that may result in a health risk to future project residents. The estimated health risk from this stationary source at the proposed MEI on-site is a cancer risk of 8.7 excess cases per one million, $0.02 \mu\text{g}/\text{m}^3$ $\text{PM}_{2.5}$ concentration, and <0.01 HI, which are all below the BAAQMD thresholds of significance.

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

Odors are general considered an annoyance rather than a health hazard. Land uses that have the potential to be sources of odors that generate complaints include, but are not limited to, wastewater treatment plants, landfills, composting operations, and food manufacturing facilities. Residential development, such as the proposed project, does not typically generate objectionable odors. **(No Impact)**

4.4 BIOLOGICAL RESOURCES

4.4.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
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 CDFW or USFWS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
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, impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,6
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,3,6,10, 31
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

4.4.2 Impact Discussion

- 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 CDFW or USFWS?**

The project site is developed and located in a developed, urban area. The project site does not contain sensitive habitat. Due to the lack of sensitive habitat, special-status species on-site are unlikely. There are existing trees and landscaping on and adjacent to the site, however, that could be used by nesting birds. Nesting birds are protected under the provisions of the Migratory Bird Treaty Act (MBTA) and Fish and Game Code Sections 3503, 3503.5, and 2800.

Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes abandonment and/or loss of reproductive effort is considered a taking by the California Department of Fish and Wildlife (CDFW). Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Construction activities such as tree removal and site grading that disturb a nesting bird or raptor on-site or immediately adjacent to the construction zone would constitute a significant impact.

Impact BIO-1: Project construction could impact nesting birds on or adjacent to the site, if present.
(Potentially Significant Impact)

Mitigation Measure: In compliance with federal and state regulations and protocol, the project proposes to implement the following mitigation measure, to reduce impacts to a less than significant level.

MM BIO-1.1: Construction shall be scheduled to avoid the nesting season to the extent feasible.

The nesting season for most birds, including most raptors, in the San Francisco Bay area extends from February 1 through August 31.

If it is not possible to schedule construction and tree removal between September and January, then pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests shall be disturbed during project implementation. This survey shall be completed no more than 14 days prior to the initiation of grading, tree removal, or other demolition or construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August).

During this survey, the ornithologist shall inspect all trees and other possible nesting habitats within and immediately adjacent to the construction area for nests. If an active nest is found sufficiently close to work areas to be disturbed by construction, the ornithologist, in consultation with CDFW, shall determine the extent of a construction-free buffer zone to be established around the nest to ensure that nests of bird species protected by the MBTA or Fish and Game code shall not be disturbed during project construction.

A final report of nesting birds, including any protection measures, shall be submitted to the Director of Community Development prior to the start of grading or tree removal.

The project, with implementation of the above mitigation measure, would reduce impacts to nesting birds (if present) by avoiding construction during nesting bird season or completing pre-construction nesting bird surveys to minimize and/or avoid impacts to nesting birds. **(Less Than Significant Impact with Mitigation Incorporated)**

- 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 CDFW or USFWS?**

The project site is located in an urban, developed area and is not located near an existing waterway. No riparian habitat or other sensitive natural community is identified on or adjacent to the site. For these reasons, the development of the project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. **(No Impact)**

- 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?**

There are no wetlands on-site; therefore, the development of the project would not have a substantial adverse effect on wetlands. **(No Impact)**

- 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, impede the use of native wildlife nursery sites?**

The project site is fully developed and located in an urban area. No waterways or other sensitive habitats are located on-site. The project site is not used as a wildlife corridor or wildlife nursery site. For these reasons, the project would not substantially impact the movement of fish or wildlife, wildlife corridors, or wildlife nursery sites. **(No Impact)**

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

Tree Preservation Ordinance and Urban Forest Management Plan

The primary biological resources on-site are trees. An arborist report was prepared by *McClenahan Consulting, LLC* in October 2016 (and revised in May 2017) and is included in Appendix B of this Initial Study.

There are a total of 49 trees on-site, 19 of which are “protected” trees.⁹ The most common tree species on the project site include black acacia (13 trees), honey locust (12 trees), and privet (10 trees). The project proposes to preserve nine existing protected trees on-site, including four canary island pine trees (tree numbers 71, 73, 91, and 93) at the southeast and northeast corner of the project site, one coast redwood (tree number 96) at the northwestern corner of the property line, two acacia trees (tree numbers 60 and 63) on the south side of the project site, and two black acacia trees (tree numbers 58 and 59) at the southwest corner of the site. The project would result in the removal of the remaining 40 trees on-site, 12 of which are protected trees.

The project shall comply with the City’s Tree Preservation Ordinance (SMC, Chapter 19.94) and the Urban Forest Management Plan (UFMP), which require replacing mature trees unable to be preserved at a 3:1 ratio (planted:removed) and planting only City-approved species. The removal of 12 protected trees, therefore, would require the planting of 36 replacement trees on-site. The project proposes to plant 166 new trees around the perimeter of the building and site, and in the court yards and common open space areas of the project site. The project, therefore, would replace removed protected trees at a 13:1 ratio. In addition, the project proposes to implement the tree preservation and protection guidelines identified in the arborist report in Appendix B of this Initial Study.

Bird Safe Design Guidelines

The City’s Bird Safe Design Guidelines stipulate that efforts should be taken to reduce bird strikes in all locations of the City. An analysis of the project’s consistency with the City’s Bird Safe Design Guidelines was completed by *H.T. Harvey & Associates* in May 2017 and included in Appendix G. Applicable Bird Safe Design guidelines to the project and the project’s consistency with those guidelines are described in Table 4.4-1 below. As summarized in Table 4.4-1 and described in more detail in Appendix G, the project is consistent with the City’s Bird Safe Design Guidelines by:

- Avoiding large, uninterrupted expanses of glass near open areas,
- Avoiding the funneling of open space towards a building face,
- Prohibiting glass skyways and freestanding glass walls,
- Avoiding transparent glass walls coming together at building corners,
- Reducing glass at the top of the building,
- Prohibiting up-lighting or spotlights,
- Shielding outdoor lights,
- Incorporating window blinds, and
- Creating smaller zones for internal lighting.

⁹ Pursuant to SMC, “Protected Tree” means a tree of significant size. “Significant size” means a tree 38-inches or greater in circumference measured 4.5 feet above ground for single-trunk trees. For multi-trunk trees “significant size” means a tree which has at least one trunk with a circumference 38 inches or greater measured 4.5 feet above ground level, or in which the measurements of the circumferences of each of the multi-trunks, when measured 4.5 feet above the found level, added together equal an overall circumference 113 inches or greater. (SMC Chapters 19.94 and 13.16)

Table 4.4-1: Summary of Applicable Bird Safe Design Guidelines and the Project's Consistency	
Applicable Guideline	Consistency
Avoid large expanse of glass near open areas, especially when tall landscaping is immediately adjacent to the glass walls	The project site is not located near open areas that would attract large numbers of birds. The project includes glass windows and a predominantly glass facade on a portion of the north face of the building that faces the pool. Tall landscaping (i.e., trees) would be set back approximately 65 feet from the large glass façade on the north side of the building and a bird safe application (e.g., fritting) would be applied to the glazing on the glass. The project is consistent with this guideline.
Avoid the funneling of open space towards a building face	The project does not funnel open space that is attractive to birds towards the building facades. The proposed courtyards would be sparsely vegetated and not anticipated to draw birds towards glass windows. The project is consistent with this guideline.
Prohibit glass skyways or freestanding glass walls	No glass skyways or freestanding glass walls are proposed. The project is consistent with this guideline.
Avoid transparent glass walls coming together at building corners to avoid birds trying to fly through glass	The project does not include glass walls or windows that come together at building corners. The project is consistent with this guideline.
Reduce glass at top of building, especially when incorporating a green roof into the design	The project does not include a green roof, nor do the glass windows extend to the top of the building. In addition, overhangs are located above the second and fourth floors of the glass façade on the north face of the building, breaking up this facade horizontally. This glass facade would also include a bird safe application (e.g., fritting) to deter birds collisions. The project is consistent with this guideline.
Prohibit up lighting or spotlights	The project does not propose up-lighting or spotlights. The project is consistent with this guideline.
Shield lighting to cast light down onto the area to be illuminated	Outdoor lighting would be shielded. The project, therefore, would be consistent with this guideline.
Turn commercial building lights off at night or incorporate blinds into window treatment to use when lights are on at night	The project proposes shade control devices for all windows. The project, therefore, would comply with this guideline by incorporating blinds for use when lights are on at night.
Create smaller zones in internal lighting layouts to discourage wholesale area illumination	The project would comply with this guideline through compliance with the Building Energy Efficiency Standards in Title 24 that requires smaller lighting zones inside buildings.

The project, in conformance with the Tree Preservation Ordinance, UFMP, tree preservation guidelines outlined in Appendix B, and applicable Bird Safe Design Guidelines, would not conflict with local policies or ordinances protecting biological resources. **(Less Than Significant Impact)**

- 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?**

The project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. The project, therefore, would not conflict with any of these plans. **(No Impact)**

4.5 CULTURAL RESOURCES

The following discussion is based on an archaeological literature search prepared by *Holman & Associates* in March 2017. A copy of the literature search is included in Appendix C of this Initial Study.

4.5.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,11
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,11
c) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,29
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,11
e) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					1
1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying this criteria, the significance of the resource to a California Native American tribe shall be considered.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

4.5.2 Impact Discussion

a) Cause a substantial adverse change in the significance of an historical resource?

There are no known cultural resources recorded within the project site. The project site is currently developed with a one-story, approximately 100,520 square foot, industrial office building, surface parking, and landscaping. The existing, surrounding buildings are not over 50 years old. The project site and adjacent properties are not listed in federal, state, or local listings of historical resources. For these reasons, the project would not cause adverse changes to historic resources. **(No Impact)**

**b,d) Cause a substantial adverse change in the significance of an archaeological resource?
Disturb any human remains, including those interred outside of dedicated cemeteries?**

As discussed above, there are no known cultural resources on-site. Based on a review of historical land use patterns, there is no indication that historic archaeological deposits might exist within the project site (refer to Appendix C for more details on historical development in the project area). There is, however, one known archaeological resource within 0.25 miles of the site. The extent of this resource has not been defined. For this reason, there is a potential for unknown buried archaeological resources, including human remains, on-site.

Impact CUL-1: Future redevelopment of the project site could impact unknown buried archaeological resources, if present on-site. **(Potentially Significant Impact)**

Mitigation Measures: The project proposes to implement the following mitigation measures to reduce construction related archaeological impacts to a less than significant level:

MM CUL-1.1: Once the existing building has been demolished and the parking lot removed, a qualified archeologist shall conduct mechanical presence/absence exploration for archaeological deposits and cultural materials. If any archaeological evidence is identified, additional recommendations shall be tailored to the type of resource identified and the proposed planned improvements.

In the event that buried, or previously unrecognized archaeological deposits or materials of any kind are inadvertently exposed during any construction activity, work within 50 feet of the find shall cease until a qualified archaeologist can assess the find and provide recommendations for further treatment, if warranted. Construction and potential impacts to the area(s) within a radius determined by the archaeologist shall not recommence until the assessment is complete.

MM CUL-1.2: In the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site within a 50-foot radius of the remains or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, the Coroner shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the

remains pursuant to State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

The project, with implementation of the above mitigation measures, would reduce construction-related impacts to archaeological resources to a less than significant level by determining the presence/absence of resources on-site, ceasing work within 50 feet if a resource is encountered during construction, and following recommendations of a qualified archaeologist regarding the find. **(Less Than Significant Impact with Mitigation Incorporated)**

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

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. Sunnyvale is generally built atop Holocene-age alluvial deposits.¹⁰ Geologic units of Holocene age are generally not considered sensitive for paleontological resources, because biological remains younger than 10,000 years are not usually considered fossils. These sediments have low potential to yield fossil resources or to contain significant nonrenewable paleontological resources. These recent sediments, however, may overlie older Pleistocene sediments with high potential to contain paleontological resources. These older sediments, often found at depths of greater than 10 feet below the ground surface, have yielded the fossil remains of plants and extinct terrestrial Pleistocene vertebrates.

Because Sunnyvale (including the project site) is largely developed, it is likely there has been substantial ground disturbance and placement of fill that has alternated the subsurface soils and underlying geologic materials at varying depths. Based on the City's Holocene age deposits and historic development, the City has a low sensitivity (at depth) for paleontological resources. In addition, excavation for the proposed subterranean parking would not extend to depths greater than 10 feet. Therefore, it is unlikely that paleontological resources (if present) would be encountered during project construction. **(Less Than Significant Impact)**

e) Cause a substantial adverse change in the significance of a tribal cultural resource that is: 1) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources, 2) determined to be a significant resource to a California Native American tribe.

No tribes have requested notice of projects within the geographic area of the project site from the City of Sunnyvale under AB 52. No known tribal cultural resources are located at the project site. For these reasons, the project would not impact tribal cultural resources. **(No Impact)**

¹⁰ City of Sunnyvale. *Land Use and Transportation Element Final Environmental Impact Report*. SCH# 2012032003. January 2017. Page 3.7-1.

4.6 GEOLOGY AND SOILS

The following discussion is based on a geotechnical investigation prepared by *Langan Treadwell Rollo* in March 2017. A copy of the geotechnical investigation is provided in Appendix D of this Initial Study.

4.6.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
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 described 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12,13
2. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12,13
3. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12,13
4. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,12,13
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,13
c) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12,13, 14
d) Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,13
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

As discussed in *Section 4.0*, the California Supreme Court issued an opinion “CBIA vs. BAAQMD” holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project’s future users or residents unless the project risks exacerbating those environmental hazards or risks that already exist. Nevertheless, the City has policies and regulations (including Policy SN-1.1 that states

the City make land use decisions based on an awareness of hazards) that addresses existing conditions affecting a proposed project, which are discussed below as planning considerations.

4.6.2 Impact Discussion

- 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, 2) strong seismic ground shaking, 3) seismic-related ground failure, or 4) landslides?**

The project site is not located in an Alquist-Priolo Earthquake Fault Zone and no active faults are known to cross the site. The project site, however, is located within the seismically active Bay Area and strong ground shaking would be expected during the lifetime of the proposed project.¹¹ Strong ground shaking during an earthquake can result in ground failure such as that associated with soil liquefaction,¹² damage the proposed residential building, and expose people to injury. As required by the California Building Code, a design-level geotechnical investigation shall be completed for the project site. The project shall comply with all CBC requirements and shall implement the recommendations identified in the design-level geotechnical investigation, which include design and construction recommendations to avoid and reduce seismic and seismic-related hazards (including liquefaction).

The project site is located in a generally flat area and, therefore, the project site is not subject to landslides.

The existing seismic conditions discussed above would not be exacerbated by the project such that it would impact (or worsen) off-site seismic conditions. **(Less Than Significant Impact)**

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

Project construction activities would temporarily disturb soils and could result in soil erosion and loss of topsoil during high wind and rainfall events. As discussed in *Section 4.9 Hydrology and Water Quality*, the project is required to comply with the National Pollutant Discharge Elimination System (NPDES) permit, which requires the implementation of a Stormwater Pollution Prevention Plan (SWPPP) to control the discharge of storm water pollutants including sediments associated with construction activities. The SWPPP would include control measures including soil stabilization practices, sediment control practices, sediment tracking control practices, and wind erosion control practices. In addition, the project shall comply with the Municipal Regional Stormwater Permit (MRP) NPDES permit to adequately treat post-construction runoff. The project, therefore, would not result in substantial soil erosion or loss of topsoil. **(Less Than Significant Impact)**

¹¹ Association of Bay Area Governments. "Earthquakes, Alquist-Priolo Earthquake Fault Zone Maps, Interactive Fault Rupture Map." Accessed March 24, 2017. Available at: <http://resilience.abag.ca.gov/earthquakes/>

¹² Liquefaction is the result of seismic activity and is characterized as the transformation of loosely water-saturated soils from a solid state to a liquid state after ground shaking. There are many variables that contribute to liquefaction, including the age of the soil, soil type, soil cohesion, soil density, and groundwater level.

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

The project area is generally flat and the project site is not near an open face where soil deposits could move to, therefore, the potential for landslides and lateral spreading on-site is low.¹³

Land subsidence is a settling of the earth's surface due to the compaction of subsurface materials. The Santa Clara Valley Water District (District) actively monitors for land subsidence through surveying, groundwater elevation monitoring, and data from compaction wells. The District reduces the potential for land subsidence county-wide by reducing demand on groundwater and recharging groundwater basins.¹⁴ The potential for land subsidence on-site, therefore, is low.

As described previously above, the project site is subject to liquefaction. The project shall implement the recommendations identified in the design-level geotechnical investigation, which include design and construction recommendations to avoid and reduce liquefaction effects.

The existing geology and soils conditions discussed above would not be exacerbated by the project such that it would impact (or worsen) off-site geology and soils conditions. **(Less Than Significant Impact)**

- d) **Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?**

The existing near-surface soils on-site have a high expansion potential. Moisture fluctuations in expansive soil could cause the soil to expand or contract resulting in movement and potential damage to improvements that overlie them. The project shall implement the recommendations in the design-level geotechnical report prepared for the project that includes design and engineering measures to avoid and reduce adverse effects of expansive soil on the proposed development.

The existing expansive soil conditions discussed above would not be exacerbated by the project such that it would impact (or worsen) off-site soil conditions. **(Less Than Significant Impact)**

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

The project would connect to the existing sewer sanitary system. No septic tanks or alternative waste water disposal systems are required for the project. **(No Impact)**

¹³ Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope.

¹⁴ Santa Clara Valley Water District. "Subsidence." Accessed April 11, 2017. Available at: <http://www.valleywater.org/EkContent.aspx?id=1432&terms=subsidence>.

4.7 GREENHOUSE GAS EMISSIONS

4.7.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,8,15
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,16

4.7.2 Impact Discussion

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

According to BAAQMD, a project would result in significant greenhouse gas impacts if it exceed its “bright line” threshold of 1,100 metric tons (MT) of carbon dioxide equivalents (CO₂e) per year or “efficiency threshold” of 4.6 MT of CO₂e per capita. Neither the City nor BAAQMD have adopted a threshold of significance for construction-related greenhouse gas emissions.

An analysis of the project’s greenhouse gas emissions was completed by *Illingworth & Rodkin, Inc.* in April 2017 (refer to Appendix A). It is estimated that the project would generate 1,040 MT of CO₂e for the total construction period. It is estimated that project operation would generate 1,153 net MT of CO₂e per year, which exceeds the BAAQMD annual bright line emissions threshold. The project would generate 3.2 metric tons of CO₂e per capita. The project, therefore, would be below BAAQMD’s efficiency threshold of 4.6 MT of CO₂e per capita, and is not considered to generate significant greenhouse gas emissions. In addition, the City’s Climate Action Plan (CAP) is a BAAQMD Qualified Greenhouse Gas Reduction Strategy that identifies how the City will achieve the state-recommended greenhouse gas reduction target. The project would be in compliance with the CAP, as discussed below. For these reasons, the project would not generate a significant level of greenhouse gas emissions. **(Less Than Significant Impact)**

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

The project is subject to the City’s CAP. The CAP includes goals and associated measures for the City to achieve the state-recommended greenhouse gas emission reduction target. Table 4.7-1 below summarizes applicable measures in the CAP and the project’s consistency with those measures.

Table 4.7-1: Project Consistency with Applicable Climate Action Plan Measures

Measure	Description	Consistency
OS-1	Maintain and increase the amount of open space in Sunnyvale consistent with the Parks of the Future Plan and the Open Space Element of the General Plan	The project proposes amenity space within the residential buildings and common open spaces on-site. In addition, the project would pay the City Park In-Lieu Fee to offset the project's demand on parks and open space. The project is consistent with this measure.
OS-3	Increase the number of shade trees planted in the community, and protect the existing tree stock	As discussed in <i>Section 4.4 Biological Resources</i> , the project would preserve ten existing trees on-site. Existing trees to be removed as part of the project would be replaced according to the City's ordinance. The project would result in the net increase of 126 trees on-site. The project, therefore, is consistent with this measure.
EC-2	Require green building practices in new residential and commercial development and remodels	The project would comply with the City's Green Building Program and the California Green Building Standards Code (CalGreen) and achieve a minimum of 110 points on the GreenPoint Rated checklist. The project, therefore, is consistent with this measure.
EC-6	Reduce the amount of dark, non-reflective roofing and paving material in order to mitigate the urban heat island effect and reduce energy associated with heating and cooling	The project would locate most of the vehicle parking for the residents in a subterranean parking garage. In addition, the project would plant new landscaping and trees. These features would reduce the project's heat island effect.
EP-2	Increase the number of renewable energy installations in and available to the community	The project would be constructed to be "solar ready" with pre-wiring for solar water heating and solar electricity. The project, therefore, is consistent with this measure.
WC-2	Reduce indoor and outdoor potable water use in residences, businesses, and industry	The project would comply with CalGreen and reduce potable indoor water consumption and outdoor water use by including water efficient fixtures and planting drought tolerant non-invasive landscaping. The project, therefore, is consistent with this measure.
LW-2	Increase the amount of waste recycled and composted by one percent per year according to the City's Zero Waste Strategic Plan.	The project shall provide recycling services to project residents as mandated by Assembly Bill 341 and the City's Multi-family Recycling Program. The project, therefore, is consistent with this measure.
OR-1	Encourage residents and businesses to use efficient lawn and garden maintenance equipment or to reduce the need for landscaping maintenance through native planting	The project includes electrical outlets on the exterior of the residential building to facilitate the use of electric-powered lawn and garden equipment. In addition, the project proposes to minimize high-maintenance landscapes like grass turf and plant drought tolerant non-invasive landscaping to reduce the need for gas powered lawn and garden equipment use. The project, therefore, is consistent with this measure.
OR-2	Reduce emissions from heavy-duty construction equipment by limiting	As discussed in <i>Section 4.3 Air Quality</i> , the project shall implement measures to reduce construction emissions and dust. The project, therefore, is consistent with this measure.

Table 4.7-1: Project Consistency with Applicable Climate Action Plan Measures		
Measure	Description	Consistency
	idling and utilizing cleaner fuels, equipment, and vehicles	
LUP-1	Reduce the amount of free or unrestricted parking available within the City to promote alternative modes of transportation and avoid unnecessary vehicle circulation	The project would implement a preferred parking program that would designate preferred parking stalls for electric, hybrid, and other alternative fuel vehicles consistent with CalGreen. In addition, the project will include electrical service in the parking garage to support electric vehicle charging. The project, therefore, is consistent with this measure.
LUP-2	Facilitate development in designated core and corridor areas that is transit oriented, higher density, and mixed use	The project proposes residential development at about 50 du/ac at an infill, urban location located in proximity to the Fair Oaks Light Rail Station and bus routes 26 and 200. The project would provide 20 apartments for households that meet the Very Low Income qualifications, which is consistent with Action Item LUP-2.3 of developing affordable housing near transit. The project, therefore, is consistent with this measure.
CTO-1	Create streets and connections that facilitate bicycling, walking, and transit use throughout the city	The project would complete the sidewalk network on Karlstad Drive by constructing a new sidewalk along the project site frontage. The project, therefore, is consistent with this measure.
CTO-2	Prioritize safe, efficient, and convenient access for non-automotive travel to destinations in and outside of Sunnyvale	The project would complete the sidewalk network on Karlstad and include 112 bicycle parking spaces.
OVT-1	Promote the use of clean alternative motor vehicles and fuels to reduce emissions from vehicular travel	The project would designate preferred parking stalls for electric, hybrid, and other alternative fuel vehicles consistent with CalGreen. In addition, the project will include electrical service in the parking garage to support electric vehicle charging. The project, therefore, is consistent with this measure.

As summarized in Table 4.7-1 above, the project would be consistent with the CAP by including amenity and common open spaces, planting to result in a net increase in trees, complying with the City's Green Building Program and CalGreen, including features to reduce the heat island effect, constructing building to be solar ready, including water efficient fixtures and planting drought tolerant non-invasive landscaping, providing recycling services, facilitating use of electric powered equipment, reducing construction emissions, implementing an alternative fuel parking preferred program, developing a high-density TOD with affordable housing, and installing sidewalks and bicycle parking. In addition, as discussed under threshold a), the project would not result in greenhouse gas emissions above BAAQMD's per capita threshold of significance. **(Less Than Significant Impact)**

4.8 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based on a Phase I Environmental Site Assessment (ESA) prepared by *PES Environmental, Inc.* in January 2017. A copy of the Phase I ESA is provided in Appendix E.

4.8.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,17
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,17
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
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, will it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,17
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, will the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,18
f) For a project within the vicinity of a private airstrip, will the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

As previously discussed in *Section 4.0*, in December 2015, the California Supreme Court issued an opinion in “CBIA vs. BAAQMD” holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project’s future users or residents unless the project risks exacerbating those environmental hazards or risks that already exist. Nevertheless, the City has policies and regulations (including Policy SN-1.1 that states to make land use decisions based on an awareness of hazards and potential hazards for the specific parcel of land and Policy SN-1.5 that states to promote a living and working environment safe from exposure to hazardous materials) that address existing conditions affecting a proposed project, which are discussed below as planning considerations.

4.8.2 Impact Discussion

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

The project proposes a residential development, which does not include any on-site use of hazardous materials other than small amounts of herbicides and pesticides, cleaning supplies, and swimming pool maintenance chemicals. The proper storage and use of these materials would not create a significant hazard to the public or environment. **(Less Than Significant Impact)**

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?

On-Site Soils

The project site was previously used for agricultural purposes from at least 1939 to 1968. Because of the historic agricultural use of the property, there is a potential for the presence of residual pesticides in the soil. Between 1968 and 1974, the site was vacant and graded for redevelopment. In 1982, the current building and associated improvements were completed. Because of the subsequent site redevelopment, the site soils have been highly disturbed and that concentration of residual pesticides (if present) would be expected to be less than in pre-redevelopment soils.

Development of the proposed project would require excavation over most of the site to a maximum depth of 10 feet for the partially subterranean parking garage. Areas of the site that would not require excavation would be improved at grade with paved surface parking, landscaping/common open space, a pool, sidewalk, and residential stoops. Site improvements (i.e., residential building and parking garage and at-grade improvements) would limit future occupant exposure to on-site soils by capping the soil with a structure or pavement and placing at least two feet of clean fill on top for landscaped areas.

Impact HAZ-1: While unlikely, on-site soil may contain elevated levels of residual pesticides.
(Potentially Significant Impact)

Mitigation Measure: The project proposes to implement the following mitigation measure to reduce impacts from contaminated soil (if present) to a less than significant level:

MM HAZ-1.1: A Site Management and Contingency Plan (SMP) shall be prepared for the project site to be used by the earthwork contractor. The SMP shall summarize existing soil and groundwater data for the project site, identify safety and training requirements for construction workers, establish procedures for assessing and managing potentially contaminated soil and groundwater that could be encountered during construction activities (e.g., demolition, grading, and excavation), and provide contingency procedures in the event that localized areas of unanticipated chemically-affected soil or other features of environmental concern are encountered during earthwork or excavation activities. The SMP shall contain protocols for sampling and analysis of shallow soil potentially affected by residual pesticides to ensure proper management and off-site disposal of the soil and to ensure that any soil remaining at the project site is acceptable for residential settings.

Soil samples shall be collected and analyzed from the upper two feet of soil at the project site as described in the SMP. The sampling shall be conducted after the existing on-site building has been demolished but prior to conducting significant grading operations. Four point composite soil samples shall be collected at a frequency that is in accordance with disposal/accepting facility requirements. The composite samples shall be submitted, at a minimum, for laboratory analysis of pesticides by U.S. Environmental Protection Agency (EPA) Test Method 8081A; and Title 22 metals using U.S. EPA Test Method 6010B/7471B. If necessary, extractable metals tests (i.e., leaching test including soluble threshold limit concentration [STLC] and/or toxicity characteristic leaching procedure [TCLP]) will be conducted on the samples with elevated total metals concentrations to ensure the soil is transported to the proper disposal facility.

Additionally, the SMP shall contain information related to potentially impacted areas, if any, that are known to be present as a result of the occupancy of the site by the current tenant. The current tenant shall properly close the facility under requirements directed by local and state regulatory agencies overseeing hazardous material regulations. If areas of potential concern are identified as part of the closure process, these areas shall be included in the SMP to allow for proper management and off-site disposal, as warranted.

The project, with the implementation of the above mitigation measure would avoid and/or reduce impacts from contaminated soil on-site (if present) to construction workers, future occupants, and the surrounding environment by requiring a SMP that identifies procedures and for assessing and managing contaminated soil be prepared and implemented. **(Less Than Significant Impact with Mitigation Incorporated)**

On-Site Operations

The project site is currently occupied by *Aixtron* as offices, research and development, and assembly of semiconductor processing equipment. As describe under threshold d) below, no environmental concerns were identified in the exterior conditions of the project site or the interior conditions of the existing building on-site. No concerns were identified with current hazardous materials or wastes at the project site. Given the building was constructed in 1982, the presence of asbestos-containing materials and lead-based paint is unlikely. Consistent with standard practice, upon cessation of the semiconductor fabrication and application processes at the project site, the tenant (*Aixtron*) shall properly close the facility under requirements directed by local and state regulatory agencies overseeing hazardous materials regulations. **(Less Than Significant Impact)**

Volatile Organic Compounds

No documented releases of volatile organic compounds (VOCs) have been identified on the project site. Regional low-level VOC impacts to groundwater in the site vicinity exist. The source and extent of the VOC impacts are unknown. No groundwater or soil gas results during previous investigations in the vicinity exceed the respective soil gas or groundwater residential environmental screening levels for vapor intrusion concerns. For these reasons, there is no significant environmental concern related to vapor intrusion or migration from off-site sources to the project site. **(Less Than Significant Impact)**

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

The project site is not located within one-quarter mile of an existing or proposed school. The project, therefore, would not emit hazardous emissions or handle hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school. **(No Impact)**

- 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, will it create a significant hazard to the public or the environment?** (Planning Consideration)

The current tenant (*Aixtron*) or past tenant (*Genus*) are identified on four hazardous materials databases for operating a semiconductor fabrication and applications facility, operating a standby emergency generator, acquiring a wastewater discharge permit, storing hazardous chemicals, generating hazardous wastes, and possessing a Hazardous Materials Business Plan. Additional details about the database search and results are included in Appendix E of this Initial Study. An inspection of site conditions found no environmental concerns with exterior conditions (such as distressed vegetation or leaks or staining/discoloration) or interior conditions. All chemical and hazardous waste containers were observed to be properly labeled and stored and housekeeping throughout the facility was good. No environmental concerns were identified regarding the existing above ground storage tank, back-up generator, hydraulic trash compactor, or transformers on-site. Refer to Appendix E for more details on the exterior and interior site observations and conditions.

Several properties in the vicinity of the site are listed on hazardous materials release and/or storage databases. Given the type and/or status of the release and the location of the properties in respect to the project site, the identified hazardous materials properties in the vicinity of the site are not expected to present a significant environmental concern to the project site. Details about the nearby properties identified in the database search and their conditions is included in Appendix E of this Initial Study.

The current and past project site tenants and several properties in the vicinity of the project site are listed on hazardous materials databases. Given the observations of existing conditions at the project site and the type and/or status of the release and the location of the nearby properties in respect to the project site, no significant concerns with respect to hazardous materials use and storage were identified.

e,f) Result in a nearby airport-related safety hazard for people residing or working in the project area? Result in a private airstrip-related safety hazard for people residing or working in the project area?

The project site is not in the vicinity of a private airstrip and, therefore, would not result in a private airstrip-related safety hazard. The project site, however, is approximately 1.5 miles southeast of the Moffett Federal Airfield (Airfield) and within the Airport Influence Area (AIA) for the Airfield, as defined by the Moffett Federal Airfield Comprehensive Land Use Plan (CLUP).¹⁵ The CLUP includes land use compatibility policies and standards, which form the basis for evaluating the land use compatibility of individual projects with the Airfield and its operations. The standards in the CLUP focus on the three areas of the Airport Land Use Commission (ALUC) responsibility: 1) aircraft noise, 2) the safety of persons on the ground and in aircraft, and 3) the control of objects in navigable airspace. The project's relationship to these three areas are described below.

- 1) The project site is not located within the 65 dB CNEL aircraft noise contour. The land use and noise compatibility of the proposed project is discussed in greater detail in *Section 7.12 Noise and Vibration*.
- 2) The CLUP has safety restriction areas categorized in six safety restriction zones to minimize the number of people exposed to potential aircraft accidents in the vicinity of the Airport by imposing density and use limitations within these zones. The project is not located within the safety restriction zones identified by the CLUP.
- 3) Maximum structure heights in the vicinity of the Airfield are identified in the CLUP to protect the public safety, health, and welfare by ensuring that aircraft can safely fly in the airspace around an airport. For the project site, any structure of a height greater than approximately 182 feet above mean sea level is required under Federal Aviation Regulations, Part 77, Objects Affecting Navigable Airspace (commonly referred to as FAR Part 77) to be submitted to the Federal Aviation Administration (FAA) for review. The proposed building would be up to 60 feet above mean sea level and, therefore, would not be a safety hazard to Moffett Federal Airfield operations.

¹⁵ Santa Clara County Airport Land Use Commission. "Comprehensive Land Use Plan, Moffett Federal Airfield." November 2012.

Based on the above discussion, the project is consistent with the CLUP, and would not result in airport-related safety hazards. **(Less Than Significant Impact)**

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

The project is located in a developed area and would not change the local roadway circulation pattern or access, or otherwise physically interfere with an adopted emergency response plan or emergency evacuation plan. **(No Impact)**

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?

The City is surrounded by developed urban areas and is not located adjacent to any wildlands, therefore the project site is not subject to wildland fires. The project would not exacerbate existing off-site wildland fire hazards. **(No Impact)**

4.9 HYDROLOGY AND WATER QUALITY**4.9.1 Environmental Checklist**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will 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 will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on-or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,19
d) Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
e) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
f) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,20
g) Place within a 100-year flood hazard area structures which will impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,20
h) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,20,21
i) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,22

As previously discussed in *Section 4.0*, in December 2015, the California Supreme Court issued an opinion in “CBIA vs. BAAQMD” holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project’s future users or residents unless the project risks exacerbating those environmental hazards or risks that already exist. Nevertheless, the City has policies and regulations (including Policy SN-1.1 that states the City make land use decisions based on an awareness of hazards and potential hazards for the specific parcel of land and Policy SN-1.2 that states the City take measures to protect life and property from the effects of a one percent [100 year] flood) that address existing conditions affecting a proposed project, which are discussed below as planning considerations.

4.9.2 Impact Discussion

a,e) Violate any water quality standards or waste discharge requirements? Would the project otherwise substantially degrade water quality?

Construction Impacts

The project would impact surface water quality during and post project construction. Construction of the proposed project, including demolition of the existing building, grading, and excavation activities, would disturb underlying soil. When soil is disturbed, surface runoff after rain events may carry sediments that are discharged to the storm water system, which directs to the San Francisco Bay.

The project is required to comply with the NPDES General Permit for Construction Activities and submit a SWPPP and Notice of Intent (NOI) to the State of California Water Resources Quality Control Board to control the discharge of storm water pollutants including sediments associated with construction activities to a less than significant level.

To reduce water quality impacts post-construction, the project is required to comply with the Municipal Regional Stormwater NPDES permit (MRP) and SMC Section 12.60.155 regarding low impact development (LID) site design.¹⁶ Proposed LID features include biotreatment ponds, flow-through planters, and media filtration units on-site.

The project in compliance with existing regulations, including the NPDES, SWPPP guidance, and SMC, would not result in significant impacts to water quality. **(Less Than Significant Impact)**

¹⁶ The MRP requires all of the post-construction runoff to be treated by using Low Impact Development (LID) treatment controls, such as biotreatment facilities, unless the project qualifies for Special Project credit reduction. A Special Project credit reduction would allow the project to implement non-LID measures for all or a portion of the site depending on the project characteristics. The proposed project qualifies for Special Project Category “C” of the MRP as it is located within half a mile from a transit hub, is a non-auto-related use, and has a minimum density of 25 du/ac.

- b) **Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will 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 will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?**

Groundwater comprises a small percentage of the City's water supply. The existing project site is approximately 86 percent impervious and contributes negligible levels of groundwater recharge. The proposed project would increase the pervious surface area on-site to 82 percent impervious, therefore the proposed project would not deplete groundwater supplies or interfere with ground water recharge. **(Less Than Significant Impact)**

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

There are no waterways on the project site, nor would development of the project alter the course of a stream or river. In addition, the MRP NPDES permit and SMC require regulated projects to include measures to control hydromodification impacts where the project would otherwise cause increased erosion, silt pollutant generation, or other adverse impacts to local rivers and creeks. The project site is not located in a subwatershed or catchment area that is subject to hydromodification requirements¹⁷ and, therefore, the redevelopment of the site is not anticipated to significantly impact the drainage of the area. **(Less Than Significant Impact)**

- d) **Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

The project site is currently served by a 15-inch storm drain line in Karlstad Drive. With implementation of the project, the amount of impervious surfaces on-site would decrease by approximately five percent, from 188,034 to 179,014 square feet. The reduction in impervious surfaces would result in a corresponding reduction in surface runoff. The development of the project, therefore, would result in a reduction in surface runoff compared to existing conditions. For this reason, it is anticipated that the existing storm drain system would have sufficient capacity to serve the project. **(Less Than Significant Impact)**

- f) **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?**
(Planning Consideration)

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the northern two thirds of the project site is in flood zone AE, which is defined as a 100-year flood zone with a base flood elevation (BFE) of 17.1 feet. The southern one third of the site is in

¹⁷ Santa Clara Valley Urban Runoff Pollution Prevention Program. "HMP Applicability Map – City of Sunnyvale." November 2010. Accessed March 27, 2017. Available at: http://www.scvurppp-w2k.com/HMP_app_maps/Sunnyvale_HMP_Map.pdf.

flood zone X, which is defined as a 500-year flood zone (0.2 percent annual chance of flood).¹⁸ The southern third of the site has a reduced risk for flooding due to an existing levee.

The project shall comply with SMC Section 16.62 regarding flood protection and standards of construction, which includes constructing residential finished floor elevations above the BFE, to reduce flood impacts to a less than significant level. The project proposes to have a residential finished floor elevation of 21 feet, which would be above the BFE of 17.1 feet. The proposed residential units, therefore, would be protected from flood damage in the event of a flood. The project would not place habitable space within a 100-year floodplain, exacerbating off-site flooding.

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

The project proposes a residential building with partially subterranean parking in a 100-year flood hazard area. In the event of a flood, flood flows would go around the building and be directed to Karlstad Drive, as they do under existing conditions. The project would not substantially impede or redirect flood flows compared to existing conditions. **(Less Than Significant Impact)**

h) 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? (Planning Consideration)

The project site is not located within a dam failure inundation hazard zone.¹⁹ The project site, therefore, would not expose people or structures from dam inundation.

As discussed above, most of the project site is located in a 100-year floodplain and is subject to a base flood elevation of 17.1 feet. The southern portion of the site is not located in a 100-year floodplain due to the protection provided by a levee. Without the levee, the base flood elevation on the southern portion of the site would be 17.1 feet. The project proposes to have the residential finished floors at an elevation of 21 feet, therefore, the project would not expose people or habitable structures to flooding as a result of the failure of a levee. In addition, the openings for the parking garage would be located above the flood elevation. Flood flows, therefore, would not enter the parking garage.

i) Result in inundation by seiche, tsunami, or mudflow? (Planning Consideration)

Due to the project site's inland location and distance from large bodies of water (i.e., San Francisco Bay), it is not subject to seiche and tsunami hazards, or sea level rise.²⁰ The project area is flat and there are no hillsides or mountains near the site; therefore, the project site is not subject to mudflows.

¹⁸ Federal Emergency Management Agency. "Flood Insurance Rate Map." Panel Number: 06085C0045H. May 2009. Accessed March 27, 2017.

¹⁹ Santa Clara Valley Water District. "Reservoirs." Accessed March 27, 2017. Available at: <http://www.valleywater.org/Services/Reservoirs.aspx>

²⁰ Sources: 1) Association of Bay Area Governments. *ABAG Map Services*. Accessed: April 6, 2017. Available at: <http://gis.abag.ca.gov/>. 2) San Francisco Bay Conservation and Development Commission. *Living with a Rising Bay: Vulnerability and Adaption in San Francisco Bay and on its Shoreline*. Approved on October 6, 2011. Page 28, Figure 1.7.

4.10 LAND USE AND PLANNING

4.10.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,3
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,3,18
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

4.10.2 Impact Discussion

a) **Physically divide an established community?**

The project site is part of a larger area designated by the City for industrial to residential conversion. The project site is one of the last properties within the ITR 7 area to redevelop with residential uses. As shown in Figure 2.4-3, the project site is surrounded by existing residential uses to the north, east, and west. The existing industrial office use south of the site was recently approved for residential development (1111 Karlstad Drive, File No. 2015-7810). Development of the project would complete the planned conversion of the project site and neighborhood to residential uses. For these reasons, the project would complete the existing and planned residential neighborhood. The project, therefore, would not divide an established community. **(Less Than Significant Impact)**

b) **Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?**

Applicable land use plans for the project include the Moffett Federal Airfield CLUP, Sunnyvale General Plan, and Zoning Ordinance.

Moffett Federal Airfield CLUP

The project's consistency with the ALUC's three areas of responsibility identified in the Moffett Federal Airfield CLUP (i.e., aircraft noise, safety of persons on the ground and in aircraft, and control of objects in navigable airspace) is discussed in *Section 4.8 Hazards and Hazardous Materials*. The project would not conflict with the Moffett Federal Airfield CLUP.

General Plan

The project site is designated as *High Density Residential* (25-36 du/ac) on the General Plan Land Use Map. The project proposes to utilize the state's Density Bonus Law and City's Green Building Incentive program to develop at a density of 50 du/ac. The project, therefore, would not require a General Plan amendment for the proposed increase in density.

The City recently updated its General Plan Land Use and Transportation Element (LUTE). The project is subject to applicable General Plan LUTE land use policies, including the ones listed below.

Policies	Description
2	Minimize regional sprawl by endorsing strategically placed development density in Sunnyvale and by utilizing a regional approach to providing and preserving open space for the broader community.
13	Reduce greenhouse gas emissions that affect climate and the environment through land use and transportation planning and development.
51	Enforce design review guidelines and zoning standards that ensure the mass and scale of new structures are compatible with adjacent structures, and also recognize the City's vision of the future for transition areas such as neighborhood Village Centers and El Camino Real nodes.
55	Require new development, renovation, and redevelopment to be compatible and well integrated with existing residential neighborhoods.
64	Consider the impacts of all land use decisions on housing affordability and on the housing needs of special needs groups within Sunnyvale.
101	Use the Industrial-to-Residential (ITR) combining district to help meet the community's housing needs for all ages and economic sectors and balance its use with maintaining a healthy economy and employment base.

The project is consistent with the above General Plan land use policies by redeveloping a designated ITR site with high density residential uses (50 du/ac) near a public transit (approximately 0.3 miles from Fair Oaks Light Rail Station), providing 20 apartments for households that meet the Very Low Income qualifications, providing a Transportation Demand Management (TDM) plan, completing the sidewalk network on Karlstad Drive along the project site frontage, and developing within the maximum allowable building height identified for the site in the Zoning Ordinance. In addition, as discussed above, the project would complete the existing and planned conversion of the area into a residential neighborhood. **(Less Than Significant Impact)**

Zoning Ordinance

The project site is zoned *R-4/PD (High Density Residential [no greater than 36 du/ac] with a Planned Development combining district)*. The existing zoning on-site allows for the development of 180 units and a maximum building height of 60 feet with underground parking. The existing zoning requires a minimum of 200 cubic feet (studios and one-bedrooms) or 300 cubic feet (two or more bedrooms) of individual lockable storage space for each dwelling unit, 80 square feet of private open space per unit, 380 square feet of useable open space per unit, and 375 square feet of other landscaped area per unit.

The project would utilize the state's Density Bonus Law and the City's Green Building Incentive Program to develop at a greater density and receive concessions from the City's requirements for storage space and open space, as described below. The state's Density Bonus Law provides a tiered system of density bonus, ranging from 20-35 percent with up to three development concessions.

The project proposes to provide 20 apartments (which equates to 11 percent of the 180 base units) for households that meet the Very Low Income qualifications for a period of 55 years. As a result, the project is allowed a density bonus of 35 percent to develop up to 243 apartments on-site and two concessions. The project would also utilize the City's Green Building Incentive Program, which allows a five percent density bonus resulting in the development of nine additional units. The state's Density Bonus combined with the City's Green Building density bonus would allow the development of up to 252 units on-site. The project is requesting concessions on the amount of storage space and useable open space provided on-site. The project proposes 33,408 cubic feet of storage space (which equates to an average of 134 cubic feet per unit, or 65 percent of what the zoning requires) and approximately 83,515 square feet of useable open space (which equates to 334 square feet per unit, or 88 percent of what the zoning requires). The project would meet the zoning requirement for private open space per unit.

In addition to the two concessions allowed by the state's Density Bonus Law, a deviation from a SMC requirement is also requested. With a Special Development Permit, the SMC allows for consideration of deviations from specified development standards (siting, bulk, and parking) in exchange for superior design, environmental preservation or public benefit. The SMC requires that all residential units be located within 150 feet of a recycling and solid waste enclosure. All units meet this distance requirement, except for eight units, which are located up to 160 feet away. The deviation would be considered by the Planning Commission as part of the action on the Special Development Permit.

The project is consistent with the existing zoning on-site, with the utilization of the state's Density Bonus Law and City's Green Building Incentive Program, which allow increased density and concessions with zoning requirements, and Special Development Permit, which allows consideration of deviations to SMC. **(Less Than Significant Impact)**

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

The project site is not located within an adopted habitat conservation plan or natural community conservation plan; therefore, the project would not conflict with these plans. **(No Impact)**

4.11 MINERAL RESOURCES**4.11.1 Environmental Checklist**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

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

The project site does not contain any known mineral resources. The project, therefore, would not have impacts on mineral resources. **(No Impact)**

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

The City of Sunnyvale does not contain locally important mineral resource recovery site delineated in its General Plan, specific plan, or other land use plan. **(No Impact)**

4.12 NOISE AND VIBRATION

The following discussion is based on a noise and vibration assessment prepared by *Illingworth & Rodkin, Inc.* in March 2017. A copy of the assessment is provided in Appendix F of this Initial Study.

4.12.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project result in:					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,3,23
b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,3,23
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3,23
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, will the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,18,23
f) For a project within the vicinity of a private airstrip, will the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

As previously discussed in *Section 4.0*, in December 2015, the California Supreme Court issued an opinion in “*CBIA vs. BAAQMD*” holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project’s future users or residents unless the project risks exacerbating those environmental hazards or risks that already exist. Nevertheless, the City has policies and regulations that address existing conditions affecting a proposed project, which are discussed below as planning considerations. Applicable General Plan policies include the following:

- Policy SN-8.1 which is to enforce and supplement state laws regarding interior noise levels of residential units;
- Policy SN-8.5 which states to comply with state of California noise guidelines for land use planning for the compatibility of land uses with their noise environments, except where the

- City determines that there are prevailing circumstances of a unique or special nature; and
- Policy SN-8.7 which states for residential uses to attempt to achieve an outdoor L_{dn} of no greater than 60 dBA for common recreational areas, backyards, patios, and medium and large-size balconies.

4.12.2 Impact Discussion

a) **Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

The noise environment at the site and at nearby land uses in the vicinity is primarily from vehicular traffic on Karlstad Drive. Based on noise measurements taken at the site, the day-night average noise level at the project site ranges from 57 to 59 dBA L_{dn} .²¹ Details about the existing noise measurements and locations are included in Appendix F of this Initial Study.

Exterior Noise Levels (Planning Consideration)

The City of Sunnyvale General Plan sets forth noise-related policies that support the City's goal of minimizing the impact of noise on people through noise reduction and suppression techniques. The "normally acceptable" noise level threshold for common outdoor use areas at residential uses, as established in the City of Sunnyvale General Plan, is 60 dBA L_{dn} .

The future noise environment at the project site would continue to result primarily from traffic along Karlstad Drive. The future noise level increase attributable to project trips is calculated to be one dBA L_{dn} ; therefore, future exterior noise environment at the project site would range from 58 to 60 dBA L_{dn} .

The project proposes three outdoor common use courtyards within the proposed residential building, an outdoor terrace on the third floor of the residential building, and a rooftop deck. The project also proposes a common open space area on the ground level on the west side of the site and private balconies. Given the estimated future exterior noise levels at the site, the shielding that would be provided by the proposed residential building, and the locations of the common and private outdoor areas (including the rooftop deck and private balconies), the exterior noise levels at the common and private outdoor areas would be below the City's exterior noise standard of 60 dBA L_{dn} . Additional detail about the noise levels at the common outdoor areas is included in Appendix F.

²¹ There are several methods of characterizing sound. The most common in California is the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Noise guidelines are almost always expressed using one of several noise averaging methods, such as L_{eq} , L_{dn} , or CNEL. L_{eq} stands for the Noise Equivalent Level and is a measurement of the average energy level intensity of noise over a given period of time such as the noisiest hour. L_{dn} stands for Day-Night Level and is a 24-hour average of noise levels, with a 10 dB penalty applied to noise occurring between 10:00 PM and 7:00 AM. CNEL stands for Community Noise Equivalent Level; it is similar to the L_{dn} except that there is an additional five dB penalty applied to noise which occurs between 7:00 PM and 10:00 PM. Refer to Appendix F for more information about the fundamentals of noise.

Interior Noise Levels (Planning Consideration)

The state's interior noise standard for residential uses is 45 dBA L_{dn} . Assuming a one dBA increase in noise levels under future conditions, the exterior traffic noise exposure of the proposed building would be up to 58 dBA L_{dn} at 60 feet from Karlstad Drive. Standard residential construction provides approximately 15 dBA of exterior-to-interior noise reduction, assuming the windows are partially open for ventilation, and 20 to 25 dBA noise reduction if windows are closed. The project would be mechanically ventilated, therefore, interior noise levels would be up to 38 dBA L_{dn} , which would be below the state's interior noise threshold of 45 dBA L_{dn} .

Mechanical Equipment and Driveway/Parking Lot Traffic Noise

SMC Chapter 19.42.030 establishes an operational noise level limit of 75 dBA L_{eq} at the property line of the site in which the noise is being generated, provided that the noise does not exceed 50 dBA L_{eq} during nighttime hours or 60 dBA L_{eq} during daytime hours at an adjacent residentially-zoned property. If an enforcing officer determines the noise involves a steady, audible tone, such as a whine, screech or hum, or is a staccato or intermittent noise, such as a hammer, or includes music or speech, the allowable noise level shall not exceed 45 dBA L_{eq} .²² Based on the above discussion, the project would not be exposed to exterior or interior noise levels above the City and state's noise standards.

Mechanical Equipment Noise

The proposed project would include mechanical equipment, such as heating, ventilation, and air conditioning systems. Typical air conditioning units and heat pumps for multi-level residential buildings range from about 63 to 67 dBA L_{eq} at a distance of 50 feet. The nearest sensitive receptors would be located approximately 110 feet west of the mechanical equipment noise source on roof of the project site. At this distance, the unmitigated mechanical equipment noise would be up to 60 dBA L_{eq} , which meets the City's daytime hour standard of 60 dBA L_{eq} but exceeds the nighttime standard of 50 dBA L_{eq} at adjacent residentially-zoned property.

The conditions of approval of the project would require the effects of mechanical equipment noise on nearby noise-sensitive uses to be assessed by a qualified acoustical consultant to address any potential conflicts during the final project design stage. The following condition of approval would ensure the project's mechanical equipment noise meets the City's noise standards:

- Mechanical equipment shall be selected and designed to reduce impacts on surrounding uses to meet the City's noise level requirements. A qualified acoustical consultant shall be retained to review mechanical noise as these systems are selected to determine specific noise reduction measures necessary, if any, to reduce noise to comply with the City's noise level requirements. Noise reduction measures could include, but are not limited to, selection of equipment that emits low noise levels and the installation of noise barriers, such as

²² Additionally, temporary construction activities are exempt from the established operational noise standards when construction is conducted between the allowable hours of 7:00 AM and 6:00 PM, Monday through Friday and between 8:00 AM and 5:00 PM on Saturdays. The project would be constructed within the allowable hours established in the SMC, therefore, noise generated by construction activities would be exempt from the operational noise limits.

enclosures or parapet walls to block the line-of-sight between the noise source and the nearest receptors.

Driveway/Parking Lot Traffic Noise

The automobile and light-vehicle traffic accessing the proposed parking areas on-site would typically occur during morning to evening hours, and noise produced within the parking lot is expected to include the sounds of vehicles accessing the parking area, engine starts, door slams, etc. These noises typically produce hourly average noise levels of 47 to 57 dBA L_{eq} , as measured at a distance of 50 feet assuming a distribution of the noise throughout the parking areas. Given the expected visitor and resident use, these short-term noise events are expected to cumulatively occur for a period of less than five minutes in any hour on a typical day.

The distance from the acoustic center of the northern parking area to the closest residential building's property line to the north is approximately 40 feet. At 40 feet, hourly average noise levels from parking lot activity would range from 49 to 59 dBA L_{eq} . These noise levels would be below the 60 dBA L_{eq} noise level threshold at the property line shared with the residential buildings to the west, north, and east (as well as the planned residential property to the south) and below the 75 dBA L_{eq} noise level threshold at the property line shared with the industrial office building to the south.

The project's mechanical equipment and driveway/parking lot traffic noise would not exceed the City's noise standards and, therefore, would not substantially impact (or worsen) off-site noise conditions. **(Less Than Significant Impact)**

b) Result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?

For structural damage, the California Department of Transportation recommends a vibration limit of 0.3 inches per second (in/sec) Peak Particle Velocity (PPV) for buildings that are found to be structurally sound but where structural damage is a concern.²³ Studies have shown that the threshold of perception for average person is in the range of 0.008 to 0.012 in/sec PPV.

Construction of the proposed project may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. Project construction includes the demolition of the existing industrial/office building, site preparation work, excavation of the partially subterranean parking garage, foundation work, paving, and new building framing and finishing. The project would not require pile driving, which can cause excessive vibration.

The nearest, existing residential land uses would be the adjacent multi-family residences to the west of the project site, approximately 10 feet from the shared property line. At this distance, vibration levels from activities having the highest potential for vibration (e.g., a vibratory roller near the common property line) would be up to 0.575 in/sec PPV, which exceeds the state's 0.3 in/sec PPV limit. Other adjacent land uses are estimated to be exposed to vibrations levels below 0.3 in/sec PPV (refer to Appendix F for more detail).

²³ Peak Particle Velocity (PPV) is a common method used to quantify vibration amplitude. PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. Refer to Appendix F for more information about the fundamentals of ground-borne vibration.

Construction-related vibration may be perceptible at affected locations and other areas where vibration would not be expected to cause structural damage. However, this project construction would not be considered significant given the intermittent and short duration of the phases that have the highest potential of producing vibration. By use of administrative controls, perceptible vibration can be kept to a minimum.

Impact NOI-1: Residential land use to the west of the project site could be exposed to construction-related vibration in excess of the state limit of 0.3 in/sec PPV for buildings that are structurally sound but where structural damage is a concern. **(Potentially Significant Impact)**

Mitigation Measure: The project proposes to implement the following mitigation measures to reduce construction-related vibration impacts at adjacent land uses, specifically the residences west of the site.

MM NOI-1.1: The project shall implement the following measures during construction activities:

- Prohibit the use of heavy vibration-generating construction equipment, such as vibratory rollers or excavation using clam shell or chisel drops, within 20 feet of any adjacent building.
- Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.

Implementation of the above mitigation measure would reduce construction-related vibration impacts to a less than significant level by limiting the use of heavy vibration-generating construction equipment near adjacent buildings and designating a person responsible for investigating claims of excessive vibration. **(Less Than Significant Impact with Mitigation Incorporated)**

c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

According to the City's General Plan (Figure 6-6 in the General Plan), a significant impact would occur if the permanent noise level increase due to project-generated traffic was five dBA L_{dn} or greater for existing levels at or below 60 dBA L_{dn} . (Existing residences in the project vicinity have existing noise levels of up to 59 dBA L_{dn} , as discussed previously.) Traffic noise levels from Karlstad Drive dominate the noise environment in the immediate project vicinity. Based on the trip generation estimate for the project, the additional traffic generated by the project along roadways serving the site would increase the existing ambient noise environment by one dBA L_{dn} or less. The increase in ambient noise from project-generated traffic, therefore, would be less than the City's five dBA L_{dn} goal and is not considered a substantial permanent increase in ambient noise levels. **(Less Than Significant Impact)**

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

Construction of the project would generate temporary or periodic increases in ambient noise levels in the project vicinity. Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Where noise from construction activities at residential land uses exceeds 60 dBA L_{eq} and exceeds the ambient noise environment by at least five dBA L_{eq} at noise-sensitive uses in the project vicinity for a period exceeding one year, the impact is considered significant. Where noise from construction activities at commercial land uses (including industrial office uses) exceeds 70 dBA L_{eq} and exceeds the ambient noise environment by at least five dBA L_{eq} at noise-sensitive uses in the project vicinity for a period exceeding one year, the impact would be considered significant.

Construction activities for projects are typically carried out in stages. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and within stages, based on the amount of equipment in operation and the location at which the equipment is operating. The project construction is anticipated to occur over an approximate period of 27 months, starting in winter of 2017. Project construction would involve demolition of existing structures, substantial grading and excavating to create the subterranean parking, lay foundations, trenching, building erection, and paving. The hauling of excavated materials and construction materials would generate truck trips on local roadways as well.

The adjacent residences are approximately 10 to 90 feet from the project site boundary. At these distances, hourly average noise levels during busy construction periods would range from 93 to 100 dBA L_{eq} . The existing industrial office building south of the site is approximately 100 feet from the project site boundary and is estimated to be exposed to construction noise levels ranging from 73 to 80 dBA L_{eq} . Construction noise levels at the adjacent land uses, therefore, would exceed both the 60 dBA L_{eq} residential and 70 dBA L_{eq} commercial thresholds, as well as exceed the ambient noise environment by at least five dBA L_{eq} for a period exceeding one year. Construction of the project would result in a substantial temporary increase in ambient noise levels.

Impact NOI-2: Construction of the project would result in a substantial temporary increase in ambient noise levels at adjacent land uses. **(Potentially Significant Impact)**

Mitigation Measure: The project proposes to implement the following mitigation measures to reduce construction-related noise impacts to a less than significant level:

MM NOI-2.1: The project shall implement the following construction best management practices:

- Construction activities shall be conducted in accordance with the provisions of the City's General Plan and SMC, which limits temporary construction work between the hours of 7:00 AM and 6:00 PM Monday

through Friday and between 8:00 AM to 5:00 PM on Saturdays.
Construction is prohibited on Sundays and all City-observed holidays.

- Construct temporary noise barriers, where feasible, to screen stationary noise-generating equipment. Temporary noise barrier fences would provide a five dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receiver and if the barrier is constructed in a manner that eliminates any cracks or gaps.
- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Utilize “quiet” models of air compressors and other stationary noise sources where technology exists.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors as feasible. Any enclosure openings or venting shall face away from sensitive receptors.
- Construction staging areas shall be established at locations that shall create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
- Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.
- A temporary noise control blanket barrier could be erected, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling.
- Route construction-related traffic along major roadways and as far as feasible from sensitive receptors.
- The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with nearby residential land uses so that construction activities can be scheduled to minimize noise disturbance.
- Businesses, residences or noise-sensitive land uses adjacent to construction sites shall be notified of the construction schedule in writing. Designate a “construction liaison” that would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site.

The project, with the implementation of the above mitigation measures, would reduce construction-related noise impacts to a less than significant level by restricting the hours of construction, implementing measures that would reduce construction noise levels emanating from the site, designating a construction liaison responsible for troubleshooting complaints about construction noise. **(Less Than Significant Impact with Mitigation Incorporated)**

e,f) 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, will 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, will the project expose people residing or working in the project area to excessive noise levels? (Planning Consideration)

The project site is not in the vicinity of a private airstrip. The project site, however, is located within the AIA of the Moffett Federal Airfield. The Airfield is located 1.3 miles west of the project site. According to the CLUP, the project site is outside of the 60 dBA CNEL noise contour.²⁴ Noise from aircraft, therefore, would be compatible with the proposed residential land use.

²⁴ Per the CLUP, an acoustical analysis is required to demonstrate how low-density, single-family, multi-family, and mobile home dwelling units and schools have been designed to meet an interior noise level of 45 dB CNEL.

4.13 POPULATION AND HOUSING

4.13.1 Environmental Checklist

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

4.13.2 Impact Discussion

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)?

The City of Sunnyvale population was estimated to be 148,372 in January 2016.²⁵ The City had approximately 58,031 housing units in 2016 which results in an average of 2.6 persons per household. The Association of Bay Area Governments (ABAG) projects that there will be an approximate population of 194,300 and 72,800 households by the year 2040.²⁶ The City has an overall job/housing imbalance.

The project proposes 250 apartments on-site, which would contribute towards improving the City's jobs/housing imbalance, and generate approximately 640 new residents. The project's proposed conversion from an existing industrial to residential use is planned for in the City's General Plan and is reflected in the site's existing General Plan land use and zoning designations. The project would utilize the state's Density Bonus Law and the City's Green Building Incentive Program to develop at a higher density (50 vs. 36 du/ac). The project's incremental increase in residential density, which would result in 70 additional units or approximately 104 additional residents, compared to what is allowed by the existing General Plan and Zoning Ordinance is not considered a substantial increase in the City's current or projected population. **(Less Than Significant Impact)**

²⁵ State of California. "Department of Finance. E-5 City/County Population and Housing Estimates - January 1, 2015 and 2016." Accessed on April 4, 2017. Available at: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/view.php>

²⁶ Association of Bay Area Governments. *Projections 2013*. August 2013.

b,c) Displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere?

The project site does not contain existing housing, therefore, development of the project would not displace existing housing or residents. **(No Impact)**

4.14 PUBLIC SERVICES**4.14.1 Environmental Checklist**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project					
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
- Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
- Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
- Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
- Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
- Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

4.14.2 Impact Discussion

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

Fire and Police Protection

The Sunnyvale Department of Public Safety (DPS) provides police and fire services to the City, including the project site. Sunnyvale Fire Station 5 located at 1210 Bordeaux Drive (approximately 1.6 miles northwest of the site), would be the first to respond to the project site in an emergency.

The project proposes to redevelop the project site with 250 residential units. The project site is within the existing service area of the DPS and project would be constructed in accordance with current fire code requirements. In addition, the project would be reviewed by DPS (specifically the Bureau of Fire Services and Bureau of Police Services) to ensure that the project would have adequate infrastructure for firefighting services and adequate security features. For these reasons, the project would not result in the need for new or expanded DPS facilities or substantially affect response times of DPS. **(Less Than Significant Impact)**

Schools

The project site is within the Sunnyvale School District and Fremont Union High School District. Students in the project area attend Lakewood Elementary located at 750 Lakechime Drive (approximately one mile east of the project site), Columbia Middle School located at 739 Morse Avenue (approximately 1.2 miles south of the project site), and Fremont High School located at 1279 Sunnyvale-Saratoga Road (approximately 9.1 miles south of the project site).

Based on the Sunnyvale School District's student generation rate of 0.04 students per multi-family unit, the proposed project would generate approximately 10 elementary and middle school students combined.²⁷ Based on the Fremont Union High School District's student generation rate of 0.01 students per multi-family unit, the proposed project would generate approximately three high school students.

State Law (Government Code Section 65996) specifies an acceptable method of offsetting a project's effect under CEQA on the adequacy of school facilities as the payment of a school impact fee prior to issuance of a building permit. The affected school district(s) are responsible for implementing the specific methods for mitigating school effects under the Government Code, including setting the school impact fee amount consistent with state law. The school impact fees and the school districts' methods of implementing measures specified by Government Code Section 65996 would offset the project's increases in student enrollment and reduce impact on schools to a less than significant level. **(Less Than Significant Impact)**

Parks

The project residents would incrementally increase the demand for parks in the area. Nearby parks include:

- Seven Seas Park located at 1010 Morse Avenue (approximately 0.4 miles south of the project site); John W. Christian Greenbelt located at John W. Christian Greenbelt (approximately 0.8 miles southwest of the project site);
- Orchards Garden Park located at 238 Garner Drive (approximately 0.9 miles southwest of the project site);
- Lakewood Park located at 834 Lakechime Drive (approximately 1.2 miles southeast of the project site).

The project proposes approximately 83,515 square feet of useable open space on-site (as described in *Section 3.2.3*), which would offset the project's demand on local parks.

As discussed in *Section 4.10.2*, the project proposes to utilize the state's Density Bonus Law and receive concessions on the amount of storage space and useable open space provided on-site compared to what is required by the Zoning Ordinance. While the proposed useable open space on-site is about 88 percent of what is required under the Zoning Ordinance, the project includes recreational amenities on each floor of the residential building and meets the private open space requirement. As described in *Section 3.1.2*, the project includes a fitness center, pet salon, bicycle

²⁷ Smiley, Rob. Personal communications with the Sunnyvale School District, Chief Operations Officer. April 12, 2017.

repair station, outdoor fitness amenities, seating areas, a clubroom with a kitchen/bar and dining area, outdoor club terrace, and a rooftop deck with seating areas and a kitchen/bar. In addition, the project shall pay the City's Park In-Lieu Fee.

For the above reasons, the project would not result in substantial adverse physical impacts on park facilities or the need for the construction or expansion of park facilities. **(Less Than Significant Impact)**

Libraries

The City is served by the Sunnyvale Public Library located at 665 W. Olive Avenue, approximately 3.5 miles south of the project site. The increase in population as a result of the proposed development would incrementally increase demand for library services. The project, however, is not anticipated to require the construction of new or expanded libraries to meet City service goals. **(Less Than Significant Impact)**

4.15 RECREATION**4.15.1 Environmental Checklist**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
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 will occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

4.15.2 Impact Discussion**a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?**

The project residents would incrementally increase the demand for parks and recreational facilities in the area. Nearby parks and recreational facilities include:

- Seven Seas Park located at 1010 Morse Avenue (approximately 0.4 miles south of the site);
- John W. Christian Greenbelt located at John W. Christian Greenbelt (approximately 0.8 miles southwest of the site);
- Orchards Garden Park, located at 238 Garner Drive (approximately 0.9 miles southwest of the site);
- Lakewood Park located at 834 Lakechime Drive (approximately 1.2 miles southeast of the site);
- Columbia Park Pool located at 739 Morse Avenue (approximately 1.3 miles southwest of the site)
- Sunnyvale Community Center located at 550 East Remington Drive (approximately 3.9 miles south of the site)

As discussed in *Section 4.10.2*, the project proposes to utilize the state's Density Bonus Law and receive concessions on the amount of storage space and useable open space provided on-site compared to what is required by the Zoning Ordinance. While the proposed amount of common open space is about 88 percent of what is required under the Zoning Ordinance, the project proposes approximately 83,515 square feet of common open space on-site and on-site recreational amenities including a fitness center, pet salon, bicycle repair station, outdoor fitness amenities, seating areas, a clubroom with a kitchen/bar and dining area, outdoor club terrace, and a rooftop deck with seating areas and a kitchen/bar. In addition, the project shall pay the City's Park In-Lieu Fee.

For the above reasons, the project would not result in substantial physical deterioration of the existing park and recreational facilities. **(Less Than Significant Impact)**

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The development of the proposed common open space and amenity space on-site is analyzed as part of the project throughout this Initial Study and determined not to result in significant impacts to the environment. **(Less Than Significant Impact)**

4.16 TRANSPORTATION/TRAFFIC**4.16.1 Environmental Checklist**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,4,29,32
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,30
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,18
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,4,29

4.16.2 Impact Discussion

- a,f) **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? 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?**

General Plan

The project is subject to applicable General Plan LUTE policies, including the ones listed below.

Policies	Description
7	Emphasize efforts to reduce regional vehicle miles traveled by supporting active modes of transportation including walking, biking, and public transit.
13	Reduce greenhouse gas emissions that affect climate and the environment through land use and transportation planning and development.
19	Use land use planning, including mixed and higher-intensity uses, to support alternatives to the single-occupant automobile such as walking and bicycling and to attract and support high investment transit such as light rail, buses, and commuter rail.
24	Promote modes of travel and actions that provide safe access to city streets and reduce single-occupant vehicle trips and trip lengths locally and regionally.
25	Provide parking and lane priority to environmentally friendly motorized vehicles (e.g. carpools, low emission, zero emission).
68	Promote compact, mixed-use, and transit-oriented development in appropriate neighborhoods to provide opportunities for walking and biking as an alternative to auto trips.
69	Promote walking and bicycling through street design

The project is consistent with the above General Plan LUTE policies by proposing high density residential uses at an infill site located near existing transit and bicycle facilities;²⁸ proposing a TDM plan (as detailed in *Section 3.0 Project Description* and discussed below); implementing a preferred parking program that would designate preferred parking stalls for electric, hybrid, and other alternative fuel vehicles; including electrical service in the parking garage to support electric vehicle charging; and completing the sidewalk network on Karlstad Drive along the project frontage.

Tasman/Fair Oaks Area Pedestrian and Bicycle Circulation Plan

The City's Tasman/Fair Oaks Area Pedestrian and Bicycle Circulation Plan covers Futures Areas 7 and 8, which includes the project site. The Tasman/Fair Oaks Area Pedestrian and Bicycle Circulation Plan identifies recommended improvements for pedestrian access and increased

²⁸ Nearby bicycle facilities include bicycle connections north, west, and south of the site on Tasman Drive, Morse Avenue, and Fair Oaks Avenue, respectively. These bicycle connections lead to all four directions in the City.

pedestrian, bicycle, and transit use, including the following identified in Table 4.16-1 that are applicable to the proposed project.

Table 4.16-1: Tasman/Fair Oaks Area Pedestrian and Bicycle Circulation Improvement Recommendations	
Pedestrian Circulation Improvements	
Public Street Improvements	1. Improve the streetscape (e.g., new sidewalks, closure of sidewalk gaps)
Private Development Improvements	1. Provide pedestrian connections to the street grid at Karlstad/Weddell, Fair Oaks/Toyama, and Weddell/Morse where they do not currently exist. 2. Private streets and driveways within developments shall be designed for pedestrian use with sidewalks on at least one side.
Transit Oriented Design Guidelines	
Sidewalk and Streetscape	3. Street trees shall be placed towards the face of curb to act as a buffer between pedestrians and motor vehicles.
Site Layout	1. Private streets and driveways within developments shall be designed for pedestrian use with sidewalks on at least one side 2. Design and locate a project's internal pedestrian circulation pattern for maximum ease of use by pedestrians. 7. Link on-site walkways to the public sidewalk system outside the project for ease of pedestrian access.
Building Design	4. Provide direct entrances to street-level residential units to support an intimate streetscape. 6. Provide pedestrian and transit support facilities such as bike lockers, bike racks, shelters and benches for all new projects.

The project would be consistent with the City's Tasman/Fair Oaks Area Pedestrian and Bicycle Circulation Plan by completing the sidewalk network on Karlstad Drive along the project site frontage; including pedestrian walkways along the site driveways (refer to Figure 3.2-1); planting street trees between the street and sidewalk in front of the project site (refer to Figure 3.1-1); linking on-site walkways to the sidewalk network on Karlstad Drive; including stoops for first floor residential units to the sidewalk on Karlstad Drive; and providing TDM measures including bicycle parking and storage.

Multi-Family Residential TDM Program

SMC Chapter 19.45.040 requires all new developments and redevelopments of 10 or more residential units to implement a TDM program/plan. The City requires multi-family developments with a 100 or more residential units to obtain a minimum of 10 points on the City's point system. The project's proposed TDM plan is outlined in *Section 3.0 Project Description* (and detailed in Appendix H of this Initial Study) and includes:

- A new sidewalk along the project site frontage on Karlstad Drive,

- 84 secured bicycle parking spaces and 28 bicycle spaces along the project site's frontage near the entrances,
- An on-site bicycle repair station,
- A bike share program (e.g., community bicycles),
- An on-site TDM coordinator that would provide rideshare matching services and coordinate walking/biking groups for residents,
- An on-site transportation kiosk that would provide information to residents and visitors about multi-modal wayfinding and transit information,
- VTA Eco Passes with emergency ride home program for all residents for the first three years following project completion, and
- At least one reserved stall for a car-share program.

In addition, the project would install a total of eight electrical vehicle charging stations and pre-wire 12.5 percent of the required parking stalls for future EV charging stations. Based on the project's proposed TDM strategies, the proposed TDM plan would obtain 15.5 TDM points and would exceeds the City's minimum requirement of 10 points.²⁹ The project is consistent with SMC Chapter 19.45.040 that requires multi-family residential developments to include a TDM plan.

Based on the above discussions, the project would not conflict with the LUTE, Tasman/Fair Oaks Area Pedestrian and Bicycle Circulation Plan, and SMC. A discussion of the project's consistency with the Congestion Management Program is provided below. **(Less Than Significant Impact)**

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?

VTA is designated as Santa Clara County's Congestion Management Agency. According to the VTA Transportation Impact Analysis Guidelines, a transportation impact analysis is required when a project generates 100 or more net new peak hour (AM or PM peak hour) trips. As shown in table 4.16-2, the project would not generate 100 or more net new AM or PM peak hour trips. For this reason, the project is assumed to have a less than significant impact on roadways and highways. **(Less Than Significant Impact)**

Table 4.16-2: Estimated Project Vehicle Trips									
	Units	Daily Average Rate	Daily Average Trips	AM Peak Hour			PM Peak Hour		
				Rate	In	Out	Rate	In	Out
Proposed Use: Residential	250 units	6.65	1,663	0.55	40	98	0.67	102	35
Existing Use: Industrial	100.52 ksf	6.97	701	1.01	91	10	1.08	15	93
Net Project Trips			962		-51	88		87	-58

²⁹ Hexagon Transportation Consultants, Inc. *Transportation Demand Management Plan for the Proposed Residential Development at 1139 Karlstad Drive in Sunnyvale, California*. May 17, 2017.

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?

As discussed in *Section 4.8 Hazards and Hazardous Materials*, the project is located within the AIA of Moffett Federal Airfield. The project site is not located within the airport safety restriction zones and the proposed building would have a maximum height of 60 feet, which is below the 182 foot maximum structure height limit identified the CLUP for the project site. The project, therefore, would not result in a change in air traffic patterns or result in substantial safety risks related to air traffic patterns. **(Less Than Significant Impact)**

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

The project design does not include sharp curves or dangerous intersections that could result in safety hazards. Nor does the project propose incompatible uses, such as farm equipment. The project proposes residential uses on-site, which is consistent with the existing, surrounding properties to the north, east, and west of the site. The project would also be compatible with the adjacent industrial office property to the south, when it redevelops with residential uses.

Site driveways and access points would be designed and constructed per City standards to ensure adequate site distance and configurations.

Based on the above reasons, the project would not substantially increase hazards due to a design feature or incompatible land use. **(Less Than Significant Impact)**

e) Result in inadequate emergency access?

Emergency vehicle access to the project site would be provided via the northern and southernmost driveways on Karlstad Drive and the two driveways on the western side of the project site. These driveways shall be designed and constructed per City standards to ensure adequate emergency vehicle access and maneuvering. **(Less Than Significant Impact)**

4.17 UTILITIES AND SERVICE SYSTEMS**4.17.1 Environmental Checklist**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,24,33
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,25
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,33
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,26,27

4.17.2 Impact Discussion**a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

Pursuant to the Federal Clean Water Act and California's Porter-Cologne Water Quality Control Act, the Regional Water Quality Control Board (RWQCB) regulates wastewater discharges to surface waters, such as San Francisco Bay, through the NPDES program. Wastewater permits contain specific requirements that limit the pollutants in discharges.

The Donald M. Somers Water Pollution Control Plant (WPCP) provides wastewater treatment to the City of Sunnyvale. As required by the RWQCB, the WPCP monitors its wastewater to ensure that it meets all requirements. The RWQCB routinely inspects treatment facilities to ensure permit requirements are met.

Sewage from the proposed development would be treated at the WPCP in accordance with the existing NPDES permit. It is not anticipated that the sewage generated by the project would exceed wastewater treatment requirements of the RWQCB. **(Less Than Significant Impact)**

b, e) 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? Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The WPCP is currently designed and permitted to treat an average of 29.5 million gallons (mgd) of wastewater per day and a peak wet weather flow of 40 mgd.^{30 31} In 2016, the WPCP treated an average flow (dry weather) of 11.9 mgd.³² The WPCP, therefore, has about 17.6 mgd of capacity available. It is estimated that the project would generate a net increase of approximately 107,000 gallons per day (or 0.1 mgd).³³ The WPCP, therefore, has sufficient capacity to treat the sewage generated by the proposed project.³⁴ **(Less Than Significant Impact)**

The project site is currently served by a 10-inch sanitary sewer line in Karlstad Drive with capacity of 1.15 cubic feet per second capacity (cfs). The project would connect to the existing sewer line in Karlstad Drive and result in a net flow increase of approximately 0.16 cfs (or 14 percent of pipe capacity).³⁵ Based on the incremental increase in sewage generation, it is anticipated that the existing 10-inch sewer line in Karlstad Drive has sufficient capacity to accommodate project flows. **(Less Than Significant Impact)**

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

As discussed previously in *Section 4.9 Hydrology*, the project site is currently served by a 15-inch storm drain line in Karlstad Drive, and has an impervious surface area of 188,034 square feet. The project would reduce the impervious surface area by five percent, to 179,014 square feet; therefore, would not exceed the capacity of the existing drainage system. **(Less Than Significant Impact)**

³⁰ Sunnyvale Clean Water Program. "Plant Brochure." 2015. Accessed: April 6, 2017. Available at: <http://www.sunnyvalecleanwater.com/wastewater-facts-and-figures>.

³¹ Sunnyvale Clean Water Program. "Water Pollution Control Plant Master Plan, Peak Flow Handling Memo." 2015. Accessed: April 6, 2017. Available at: <http://www.sunnyvalecleanwater.com/wastewater-facts-and-figures>.

³² Sunnyvale Clean Water Program. "Wastewater Facts and Figures." 2017. Accessed: April 6, 2017. Available at: <http://www.sunnyvalecleanwater.com/wastewater-facts-and-figures>.

³³ Kier & Wright. *1139 Karlstad Drive Sewer Analysis*. June 22, 2017.

³⁴ Note that the Master Plan for the WPCP was recently approved. The Master Plan will be implemented over the next 20 years and will update existing equipment and infrastructure to continue to meet the City current and future wastewater treatment needs while complying with all applicable regulations. As a result of the rebuild, the influent flow design capacity of the plant is projected to decrease to 19.5 mgd for average dry weather flows, while retaining a design capacity of 40 mgd for peak wet weather flows.

³⁵ Kier & Wright. *1139 Karlstad Drive Sewer Analysis*. June 22, 2017.

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

The project site is currently served by a 10-inch water line in Karlstad Drive. The project proposes to redevelop the project site with residential uses and includes water conservation measures such as planting drought tolerant non-invasive landscaping and installing water efficient fixtures. It is estimated that the project would result in a net increase in water demand of approximately 29,500 gpd, compared to the existing industrial office use.³⁶

According to the Water Supply Assessment (WSA) completed for the City's Land Use and Transportation Element (LUTE), which includes the water demand from the implementation of the ITR sites, the City has a sufficient program of water supply to serve the buildout of the City through 2035.³⁷ Furthermore, in the event of a drought, the City has a water shortage contingency plan that includes mandatory and voluntary water use restrictions, rate block adjustment, and approaches for enforcement. The WSA concluded that the City will meet its future water demand through 2035 from existing water supply contracts with the Santa Clara Valley Water District and San Francisco Public Utilities Commission as well as sources currently being planned, developed, and implemented (including expanding the service area for recycled water). For these reasons, there would be sufficient water supplies available to serve the project and no new or expanded entitlements are required. **(Less Than Significant Impact)**

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

Solid waste in the City is hauled to the Sunnyvale Materials Recover and Transfer Station (SMaRT Station). The SMaRT Station processes approximately 1,100 tons of solid waste, source-separated recyclable and compostable materials per day (260,000 tons annually). The facility has a permitted capacity of 1,500 tons per day.³⁸ The solid waste is separated and transferred to recycling and composting markets. The existing light industrial building currently generates solid waste at a rate of approximately 0.34 tons per day.³⁹ It is estimated the proposed project would generate 0.315 tons of solid waste per day, resulting in a net decrease of 0.025 tons per day compared to existing conditions.⁴⁰ Based on the available processing capacity at the SMaRT Station (400 tons per day) and the project's estimated net decrease (0.025 tons per day), there is sufficient processing capacity at the SMaRT Station to serve the proposed project.

³⁶ The project's net water demand is calculated assuming the existing industrial office use has a water demand of 130 gallons per day and the proposed residences have a water demand of 170 gpd per unit. Source: Michael Baker International. *California Senate Bill 610 Water Supply Assessment for Sunnyvale General Plan – Land Use and Transportation Element (LUTE)*. November 2015. Page 3-4.

³⁷ Michael Baker International. *California Senate Bill 610 Water Supply Assessment for Sunnyvale General Plan – Land Use and Transportation Element (LUTE)*. November 2015.

³⁸ City of Sunnyvale Environmental Services Department. "Transfer/Processing Report for the Sunnyvale Materials Recovery and Transfer SMaRT Station." July 2012.

³⁹ Based on rate of rate of 1.239 tons/unit/year. Sources: CalEEMod. *Appendix G: Table 10.1 Solid Waste Disposal Rates – General Light Industry*. September 2016.

⁴⁰ Based on rate of 0.46 tons/unit/year. Source: CalEEMod. *Appendix G: Table 10.1 Solid Waste Disposal Rates – Apartments Low Rise*. September 2016.

The remaining refuse not recovered for recycling or composting at the SMaRT Station is transported for disposal at Kirby Canyon Landfill, which is owned and operated by Waste Management of California (WM). The City has an agreement with WM to dispose waste through 2031. Kirby Canyon Landfill has approximately 18.1 million cubic yards of remaining capacity as of January 1st, 2017 and has an estimated closure date of 2059.⁴¹ Given the landfill's remaining capacity (18.1 million cubic yards) and the project's estimated waste generation (1.26 cubic yard per day⁴²), Kirby Canyon Landfill would have sufficient capacity to serve the project. **(Less Than Significant Impact)**

⁴¹ Azevedo, Becky. Personal Communication with Waste Management Technical Manager. April 17, 2017.

⁴² A common conversion factor used for municipal solid waste as it is collected and transported in compaction vehicles is 500 pounds/cubic yard.

4.18 MANDATORY FINDINGS OF SIGNIFICANCE**4.18.1 Environmental Checklist**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1-33
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-33
c) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-33
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-33

4.18.2 Impact Discussion

- 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?**

As discussed in the individual sections, the proposed project would not degrade the quality of the environment with implementation of identified mitigation measures. As discussed in *Section 4.4 Biological Resources*, the project would implement mitigation measure MM BIO-1.1 to avoid and/or reduce impacts to nesting birds (if present) to a less than significant level. While there is a potential for buried archaeological resources on-site, implementation of mitigation measures MM CUL-1.1

and MM CUL-1.2 would avoid and/or reduce impacts to cultural resources (if present) to a less than significant level. **(Less Than Significant Impact with Mitigation Incorporated)**

b) Does the project have impacts that are individually limited, but cumulatively considerable?

Under Section 15065(a)(3) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects “that are individually limited, but cumulatively considerable.” As defined in Section 15065(a)(3) of the CEQA Guidelines, cumulatively considerable means “that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” In addition, under Section 15152(f) of the CEQA Guidelines, where a lead agency has determined that a cumulative effect has been adequately addressed in a prior EIR, the effect is not treated as significant for purposes of later environmental review and need not be discussed in detail.

The project would not result in impacts to agricultural and forestry resources, geology and soils, or mineral resources; therefore, the project would not contribute to cumulative impacts to these resources. Since the project is consistent with the General Plan, the project would not contribute to significant cumulative land use, population and housing, and utility and service system impacts beyond what is planned for in the City’s General Plan.⁴³

The project would not result in significant emissions of criteria air pollutants (see *Section 4.3*) or greenhouse gas emissions (see *Section 4.7*) and, therefore, would not result in a cumulatively considerable contribution to a cumulative impact to those resources. With the compliance with existing regulations and implementation of the identified mitigation measures, the project would not result in cumulatively considerable contributions to cumulatively significant impacts to hazards and hazardous materials, hydrology and water quality, biological resources, cultural resources, public services, and recreation. The project would generate fewer than 100 AM or PM peak hour trips and is, therefore, considered to have a less than significant impact on the roadway network and a less than significant cumulative impact on the roadway network.

The industrial office building south of the project site located at 1111 Karlstad Drive was recently approved for redevelopment with 18 condominiums. The proposed project and the 1111 Karlstad Drive project could result in cumulative aesthetics, construction health risk, construction-related noise, or utility and service system impacts.

- Aesthetics – Both projects are required to comply with the City’s Tree Preservation Ordinance, Urban Forest Management Plan, SMC, and Bird Safe Building Design Guidelines, which would minimize their cumulative impacts to trees and cumulative light and glare impacts to a less than significant level. The projects would change the visual character of area by redeveloping the last two industrial properties with residential uses in a predominately residential neighborhood. The conversion of these two industrial properties to residential uses would complete the residential visual character of the neighborhood and

⁴³ City of Sunnyvale. *Land Use and Transportation Element Final Environmental Impact Report*. SCH# 2012032003. January 2017.

would not be considered a significant, adverse cumulative aesthetic impact. **(Less Than Significant Cumulative Impact)**

- **Construction Health Risk** – A community health risk assessment completed for the project looked at all substantial sources of TACs that can affect sensitive receptors located within 1,000 feet of the project site (refer to Appendix A). Since the construction schedule for the adjacent 1111 Karlstad Drive condominium project is unknown, it is possible that the adjacent condominium project would be constructed concurrent with the proposed project. The community health risk evaluated the health risk impacts from the construction of the proposed project, construction of the 1111 Karlstad Drive project, and the existing, stationary TAC source located at 444 Toyama Drive. The results show that, unmitigated, the cumulative impact at the maximally exposed individual would be significant. The project, with the implementation of the identified mitigation measures in *Section 4.3*, would reduce the cumulative health risk impact to a less than significant level. Refer to Appendix A for details regarding the cumulative community health risk analysis and results. **(Less Than Significant Cumulative Impact)**
- **Construction-Related Noise** – The construction schedule for the adjacent 1111 Karlstad Drive condominium project is unknown. It is possible that the adjacent condominium project would be constructed concurrent with the proposed project. Give the larger scale of the proposed project (250 units) compared to the adjacent condominium project (18 units), it is anticipated that the construction noise generated by the adjacent project would fall within or below the construction noise levels and duration of the proposed project. Both projects are subject to the provisions in the City’s General Plan and SMC regarding construction hours and both project are required to implement construction best management practices to reduce construction-related noise levels. For these reasons, the proposed project and the adjacent 1111 Karlstad Drive project would not result in significant cumulative construction noise impacts. **(Less Than Significant Cumulative Impact)**

c) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?

The project proposes to redevelop the existing industrial office site with residential uses, consistent with the long-term goals for the site outlined in the General Plan. The construction of the project would result in the temporary disturbance of land, as well as irreversible and irretrievable commitment of resources and energy during construction.

Construction of the proposed project would not result in the conversion of a greenfield site to urban uses or otherwise commit resources in a wasteful or inefficient manner. The project proposes to develop a high density housing in an urbanized, infill location near existing transit and it is anticipated that short-term effects resulting from construction would be substantially off-set by meeting the long-term environmental goals for the site. The operational phase would consume energy for multiple purposes including building heating and cooling, lighting, and electronics. Energy, in the form of fossil fuels, would be used to fuel vehicles traveling to and from the project site. The project would result in an increase in demand upon nonrenewable resources; however, the project shall comply with CalGreen and achieve a minimum of 110 points on the GreenPoint Rated checklist by incorporating green building measures such as post-consumer construction materials,

drought tolerant non-invasive landscaping, water efficient fixtures, and high-efficiency lighting. The project also includes TDM measures to promote automobile-alternative modes of transportation.

With implementation of the identified mitigation measures and proposed green building measures, the project does not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals. **(Less Than Significant Impact)**

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

Consistent with Section 15065(a)(4) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be treated as significant if people would be significantly affected. This factor relates to adverse changes to the environment of human beings generally, and not to effects on particular individuals. While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include air pollutants, geological hazards, hazardous materials, and noise. However, implementation of identified mitigation measures and conformance with existing regulations would reduce these impacts to a less than significant level. No other direct or indirect adverse effects on human beings are anticipated. **(Less Than Significant Impact)**

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22. Sources: 1) Association of Bay Area Governments. *ABAG Map Services*. Accessed: April 6, 2017. Available at: <http://gis.abag.ca.gov/>. 2) San Francisco Bay Conservation and Development Commission. *Living with a Rising Bay: Vulnerability and Adaption in San Francisco Bay and on its Shoreline*. Approved on October 6, 2011. Page 28, Figure 1.7.

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Personal Communications

Becky Azevedo, Waste Management Technical Manager.

Rob Smiley, Sunnyvale School District, Chief Operations Officer.

SECTION 6.0 LEAD AGENCY AND CONSULTANTS

6.1 LEAD AGENCY

City of Sunnyvale

Department of Community Development

Trudi Ryan, Director

George Schroeder, Associate Planner

6.2 CONSULTANTS

David J. Powers & Associates, Inc.

Environmental Consultants and Planners

Judy Shanley, President/Principal Project Manager

Kristy Weis, Senior Project Manager

Amy Wang, Researcher

Zach Dill, Graphic Artist

Holman & Associates

Archaeological Consultants

Sunshine Psota, Senior Associate

Illingworth & Rodkin, Inc.

Acoustical and Air Quality Consultants

Michael Thill, Principal

James Reyff, Principal

Casey Zaglin, Staff Consultant

Tanushree Ganguly, Staff Consultant

Kier & Wright

Civil Engineers & Surveyors

Nektarios Matheou, PE

Langan Treadwell Rollo

Geotechnical Consultant

Serena Jang, G.E., Associate

Chad Legee, Staff Engineer

McClenahan Consulting, LLC

Consulting Arborist

John H. McClenahan, Certified Master Arborist

PES Environmental, Inc.

Hazardous Materials Consultant

Kyle Flory, P.G., Principal Geologist

Mitigation Monitoring and Reporting Program

1139 Karlstad Drive Residential Project



July 2017

P R E F A C E

Section 21081.6 of the California Environmental Quality Act (CEQA) requires a Lead Agency to adopt a Mitigation Monitoring and Reporting Program whenever it approves a project for which measures have been required to mitigate or avoid significant effects on the environment. The purpose of the monitoring and reporting program is to ensure compliance with the mitigation measures during project implementation.

On August 14, 2017, the City Council adopted the Mitigated Negative Declaration Initial Study for the 1139 Karlstad Drive Residential project. The Initial Study concluded that the implementation of the project could result in significant impacts on the environment and mitigation measures were incorporated into the proposed project or are required as a condition of project approval. This Mitigation Monitoring and Reporting Program addresses those measures in terms of how and when they will be implemented.

Mitigation Monitoring and Reporting Program 1139 Karlstad Drive Residential Project				
Impact	Mitigation Measure(s)	Timeframe and Responsibility for Implementation	Method of Compliance	Oversight of Implementation
AIR QUALITY				
Impact AIR-1: Construction activities would result in significant air pollutant emissions in the form of PM ₁₀ and PM _{2.5} without the implementation of BAAQMD's standard construction Best Management Practices (BMP). (Less Than Significant Impact with Mitigation Incorporated)	MM AIR-1.1: The project shall comply with the following standard BAAQMD construction BMPs to control dust and exhaust during construction: <ul style="list-style-type: none"> • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph). • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 	<p>Prior to construction, the project applicant shall be responsible for printing these measures on all construction documents, contracts, and project plans.</p> <p>During construction, the project applicant and contractor shall be responsible for implementing these measures.</p>	All measures shall be printed on all construction documents, contracts, and project plans, and reviewed by the Community Development Director prior to issuance of grading and building permits.	Community Development Director

Mitigation Monitoring and Reporting Program 1139 Karlstad Drive Residential Project				
Impact	Mitigation Measure(s)	Timeframe and Responsibility for Implementation	Method of Compliance	Oversight of Implementation
	<p>five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.</p> <ul style="list-style-type: none"> • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. 			
Impact AIR-2: The construction of the proposed project would result in a significant health risk impact to nearby sensitive receptors. (Less Than Significant Impact with Mitigation Incorporated)	<p>MM AIR-1.1: See above.</p> <p>MM AIR-2.1: The project shall implement a construction operation plan demonstrating that the off-road equipment used on-site to construct</p>	<p>See MM AIR-1.1 above.</p> <p>Prior to issuance of grading and building permits, the project</p>	<p>See MM AIR-1.1 above.</p> <p>The project applicant shall submit a</p>	<p>See MM AIR-1.1 above.</p> <p>Community Development Director</p>

Mitigation Monitoring and Reporting Program 1139 Karlstad Drive Residential Project				
Impact	Mitigation Measure(s)	Timeframe and Responsibility for Implementation	Method of Compliance	Oversight of Implementation
	<p>the project would achieve a fleet-wide average 75 percent reduction in PM_{2.5} exhaust emissions or more. One feasible plan to achieve this reduction would include the following:</p> <ul style="list-style-type: none"> • All mobile diesel-powered off-road equipment larger than 25 horsepower and operating on the site for more than two days continuously shall meet, at a minimum, U.S. EPA particulate matter emissions standards for Tier 2 engines or equivalent and include the use of equipment that includes CARB-certified Level 3 Diesel Particulate Filters. • Use of alternatively-fueled equipment (i.e., non-diesel) • Other measures may be the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the City and demonstrated to reduce community risk impacts to a less than significant level. 	<p>applicant shall submit the construction operations plan to the City for review and approval.</p> <p>Measures shall be implemented by the project contractor during grading and construction activities.</p>	<p>construction operations plan for review and approval by the Community Development Director. This plan shall demonstrate compliance with the measures.</p>	

Mitigation Monitoring and Reporting Program 1139 Karlstad Drive Residential Project				
Impact	Mitigation Measure(s)	Timeframe and Responsibility for Implementation	Method of Compliance	Oversight of Implementation
BIOLOGICAL RESOURCES				
Impact BIO-1: Project construction could impact nesting birds on or adjacent to the site, if present. (Less Than Significant Impact)	<p>MM BIO-1.1: Construction shall be scheduled to avoid the nesting season to the extent feasible. The nesting season for most birds, including most raptors, in the San Francisco Bay area extends from February 1 through August 31.</p> <p>If it is not possible to schedule construction and tree removal between September and January, then pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests shall be disturbed during project implementation. This survey shall be completed no more than 14 days prior to the initiation of grading, tree removal, or other demolition or construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August).</p> <p>During this survey, the ornithologist shall inspect all trees and other possible nesting habitats within and immediately adjacent to the construction area for nests. If an active nest is found sufficiently close to work areas to be disturbed by construction, the ornithologist, in</p>	<p>Construction activities shall avoid the nesting season to the extent feasible.</p> <p>Pre-construction surveys shall occur prior to the start of construction activities according to the timelines described in MM BIO-1.1. Any construction buffer zone must be implemented and maintained during construction activities.</p>	<p>Construction shall be scheduled to avoid the nesting season to the extent feasible.</p> <p>If construction cannot be avoided during nesting season, the project applicant shall retain a qualified ornithologist to complete pre-construction surveys pursuant to MM BIO-1.1.</p> <p>A final report of nesting birds, including any protection measures, shall be submitted by the applicant to the Director of Community</p>	Community Development Director

Mitigation Monitoring and Reporting Program 1139 Karlstad Drive Residential Project				
Impact	Mitigation Measure(s)	Timeframe and Responsibility for Implementation	Method of Compliance	Oversight of Implementation
	<p>consultation with CDFW, shall determine the extent of a construction-free buffer zone to be established around the nest, typically 250 feet, to ensure that nests of bird species protected by the MBTA or State Code shall not be disturbed during project construction.</p> <p>A final report of nesting birds, including any protection measures, shall be submitted to the Director of Community Development prior to the start of grading or tree removal.</p>		Development prior to the start of grading or tree removal.	
CULTURAL RESOURCES				
<p>Impact CUL-1: Future development of the project site could impact unknown buried archaeological resources, if present on-site.</p> <p>(Less Than Significant Impact with Mitigation Incorporated)</p>	<p>MM CUL-1.1: Once the existing building has been demolished and the parking lot removed, a qualified archeologist shall conduct mechanical presence/absence exploration for archaeological deposits and cultural materials. If any archaeological evidence is identified, additional recommendations shall be tailored to the type of resource identified and the proposed planned improvements</p> <p>In the event that buried, or previously unrecognized archaeological deposits or materials of any kind are inadvertently exposed during any construction activity, work within 50 feet of the find shall cease until a qualified archaeologist can assess the find and provide recommendations for further treatment, if</p>	<p>After on-site improvements have been demolished and removed, the project applicant is responsible for having a qualified archeologist implement MM CUL-1.1</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>If prehistoric or historic archaeological materials are found, the project applicant and contractor are responsible for implementing MM CUL-1.1.</p>	<p>Community Development Director</p>

Mitigation Monitoring and Reporting Program 1139 Karlstad Drive Residential Project				
Impact	Mitigation Measure(s)	Timeframe and Responsibility for Implementation	Method of Compliance	Oversight of Implementation
	<p>warranted. Construction and potential impacts to the area(s) within a radius determined by the archaeologist shall not recommence until the assessment is complete.</p> <p>MM CUL-1.2: In the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site within a 50-foot radius of the remains or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, the Coroner shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.</p>	<p>If human remains are found, the project applicant and contractor are responsible for implementing MM CUL-1.2.</p>	<p>Archaeologist recommendations shall be submitted for review and approval by the Community Development Director.</p>	

Mitigation Monitoring and Reporting Program 1139 Karlstad Drive Residential Project				
Impact	Mitigation Measure(s)	Timeframe and Responsibility for Implementation	Method of Compliance	Oversight of Implementation
HAZARD AND HAZARDOUS MATERIALS				
Impact HAZ-1: On-site soil may contain elevated levels of residual pesticides. (Less Than Significant Impact with Mitigation Incorporated)	MM HAZ-1.1: A Site Management and Contingency Plan (SMP) shall be prepared for the project site to be used by the earthwork contractor. The SMP shall summarize existing soil and groundwater data for the project site, identify safety and training requirements for construction workers, establish procedures for assessing and managing potentially contaminated soil and groundwater that could be encountered during construction activities (e.g., demolition, grading, and excavation), and provide contingency procedures in the event that localized areas of unanticipated chemically-affected soil or other features of environmental concern are encountered during earthwork or excavation activities. The SMP shall contain protocols for sampling and analysis of shallow soil potentially affected by residual pesticides to ensure proper management and off-site disposal of the soil and to ensure that any soil remaining at the project site is acceptable for residential settings. Soil samples shall be collected and analyzed from the upper two feet of soil at the project site as described in the SMP. The sampling shall be conducted after the existing on-site building has been demolished but prior to conducting	Prior to the start of construction activity the project applicant is responsible for having a project specific SMP prepared and submitted to the City for approval. During construction the project contractor shall implement the approved SMP	The project applicant shall submit a project-specific SMP for review and approval by the Community Development Director.	Community Development Director

Mitigation Monitoring and Reporting Program 1139 Karlstad Drive Residential Project				
Impact	Mitigation Measure(s)	Timeframe and Responsibility for Implementation	Method of Compliance	Oversight of Implementation
	<p>significant grading operations. Four point composite soil samples shall be collected at a frequency that is in accordance with disposal/accepting facility requirements. The composite samples shall be submitted, at a minimum, for laboratory analysis of pesticides by U.S. Environmental Protection Agency (EPA) Test Method 8081A; and Title 22 metals using U.S. EPA Test Method 6010B/7471B. If necessary, extractable metals tests (i.e., leaching test including soluble threshold limit concentration [STLC] and/or toxicity characteristic leaching procedure [TCLP]) will be conducted on the samples with elevated total metals concentrations to ensure the soil is transported to the proper disposal facility.</p> <p>Additionally, the SMP shall contain information related to potentially impacted areas, if any, that are known to be present as a result of the occupancy of the site by the current tenant. The current tenant shall properly close the facility under requirements directed by local and state regulatory agencies overseeing hazardous material regulations. If areas of potential concern are identified as part of the closure process, these areas shall be included in the SMP to allow for proper management and off-site disposal, as warranted.</p>			

Mitigation Monitoring and Reporting Program 1139 Karlstad Drive Residential Project				
Impact	Mitigation Measure(s)	Timeframe and Responsibility for Implementation	Method of Compliance	Oversight of Implementation
NOISE				
Impact NOI-1: Residential land use to the west of the project site could be exposed to construction-related vibration in excess of the state limit of 0.3 in/sec PPV for buildings that are structurally sound but where structural damage is a concern. (Less Than Significant Impact with Mitigation Incorporated)	MM NOI-1: The project shall implement the following measures during construction activities: <ul style="list-style-type: none"> Prohibit the use of heavy vibration-generating construction equipment, such as vibratory rollers or excavation using clam shell or chisel drops, within 20 feet of any adjacent building. Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site. 	<p>Prior to the construction, the project applicant shall be responsible for printing these measures on all construction documents, contracts, and project plans.</p> <p>During construction, the project applicant and contractor shall be responsible for, implementing these vibration reduction measures.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The Community Development project representative shall ensure that contractors implement the construction noise measures by monitoring the site.</p>	Community Development Director

Mitigation Monitoring and Reporting Program 1139 Karlstad Drive Residential Project				
Impact	Mitigation Measure(s)	Timeframe and Responsibility for Implementation	Method of Compliance	Oversight of Implementation
<p>Impact NOI-2: Construction of the project would result in a substantial temporary increase in ambient noise levels at adjacent land uses.</p> <p>(Less Than Significant Impact with Mitigation Incorporated)</p>	<p>MM NOI-2.1: The project shall implement the following construction best management practices:</p> <ul style="list-style-type: none"> Construction activities shall be conducted in accordance with the provisions of the City's General Plan and Municipal Code, which limits temporary construction work between the hours of 7:00 AM and 6:00 PM Monday through Friday and between 8:00 AM to 5:00 PM on Saturdays. Construction is prohibited on Sundays and all City-observed holidays. Construct temporary noise barriers, where feasible, to screen stationary noise-generating equipment. Temporary noise barrier fences would provide a five dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receiver and if the barrier is constructed in a manner that eliminates any cracks or gaps. Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. Utilize "quiet" models of air compressors and other stationary noise sources where technology exists. 	<p>Prior to the construction, the project applicant shall be responsible for printing these measures on all construction documents, contracts, and project plans.</p> <p>During construction, the project applicant and contractor shall be responsible for, implementing these measures.</p>	<p>All measures shall be printed on all construction documents, contracts, and project plans.</p> <p>The Community Development project representative shall ensure that contractors implement the construction noise measures by monitoring the site.</p>	<p>Community Development Director.</p>

Mitigation Monitoring and Reporting Program 1139 Karlstad Drive Residential Project				
Impact	Mitigation Measure(s)	Timeframe and Responsibility for Implementation	Method of Compliance	Oversight of Implementation
	<ul style="list-style-type: none"> • Unnecessary idling of internal combustion engines should be strictly prohibited. • Construction staging areas shall be established at locations that create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction. • Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors. • A temporary noise control blanket barrier could be erected, if necessary, along building facades facing construction sites. This measure would only be necessary if conflicts occurred which were irresolvable by proper scheduling. • Route construction-related traffic along major roadways and as far as feasible from sensitive receptors. • The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with nearby residential land uses so that construction activities can be scheduled to minimize noise disturbance. 			

Mitigation Monitoring and Reporting Program 1139 Karlstad Drive Residential Project				
Impact	Mitigation Measure(s)	Timeframe and Responsibility for Implementation	Method of Compliance	Oversight of Implementation
	<ul style="list-style-type: none"> Businesses, residences or noise-sensitive land uses adjacent to construction sites shall be notified of the construction schedule in writing. Designate a “construction liaison” that would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site 			

Sources: City of Sunnyvale. *1139 Karlstad Drive Residential Project Initial Study*. July 2017.