

Draft Mitigated Negative Declaration/Initial Study

480/490 South Mathilda Avenue Office Project

File Nos.: 2021-7281 & 2021-7280



Prepared by

Sunnyvale

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YEARS
EST. 1972

In Consultation with

DAVID J. POWERS
& ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS & PLANNERS

June 2022

480/490 Mathilda Avenue Office Project

Draft Mitigated Negative Declaration

Project: 480/490 Mathilda Avenue Office Project File #'s 2021-7280 and 2021-7281

Lead Agency:

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Availability of the Initial Study:

The Initial Study for this Mitigated Negative Declaration is attached and available for review on the City's website at the following web address: <https://www.sunnyvale.ca.gov/business-and-development/planning-and-building/ceqa-environmental-notice>.

Associated appendices are located at the website noted above.

Project Location and Description:

The approximately 1.3-acre project site is located at 480/490 South Mathilda Avenue and 355 West Olive Avenue in the City of Sunnyvale, at the northeast of South Mathilda Avenue and West Olive Avenue. The project site is located within the Block 13 area of the approximately 125 acre Downtown Specific Plan (DSP) area.

The project proposes to demolish the existing 13,543-square foot office building and 6,212-square foot commercial building on-site and construct an approximately 127,886 square-foot, four-story office building over two levels of below ground parking. The proposed office development would have an approximate Floor Area Ratio (FAR) of 2.34 and is located on an infill site within a transit priority area.

The project includes a Development Agreement as authorized by the DSP for the project to contribute to a community benefit fund that would allow for the proposed additional office square footage of 80,226 and additional height of 18.5 feet; therefore, the City has concluded no amendment to the General Plan or Specific Plan is required. As the proposed building would cross the property line between two separately-owned parcels, the owners would be required to enter into and record a lot tie agreement wherein they would agree to hold the parcels as one parcel for the life of the project.

Refer to the Initial Study for additional details on the project components.

Proposed Findings:

The City has prepared the attached Initial Study and determined that the analysis in the Initial Study identifies potentially significant project effects, but:

1. Mitigation measures required by the City, and agreed to by the applicant, would avoid or mitigate the effects to a point where no significant effects would occur; and
2. There is no substantial evidence, in light of the whole record before the agency, that the project with implementation of mitigation measures may have a significant effect on the environment. Pursuant to California Environmental Quality Act (CEQA) Guidelines Sections 15064(f)(3) and 15070(b), a Mitigated Negative Declaration has been prepared for the project.

Basis of Findings:

Based on the environmental evaluation presented in the attached Initial Study, the project would not cause significant adverse effects related to aesthetics, agricultural and forestry resources, energy, greenhouse gas emissions, hydrology and water quality, land use/planning, mineral resources, population/housing, public services, recreation, transportation, utilities/service systems, and wildfire. The project does not have impacts that are individually limited, but cumulatively considerable. The environmental evaluation has determined that the project would have potentially significant impacts on air quality, biological resources, cultural resources (including tribal cultural resources), geology/soils, hazards/hazardous materials, and noise/vibration and the implementation of the mitigation measures listed below would reduce impacts to a less than significant level.

Mitigation Measures:

Air Quality

MM AQ-1.1: The project shall implement the below BAAQMD-recommended BMPs to control dust, particulate matter, and diesel emissions during construction. This list of measures shall be incorporated into the approved building plan set.

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. 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.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes¹. Clear signage shall be provided for construction workers at all access points.
7. 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.
8. 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. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

MM AQ-3.1: The project shall implement the below measures to control diesel particulate matter emissions during construction. This list of measures shall be incorporated into the approved building plan set.

1. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards for NO_x and PM, if feasible, otherwise,
2. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve a 85 percent reduction in particulate matter exhaust; alternatively (or in combination)
3. Use of alternatively-fueled equipment with lower NO_x emissions that meet the NO_x and PM reduction requirements above.

¹ The BAAQMD BMP measure limits construction equipment idling time to five minutes, consistent with the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations. However, as further discussed under Impact AQ-3, mitigation measure MM AQ-3.1 limits the project's construction equipment idling time to two limits in order to reduce its construction health risk impacts to the project MEI.

4. Diesel engines, whether for off-road equipment or on-road vehicles, shall not be left idling for more than two minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). The construction sites shall have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit.
5. All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 33,000 pounds or greater (EMFAC Category HDDT) used at the project site (such as haul trucks, water trucks, dump trucks, and concrete trucks) shall be model year 2010 or newer.
6. Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment, such as generators.
7. Enforce idling limit of two minutes unless subject to State law exemptions (e.g., safety issues).

Biological Resources

MM BIO-1.1: When possible, 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 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.

Cultural Resources/Tribal Cultural Resources

- MM CR-2.1:** Prior to ground-disturbing activities, a qualified archaeologist will provide cultural resources training to all contractors and employees involved in trenching and excavation. The training will inform participants how to recognize archaeological artifacts and deposits, and discuss their obligations under the law and the project mitigation measures.
- MM CR-2.2:** A qualified archaeologist shall monitor the demolition of the building foundations and any other below surface disturbances, such as but not limited to, grading, excavation, roadway improvements, and utility connections and improvements. If any cultural resources are identified, all activity in the vicinity of such resources shall stop until a research design and treatment plan is prepared to address those types of resources encountered and such plan is approved by the City. Any cultural resources identified shall be evaluated to determine if these resources would qualify for the NRHP or CRHR. If no resources are found during excavation work, the implementation of mitigation measures MM CR-2.3 would ensure any resources discovered during construction are adequately protected.
- MM CR-2.3:** In the event that buried, or previously unrecognized archaeological deposits or materials of any kind are inadvertently exposed during any construction activity, all activity within a 50-foot radius of the find shall be stopped until a qualified archaeologist can assess the find and provide recommendations for further treatment, if warranted. Preservation in place is the preferred treatment of an archeological resource. When preservation in place of an archeological resource is not feasible, data recovery, in accord with a data recovery plan prepared and adopted by the City, is the appropriate mitigation. Construction and potential impacts to the area within a radius determined by the archaeologist shall not recommence until the assessment is complete.
- MM CR-3.1:** In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find shall be stopped. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner shall notify the NAHC immediately. Once NAHC identifies the most likely descendants, the descendants shall make recommendations regarding proper burial, which shall be implemented in accordance with Section 15064.5 of the CEQA Guidelines.

Geology/Soils

- MM GEO-6.1:** Should a unique paleontological resource or site or unique geological feature be identified at the project site during any phase of construction, all ground disturbing activities within 25 feet shall cease and the Sunnyvale Community Development Director notified immediately. A qualified paleontologist shall evaluate the find and prescribe measures to preserve the find. Work may proceed on other parts of the project site while measures to preserve the paleontological resources or geologic features are implemented. One such measure would be a buffer that would be established by the qualified paleontologist. This buffer would preserve the area immediately surrounding the discovered resource while allowing work to happen beyond the buffer. Upon completion of the paleontological assessment, a report shall be submitted to the City and, if paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology shall also be submitted to the City.

Hazards/Hazardous Materials

- MM HAZ-2.1:** A Site Management Plan (SMP) and Health Safety Plan (HSP) shall be prepared and implemented for construction-related earthwork activities under the proposed project. The purpose of the SMP and HSP is to establish appropriate management practices for handling impacted soil or other materials that may potentially be encountered during construction activities. The SMP shall provide the protocols for accepting imported fill materials and protocols for sampling of in-place soil to facilitate profiling of the soil for appropriate off-site disposal or reuse.

To evaluate potential impacts associated with prior agricultural use, the soil profiling shall include (but not be limited to) the collection of shallow soil samples (upper one-foot) and analyses for agricultural pesticide chemicals (i.e., arsenic and chlorinated pesticides and herbicides).

If there are no contaminants identified that exceed applicable screening levels published by the RWQCB, DTSC and/or EPA, the SMP does not need to be submitted to an oversight agency and only submitted to the City prior to construction earthwork activities. If contaminants are identified at concentrations exceeding applicable screening levels, the SMP and planned remedial measures shall be reviewed and approved by an appropriate regulatory agency (i.e., RWQCB, DTSC or DEH), and the HSP and approved SMP shall be submitted to the City prior to the issuance of a permit for grading and excavation.

- MM HAZ-2.2:** All hydraulic fluids within the elevator equipment shall be removed and properly disposed of prior to demolition.

During removal of the equipment with hydraulic fluids, contractors shall observe for staining and spilled oil. If stains and/or spills are observed, an Environmental Professional shall be retained to collect soil samples for laboratory analysis in accordance with commonly accepted environmental protocols. If contaminants

are identified at concentrations exceeding applicable screening levels published by the RWQCB, DTSC and/or EPA, appropriate mitigation measures shall be incorporated into the demolition permit. Approval by an appropriate regulatory agency (i.e., RWQCB, DTSC or DEH) shall be obtained prior to conducting earthwork activities in the vicinity of the impacted soil.

MM HAZ-2.3: Prior to the issuance of a demolition permit, an asbestos survey shall be completed for existing buildings on-site prior to demolition in accordance with the National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable ACMs prior to building demolition or renovation that may disturb the ACM.

MM HAZ-2.4: Prior to the issuance of a demolition permit, a lead-based paint survey shall be completed for the existing buildings on-site in accordance with the Cal/OSHA guidelines. If lead-based paint is bonded to the building materials, the removal of lead-based paint is not required. If the lead-based paint is flaking, peeling, or blistering, it shall be removed prior to demolition. In either case, applicable OSHA regulations shall be followed; these include requirements for worker training and air monitoring and dust control. Any debris containing lead shall be disposed appropriately.

Noise/Vibration

MM NOI-1.1: Consistent with mitigation measure MM 3.6.3 of the 2017 LUTE EIR, the project shall employ site-specific noise attenuation measures during construction to reduce the generation of construction noise and vibration. These measures shall be included in a Noise Control Plan that shall be submitted for review and approval by the City prior to issuance of demolition permit. Measures specified in the Noise Control Plan and implemented during construction shall include, at a minimum, the following noise control strategies:

- Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds);
- Impact tools (e.g., jackhammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools; and
- Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or include other measures.
- Unnecessary idling of internal combustion engines should be strictly prohibited.
- Construction staging areas shall be established at locations that will 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.

- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
- Where feasible, temporary power service from local utility companies should be used instead of portable generators.
- Locate cranes as far from adjoining noise-sensitive receptors as possible.
- During final grading, substitute graders for bulldozers, where feasible. Wheeled heavy equipment are quieter than track equipment and should be used where feasible.

MM NOI-2.1: The following additional vibration controls shall be implemented as part of the Noise Control Plan required by the 2017 LUTE EIR mitigation measure MM 3.6.3:

- Comply with the construction noise ordinance to limit hours of exposure. The City's Municipal Code allows construction activities between the hours 7:00 AM and 6:00 PM on weekdays and between 8:00 AM and 5:00 PM on Saturdays. Construction activity is not permitted on Sundays or federal holidays when the City offices are closed.
- Prohibit the use of heavy vibration-generating construction equipment within 25 feet of residences. Use a smaller vibratory roller, such as the Caterpillar model CP433E vibratory compactor, when compacting materials within 25 feet of residences adjoining the site.
- Avoid dropping heavy equipment within 25 feet of residences. Use alternative methods for breaking up existing pavement, such as a pavement grinder, instead of dropping heavy objects within 25 feet of residences adjoining the site.
- The contractor shall alert heavy equipment operators to the close proximity of the adjacent structures so they can exercise extra care.

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Appendix D: Geotechnical Engineering Investigation Report
Appendix E: Phase I Environmental Site Assessment and Memorandum
Appendix F: Noise and Vibration Assessment
Appendix G: Transportation Analysis
Appendix H: Utility Impact Study

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 480/490 South Mathilda Avenue Office 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 an approximately 127,886 square-foot, four-story office building over two levels of below ground parking. This Initial Study evaluates the environmental impacts that might reasonably be anticipated to result from implementation of the proposed project.¹

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 during the 20-day public review period should be sent to:

Shaunn Mendrin, Planning Officer
City of Sunnyvale
456 West Olive Avenue
Sunnyvale, CA 94086
smendrin@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 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)).

¹ The size of the proposed office building has been recently refined from 127,886 to 125,128 square feet. The building height remains the same. This Initial Study evaluated the environmental impact of a slightly larger building (127,886 square feet) and, therefore, is conservative and covers the environmental impact of the smaller, proposed project (125,128 square feet).

SECTION 2.0 PROJECT INFORMATION

2.1 PROJECT TITLE

480/490 South Mathilda Avenue Office Project

2.2 LEAD AGENCY CONTACT

Shaunn Mendrin, Planning Officer
City of Sunnyvale
456 West Olive Avenue
Sunnyvale, CA 94086
(408) 730-7431
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2.3 PROJECT APPLICANT

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6272 Virgo Road
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2.4 PROJECT LOCATION

The approximately 1.3-acre project site is located at 480/490 South Mathilda Avenue and 355 West Olive Avenue in the City of Sunnyvale, at the northeast of South Mathilda Avenue and West Olive Avenue. The project site is located within the Block 13 area of the approximately 125 acre Downtown Specific Plan (DSP) area. Regional and vicinity maps of the project site are shown in Figure 2.7-1 and Figure 2.7-2. An aerial photograph showing surrounding land uses is shown on Figure 2.7-3 and a map showing the project site's location within the DSP is shown on Figure 2.7-4.

2.5 ASSESSOR'S PARCEL NUMBERS

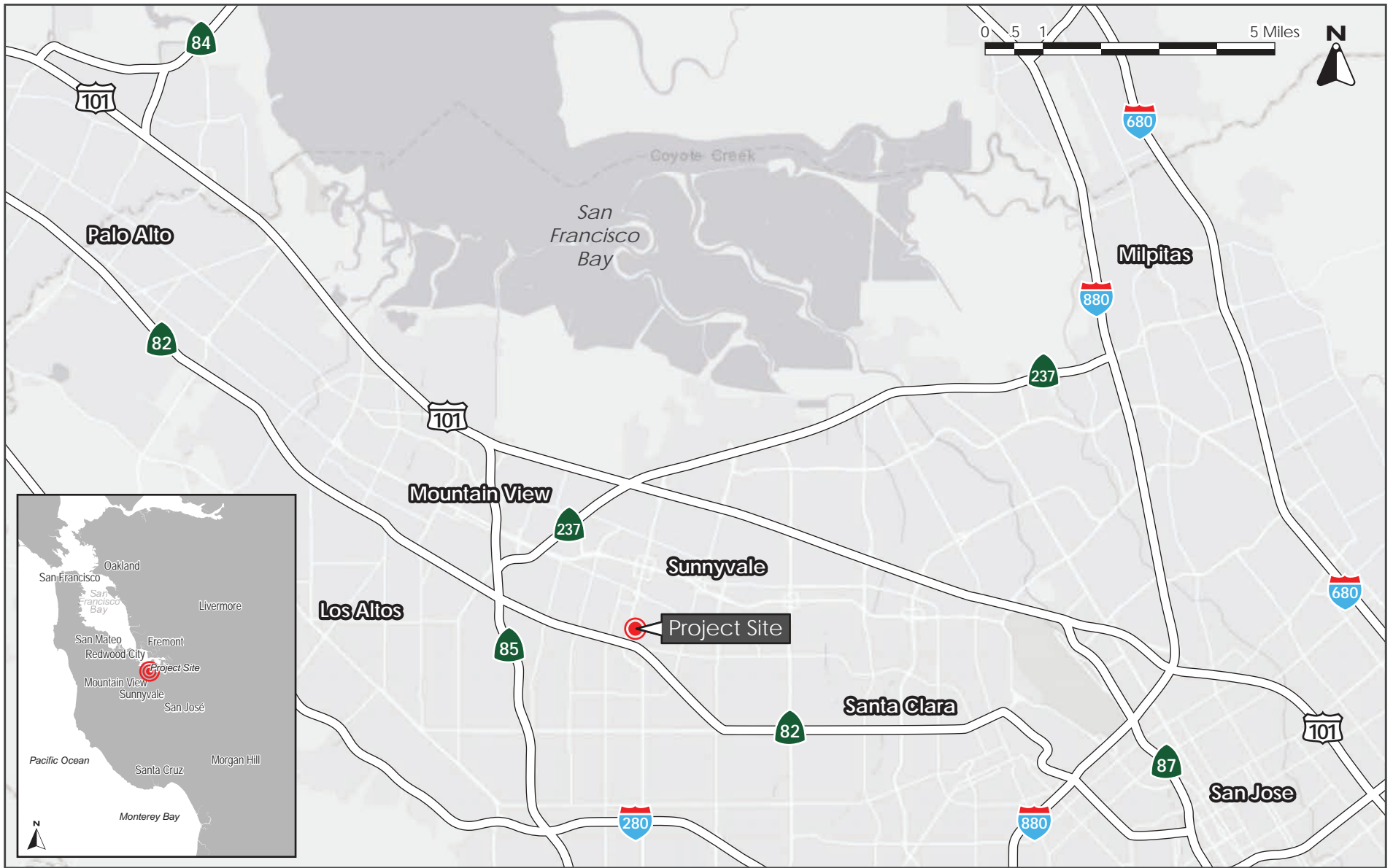
209-28-008 and 209-28-052

2.6 GENERAL PLAN DESIGNATION AND ZONING DISTRICT

General Plan Land Use Designation – Transit Mixed-Use (TMU)
Zoning District – Downtown Specific Plan (DSP)

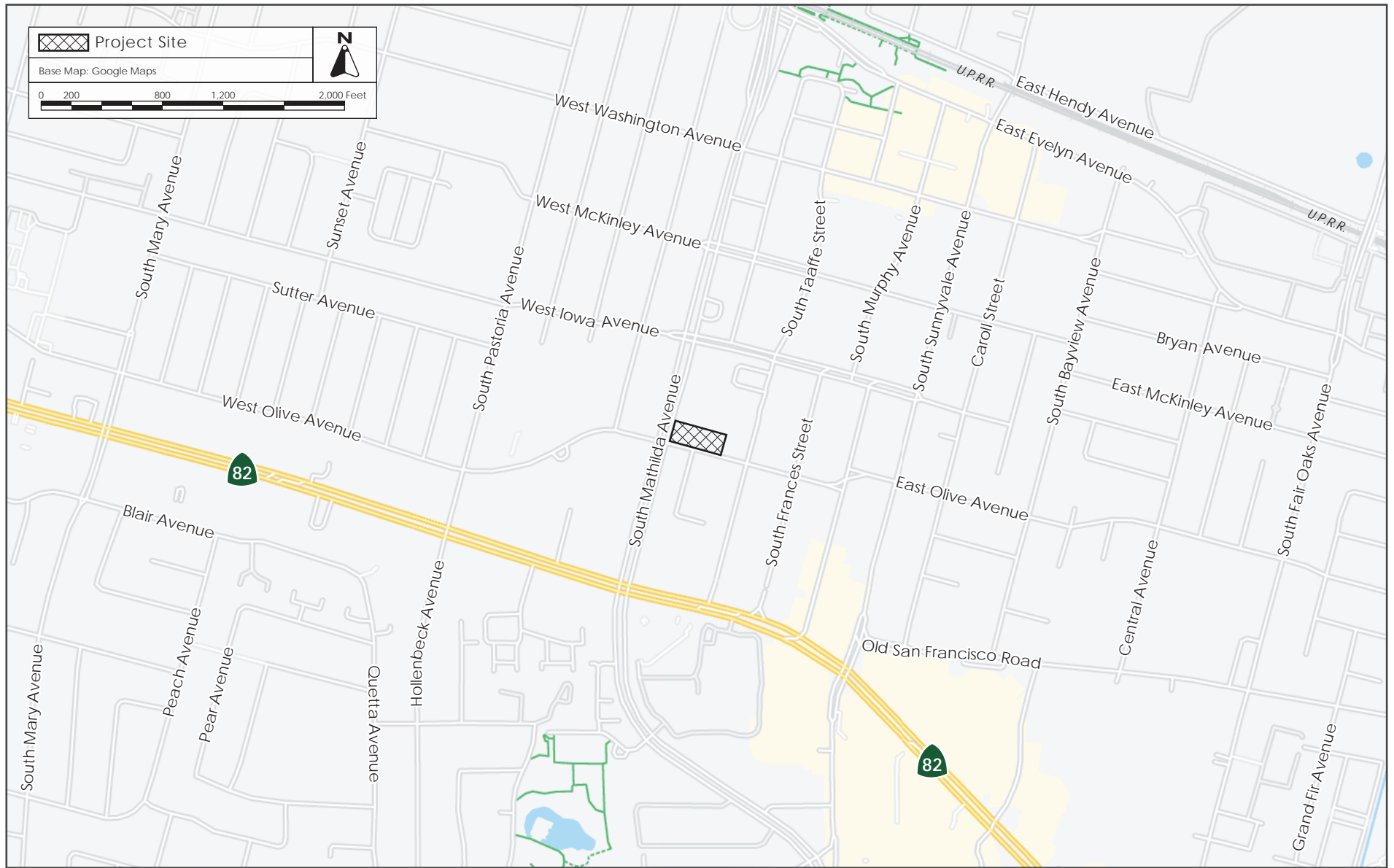
2.7 PROJECT-RELATED APPROVALS, AGREEMENTS, AND PERMITS

- Special Development Permit
- Development Agreement
- Lot Tie Agreement



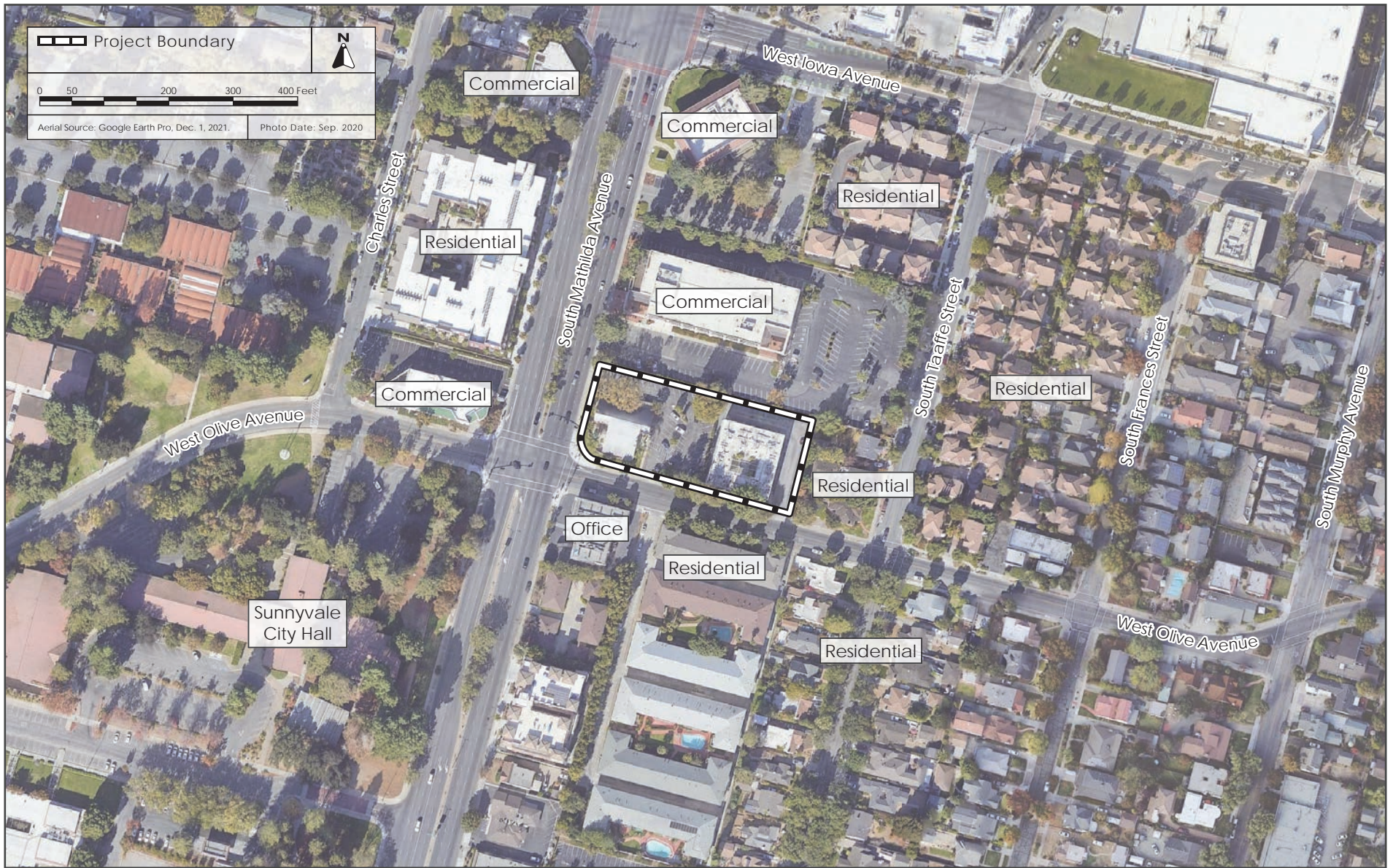
REGIONAL MAP

FIGURE 2.7-1



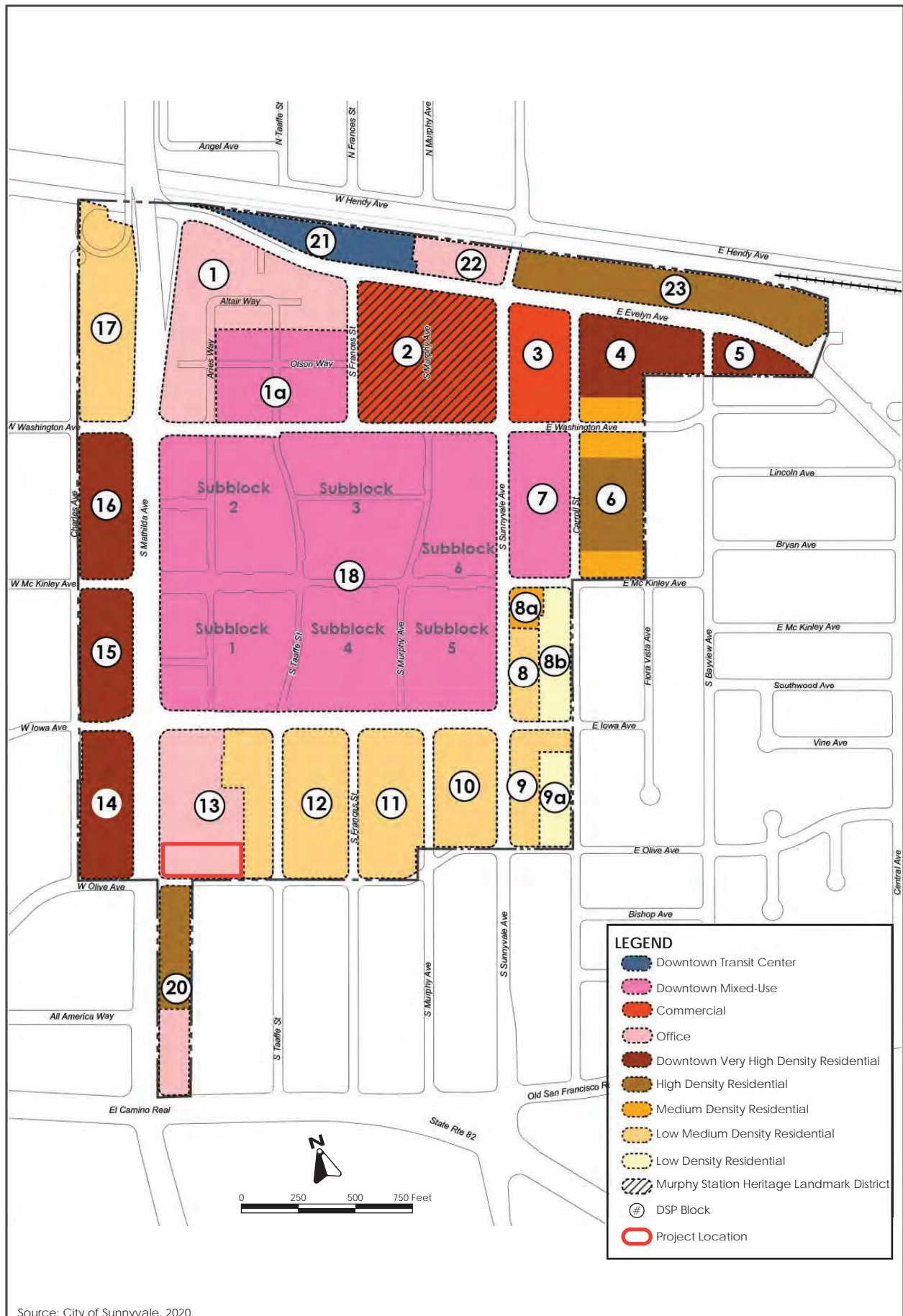
VICINITY MAP

FIGURE 2.7-2



AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 2.7-3



Source: City of Sunnyvale, 2020.

PROJECT LOCATION WITH DOWNTOWN SPECIFIC PLAN BLOCK 13

FIGURE 2.7-4

SECTION 3.0 BACKGROUND AND PROJECT DESCRIPTION

3.1 BACKGROUND

The approximately 1.3-acre project site is located within the City of Sunnyvale's Downtown Specific Plan (DSP). The DSP area consists of approximately 125 acres, generally bounded by the railroad/Caltrain tracks to the north, Bayview Avenue to the east, El Camino Real to the south, and Charles Street to the west. The DSP area is divided into 22 Blocks. The DSP area has a General Plan land use designation of Transit Mixed-Use. The Transit Mixed-Use General Plan land use designation allows for a mix of residential uses at various densities, high-intensity commercial uses, regional commercial uses, and office uses located near rail stops or other mass transit. The DSP area is regulated by the Downtown Specific Plan and the Downtown Specific Plan zoning district in Chapter 19.28 of the Sunnyvale Municipal Code (SMC), both of which in combination regulate land uses, establish the overall amount of allowed development in square feet and number of units, and provide guidelines addressing building setbacks, open space requirements, and streetscape design within the DSP area.

The approximately 1.3-acre project site is located within the larger 4.46-acre Block 13 in the DSP. Under the DSP, Block 13 is allowed to be developed with a total of 25 residential units, 176,100 square feet of office space, and 21,000 square feet of commercial space. The project site has a land use designation of office in the DSP and allocated 47,660 square feet of office space and 5,683 square feet of commercial space of the total Block 13 development allowed. The maximum building height allowed for office and commercial buildings in Block 13 is 50 feet. Other development standards in Block 13 include minimum front setbacks that range from zero to 10 feet, minimum interior setbacks of zero feet, and a minimum project size of 0.4-acre.

3.2 PROJECT DESCRIPTION

The project proposes to demolish the existing 13,543-square foot office building and 6,212-square foot commercial building on-site and construct an approximately 127,886 square-foot, four-story office building over two levels of below ground parking. The proposed office development would have an approximate Floor Area Ratio (FAR) of 2.34 and is located on an infill site within a transit priority area.

The project includes a Development Agreement as authorized by the DSP for the project to contribute to a community benefit fund that would allow for the proposed additional office square footage of 80,226 and additional height of 18.5 feet; therefore, the City has concluded no amendment to the General Plan or Specific Plan is required. As the proposed building would cross the property line between two separately-owned parcels, the owners would be required to enter into and record a lot tie agreement wherein they would agree to hold the parcels as one parcel for the life of the project.

The project components, including the office building, landscaping, site access and parking, public right-of-way and utility improvements, lot-tie agreement, and construction, are described below. A conceptual site plan and building elevations are shown in Figure 3.2-1 and Figure 3.2-2, respectively.

3.2.1 Office Building

The proposed office building would be approximately 127,886 square feet and four-stories tall, with a maximum height of 68.5 feet including rooftop amenity space (note: the top of roof structure for most of the building is three-stories and 50 feet tall). The office building would include approximately 12,000 square feet of indoor amenity space that could include breakout spaces for meetings or social interaction, fitness facilities, conference rooms, a kitchen, and/or game rooms. The building would also include an approximately 21,000-square foot outdoor, rooftop terrace with amenities such as outdoor seating, lounge areas, and an artificial turf area.

The office building would be built over two levels of below ground parking, extending approximately 19 feet below grade. Tiebacks would be installed for the parking garage and would not encroach into adjacent properties except in West Olive Avenue public right-of-way. The office building would be set back at least 10 feet from the northern property line and from the southern the property line on West Olive Avenue and approximately 17 feet from the eastern property line and at least five feet from the western property line along South Mathilda Avenue.

3.2.2 Mechanical Equipment

The proposed building would include a transformer room, an electrical room, and a pump room indoor on the ground level, and heat pumps and air-cooled chillers outdoors on the rooftop level. In addition, a 175-kilowatt/235 horsepower emergency generator would be located in the below-grade parking structure.

3.2.3 Landscaping

The project site currently contains 23 trees, 15 of which are protected under the City's Tree Preservation Ordinance (Chapter 19.94 of the SMC).² The proposed project would remove all 23 existing trees from the project site due to conflict with the proposed building footprint and plant 23 new trees as part of the project.

The project proposes approximately 10,000 square feet of landscaping on the ground floor, including new drought-tolerant shrubs, grasses, and trees along the perimeter of the office building and near the main entrance at the corner of South Mathilda Avenue and West Olive Avenue (see Figure 3.2-3). The project would also provide approximately 4,030 square feet of drought-tolerant landscaping on the rooftop, in addition to an artificial turf area.

3.2.4 Site Access and Parking

The project site would be accessible via a driveway on West Olive Avenue (see Figure 3.2-1). The driveway would provide access to the below ground parking garage. The below ground parking garage would have two levels of below ground parking, providing a total of 272 parking spaces (129 spaces on the first sub-level and 143 spaces on the second sub-level). The project proposes 112 bicycle spaces, including 108 secured bicycle parking spaces in the parking garage, and four

² A significant size tree, or protected tree, is defined as: Any single trunk tree 38 inches or greater in circumference (the circumference of the tree is measured at 4.5 feet above the ground); or any multi-trunk tree which has at least one trunk 38 inches or greater in circumference or where the measurements of the multi-trunks added together equal at least 113 inches. Source: City of Sunnyvale. Chapter 19.94 of the Municipal Code.

uncovered bicycle parking spaces along the project site's frontage on West Olive Ave. The project would provide on-site trash pickup instead of on-street pickup via an alley on West Olive Avenue that leads to the trash collection room on the eastern side of the project site. Pedestrian access to the office building would be provided via sidewalks on South Mathilda Avenue and West Olive Avenue.

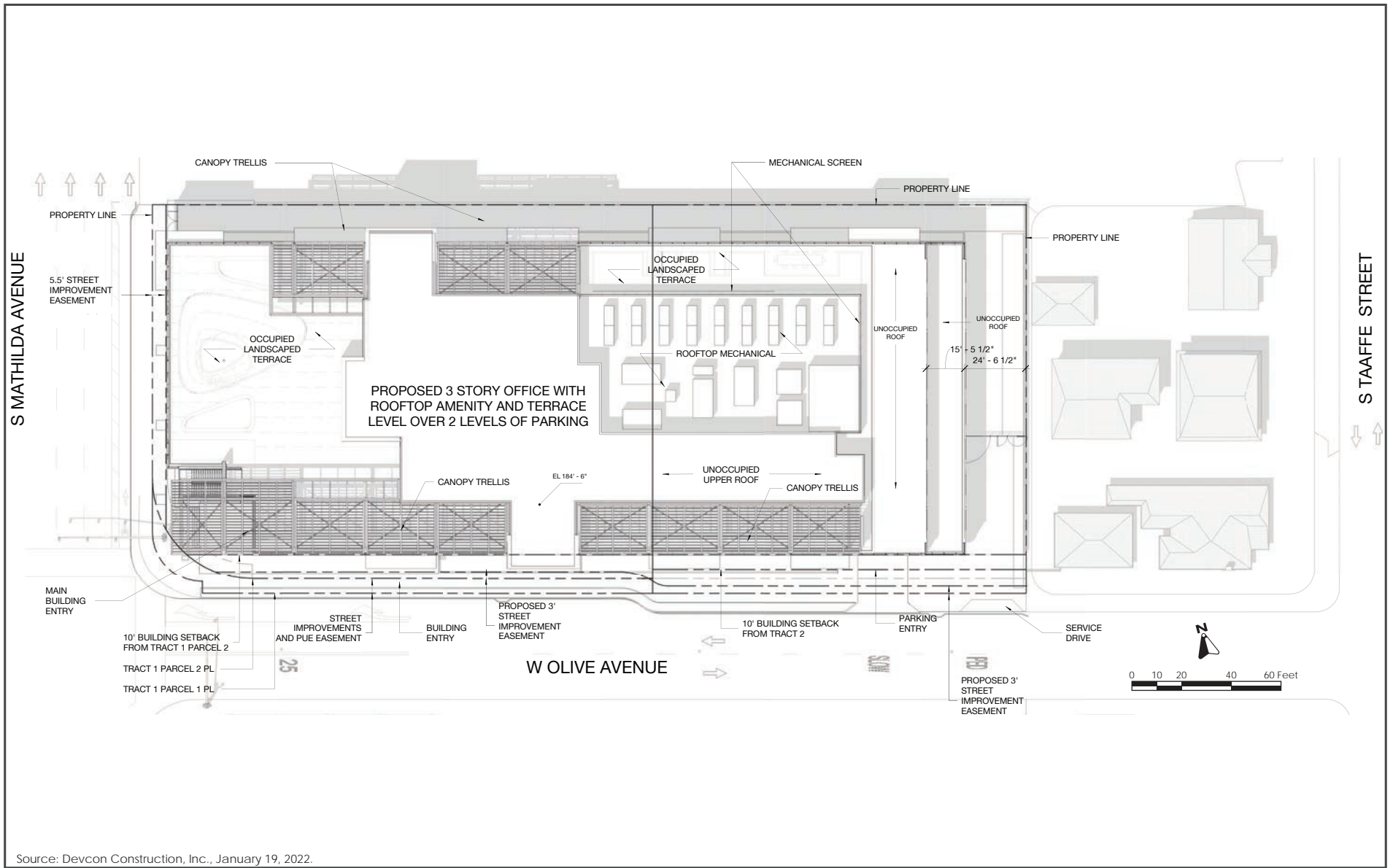




FIGURE 3.2-2



CONCEPTUAL LANDSCAPE PLAN

FIGURE 3.2-3

3.2.5 Green Building Measures

The project proposes to achieve LEED Gold certification by incorporating green building measures such as a rooftop terrace, water efficient fixtures, drought tolerant landscaping, mass timber construction, and a 100 percent electric building. The project also proposes to achieve Well Certification, which focuses on the overall health of office tenants. The Well Certification program is focused on the overall health and well-being of building occupants, through an array of architectural, building systems, and site-specific features to ensure positive human health and well-being through air, water, nourishment, light, fitness, comfort, and mind. Strict indoor air ventilation and monitoring, promotion of health and nutrition, circadian lighting design, and available on-site physical and mental coaching all serve as a human-scale compliment to the larger, environmental-scale impacts of building-construction sustainability practices established through LEED.

The project will utilize mass timber construction. Timber is a renewable resource and compared to steel and concrete, the energy required to create a timber beam is significantly less and, as a natural material, wood has the ability to sequester and store carbon over its lifetime. Inherently lighter in weight, the speed of erection with timber is also faster than steel or concrete, allowing for a compressed construction schedule, which minimizes construction-related impacts and inconvenience for the surrounding neighborhood.

Compliant with the City's Reach Code Ordinance, the project also proposes to install solar panels and be 100 percent electric.

3.2.6 Public Right-Of-Way and Utility Improvements

The project includes public right-of-way (ROW) improvements including installation of new curbs, gutters, and sidewalks with street trees along the project's frontage on South Mathilda Avenue and West Olive Avenue. The project includes upgrading the existing sidewalks to six feet in width with four feet in width of landscaping (total of 10 feet wide) along its frontages on the South Mathilda Avenue and West Olive Avenue. In addition, the project would remove a northbound travel lane and add a new Class IIB buffered bicycle lane on northbound South Mathilda Avenue along the project frontage.

The project would require new lateral connections from the project site to the existing utility systems (sanitary sewer, water, and storm drain) located in the public ROW of West Olive Avenue. The project would connect to an existing six-inch sanitary sewer line, and an eight-inch water line. A new 15-inch storm drain line would be constructed in West Olive Avenue connecting from the existing 18-inch storm drain line in the intersection of South Taaffe Street and west to the project frontage. The project would connect to the new 15-inch storm drain line in West Olive Avenue via two 12-inch lateral lines. The project would also underground the existing power lines located near the southeast corner of the project site.

3.2.7 Construction

Construction of the project is estimated to take approximately 20 months to complete. Demolition of the existing improvements on-site would occur during the first month, followed by preparation of the site and construction of the office building and other site improvements. The project would excavate

to a maximum depth of 19 feet below ground and off-haul approximately 26,500 cubic yards of soil for the below ground parking garage.

SECTION 4.0 ENVIRONMENTAL SETTING, CHECKLIST, AND IMPACT DISCUSSION

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

4.1	Aesthetics	4.12	Mineral Resources
4.2	Agriculture and Forestry Resources	4.13	Noise
4.3	Air Quality	4.14	Population and Housing
4.4	Biological Resources	4.15	Public Services
4.5	Cultural Resources	4.16	Recreation
4.6	Energy	4.17	Transportation
4.7	Geology and Soils	4.18	Tribal Cultural Resources
4.8	Greenhouse Gas Emissions	4.19	Utilities and Service Systems
4.9	Hazards and Hazardous Materials	4.20	Wildfire
4.10	Hydrology and Water Quality	4.21	Mandatory Findings of Significance
4.11	Land Use and Planning		

The discussion for each environmental subject includes the following subsections:

- **Environmental Setting** – This subsection 1) provides a brief overview of relevant plans, policies, and regulations that compose the regulatory framework for the project and 2) describes the existing, physical environmental conditions at the project site and in the surrounding area, as relevant.
- **Impact Discussion** – This subsection 1) includes the recommended checklist questions from Appendix G of the CEQA Guidelines to assess impacts and 2) discusses the project’s impact on the environmental subject as related to the checklist questions. For 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 to correspond to the checklist question being answered. For example, Impact BIO-1 answers the first checklist question in the Biological Resources section. Mitigation measures are also numbered to correspond to the impact they address. For example, MM BIO-1.3 refers to the third mitigation measure for the first impact in the Biological Resources section.

4.1 AESTHETICS

4.1.1 Environmental Setting

4.1.1.1 *Regulatory Framework*

State

Senate Bill 743

Senate Bill (SB) 743 was adopted in 2013 and requires lead agencies to use alternatives to level of service (LOS) for evaluating transportation impacts, specifically vehicle miles traveled (VMT). SB 743 also included changes to CEQA that apply to transit-oriented developments, as related to aesthetics and parking impacts. Under SB 743, a project's aesthetic impacts will no longer be considered significant impacts on the environment if:

- The project is a residential, mixed-use residential, or employment center project³, and
- The project is located on an infill site within a transit priority area.⁴

SB 743 also clarifies that local governments retain their ability to regulate a project's aesthetics impacts outside of the CEQA process.

Streets and Highway Code Sections 260 through 263

The California Scenic Highway Program (Streets and Highway Code, Sections 260 through 263) is managed by the California Department of Transportation (Caltrans). The program is intended to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment.

In Santa Clara County, the one state-designated scenic highway is State Route (SR) 9 from the Santa Cruz County line to the Los Gatos City Limit. Eligible state scenic highways (not officially designated) include: SR 17 from the Santa Cruz County line to SR 9, SR 35 from Santa Cruz County line to SR 9, Interstate 280 from the San Mateo County line to SR 17, and the entire length of SR 152 within the County.⁵

³ An "Employment center project" is a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a transit priority area, as defined in Public Resources Code Section 21099(a)(1).

⁴ An "infill site" is defined as "a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses." A "transit priority area" is defined as "an area within 0.5 mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." A "major transit stop" means "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." Source: Public Resources Code Section 21009. Accessed October 28, 2021.

<https://codes.findlaw.com/ca/public-resources-code/prc-sect-21099.html>.

⁵ California Department of Transportation. "State Scenic Highway Map" <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116flaaca>. Accessed October 29, 2021.

Local

City of Sunnyvale General Plan

The City of Sunnyvale General Plan (General Plan) includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to aesthetic resources and are applicable to the proposed project.

Policy	Description
Land Use and Transportation Element	
LT-4.1	Preserve and enhance an attractive community, with a positive image, a sense of place, landscaping, and a human scale.
LT-4.3	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.
LT-13.2	Improve the visual appearance of business areas and districts by applying high standards of architectural design, landscaping, and sign standards for new development and the reuse or remodeling of existing buildings.
LT-13.8	Require high design standards for office, industrial, and research and development buildings in all business districts.
Community Character Element	
CC-1.3	Ensure that new development is compatible with the character of special districts and residential neighborhoods.
CC-3.1	Place a priority on quality architecture and site design which will enhance the image of Sunnyvale and create a vital and attractive environment for businesses, residents and visitors, and be reasonably balanced with the need for economic development to assure Sunnyvale's economic prosperity.
CC-3.2	Ensure site design is compatible with the natural and surrounding built environment.
CC-5.2	Enhance the visual character of the city by preserving diverse as well as harmonious architectural styles, reflecting various phases of the city's historical development and the cultural traditions of past and present residents.

Downtown Specific Plan

The DSP contains specific land use and design standards for new development in downtown Sunnyvale. The DSP is broken up into separate development blocks, with each block having its own specific design standards. Similar to the Zoning Code below, the DSP includes design standards, such as building height, building density, and lighting standards, as well as specific architectural and style requirements.

Sunnyvale Municipal Code

SMC Title 19 (Zoning) provides development standards and regulations that are meant to enhance the visual quality of new development through building height limits, building density, building design and landscaping standards, architectural features, setback requirements, sign regulations, usable open space requirements, and public artwork in private developments.

The Zoning Code promotes good design and careful planning of development projects to enhance the visual environment. The City's development review process includes the review of preliminary plans and the consideration of public input by the Zoning Administrator, Planning Commission, and City Council. The City reviews private and public development applications for conformance with City plans, ordinances, and policies related to zoning, urban design, and CEQA.

- Chapter 19.94 (Tree Preservation) regulates the protection, installation, removal and long term management of significantly sized trees on private property within the City and City-owned golf courses and parks; encourages the proper protection and maintenance of significantly sized trees which are located on such property; establishes a review and permit procedure to assure the correct planting, maintenance, protection and removal of significant trees on such property; and establishes penalties for violation of its provisions. The provisions of Chapter 19.94 identify and prescribe specific procedures and requirements for the filing, processing, and consideration of the removal and preservation of trees. A significant size tree, or protected tree, is defined as:
 - Any single trunk tree 38 inches or greater in circumference (the circumference of the tree is measured at 4.5 feet above the ground); or
 - Any multi-trunk tree which has at least one trunk 38 inches or greater in circumference or where the measurements of the multi-trunks added together equal at least 113 inches.

In addition to the provisions of the Zoning Code, Chapter 13.16 (City Trees) within SMC Title 13 provides guidance and regulations on City trees, including protected trees, removal or damage to trees, and permitting. Permitting is required for planting trees in the public ROW, removal or maintenance to protected trees, and construction affecting protected trees.

4.1.1.2 *Existing Conditions*

Scenic Vistas

The term scenic vista typically refers to an expansive view of an area that is visually or aesthetically pleasing, usually as seen from an elevated point or open area. The project site is in downtown Sunnyvale, which is a highly developed area of the City. It is located on relatively flat land which limits the amount of expansive views from the project site. Obstructed views of the Santa Cruz Mountains can be seen in the project vicinity, looking south on South Mathilda Avenue.

Visual Character and Quality

There are no state-designated scenic highways in Sunnyvale and the project site is not visible from a designated state scenic highway. The project site contains two existing buildings: a two-story 13,543 square foot office building located on the eastern portion of the site that is square in shape with a flat roof and stucco clad exterior walls and a two-story 6,212 square foot A-frame commercial building with a mix of stucco and wood cladding. Surface parking is located between the buildings and to the north of the buildings, as well as to the east of the office building. The existing landscaping on-site is comprised of 23 trees, shrubs, and limited lawn areas and is located along the perimeter of the site and buildings, and in the parking lot areas. Of the 23 trees on-site, 15 are protected trees as defined by the Sunnyvale Zoning Code. Additional information regarding the trees on-site can be found in Section 4.4 Biological Resources.

The surrounding area in the immediate vicinity of the project site consists of one- to four-story residential and commercial properties. The properties to the west and north of the project site are both two-story banks. Union Bank is located to the west across South Mathilda Avenue and has landscaping consisting of small trees and shrubs bordering the property. Bank of America is the adjacent to the north of the project site and separated from the project by a short, two- to four-foot tall masonry wall. Landscaping is limited to a large tree in the parking lot and low-lying shrubs surrounding the building.

A four-story residential development is located to the northwest of the site at 481 South Mathilda Avenue. To the south of the project site, on the south side of West Olive Avenue, is two-story commercial building with surface parking underneath a cantilevered second-story and an older, two-story residential apartment building with small lawn areas, minimal landscaping, and street trees along its frontage. Single-story residences are located to the east of the project site with a 4.5-foot tall concrete and wood fence located between the site and adjacent residence.

Views of the project site and the surrounding area are shown in Photos 1-6.

Location within a Transit Priority Area

This project site is located within a half mile of the major transit stops along El Camino Real (see Figure 4.1-1). El Camino Real is served by Frequent Route 22 and Rapid Route 522, both of which have headways of 15 minutes. Therefore, the project site is within a transit priority area as defined in SB 743.



Photo 1: View of the eastern property boundary from the project site looking northeast.



Photo 2: View of the northern portion of the the project site looking northwest.

PHOTOS 1 & 2



Photo 3: View from the project site looking northwest across South Mathilda Avenue.



Photo 4: View from the project site looking southeast across West Olive Avenue.

PHOTOS 3 & 4

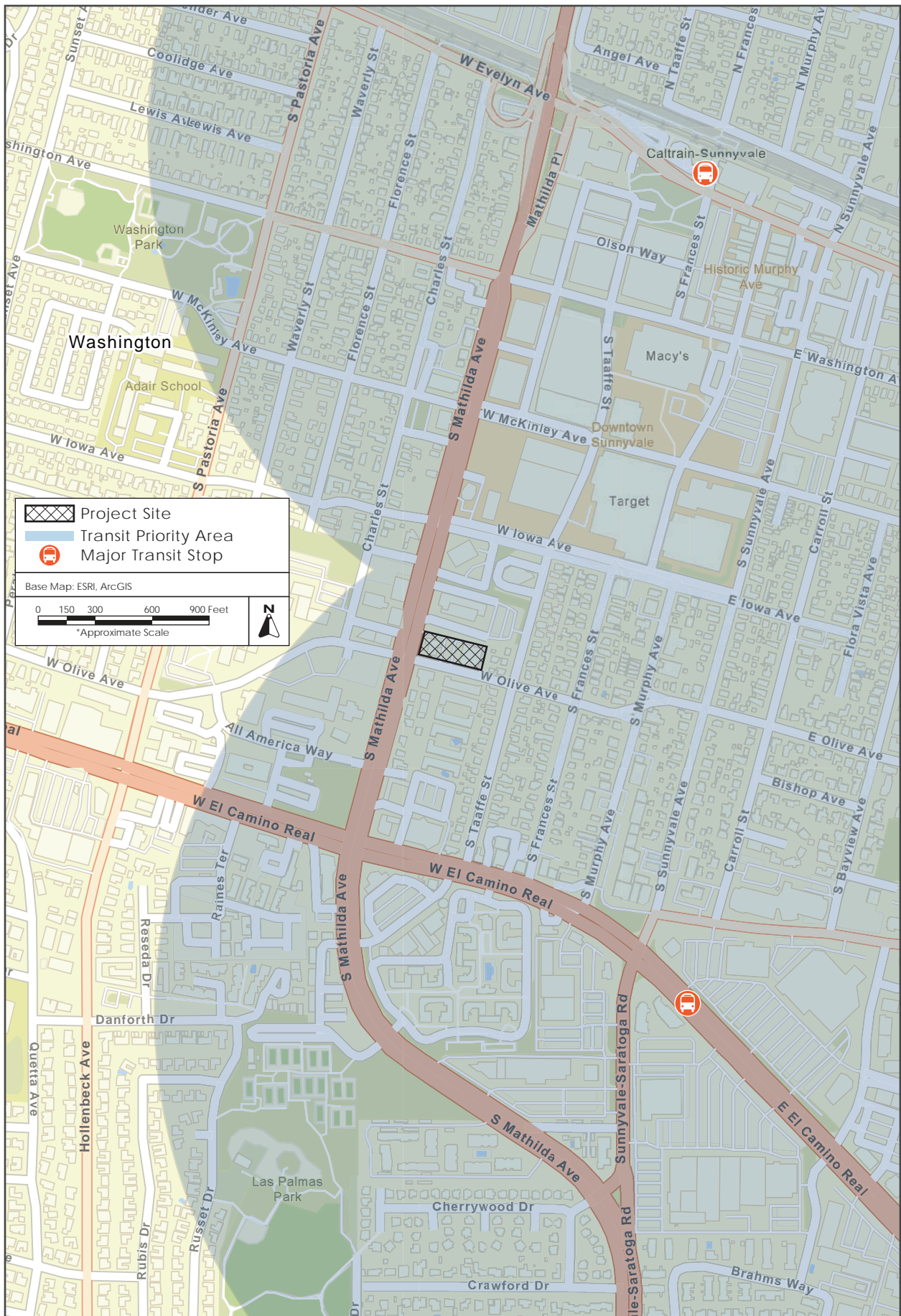


Photo 5: View of the existing building on-site at 480 South Mathilda Avenue from the west side of South Mathilda Avenue looking east.



Photo 6: View of the existing building on-site at 355 West Olive Avenue from the south side of West Olive Avenue looking northwest.

PHOTOS 5 & 6



TRANSIT PRIORITY AREAS

FIGURE 4.1-1

4.1.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
1) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) 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"/>
3) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? ⁶ If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact AES-1: The project would not result in significant aesthetic impacts. **(Less than Significant Impact)**

Construction of the proposed project would result in changes to the built environment; however, the project qualifies as an employment center project by proposing office development with a Floor Area Ratio (FAR) of 2.34 (greater than 0.75) and is located on an infill site within a transit priority area. Pursuant to SB 743, (Public Resources Code section 21099[d][1]) “aesthetic and parking impacts of a residential, mixed-use residential, or employment center on an infill site within a transit priority area shall not be considered significant impacts on the environment;” therefore, the aesthetics impacts of the project are not considered significant.

In addition, the project is required to obtain City design approval before construction and is required to comply with the design standards outlined in the City Zoning Code and DSP. The review and approval of the building design would further reduce the project’s less than significant aesthetic impacts. **(Less than Significant Impact)**

⁶ Public views are those that are experienced from publicly accessible vantage points.

4.2 AGRICULTURE AND FORESTRY RESOURCES

4.2.1 Environmental Setting

4.2.1.1 *Regulatory Framework*

State

Farmland Mapping and Monitoring Program

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) assesses the location, quality, and quantity of agricultural land and conversion of these lands over time. Agricultural land is rated according to soil quality and irrigation status. The best quality land is identified as Prime Farmland. In CEQA analyses, the FMMP classifications and published County maps are used, in part, to identify whether agricultural resources that could be affected are present on-site or in the project area.⁷

California Land Conservation Act

The California Land Conservation Act (Williamson Act) enables local governments to enter into contracts with private landowners to restrict parcels of land to agricultural or related open space uses. In return, landowners receive lower property tax assessments. In CEQA analyses, identification of properties that are under a Williamson Act contract is used to also identify sites that may contain agricultural resources or are zoned for agricultural uses.⁸

Fire and Resource Assessment Program

The California Department of Forestry and Fire Protection (CAL FIRE) identifies forest land, timberland, and lands zoned for timberland production that can (or do) support forestry resources.⁹ Programs such as CAL FIRE's Fire and Resource Assessment Program and are used to identify whether forest land, timberland, or timberland production areas that could be affected are located on or adjacent to a project site.¹⁰

4.2.1.2 *Existing Conditions*

The proposed project site has a General Plan land use designation of Transit Mixed-Use and is zoned Downtown Specific Plan. The project site is currently developed with commercial and office uses and surrounded by residential and commercial uses. The Santa Clara County Important Farmlands 2016 Map designates the project site as "Urban and Built-Up Land", which is defined as land with at least six structures per 10 acres. Common examples of "Urban and Built-Up Land" are residential,

⁷ California Department of Conservation. "Farmland Mapping and Monitoring Program." Accessed October 27, 2021. <http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx>.

⁸ California Department of Conservation. "Williamson Act." <http://www.conservation.ca.gov/dlrp/lca>.

⁹ Forest Land is land that can support 10 percent native tree cover and allows for management of forest resources (California Public Resources Code Section 12220(g)); Timberland is land not owned by the federal government or designated as experimental forest land that is available for, and capable of, growing trees to produce lumber and other products, including Christmas trees (California Public Resources Code Section 4526); and Timberland Production is land used for growing and harvesting timber and compatible uses (Government Code Section 51104(g)).

¹⁰ Cal Fire. "FRAP". <http://frap.fire.ca.gov/>

institutional, industrial, commercial, landfill, golf course, airports, and other utility uses.¹¹ No lands adjacent to the project site are used for agricultural production, forest land, or timberland. Surrounding properties are designated, zoned, and used for urban uses. There are no Williamson Act parcels on or in the vicinity of the project site.¹²

4.2.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) 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"/>
2) 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"/>
3) 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"/>
4) 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"/>
5) 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"/>

Impact AG-1: The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. **(No Impact)**

The proposed project would redevelop a site that is designated as “Urban and Built-Up Land” on maps prepared by the California Resources Agency for Santa Clara County. Therefore, no Prime

¹¹ California Natural Resources Agency. “Santa Clara County Important Farmland 2016.” Accessed October 27, 2021. <https://www.conservation.ca.gov/dlrp/fmmp/Pages/SantaClara.aspx>

¹² County of Santa Clara. “Williamson Act and Open Space Easement”. September 17, 2018. Accessed October 27, 2021. <https://www.sccgov.org/sites/dpd/programs/wa/pages/wa.aspx>

Farmland, Unique Farmland, or Farmland of Statewide Importance would be converted to non-agricultural use as a result of project implementation. **(No Impact)**

Impact AG-2: The project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. **(No Impact)**

As discussed in Section 4.2.1.2, the project site has a General Plan land use designation of Transit Mixed-Use and is zoned Downtown Specific Plan. The project site is not under a Williamson Act contract, nor are any of the adjacent parcels. Therefore, the project would not conflict with existing zoning for an agricultural use or a Williamson Act contract. **(No Impact)**

Impact AG-3: The project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **(No Impact)**

As discussed in Section 4.2.1.2, the project site is not zoned, or adjacent to land zoned, for forest land, timberland, or Timberland Production. It is in an urban area surrounded by urban development. Therefore, the project would not conflict with existing zoning or require rezoning of forest land or timberland uses. **(No Impact)**

Impact AG-4: The project would not result in a loss of forest land or conversion of forest land to non-forest use. **(No Impact)**

The project site is in an urbanized area of the City and is currently developed with office and commercial uses. Therefore, no forest land would be lost as a result of the project. **(No Impact)**

Impact AG-5: The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use. **(No Impact)**

The proposed development of this office building would occur in an urbanized area of the City. No agricultural or forestry uses are on-site or in the vicinity of the project site. Therefore, the project would not result in impacts to agricultural lands or forest lands. **(No Impact)**

4.3 AIR QUALITY

The following discussion is based, in part, on an Air Quality & Greenhouse Gas Assessment prepared by Illingworth & Rodkin, Inc. in January 2022. This report is attached as Appendix A to this Initial Study.

4.3.1 Environmental Setting

4.3.1.1 *Background Information*

Criteria Pollutants

Air quality in the Bay Area is assessed related to six common air pollutants (referred to as criteria pollutants), including ground-level ozone (O₃), nitrogen oxides (NO_x), particulate matter (PM), carbon monoxide (CO), sulfur oxides (SO_x), and lead.¹³ Criteria pollutants are regulated because they result in health effects. An overview of the sources of criteria pollutants and their associated health are summarized in Table 4.3-1. The most commonly regulated criteria pollutants in the Bay Area are discussed further below.

Table 4.3-1: Health Effects of Air Pollutants		
Pollutants	Sources	Primary Effects
Ozone (O ₃)	Atmospheric reaction of organic gases with nitrogen oxides in sunlight	<ul style="list-style-type: none">• Aggravation of respiratory and cardiovascular diseases• Irritation of eyes• Cardiopulmonary function impairment
Nitrogen Dioxide (NO ₂)	Motor vehicle exhaust, high temperature stationary combustion, atmospheric reactions	<ul style="list-style-type: none">• Aggravation of respiratory illness• Reduced visibility
Fine Particulate Matter (PM _{2.5}) and Coarse Particulate Matter (PM ₁₀)	Stationary combustion of solid fuels, construction activities, industrial processes, atmospheric chemical reactions	<ul style="list-style-type: none">• Reduced lung function, especially in children• Aggravation of respiratory and cardiorespiratory diseases• Increased cough and chest discomfort• Reduced visibility
Toxic Air Contaminants (TACs)	Cars and trucks, especially diesel-fueled; industrial sources, such as chrome platers; dry cleaners and service stations; building materials and products	<ul style="list-style-type: none">• Cancer• Chronic eye, lung, or skin irritation• Neurological and reproductive disorders

High O₃ levels are caused by the cumulative emissions of reactive organic gases (ROG) and NO_x. These precursor pollutants react under certain meteorological conditions to form high O₃ levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to

¹³ The area has attained both state and federal ambient air quality standards for CO. The project does not include substantial new emissions of sulfur dioxide or lead. These criteria pollutants are not discussed further.

reduce O₃ levels. The highest O₃ levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources.

PM is a problematic air pollutant of the Bay Area. PM is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM₁₀) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide emissions and localized emissions.

Toxic Air Contaminants

TACs are a broad class of compounds known to have health effects. They include but are not limited to criteria pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, diesel 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).

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs. Diesel exhaust is a complex mixture of gases, vapors, and fine particles. Medium- and heavy-duty diesel trucks represent the bulk of DPM emissions from California highways. The majority of DPM is small enough to be inhaled into the lungs. Most inhaled particles are subsequently exhaled, but some deposit on the lung surface or are deposited in the deepest regions of the lungs (most susceptible to injury).¹⁴ Chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the California Air Resources Board (CARB).

Sensitive Receptors

Some groups of people are more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and schools.

4.3.1.2 *Regulatory Framework*

Federal and State

Clean Air Act

At the federal level, the United States Environmental Protection Agency (EPA) is responsible for overseeing implementation of the Clean Air Act and its subsequent amendments. The federal Clean Air Act requires the EPA to set national ambient air quality standards for the six common criteria pollutants (discussed previously), including PM, O₃, CO, SO_x, NO_x, and lead.

¹⁴ California Air Resources Board. "Overview: Diesel Exhaust and Health." Accessed December 17, 2021. <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>.

CARB is the state agency that regulates mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act. The EPA and the CARB have adopted ambient air quality standards establishing permissible levels of these pollutants to protect public health and the climate. Violations of ambient air quality standards are based on air pollutant monitoring data and are determined for each air pollutant. Attainment status for a pollutant means that a given air district meets the standard set by the EPA and/or CARB.

Risk Reduction Plan

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, the plan involves application of emission control strategies to existing diesel vehicles and equipment to reduce DPM (in addition to other pollutants). Implementation of this plan, in conjunction with stringent federal and CARB-adopted emission limits for diesel fueled vehicles and equipment (including off-road equipment), will significantly reduce emissions of DPM and NO_x.

California Green Building Standards Code

Section 5.504.4.5 of the California Green Building Standards Code (CALGreen) requires hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building to meet the requirements for formaldehyde as specified in CARB's Air Toxics Control Measure (ATCM) for composite wood (17 CCR 93120 et seq.), and materials that are not exempt by ATCM must meet specified emission limits required in CALGreen Table 5.504.4.5 – Formaldehyde Limits.

Regional and Local

2017 Clean Air Plan

The Bay Area Air Quality Management District (BAAQMD) is the agency primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. Regional air quality management districts, such as BAAQMD, must prepare air quality plans specifying how state and federal air quality standards will be met. BAAQMD's most recently adopted plan is the Bay Area 2017 Clean Air Plan (2017 CAP). The 2017 CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect public health, the 2017 CAP describes how BAAQMD will continue its progress toward attaining state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 CAP includes control measures designed to reduce emissions of methane and other super-greenhouse gases (GHGs) that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.¹⁵

¹⁵ BAAQMD. *Final 2017 Clean Air Plan*. April 19, 2017. <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>.

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. Jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing air quality impacts developed by BAAQMD within their CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

City of Sunnyvale General Plan

The City's General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to air quality and are applicable to the proposed project.

Policy	Description
Environmental Management Element	
EM-11.2	Utilize land use strategies to reduce air quality impact.
EM-11.3	Require all new development to utilize site planning to protect citizens from unnecessary exposure to air pollutants.
EM-11.4	Apply the Indirect Source Rule to new development with significant air quality impacts. Indirect Source review would cover commercial and residential projects as well as other land uses that produce or attract motor vehicle traffic.
EM-11.6	Contribute to a reduction in regional vehicle miles travelled.
EM-11.8	Assist employers in meeting requirements of Transportation Demand Management (TDM) plans for existing and future large employers and participate in the development of TDM plans for reemployment centers in Sunnyvale.
Land Use Element	
LT-2.1	Enhance the public's health and welfare by promoting the city's environmental and economic health through sustainable practices for the design, construction, maintenance, operation, and deconstruction of buildings, including measures in the Climate Action Plan.

In addition, LUTE EIR Mitigation Measure MM 3.5.6 requires site planning and building designs to reduce TACs and PM_{2.5} exposure where new receptors are located within 1,000 feet of emission sources:¹⁶

- Future development that includes sensitive receptors (such as residences, schools, hospitals, daycare centers, or retirement homes) located within 1,000 feet of Caltrain, Central Expressway, El Camino Real, Lawrence Expressway, Mathilda Avenue, Sunnyvale-Saratoga Road, US 101, State Route 237, State Route 85, and/or stationary sources shall require site-

¹⁶ City of Sunnyvale. 2017 *Land Use and Transportation Element Draft Environmental Impact Report*. August 2016. Page 3.6-42. SCH# 2012032003.

specific analysis to determine the level of health risk. This analysis shall be conducted following procedures outlined by the BAAQMD. If the site-specific analysis reveals significant exposures from all sources (i.e., health risk in terms of excess cancer risk greater than 100 in one million, acute or chronic hazards with a hazard Index greater than 10, or annual PM_{2.5} exposures greater than 0.8 µg/m³) measures shall be employed to reduce the risk to below the threshold (e.g., electrostatic filtering systems or equivalent systems and location of vents away from TAC sources). If this is not possible, the sensitive receptors shall be relocated.

- Future nonresidential developments identified as a permitted stationary TAC source or projected to generate more than 100 heavy-duty truck trips daily will be evaluated through the CEQA process or BAAQMD permit process to ensure they do not cause a significant health risk in terms of excess cancer risk greater than 10 in one million, acute or chronic hazards with a hazard Index greater than 1.0, or annual PM_{2.5} exposures greater than 0.3 µg/m³ through source control measures.
- For significant cancer risk exposure, as defined by the BAAQMD, indoor air filtration systems shall be installed to effectively reduce particulate levels to avoid adverse public health impacts. Projects shall submit performance specifications and design details to demonstrate that lifetime residential exposures would not result in adverse public health impacts (less than 10 in one million chances).

City of Sunnyvale Climate Action Playbook

The City of Sunnyvale Climate Action Playbook (August 2019) sets a vision for the City to reduce carbon emissions by 2050. The playbook includes six strategies with “plays” that identify areas for action to reduce GHG emissions (including air pollutant emissions). The following plays from the plan are related to air quality and are applicable to the proposed project.

Play	Description
Strategy 2: Decarbonizing Buildings	
2.3	Achieve all-electric new construction
Strategy 3: Decarbonizing Transportation & Sustainable Land Use	
3.1	Increase opportunities for and encourage development of mixed-use sites to reduce vehicle miles per person
3.2	Increase Transportation Options and Support Shared Mobility

4.3.1.3 Existing Conditions

The Bay Area is considered a non-attainment area for ground-level O₃ and PM_{2.5} under both the federal Clean Air Act and state Clean Air Act. The area is also considered nonattainment for PM₁₀ under the state act, but not the federal act. The area has attained both state and federal ambient air quality standards for CO.

The project site is developed with existing office and commercial uses with surface parking. There are sensitive receptors including residential uses to the east and south of project site, in addition to a

daycare facility approximately 975 feet southeast of the project site, and a private pre-school approximately 1,000 feet northwest of the project site.

4.3.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

As discussed in CEQA Guidelines Section 15064(b), the determination of whether a project may have a significant effect on the environment calls for judgment on the part of the lead agency and must be based to the extent possible on scientific and factual data. The City of Sunnyvale has considered the air quality thresholds updated by BAAQMD in May 2017 and regards these thresholds to be based on the best information available for the San Francisco Bay Area Air Basin and conservative in terms of the assessment of health effects associated with TACs and PM_{2.5}. The BAAQMD CEQA Air Quality thresholds used in this analysis are identified in Table 4.3-2 below.

Table 4.3-2: BAAQMD Air Quality Significance Thresholds			
Pollutant	Construction Thresholds	Operation Thresholds	
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG, NO _x	54	54	10
PM ₁₀	82 (exhaust)	82	15
PM _{2.5}	54 (exhaust)	54	10
CO	Not Applicable	9.0 ppm (eight-hour) or 20.0 ppm (one-hour)	
Fugitive Dust	Dust Control Measures/Best Management Practices	Not Applicable	
Health Risks and Hazards for New Sources (within a 1,000-foot Zone of Influence)			
Health Hazard	Single Source	Combined Cumulative Sources	
Excess Cancer Risk	10 per one million	100 per one million	
Hazard Index	1.0	10.0	
Incremental Annual PM _{2.5}	0.3 µg/m ³	0.8 µg/m ³ (average)	

Impact AQ-1: The project would not conflict with or obstruct implementation of the applicable air quality plan. **(Less than Significant Impact with Mitigation Incorporated)**

The BAAQMD CEQA Air Quality Guidelines set forth criteria for determining consistency with the 2017 CAP. In general, a project is considered consistent if a) it supports the primary goals of the 2017 CAP; b) it includes relevant control measures; and c) it does not interfere with implementation of the 2017 CAP control measures.

Support of Primary 2017 CAP Goals

As discussed in Section 4.3.1.1 Regulatory Framework, the goals of the 2017 CAP include 1) protecting public health by progressing towards attaining air quality standards and eliminating health risk and 2) protecting the climate. If a project exceeds the BAAQMD criteria air pollutants thresholds of significance, its emissions are considered to result in significant adverse air quality impacts to the region's existing air quality conditions. An analysis of the project's construction and operational air pollutant emissions is provided below.

Construction Period Emissions

Implementation of the proposed project would result in short-term emissions from construction activities associated with development, including demolition, site grading, asphalt paving, building construction, and architectural coating. Emissions commonly associated with construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM₁₀ and PM_{2.5} emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby.

Demolition and construction of buildings can also generate PM₁₀ and PM_{2.5} emissions. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_x emissions, in addition to PM₁₀ and PM_{2.5} emissions. Diesel exhaust from construction equipment poses both a health and nuisance impact to nearby receptors.

Construction period emissions were modeled based on equipment list and schedule information provided by the applicant. Refer to Appendix A for details about the modeling, data inputs, and assumptions. The average daily construction criteria air pollutant emissions of the proposed project is summarized in Table 4.3-3 below. As shown in Table 4.3-3, the construction period emissions would be below the BAAQMD significance thresholds.

Table 4.3-3: Average Daily Construction Criteria Pollutant Emissions				
Emission Source	Emissions (pounds/day)*			
	NO_x	ROG	PM₁₀	PM_{2.5}
Project Construction Year 2022	2.18	24.00	1.15	0.93
Project Construction Year 2023	7.17	10.49	0.50	0.33
BAAQMD Significance Threshold	54	54	82	54
<i>Significant?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

BAAQMD considers construction emission impacts that are below the thresholds of significance (such as those of the project) less than significant if Best Management Practices (BMPs) are implemented.

Mitigation Measure:

MM AQ-1.1: The project shall implement the below BAAQMD-recommended BMPs to control dust, particulate matter, and diesel emissions during construction. This list of measures shall be incorporated into the approved building plan set.

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. 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.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes¹⁷. Clear signage shall be provided for construction workers at all access points.
7. 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.
8. 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. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

With implementation of mitigation measure MM AQ-1.1, the project construction period emissions would be reduced to a less than significant level by controlling dust, limiting equipment idling, and properly maintaining equipment. **(Less than Significant Impact with Mitigation Incorporated)**

Operational Period Emissions

Operational emissions from the project would be generated primarily from vehicles driven by future employees. Vehicle trips from the project were calculated in the Transportation Analysis (TA) completed for the project (refer to Appendix G). Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are also typical emissions from the proposed land use. The operational emissions of the project were modeled and the results are summarized in Table 4.3-4. Refer to Appendix A for details about the modeling, data inputs, and assumptions. As shown in Table 4.3-4, the project's operation emissions would be below the BAAQMD annual tons per year and average pounds per day significance thresholds. The project, therefore, would not result in significant operational criteria air pollutant emissions.

¹⁷ The BAAQMD BMP measure limits construction equipment idling time to five minutes, consistent with the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations. However, as further discussed under Impact AQ-3, mitigation measure MM AQ-3.1 limits the project's construction equipment idling time to two limits in order to reduce its construction health risk impacts to the project MEI.

Table 4.3-4: Annual Criteria Pollutant Emissions				
Emission Source	Annual Emissions			
	NO _x	ROG	PM ₁₀	PM _{2.5}
Tons/Year				
A. 2024 Project Operational Emissions	1.17	0.45	0.77	0.20
B. 2022 Existing Use Operational Emissions	0.31	0.17	0.22	0.06
Net Emissions (A-B)	0.86	0.29	0.55	0.14
BAAQMD Significance Threshold	10	10	15	10
<i>Significant?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Pounds/Day				
2024 Project Operational Net Emissions	4.72	1.56	3.03	0.77
BAAQMD Significance Threshold	54	54	82	54
<i>Significant?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
* Average daily emissions calculated based on annual emissions and 365 days per year for operations.				

Consistency with 2017 CAP Control Measures

Because the project would not exceed the BAAQMD impact thresholds for criteria air pollutant emissions, the project is not required to incorporate project-specific control measures listed in the 2017 CAP. Further, implementation of the project would not inhibit BAAQMD or partner agencies from continuing progress toward attaining state and federal air quality standards and eliminating health-risk disparities from exposure to air pollution among Bay Area communities, as described within the 2017 CAP.

Based on the above discussion, the project would not conflict with the 2017 CAP.

Impact AQ-2: The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. **(Less than Significant Impact with Mitigation Incorporated)**

As discussed previously in above, the Bay Area is considered a non-attainment area for ground-level O₃ and PM_{2.5} under both the federal and state Clean Air Act. The area is also considered a nonattainment area for PM₁₀ under the state act, but not the federal act. The Bay Area has attained both state and federal ambient air quality standards for CO. As part of an effort to attain and maintain ambient air quality standards for O₃ and PM₁₀, BAAQMD has established thresholds of significance for these air pollutants and their precursors, as listed in Table 4.3-1. These thresholds are for O₃ precursor pollutants (ROG and NO_x), PM₁₀, and PM_{2.5}, and apply to both construction period and operational period impacts.

As discussed under Impact AQ-1, the construction period and operational period criteria air pollutant emissions would not exceed the BAAQMD thresholds of significance, and the project would implement BAAQMD-recommended construction BMPs to controlling dust, limiting equipment idling, and properly maintaining equipment. **(Less than Significant Impact with Mitigation Incorporated)**

Impact AQ-3: The project would not expose sensitive receptors to substantial pollutant concentrations. **(Less than Significant Impact with Mitigation Incorporated)**

Development of the proposed project can increase the health risk of existing sensitive receptors during construction and operation. Temporary project construction activity which generates dust and equipment exhaust would affect nearby sensitive receptors. Operation of the project would result in an increase in traffic and include the use of diesel-powered emergency generators, which would increase air pollutant and TAC emissions in the area. Community risk impacts were addressed by predicting increased cancer risk, the increase in annual $PM_{2.5}$ concentrations and computing the Hazard Index (HI) for non-cancer health risks. To evaluate the increased cancer risks from the project, a 30-year exposure period was used, per BAAQMD guidance, with the sensitive receptors being exposed to both project construction and operation emissions during this timeframe. Unlike the increased maximum cancer risk, the annual $PM_{2.5}$ concentration and HI values are not additive but based on the annual maximum values for the entirety of the project.

The project's community risk impacts to existing sensitive receptors for construction activities and operational activities, and cumulative community risk impacts combined with other existing sources of TACs in the project area are discussed below.

Community Risk

Construction Period Emissions

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a TAC. Construction exhaust emissions may pose health risks for sensitive receptors near the project. The primary community risk impact issue associated with construction emissions are cancer risk and exposure to $PM_{2.5}$.

A community risk assessment for the project was completed to evaluate the health effects to nearby sensitive receptors from construction emissions of DPM and $PM_{2.5}$. Refer to Appendix A for details about community health risk modeling, data inputs, and assumptions.

Table 4.3-5 summarizes the maximum excess cancer risk, annual $PM_{2.5}$ concentration, and non-cancer HI based on the maximum DPM concentration affecting the maximally exposed individual (MEI), which is the sensitive receptor affected the most by project construction emissions. The MEI for cancer risk during construction period is located on the second floor of the multi-family residential development across from the project site on south side of West Olive Avenue. The MEI for annual $PM_{2.5}$ concentration during the project's construction period is located on the first floor of the same multi-family residential building. The different MEI locations occur because the DPM exhaust emissions and fugitive $PM_{2.5}$ emissions were modeled using different sources (point vs. area) and had

different emissions release heights. As shown in Table 4.3-5, the construction risk impacts from the proposed project exceeds the BAAQMD single-source thresholds for incremental cancer risk and PM_{2.5} concentration, while the single-source HI threshold is not exceeded.

Table 4.3-5: Project Health Risk Impacts to the Off-Site MEI			
Emission Source	Cancer Risk (per million)*	Annual PM_{2.5} (mg/m³)*	Hazard Index
Project Construction (0-2 years)			
Unmitigated	34.4	1.7	<0.1
Mitigated***	8.3	-	
Project Operation – Generator (3-30 years)	0.8	<0.1	<0.1
Total Project (Construction + Operation) (0-30 years)			
Unmitigated	35.2	1.7	<0.1
Mitigated***	9.1	0.3**	
BAAQMD Single-Source Threshold	10.0	0.3	1.0
<i>Exceed Threshold? Unmitigated</i>	Yes	Yes	<i>No</i>
<i>Mitigated***</i>	<i>No</i>	<i>No</i>	<i>No</i>
<p>* Cancer risk and PM_{2.5} concentration MEIs are located at different receptors on different levels.</p> <p>** Total PM_{2.5} significance is considered greater than 0.3 mg/m³. The project's total PM_{2.5} is at the BAAQMD single-source threshold, but does not exceed 0.3 mg/m³.</p> <p>*** Assumes implementation of mitigation measures MM AQ-1.1 and MM AQ-3.1.</p>			

Mitigation Measures:

MM AQ-3.1: The project shall implement the below measures to control diesel particulate matter emissions during construction. This list of measures shall be incorporated into the approved building plan set.

1. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards for NO_x and PM, if feasible, otherwise,
2. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve a 85 percent reduction in particulate matter exhaust; alternatively (or in combination)
3. Use of alternatively-fueled equipment with lower NO_x emissions that meet the NO_x and PM reduction requirements above.
4. Diesel engines, whether for off-road equipment or on-road vehicles, shall not be left idling for more than two minutes, except as provided in exceptions to

the applicable state regulations (e.g., traffic conditions, safe operating conditions). The construction sites shall have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit.

5. All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 33,000 pounds or greater (EMFAC Category HDDT) used at the project site (such as haul trucks, water trucks, dump trucks, and concrete trucks) shall be model year 2010 or newer.
6. Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment, such as generators.
7. Enforce idling limit of two minutes unless subject to State law exemptions (e.g., safety issues).

Modeling was completed to determine the effectiveness of mitigation measures MM AQ-1.1 (implementation of BAAQMD BMPs) and MM AQ-3.1 (restricting the project wide-fleet emissions) at reducing health risk impacts to project MEI. The modeling results show that with the implementation of mitigation measures MM AQ-1.1 and MM AQ-3.1, the project's significant cancer risk and PM_{2.5} construction impacts would be reduced to a less than significant level (see Table 4.3-5). As discussed under Section 4.3.1.3, there is a daycare facility approximately 975 feet southeast of the project site, and a preschool approximately 1,000 feet northwest of the project site. While these facilities are not identified as the project MEI, additional modeling was completed for the closest facility (i.e., the daycare) to calculate the cancer risks, PM_{2.5} concentrations, and HI associated with construction of the project. Results show that the unmitigated cancer risk, PM_{2.5}, and HI are all lower than that of the project MEI and below the thresholds of significance. Refer to Appendix A for additional details about the modeling. **(Less than Significant Impact with Mitigation Incorporated)**

Operation Period Emissions

Operation of the project would have long-term emissions from stationary sources (i.e., generators) and mobile sources (i.e., traffic). The primary operational emissions would be from the infrequent operation of an emergency generator. The project includes a 175-kilowatt, 235 horsepower emergency generator.

Community risk impacts from project operation were assessed by modeling the increased lifetime cancer risk and annual PM_{2.5} concentrations caused by the use of diesel engine that powers the proposed emergency generator.¹⁸ Since project-generated traffic would be made up of mostly gasoline-powered vehicles and emissions would spread out over a large area, it would not result in significant localized cancer risk and PM_{2.5} concentrations impacts.

Table 4.3-5 summarizes the maximum excess cancer risk, annual PM_{2.5} concentration, and non-cancer HI based on the maximum DPM concentration affecting the MEI. The MEIs identified for construction are also the same MEIs during operation. Refer to Appendix A for details about the modeling, data inputs, assumptions, and MEIs. As summarized in Table 4.3-5, the project's

¹⁸ It is assumed that the proposed generator would be operated for testing and maintenance purposes, with a maximum of 50 hours per year of non-emergency operation under normal conditions per BAAQMD requirements.

operation-related increased cancer risk, annual PM_{2.5} concentration, and HI at the MEIs do not exceed the BAAQMD single-source thresholds. **(Less than Significant Impact)**

Cumulative Emissions

By its very nature, air pollution is largely a cumulative impact. The geographic area for cumulative impacts to sensitive receptors is within 1,000 feet of the project site. This distance is recommended by BAAQMD because adverse effects are the greatest within this distance. At further distances, health risk diminishes. A review of the project area indicates existing sources of TACs within or approximately 1,000 feet of the project site include: two local roadways (i.e., El Camino Real and Mathilda Avenue) and five stationary sources (i.e., four generators and a gas dispensing facility).

Community risk impacts from the cumulative sources to the project MEIs were modeled and the results are summarized in Table 4.3-5. Refer to Appendix A for details about the modeling, data inputs, and assumptions. As shown in Table 4.3-6, the project would create a significant cumulative annual PM_{2.5} impact. The project would not exceed the BAAQMD cumulative thresholds for cancer risk and HI.

Table 4.3-6: Cumulative Health Risk Impacts to the Off-Site MEI			
Emission Source	Cancer Risk (per million)*	Annual PM_{2.5} (mg/m³)*	Hazard Index
Total Project (Construction + Operation)			
Unmitigated	35.2	1.7	<0.1
Mitigated*	9.1	0.3	
El Camino Real, Average Daily Trips (ADT) 38,530	0.14	0.01	<0.01
Mathilda Avenue, ADT 60,770	3.17	0.36	<0.01
City of Sunnyvale City Hall (Facility ID #154886 Generator)	2.1	<0.01	<0.01
City of Sunnyvale Department of Public Safety (Facility ID #15529 Generator)	34.8	0.04	0.05
Verizon Wireless (Facility ID #20030 Generator)	<0.01	<0.01	<0.01
Christensen Holdings LP (Facility ID #23097 Generator)	<0.01	<0.01	<0.01
City of Sunnyvale (Facility ID 106769 Gas Dispensing Facility)	0.10	---	<0.01
Combined Sources			
Unmitigated	<75.53	<2.14	<0.21
Mitigated*	<49.43	<0.74	<0.21
BAAQMD Cumulative Source Threshold	100	0.8	10.0

Table 4.3-6: Cumulative Health Risk Impacts to the Off-Site MEI			
Emission Source	Cancer Risk (per million)*	Annual PM _{2.5} (mg/m ³)*	Hazard Index
<i>Exceed Threshold?</i>			
<i>Unmitigated</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
<i>Mitigated*</i>	<i>No</i>	<i>No</i>	<i>No</i>
*Assumes implementation of mitigation measures MM AQ-1.1 and MM AQ-3.1.			

As discussed above under project construction impacts, the project would not result in significant health risks to nearby sensitive receptors with the implementation of mitigation measures MM AQ-1.1 and MM AQ-3.1. As shown in Table 4.3-6, with implementation of mitigation measures MM AQ-1.1 and MM AQ-3.1, the cumulatively significant annual PM_{2.5} impact of the project would also be reduced to a less than significant cumulative level. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Health Effects from Criteria Air Pollutants

In a 2018 decision (*Sierra Club v. County of Fresno*), the state Supreme Court determined CEQA requires that when a project's criteria air pollutant emissions would exceed applicable thresholds and contribute a cumulatively considerable contribution to a significant cumulative regional criteria pollutant impact, the potential for the project's emissions to affect human health in the air basin must be disclosed. State and federal ambient air quality standards are health-based standards, and exceedances of those standards result in continued unhealthy levels of air pollutants.

As stated in the 2017 BAAQMD CEQA Air Quality Guidelines, air pollution by its nature is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project has a less than significant impact for criteria pollutants, it is assumed to have no adverse health effect. As discussed under Impact AQ-2, the project's construction and operation emissions would be below the BAAQMD criteria air pollutant emissions thresholds with the implementation of mitigation measure MM AQ-1.1. For these reasons, the project's criteria air pollutant emissions would not result in a significant health impact. **(Less than Significant Impact)**

Impact AQ-4: The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. **(Less than Significant Impact)**

According to BAAQMD's CEQA Guidelines, an odor source with five or more confirmed complaints per year averaged over three years is considered to have a significant impact. Future construction activities in the project area could result in odorous emissions from diesel exhaust associated with construction equipment. Because of the temporary nature of these emissions and

highly diffusive properties of diesel exhaust, odorous exposure of sensitive receptors to these emissions would be limited and the impact is considered less than significant.

BAAQMD has identified a variety of land uses and types of operations that would produce emissions that may lead to odors. Land uses identified include wastewater treatment plants, sanitary landfills, food processing facilities, coffee roasters, composting facilities, and confined animal facility/feed lot/dairy facility. The project proposes an office use, which does not fall under any of the land uses identified by BAAQMD to cause objectionable odors. Therefore, the impact would be less than significant. **(Less than Significant Impact)**

4.4 BIOLOGICAL RESOURCES

The discussion of trees in this section is based on an arborist report prepared by Trees, Bugs, Dirt in April 2021. This report is included as Appendix B to this Initial Study.

4.4.1 Environmental Setting

4.4.1.1 *Regulatory Framework*

Federal and State

Endangered Species Act

Individual plant and animal species listed as rare, threatened, or endangered under state and federal Endangered Species Acts are considered special-status species. Federal and state endangered species legislation has provided the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Permits may be required from both the USFWS and CDFW if activities associated with a proposed project would result in the take of a species listed as threatened or endangered. To “take” a listed species, as defined by the State of California, is “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” these species. Take is more broadly defined by the federal Endangered Species Act to include harm of a listed species.

In addition to species listed under state and federal Endangered Species Acts, Sections 15380(b) and (c) of the CEQA Guidelines provide that all potential rare or sensitive species, or habitats capable of supporting rare species, must be considered as part of the environmental review process. These may include plant species listed by the California Native Plant Society and CDFW-listed Species of Special Concern.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits killing, capture, possession, or trade of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. Hunting and poaching are also prohibited. The taking and killing of birds resulting from an activity is not prohibited by the MBTA when the underlying purpose of that activity is not to take birds.¹⁹ Nesting birds are considered special-status species and are protected by the USFWS. The CDFW also protects migratory and nesting birds under California Fish and Game Code Sections 3503, 3503.5, and 3800. The CDFW defines taking as causing abandonment and/or loss of reproductive efforts through disturbance.

Sensitive Habitat Regulations

Wetland and riparian habitats are considered sensitive habitats under CEQA. They are also afforded protection under applicable federal, state, and local regulations, and are generally subject to

¹⁹ United States Department of the Interior. “Memorandum M-37050. The Migratory Bird Treaty Act Does Not Prohibit Incidental Take.” Accessed November 4, 2021. <https://www.doi.gov/sites/doi.gov/files/uploads/m-37050.pdf>.

regulation by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), CDFW, and/or the USFWS under provisions of the federal Clean Water Act (e.g., Sections 303, 304, 404) and State of California Porter-Cologne Water Quality Control Act.

Fish and Game Code Section 1602

Streambeds and banks, as well as associated riparian habitat, are regulated by the CDFW per Section 1602 of the Fish and Game Code. Work within the bed or banks of a stream or the adjacent riparian habitat requires a Streambed Alteration Agreement from the CDFW.

Regional and Local

City of Sunnyvale General Plan

The City's General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to biological resources and are applicable to the proposed project.

Policy	Description
Land Use and Transportation Element	
LT-2.3	Accelerate the planting of large canopy trees to increase tree coverage in Sunnyvale in order to add to the scenic beauty and walkability of the community; provide environmental benefits such as air quality improvement, wildlife habitat, and reduction of heat islands; and enhance the health, safety, and welfare of residents.
LT-2.5	Recognize the value of protected trees and heritage landmark trees (as defined in City ordinances) to the legacy, character, and livability of the community by expanding the designation and protection of large signature and native trees on private property and in City parks.

Urban Forest Management Plan

The Urban Forest Management Plan (UFMP) was adopted by the City in 2014 to sustain, protect, and promote the urban forest. The UFMP contains goals and guidelines for tree maintenance and encouraging positive tree management.

Sunnyvale Municipal Code

- Chapter 13.16 (City Trees) provides guidance and regulations on City trees, including protected trees, removal or damage to trees, and permitting.²⁰ Permitting is required for

²⁰ Pursuant to SMC Chapter 13.16, a "City tree" is defined as any woody plant which is growing within the public right-of-way along a city street and has a trunk four inches or more in diameter at four and one-half feet above normal ground level.

planting trees in the public right of way, removal or maintenance to protected trees, and construction affecting protected trees.

- Chapter 19.94 (Tree Preservation) regulates the protection, installation, removal and long term management of significantly sized trees on private property within the City and City owned golf courses and parks; encourages the proper protection and maintenance of significantly sized trees which are located on such property; establishes a review and permit procedure to assure the correct planting, maintenance, protection and removal of significant trees on such property; and establishes penalties for violation of its provisions. The provisions of Chapter 19.94 identify and prescribe specific procedures and requirements for the filing, processing, and consideration of the removal and preservation of trees. A significant size tree (or protected tree) is defined as:
 - Any single trunk tree 38 inches or greater in circumference (the circumference of the tree is measured at 4.5 feet above the ground); or
 - Any multi-trunk tree which has at least one trunk 38 inches or greater in circumference or where the measurements of the multi-trunks added together equal at least 113 inches.

Bird Safe Design Guidelines

In order to address bird safety concerns, the City Council adopted the Bird Safe Building Design Guidelines in January 2014. The intent of these guidelines is to reduce the risk of bird collisions in new construction. These guidelines focus on building design issues based upon the location of the proposed building and provide a set of design requirements. These guidelines address design requirements for (1) sites within 300 feet of a body of water or that are adjacent to an open space or park area larger than one acre in size and (2) for other areas of the City that are considered to be lower risk for bird collisions. The design requirements include minimizing reflective surfaces and glass walls, reducing nighttime lighting, discouraging the placement of larger water features, and avoiding landscape designs that emphasize tall landscaping adjacent to reflective surfaces.

4.4.1.2 *Existing Conditions*

The project site is completely developed, within an urban area, and provides habitat and foraging opportunities for urban-adapted birds. Habitats primarily associated with Bay Area special-status species, such as a riparian, wetland, salt marsh, freshwater marsh, and serpentine grassland habitats, are not present on or adjacent to the site. The nearest waterway is the Sunnyvale East Channel, which is a man-made channel constructed to mitigate the risk associated with flooding in the area. It is located approximately 0.95-mile to the east of the project site. The primary biological resources on-site are trees. The project site contains 23 trees, including 15 protected trees as defined in the SMC. The arborist report evaluated the health of the trees on-site and found that they ranged from poor to good health, with a majority of them receiving a “fair” health rating. The predominant tree species on-site is the African yew pine, which comprises approximately 30 percent of the trees within the project site. The 15 protected trees on-site are primarily located along the northern and southern boundaries of the project site. The largest tree on-site is a southern magnolia located on the northwest corner of the project site, which has a trunk circumference of approximately 92 inches and is in poor health.

4.4.2

Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) 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"/>
2) 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"/>
3) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) 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 type="checkbox"/>	<input checked="" type="checkbox"/>
6) 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"/>

Impact BIO-1: The project would not 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. **(Less than Significant Impact with Mitigation Incorporated)**

The project site is completely developed and located in an urban area. Due to the developed nature of the site, its location in an urban area, and lack of sensitive habitats on-site, no special status species are not expected on the project site. However, nesting birds (which are protected under provisions of the MBTA and Fish and Game Code Sections) may be periodically present in trees and landscaping

on and adjacent to the project site. Future 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 CDFW and MBTA. Construction activities, such as tree removal and site grading, that disturb a nesting bird on a site or immediately adjacent to the construction zone would constitute a significant impact.

Mitigation Measures:

MM BIO-1.1: When possible, 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 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 proposed project, with the implementation of the above mitigation measure, would result in less than significant impacts to nesting birds by avoiding construction activities during the nesting season and conducting preconstruction surveys in order to avoid disturbing active nests that may be affected by project construction. **(Less than Significant Impact with Mitigation Incorporated)**

Impact BIO-2: The project would not 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. **(No Impact)**

The project site and adjacent sites are fully developed and do not contain sensitive habitats. There is no riparian habitat on or adjacent to the site. The nearest waterway would be Sunnyvale East Channel, a man-made flood control channel approximately 0.93-mile east of the project site.

Therefore, the project would not have an impact on state or federally protected riparian habitat or other sensitive natural community identified in local or regional plans and policies. **(No Impact)**

Impact BIO-3: The project would not have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. **(No Impact)**

There is no wetland on or adjacent to the site. The nearest wetland to the project site is a freshwater pond located at Sunnyvale Community Center Park, approximately one mile southeast of the project site.²¹ Therefore, the project would not have an impact on state or federally protected wetlands. **(No Impact)**

Impact BIO-4: The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. **(No Impact)**

The project site is in a developed urban area, and it does not contain any waterways, wetlands, or open space areas along the San Francisco Bay that could provide habitat or movement corridors for wildlife species (including fish, birds, and non-flying wildlife) in the region. For these reasons, the project would not impact the movement of fish and wildlife species, wildlife corridors, and wildlife nursery sites. **(No Impact)**

Impact BIO-5: The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **(No Impact)**

Sunnyvale Municipal Code Chapters 13.16 and 19.94

The proposed project would remove all 23 existing trees, including 15 protected trees, from the project site and replace them with 23 new trees around the perimeter of the site. The trees removed would be replaced at a 1:1 ratio. SMC Chapter 13.16 requires projects to obtain the necessary permits to plant, maintain, remove, and protect city trees during construction. Pursuant to SMC Chapter 19.94, the proposed project shall follow the procedures and requirements for removing protected trees on the project site. At the discretion of the Director of Community Development, replacement trees may be required as a condition of issuance of a protected tree removal permit, or as a condition of any discretionary permit for development or redevelopment (SMC Chapter 19.94.080). The project, therefore, would not conflict with the SMC Chapters 13.16 and 19.94. **(No Impact)**

²¹ United States Fish and Wildlife Service. *National Wetlands Inventory, Surface Waters and Wetlands*. Map. May 2021.

Bird Safe Design Guidelines

The City's Bird Safe Building Design Guidelines stipulate that efforts should be taken to reduce bird strikes in all locations of the City. The proposed project is required to comply with applicable Bird Safe Design Guidelines. The consistency of the six development projects with applicable Bird Safe Design guidelines are described in Table 4.4-1 below.

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 situated at the northeast corner of two roadways (South Mathilda Avenue and West Olive Avenue) in downtown Sunnyvale. The site is not located near open areas that would attract large numbers of birds. The proposed building facades would include segments of clear glass intermixed with fritted glass, wood cladding, painted aluminum and steel, and cementitious panel. Therefore, the project would not place large expanse of glass near tall landscaping (i.e., trees). The proposed project is consistent with this guideline.
Avoid the funneling of open space towards a building face	The project site is not located near open areas; therefore, the proposed project would not funnel open space that is attractive to birds towards the project's building facades. In addition, the proposed landscaping space on-site would not be designed to funnel birds towards glass windows because a majority of the landscaping would line the parcel boundaries parallel to the windows. The proposed project is consistent with this guideline.
Prohibit glass skyways or freestanding glass walls	The project does not propose glass skyways or freestanding glass walls. The proposed project is consistent with this guideline.
Avoid transparent glass walls coming together at building corners to avoid birds trying to fly through glass	The proposed facades would contain glass walls coming together at building corners, however, the glass at the corners would be fritted and intermixed with wood cladding, painted aluminum and steel, and cementitious panel that would avoid birds trying to fly through glass. The proposed project is consistent with this guideline.
Reduce glass at top of building, especially when incorporating a green roof into the design	The proposed rooftop level would include a landscaping area covered by wooden canopy, and glass building facades. The glass facades would be fritted and setback from the landscaping to deter bird collisions. The proposed project is consistent with this guideline.
Prohibit up lighting or spotlights	The project does not propose up-lighting or spotlights. The proposed project is consistent with this guideline.
Shield lighting to cast light down onto the area to be illuminated	Outdoor lighting proposed by the project would be shielded to cast light down onto the area to be illuminated. The proposed project would be consistent with this guideline.

Table 4.4-1: Summary of Applicable Bird Safe Design Guidelines and the Project's Consistency	
Applicable Guideline	Consistency
Turn commercial building lights off at night or incorporate blinds into window treatment to use when lights are on at night	The proposed building would turn off commercial lights at night. The proposed project is consistent with this guideline.
Create smaller zones in internal lighting layouts to discourage wholesale area illumination	The proposed 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 proposed project is consistent with this guideline.

As summarized in Table 4.4-1, the proposed 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,
- Prohibiting transparent glass walls coming together at building corners,
- Limiting glass at the top of the building,
- Prohibiting up-lighting or spotlights,
- Shielding outdoor lights,
- Turning off commercial and office lights at night, and
- Creating smaller zones for internal lighting in accordance with Title 24.

For these reasons, the proposed project would not conflict with the City's Bird Safe Design Guidelines. **(No Impact)**

Impact BIO-6: The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **(No Impact)**

The project site is not part of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. The Santa Clara Valley Habitat Plan/Natural Community Conservation Plan (Habitat Plan) is a conservation program to promote the recovery of endangered species in portions of Santa Clara County while accommodating planned development, infrastructure, and maintenance activities. The City of Sunnyvale, including the project site, is located outside the Habitat Plan area and outside of the expanded study area for burrowing owl conservation. Therefore, it would not conflict with any approved local, regional, or state habitat conservation plan. **(No Impact)**

4.5 CULTURAL RESOURCES

The discussion in the section is based, in part, on an Archaeological Sensitivity Report prepared by Archaeological/Historical Consultants dated August 10, 2021, and a Historic Resources Evaluation prepared by TreanorHL dated September 21, 2021. A copy of the Archaeological Sensitivity Report is on file at the City. A copy of the Historic Resource Evaluation can be found in Appendix C of this Initial Study.

4.5.1 Environmental Setting

4.5.1.1 *Regulatory Framework*

Federal and State

National Historic Preservation Act

Federal protection is legislated by the National Historic Preservation Act of 1966 (NHPA) and the Archaeological Resource Protection Act of 1979. These laws maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA and related regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the primary federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed or eligible for listing in the NRHP. Impacts to properties listed in the NRHP must be evaluated under CEQA.

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is administered by the State Office of Historic Preservation and encourages protection of resources of architectural, historical, archeological, and cultural significance. The CRHR identifies historic resources for state and local planning purposes and affords protections under CEQA. Under Public Resources Code Section 5024.1(c), a resource may be eligible for listing in the CRHR if it meets any of the NRHP criteria.²²

Historical resources eligible for listing in the CRHR must meet the significance criteria described previously and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if it maintains the potential to yield significant scientific or historical information or specific data.

The concept of integrity is essential to identifying the important physical characteristics of historical resources and, therefore, in evaluating adverse changes to them. Integrity is defined as “the authenticity of a historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance.” The processes of determining integrity are similar for both the CRHR and NRHP and use the same seven variables or aspects to define integrity that are used to evaluate a resource’s eligibility for listing. These seven characteristics include 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association.

²² California Office of Historic Preservation. “CEQA Guidelines Section 15064.5(a)(3) and California Office of Historic Preservation Technical Assistance Series #6.” Accessed November 17, 2021.
<http://www.ohp.parks.ca.gov/pages/1069/files/technical%20assistance%20bulletin%206%202011%20update.pdf>.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity must cease and the County coroner be notified.

Public Resources Code Sections 5097 and 5097.98

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These procedures are outlined in Public Resources Code Sections 5097 and 5097.98. These codes protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to resolve disputes regarding disposition of such remains.

Pursuant to Public Resources Code Section 5097.98, in the event of human remains discovery, no further disturbance is allowed until the County coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are of a Native American, the County coroner must notify the NAHC. The NAHC then notifies those persons most likely to be related to the Native American remains. The code section also stipulates the procedures that the descendants may follow for treating or disposing of the remains and associated grave goods.

Local

City of Sunnyvale General Plan

The City's General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to cultural resources and are applicable to the proposed project.

Policy	Description
Community Character Element	
CC-5.1	Preserve existing landmarks and cultural resources and their environmental settings.
CC-5.2	Enhance the visual character of the City by preserving diverse as well as harmonious architectural styles, reflecting various phases of the City's historical development and the cultural traditions of past and present residents.
CC-5.5	Archeological resources should be preserved whenever possible.

Sunnyvale Municipal Code

Chapter 19.96 (Heritage Preservation) establishes the Heritage Preservation Commission to oversee the designation, preservation, restoration, rehabilitation, relocation, or reconstruction of qualified historic resources (e.g., buildings, properties, signs, features, and trees). The heritage preservation commission has the chance to review all permit applications regarding heritage resources, heritage

resource districts, landmark site or landmark district designated structures that involve changing use, exterior alteration, or demolition; and approve, disapprove, or approve as modified said applications.

Heritage Resource Inventory

The City maintains its Heritage Resource Inventory, containing landmarks, trees, residential and commercial districts, and individual structures of local importance. There are two main types of protected structures in Sunnyvale: heritage resources and local landmarks. A local landmark is the highest level of protection afforded by the City under the SMC. Heritage resources have a somewhat lower level of protection that recognizes properties which have architectural or historic significance. The inventory was last updated in September 2018.²³

4.5.1.2 *Existing Conditions*

Historic Resources

Sunnyvale was a historically agricultural community until the mid-twentieth century when the economy shifted towards industrial uses, and as a result, the City became more urbanized. The area surrounding the project site was historically split between agricultural and residential land uses. The project site currently contains two buildings, the office building (which was constructed in 1961) and the commercial building (which was constructed in 1976). To be considered a historic resource, a site must meet certain sets of criteria including relevance to local and regional history, its association with historic figures, and the distinctiveness of its architecture. The two existing structures were evaluated against the criteria of the NRHP and CRHR in addition to the criteria established by the City of Sunnyvale for Historic Resources. The evaluation concluded that the site does not contain any resources listed on or eligible for listing on the NRHP, CRHP or the City of Sunnyvale Historic Resources Inventory because the existing structures do not meet the criteria for historical significance which typically require the buildings be constructed with a high level of artistry or be associated with historically significant events or people. Refer to Appendix C for the detailed evaluation of the buildings.

Archaeological Resources

A records search at the Northwest Information Center of the California Historical Resources Information System (CHRIS) was completed on July 28, 2021, to identify all recorded archaeological sites on and within one-quarter mile of the project site. No resources have been recorded on the site. The closest pre-historic archaeological site is located approximately 0.25-mile northeast of the project site. The surface area above that archaeological site is already developed with commercial uses.

Historic-era maps were also reviewed to identify the potential for historic archaeological resources in the project site. A review of historic maps shows no evidence of structures on the project area until 1961. Based on the review of historical land use patterns and available records, the project area has a moderate sensitivity for pre-historic resources and a low sensitivity for historic-era archaeological resources.

²³ City of Sunnyvale. "Heritage Resources Inventory." Accessed: November 17, 2021. Available at: <https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?BlobID=25105>."

4.5.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact CUL-1: The project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. **(No Impact)**

The project site consists of two buildings that were constructed in 1961 and 1976, which are typical of Midcentury Modern and Postmodern architectural style respectively. None of the buildings are associated with significant historical events or persons, designed by a notable architect, or have the potential to yield information important to prehistory or history of the local area, state, or nation.

The site and adjacent sites do not contain any resources listed on or eligible for listing on the NRHP or the CRHP; nor does it contain any resources listed on the City of Sunnyvale Historic Resources Inventory. As discussed above under Section 4.5.1.2 Existing Conditions, the buildings on-site do not qualify as historic resources under national, state, or local criteria. Therefore, there would be no impact to historical resources pursuant to CEQA Guidelines Section 15064.5. **(No Impact)**

Impact CUL-2: The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. **(Less than Significant Impact with Mitigation Incorporated)**

No archaeological resources have been previously identified on or adjacent to the site. As discussed in Section 4.5.1.2, the site has a moderate sensitivity for pre-historic archaeological resources and a low sensitivity for historic-era archaeological resources. Unknown archaeological resources could be discovered on-site during excavation.

Mitigation Measures:

MM CR-2.1: Prior to ground-disturbing activities, a qualified archaeologist will provide cultural resources training to all contractors and employees involved in trenching and excavation. The training will inform participants how to recognize

archaeological artifacts and deposits, and discuss their obligations under the law and the project mitigation measures.

MM CR-2.2: A qualified archaeologist shall monitor the demolition of the building foundations and any other below surface disturbances, such as but not limited to, grading, excavation, roadway improvements, and utility connections and improvements. If any cultural resources are identified, all activity in the vicinity of such resources shall stop until a research design and treatment plan is prepared to address those types of resources encountered and such plan is approved by the City. Any cultural resources identified shall be evaluated to determine if these resources would qualify for the NRHP or CRHR. If no resources are found during excavation work, the implementation of mitigation measures MM CR-2.3 would ensure any resources discovered during construction are adequately protected.

MM CR-2.3: In the event that buried, or previously unrecognized archaeological deposits or materials of any kind are inadvertently exposed during any construction activity, all activity within a 50-foot radius of the find shall be stopped until a qualified archaeologist can assess the find and provide recommendations for further treatment, if warranted. Preservation in place is the preferred treatment of an archeological resource. When preservation in place of an archeological resource is not feasible, data recovery, in accord with a data recovery plan prepared and adopted by the City, is the appropriate mitigation. Construction and potential impacts to the area within a radius determined by the archaeologist shall not recommence until the assessment is complete.

The proposed project would not result in significant impacts to buried archaeological resources with implementation of mitigation measures MM CR-2.1 through MM CR-2.3 by providing cultural sensitivity training to educate all contractors on types of artifacts and features that may be encountered and what to do if those items are encountered, monitoring excavation work by a qualified archaeologist, and stopping construction and preparing a research design and treatment plan if resources are found. **(Less than Significant Impact with Mitigation Incorporated)**

Impact CUL-3: The project would not disturb any human remains, including those interred outside of dedicated cemeteries. **(Less than Significant Impact with Mitigation Incorporated)**

As discussed in Impact CUL-2, the project site has moderate sensitivity for pre-historic resources and ground-disturbing activities during project construction could impact unknown underground resources, including human remains.

MM CR-3.1: In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find shall be stopped. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner shall notify the NAHC immediately. Once NAHC

identifies the most likely descendants, the descendants shall make recommendations regarding proper burial, which shall be implemented in accordance with Section 15064.5 of the CEQA Guidelines.

The proposed project would not result in significant impacts to human remains with implementation of mitigation measures MM CR-3.1 by stopping work within a 50-foot radius of the find and, if the find is determined to be Native American, implement recommendations by the most likely descendants for a proper burial. **(Less than Significant Impact with Mitigation Incorporated)**

4.6 ENERGY

4.6.1 Environmental Setting

4.6.1.1 *Regulatory Framework*

Federal and State

Energy Star and Fuel Efficiency

At the federal level, energy standards set by the EPA apply to numerous consumer products and appliances (e.g., the EnergyStar™ program). The EPA also sets fuel efficiency standards for automobiles and other modes of transportation.

Renewables Portfolio Standard Program

In 2002, California established its Renewables Portfolio Standard Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2010. Governor Schwarzenegger issued Executive Order (EO) S-3-05, requiring statewide emissions reductions to 80 percent below 1990 levels by 2050. In 2008, EO S-14-08 was signed into law, requiring retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. In October 2015, Governor Brown signed SB 350 to codify California's climate and clean energy goals. A key provision of SB 350 requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from renewable sources by 2030. SB 100, passed in 2018, requires 100 percent of electricity in California to be provided by 100 percent renewable and carbon-free sources by 2045.

Executive Order B-55-18 To Achieve Carbon Neutrality

In September 2018, Governor Brown issued an executive order, EO-B-55-18 To Achieve Carbon Neutrality, setting a statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." The executive order requires CARB to "ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal." EO-B-55-18 supplements EO S-3-05 by requiring not only emissions reductions, but also that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO₂ from the atmosphere through sequestration.

California Building Standards Code

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6 of the California Code of Regulations (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years.²⁴ Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.²⁵

²⁴ California Building Standards Commission. "California Building Standards Code." Accessed December 17, 2021. <https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo>.

²⁵ California Energy Commission (CEC). "2019 Building Energy Efficiency Standards." Accessed December 17, 2021. <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency>.

California Green Building Standards Code

CALGreen establishes mandatory green building standards for buildings in California. CALGreen was developed to reduce GHG emissions from buildings, promote environmentally responsible and healthier places to live and work, reduce energy and water consumption, and respond to state environmental directives. CALGreen covers five categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.

Advanced Clean Cars Program

CARB adopted the Advanced Clean Cars program in 2012 in coordination with the EPA and National Highway Traffic Safety Administration. The program combines the control of smog-causing pollutants and GHG emissions into a single coordinated set of requirements for vehicle model years 2015 through 2025. The program promotes development of environmentally superior passenger cars and other vehicles, as well as saving the consumer money through fuel savings.²⁶

Regional and Local

City of Sunnyvale Climate Action Playbook

The City of Sunnyvale Climate Action Playbook (August 2019) sets a vision for the City to reduce carbon emissions by 2050. The playbook includes six strategies with “plays” that identify areas for action to reduce GHG emissions (including energy consumption). The following play is related to energy and are applicable to the proposed project.

Play	Description
Strategy 1: Promoting Clean Electricity	
1.1	Promote 100 percent clean electricity
1.2	Increase local solar photovoltaics
Strategy 2: Decarbonizing Buildings	
2.3	Achieve all-electric new construction
Strategy 3: Decarbonizing Transportation & Sustainable Land Use	
3.2	Increase transportation options and support shared mobility
Strategy 4: Managing Resources Sustainable	
4.1	Achieve Zero Waste goals for solid waste
4.2	Ensure resilience of water supply
4.3	Enhance natural carbon sequestration capacity

²⁶ California Air Resources Board. “The Advanced Clean Cars Program.” Accessed December 20, 2021. <https://www.arb.ca.gov/msprog/acc/acc.htm>.

Sunnyvale Green Building Program

In May 2019, the City revised the green building standards for new construction, additions, and remodels of buildings.²⁷ The green building standards increase energy efficiency for heating and cooling and promote reduced vehicle travel. Incentives are offered for projects that exceed the minimum green building standards to encourage project applicants and developers to provide additional green building features. At minimum, new non-residential projects greater than 5,000 square feet are required to meet CALGreen Mandatory Measures and LEED Gold.

Sunnyvale Reach Code

The California Energy Commission (CEC) approved the City's Reach Code Ordinance, which went in effect on January 26, 2021. The Reach Code is a local energy code for buildings design and construction that go beyond the minimum state requirements. The purpose of the Reach Code is to help reduce GHG emissions by promoting electric versus natural gas energy use. The Reach Code Ordinance applies to new residential and nonresidential construction, and includes the following requirements:

- Gas appliances including cooking range, water heater, space heater, fireplace, etc. are not permitted
- Solar panels are required for all new buildings
- Electric vehicle charging stations (or conduit and preliminary wiring for them) are required for all new building parking lots

Sunnyvale Construction and Demolition Waste Diversion

The City requires remodel or demolition projects where 50 percent or more of the exterior wall will be removed to recycle or reuse at least 65 percent of the project's nonhazardous waste.²⁸ Recycling of nonhazardous waste reduces the energy use to produce new materials from raw, non-renewable resources.

4.6.1.2 *Existing Conditions*

Total energy usage in California was approximately 7,802 trillion British thermal units (Btu) in the year 2019, the most recent year for which this data was available.²⁹ Out of the 50 states, California is ranked second in total energy consumption and 50th in energy consumption per capita. The breakdown by sector was approximately 19 percent (1,456 trillion Btu) for residential uses, 19 percent (1,468 trillion Btu) for commercial uses, 23 percent (1,805 trillion Btu) for industrial uses, and 39 percent (3,073 trillion Btu) for transportation.³⁰ This energy is primarily supplied in the form of natural gas, petroleum, nuclear electric power, and hydroelectric power.

²⁷ City of Sunnyvale. *Green Building Program*. May 2019.

²⁸ City of Sunnyvale. "Construction Waste." February 5, 2019. Accessed December 20, 2021. <https://sunnyvale.ca.gov/business/environmental/waste.htm>.

²⁹ United States Energy Information Administration. "State Profile and Energy Estimates, 2019." Accessed December 20, 2021. <https://www.eia.gov/state/?sid=CA#tabs-2>.

³⁰ United States Energy Information Administration. "State Profile and Energy Estimates, 2019." Accessed December 20, 2021. <https://www.eia.gov/state/?sid=CA#tabs-2>.

Electricity

Electricity in Santa Clara County in 2020 was consumed primarily by the non-residential sector (73 percent), followed by the residential sector consuming 27 percent. In 2020, a total of approximately 16,435 gigawatt hours (GWh) of electricity was consumed in Santa Clara County.³¹

The community-owned Silicon Valley Clean Energy (SVCE) is the electricity provider for the City of Sunnyvale. SVCE sources the electricity, and the Pacific Gas and Electric Company (PG&E) delivers it to customers over their existing utility lines. Customers are automatically enrolled in the GreenStart plan and can upgrade to the GreenPrime plan. Both options are considered 100 percent GHG-emission free.

The existing uses on-site use approximately 0.30 GWh of electricity annually.³²

Natural Gas

PG&E provides natural gas services within the City of Sunnyvale. In 2019, approximately one percent of California's natural gas supply came from in-state production, while the remaining supply was imported from other western states and Canada.³³ In 2020, residential and commercial customers in California used 33 percent of the state's natural gas, power plants used 30 percent, the industrial sector used 33 percent, and other uses used two percent.³⁴ Transportation accounted for one percent of natural gas use in California. In 2019, Santa Clara County used approximately two percent of the state's total consumption of natural gas.³⁵

The existing uses on-site use approximately 234 million British thermal units (MMBtu) of natural gas annually.³⁶

Fuel for Motor Vehicles

In 2019, 15.4 billion gallons of gasoline were sold in California.³⁷ The average fuel economy for light-duty vehicles (autos, pickups, vans, and sport utility vehicles) in the United States has steadily

³¹ California Energy Commission. Energy Consumption Data Management System. "Electricity Consumption by County." Accessed December 20, 2021. <http://ecdms.energy.ca.gov/elecbycounty.aspx>.

³² Based on the CalEEMod modeling outputs in the air quality & greenhouse gas assessment. Source: Illingworth & Rodkin, Inc. *480 South Mathilda Avenue Air Quality & Greenhouse Gas Assessment*. January 21, 2022. Attachment 2.

³³ California Gas and Electric Utilities. 2020 *California Gas Report*. Accessed December 20, 2021.

[https://www.socalgas.com/sites/default/files/2020-10/2020 California Gas Report Joint Utility Biennial Comprehensive Filing.pdf](https://www.socalgas.com/sites/default/files/2020-10/2020%20California%20Gas%20Report%20Joint%20Utility%20Biennial%20Comprehensive%20Filing.pdf).

³⁴ United States Energy Information Administration. "State Profile and Energy Estimates, 2020." Accessed December 20, 2021. <https://www.eia.gov/state/?sid=CA#tabs-2>.

³⁵ California Energy Commission. "Natural Gas Consumption by County." Accessed December 20, 2021. <http://ecdms.energy.ca.gov/gasbyA.aspx>.

³⁶ Based on the CalEEMod modeling outputs in the air quality & greenhouse gas assessment. Source: Illingworth & Rodkin, Inc. *480 South Mathilda Avenue Air Quality & Greenhouse Gas Assessment*. January 21, 2022. Attachment 2.

³⁷ California Department of Tax and Fee Administration. "Net Taxable Gasoline Gallons." Accessed December 20, 2021. <https://www.cdtfa.ca.gov/dataportal/dataset.htm?url=VehicleTaxableFuelDist>.

increased from about 13.1 miles per gallon (mpg) in the mid-1970s to 25.4 mpg in 2020.³⁸ Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. That standard, which originally mandated a national fuel economy standard of 35 miles per gallon by the year 2020, was updated in March 2020 to require all cars and light duty trucks achieve an overall industry average fuel economy of 40.4 mpg by model year 2026.^{39,40}

The existing VMT travelled for the uses on-site is approximately 636,890 miles.⁴¹ Assuming an average fuel economy of 25.4 mpg, the existing uses used approximately 25,074 gallons of gasoline annually.

4.6.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Impact EN-1: The project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. (Less than Significant Impact with Mitigation Incorporated)				

Construction

The project involves the construction of conventional building types. As a result, there is nothing atypical or unusual about the project's construction or operations that would result in wasteful, inefficient, or unnecessary consumption of energy. Construction of the proposed project would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., demolition and grading), and construction of buildings and other improvements.⁴²

³⁸ United States Environmental Protection Agency. "The 2021 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975." November 2021.

<https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P1010U68.pdf>

³⁹ United States Department of Energy. *Energy Independence & Security Act of 2007*. Accessed December 20, 2021. <http://www.afdc.energy.gov/laws/eisa>.

⁴⁰ Public Law 110-140—December 19, 2007. *Energy Independence & Security Act of 2007*. Accessed December 20, 2021. <http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf>.

⁴¹ Illingworth & Rodkin, Inc. 480 South Mathilda Avenue Air Quality & Greenhouse Gas Assessment. January 21, 2022.

⁴² Project construction energy use is not quantified (i.e., there is no estimated diesel and gasoline consumption for vehicles, equipment, and generators; and electricity use for tools) because there is no currently acceptable standard

Construction processes are generally designed to be efficient in order to avoid excess monetary costs. The project would be built and managed in order to maximize energy efficiency, and inefficient or wasteful use of energy is not expected to occur. Further, project development in urbanized areas (such as the DSP) with proximity to roadways, construction supplies, and workers is already more efficient than construction occurring in outlying, undeveloped areas. For these reasons, the construction process is considered efficient.

The proposed project is required to implement BAAQMD BMPs (see mitigation measures MM AQ-1.1) and mitigation measure MM AQ-3.1 to restrict equipment idling times, require signs be posted on the project site reminding workers to shut off idle equipment, and require use of certain construction equipment with emission controls, thus reducing the potential for energy waste. The project would also comply with the City's requirements to recycle and/or salvage for reuse a minimum of 65 percent of nonhazardous construction and demolition waste, minimizing energy impacts from the creation of excessive waste. In addition, the project proposes to utilize mass timber construction. A timber beam requires significantly less energy to create compared to a steel or concrete beam and a timber beam has the ability to sequester and store carbon over the course of its lifetime. For these reasons, construction activities would not use fuel or energy in a wasteful manner. **(Less than Significant Impact with Mitigation Incorporated)**

Operation

Occupation and operation of the project would consume energy for multiple purposes, including building heating and cooling, lighting, and appliance use. Operational energy also includes gasoline consumption from vehicles traveling to and from the project site. The net change in energy use from the project as compared to the existing uses is shown below in Table 4.6-1.

Table 4.6-1: Estimated Existing and Project Energy Usage			
	Electricity (GWh)	Natural Gas (MMBtu)	Gasoline (gallons)
A. Proposed Project	9.58	0	88,714
B. Existing Uses	0.30	234	25,074
<i>Project Net Difference (A – B)</i>	<i>+9.28</i>	<i>-234</i>	<i>+63,640</i>
Note: The estimated gasoline demand is based on the estimated VMT of 638,890 for existing uses and 2,253,333 for the project, and an average fuel economy of 25.4 mpg. kWh = kilowatt per hour kBtu = kilo-British thermal unit			

As shown in Table 4.6-1, the project would result in a net increase in electricity and gasoline demand, and a net decrease in natural gas demand (due to the Reach Code) compared to existing conditions. The project proposes more intensified development on-site compared to existing conditions and would not represent a wasteful or inefficient use of energy resources because the project would comply with the City's Green Building Program, Reach Code Ordinance, Title 24, and

model or accurate way to predict construction energy usage (in terms of fuel or electricity usage). Accordingly, the following analysis is qualitative and not quantitative.

CALGreen requirements to reduce energy consumption. The project would reduce operational energy demand by installing and utilizing energy efficient appliances on-site. Furthermore, the project proposes to install solar panels on-site and implement a TDM plan, which would further reduce electricity and gasoline consumption.

In addition, the design and location of the project would reduce gasoline usage given the project's proximity to existing transit and placement of jobs near housing (and vice versa). Furthermore, the DSP requires the proposed project to develop and implement a TDM program, which would be monitored by the City annually. **(Less than Significant Impact)**

Impact EN-2: The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **(Less than Significant Impact)**

The project would obtain electricity from SVCE, which is 100 percent GHG-emission free energy from renewable and hydroelectric sources, consistent with the state's RPS program and SB 350.⁴³ In addition, the project would exceed state mandated Title 24 energy efficiency standards and CALGreen standards by complying with the Sunnyvale Green Building standards (LEED Gold Certified) and the City's non-residential Building Reach Code (all-electric construction).

The project's consistency with the City's Climate Action Playbook is discussed in detail in Section 3.8 Greenhouse Gas Emissions (see Table 4.8-2). As discussed in Table 4.8-2, the project is consistent with plays that promote 100% clean energy (Play 1.1), install solar photovoltaic panels (Play 1.2), achieve all-electric new construction (Play 2.3), provide on-site recycling services and recycle/salvage demolition waste (Play 4.1), and plant new trees and comply with the MRP (Play 4.3).

Based on the above discussion, the proposed project would not obstruct a state or local plan for renewable energy or energy efficiency. **(Less than Significant Impact)**

⁴³ SVCE is the default electricity provider in the City. Building occupants/owners need to voluntarily opt-out of SVCE in order to obtain electricity directly from PG&E.

4.7 GEOLOGY AND SOILS

The following analysis is based, in part, on a geotechnical engineering investigation report prepared by Romig Engineers in August 2020. This report is included as Appendix D to this Initial Study.

4.7.1 Environmental Setting

4.7.1.1 *Regulatory Framework*

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed following the 1971 San Fernando earthquake. The act regulates development in California near known active faults due to hazards associated with surface fault ruptures. Alquist-Priolo maps are distributed to affected cities, counties, and state agencies for their use in planning and controlling new construction. Areas within an Alquist-Priolo Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) was passed in 1990 following the 1989 Loma Prieta earthquake. The SHMA directs the California Geological Survey (CGS) to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. CGS has completed seismic hazard mapping for the portions of California most susceptible to liquefaction, landslides, and ground shaking, including the central San Francisco Bay Area. The SHMA requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the seismic hazard is present and identify measures to reduce earthquake-related hazards.

California Building Standards Code

The California Building Code (CBC) prescribes standards for constructing safe buildings. The CBC contains provisions for earthquake safety based on factors including occupancy type, soil and rock profile, ground strength, and distance to seismic sources. The CBC requires that a site-specific geotechnical investigation report be prepared for most development projects to evaluate seismic and geologic conditions such as surface fault ruptures, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. The CBC is updated every three years.

California Division of Occupational Safety and Health Regulations

Excavation, shoring, and trenching activities during construction are subject to occupational safety standards for stabilization by the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) under Title 8 of the California Code of Regulations and Excavation Rules. These regulations minimize the potential for instability and collapse that could injure construction workers on the site.

Public Resources Code Section 5097.5

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. They range from mammoth and dinosaur bones to impressions of ancient animals and plants, trace remains, and microfossils. These materials are valued for the information they yield about the history of the earth and its past ecological settings. California Public Resources Code Section 5097.5 specifies that unauthorized removal of a paleontological resource is a misdemeanor. Under the CEQA Guidelines, a project would have a significant impact on paleontological resources if it would disturb or destroy a unique paleontological resource or site or unique geologic feature.

Regional

Municipal Regional Permit Provision C.6.c

Provision C.6.c of the MRP outlines the BMP categories that permittees must require all construction sites to implement. These BMPs are divided into six sections which include erosion control, run-on and run-off control, sediment control, active treatment systems, good site management, and non-stormwater management. Each construction site is required to implement the BMPs that are seasonally and phase appropriate.

Local

City of Sunnyvale General Plan

The City's General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to geologic and soil resources and are applicable to the proposed project.

Policy	Description
Environmental Management Element	
EM-8.5	Prevent accelerated soil erosion. Continue implementation of a construction site inspection and control program to prevent discharges of sediment from erosion and discharges of other pollutants from new and redevelopment projects.
Safety and Noise Element	
SN-1.1	Evaluate and consider existing and potential hazards in developing land use policies. Make land use decisions based on an awareness of the hazards and potential hazards for the specific parcel of land.

Sunnyvale Municipal Code

SMC Titles 16 (Building and Construction) and 12 (Water and Sewers) includes the CBC and requirements for soil erosion control. In accordance with the SMC, procedures for the issuance, administration, and enforcement of a building and grading permits are employed in order to protect health and safety, this includes the reduction or elimination of the hazards of undue settlement, erosion, siltation, and flooding, or other special conditions. SMC Chapter 12.60.230 outlines the

BMPs required for development projects which mandate effective erosion control, run-on and runoff control, sediment control, active treatment systems, good site management, and non-stormwater management through all phases of construction.

4.7.1.2 *Existing Conditions*

Regional Geology

The City of Sunnyvale is located in the Coast Ranges Geomorphic Province in California. The mountain ranges in this Geomorphic Province are generally northwest trending and were formed tens of millions of years ago by intense folding and faulting caused by tectonic activity between the Pacific Oceanic Plate and the North American Continental Plate.

On-Site Geological Conditions

Soils and Topography

The project site is located on relatively flat land that slopes very gently north towards the San Francisco Bay. Sunnyvale, including the project site, is a part of Santa Clara Valley which spans the stretch between the Santa Cruz Mountain Range to the southwest and west and the Diablo Range to the northeast. The site consists of two commercial buildings with paved surface parking lots and landscaping primarily around the perimeter of the lots. The soil profile beneath the paved surface is generally composed of stiff to very stiff clay and clayey silt with layers of medium dense to very dense sand throughout the top 80 feet below ground surface (bgs).⁴⁴ The near-surface soils with an approximate depth of three feet bgs were found to be granular soils with a low plasticity and a relatively low potential for expansion.

Seismicity and Seismic Hazards

As the San Francisco Bay Area contains numerous active and potentially active faults, there is a high potential for seismic events such as fault surface ruptures and ground shaking, which can cause ground failure (landslides), settlement, erosion, liquefaction, lateral spreading, and soil expansion. Faults in the region are capable of generating earthquakes of magnitude 6.7 or higher, and strong-to-very-strong ground shaking would be expected to occur at the project site during a major earthquake on one of the nearby faults. There are several major faults located near the project site (refer to Table 4.7-1).

⁴⁴ Romig Engineers. *Geotechnical Investigation Office Building 480 South Mathilda Ave.* August 2020

Table 4.7-1: Active Faults in the Vicinity of the Project Sites	
Fault Name	Distance and Direction from Project Site*
San Andreas	7.7 miles southwest
Hayward	10 miles northeast
Calaveras	13 miles northeast
San Gregorio	20 miles southwest
* Approximate distances	

During a major earthquake on a segment of one of the nearby faults, very strong to severe ground shaking is expected to occur at the project site. The ground shaking intensity felt at the project site would depend on the size of the earthquake (magnitude), the distance from the site to the fault source, the directivity (focusing of earthquake energy along the fault in the direction of the rupture), and the site-specific soil conditions.

The project site is not located within a State of California Earthquake Fault Zone or a Fault-Rupture Hazard Zone.⁴⁵

Liquefaction, Landslide, and Lateral Spreading

Soil liquefaction can be defined as a complete loss of strength that causes otherwise solid soil to take on the characteristics of a liquid. The types of soil most susceptible to this hazard are loose, saturated, uniformly graded, fine-grain sands that comprise the soil layer within approximately 45 to 50 feet of the ground surface. Soils saturated with groundwater are more likely to experience liquefaction. Liquefaction mostly frequently occurs under vibratory conditions, such as those created by seismic events. The project area is not located in a designated landslide hazard zone, compressible soil hazard zone or a liquefaction hazard zone.⁴⁶

Despite not being in a designated liquefaction hazard zone, groundwater measured below the site increases the risk of liquefaction during seismic activity. The boring done as part of the geotechnical analysis found groundwater between depths of approximately 27 to 43 feet bgs on-site. A liquefaction evaluation was conducted using the data collected on-site and found that there is a potential settlement total of approximately 0.75 to 2.0 inches that could result due to liquefaction caused by strong seismic activity. The amount of settlement would depend on a variety of variables such as strength of seismic activity, the depth of the building foundation, and the level of groundwater.

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. There are no open faces in proximity to the project site where lateral spreading could occur.

⁴⁵ Santa Clara County Planning & Development. *Geologic Hazard Zones Mapping Application*. 2021.

⁴⁶ Santa Clara County. *Santa Clara County Geologic Hazard Zones Map*. October 2012.

Groundwater

As mentioned above, groundwater was encountered at approximately 27 to 43 feet bgs. Groundwater levels on-site may vary depending on seasonal precipitation, irrigation practices, and other climate conditions.

Paleontological Resources

Paleontological resources are the fossilized remains of organisms from prehistoric environments from in geologic strata. Most of the Sunnyvale, including the project site, is situated on alluvial fan deposits of Holocene age that have a low potential to contain significant nonrenewable paleontological resources.

4.7.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
– Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
– Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
– Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
– Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5) 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"/>

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
6) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact GEO-1: The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides. **(Less than Significant Impact)**

Fault Rupture

The project site is not located in an Alquist-Priolo Earthquake Fault Zone and no known faults cross the site. While existing faults that are currently considered active are located within 10 miles of the site (i.e., the Monte Vista-Shannon, San Andreas, and Hayward faults), the proposed project is located outside of their fault rupture zones. For these reasons, the project would not directly or indirectly cause potential substantial adverse effects from rupture of a known earthquake fault. **(No Impact)**

Seismic Ground Shaking

There are several major fault lines within 20 miles of the project site that have the potential to produce a major earthquake during the lifespan of this project. During a major earthquake, this site is expected to experience very strong to severe ground shaking. The level of intensity of this ground shaking at the project site would depend on a variety of factors such as the magnitude, distance from the site to the fault source, and the site-specific soil conditions. The ground shaking could potentially damage structures and threaten the safety of occupants in the proposed development.

The project would be required to adhere to the current CBC and recommendations in the site-specific geotechnical report prepared for the project, prior to permit issuance. Additionally, the project would be required to utilize standard engineering techniques to increase the likelihood that the project could withstand minor earthquakes without damage and major earthquakes without collapse. For these reasons, the proposed project would not result in seismic hazards as it would be constructed in accordance with current design and engineering standards. As such, the existing seismic hazards on the project would not be exacerbated by the project that it would impact (or worsen) off-site conditions. **(Less than Significant Impact)**

Liquefaction and Lateral Spreading

As discussed previously in Section 4.7.1.2, the project site is not located within a designated liquefaction hazard zone. Despite that, there is some potential for liquefaction due to the presence of

groundwater below the site. The geotechnical investigation discovered groundwater at a depth of approximately 27 to 43 feet bgs. Adherence to the current CBC and the recommendations in the site-specific geotechnical report would reduce the risk of liquefaction at the project site.

There are no adjacent bodies of water, channels, or excavations in the vicinity of the site that would increase the potential for lateral spreading, therefore, the project would not exacerbate such conditions off-site. For these reasons, the project would not cause potential substantial adverse effects related to liquefaction and lateral spreading. **(Less than Significant Impact)**

Landslides

As discussed under Section 4.7.1.2 the project site is not located in a designated landslide hazard zone. The project site is relatively flat and is not located in the vicinity of steep embankments that could increase the risk of landslides affecting the site. Construction of the project would not include substantial earthwork that would create unstable slopes that would exacerbate any existing landslide risks. **(No Impact)**

Impact GEO-2: The project would not result in substantial soil erosion or the loss of topsoil. **(Less than Significant Impact)**

Ground disturbance related to the demolition of the two existing buildings and improvements on-site and excavation and construction of the proposed office building would occur on-site. Transportation of construction materials and equipment to and from the project site could also result in disturbance of the soils. These activities would increase exposure of soil to wind and water erosion and increase sedimentation. By implementing standard grading and best management practices as required by the SMC in Section 12.60.230 and the recommendations of the site-specific geotechnical report, erosion and sedimentation impacts would be less than significant. Compliance with the best management practices regarding erosion control listed in Provision C.6.c of the Municipal Regional Stormwater Permit (MRP) would reduce potential construction-related erosion impacts. Implementation of the required erosion control measures in the SMC Section 12.60.230, site-specific geotechnical report, and Provision C.6.c of the MRP would ensure that erosion and loss of topsoil are reduced to less than significant. **(Less than Significant Impact)**

Impact GEO-3: The project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. **(Less than Significant Impact)**

As discussed under Section 4.7.1.2 Existing Conditions and Impact GEO-1, while the site is not located in a designated liquefaction hazard zone, there is potential for liquefaction due to the presence of groundwater at depths of 27 to 43 feet bgs. Adherence to the current CBC, the grading regulations identified in Section 12.60.230 of the SMC, and recommendations in the site-specific geotechnical report would reduce the risk of liquefaction at the project site. In addition, the City's General Plan includes a Hazards and Disaster Preparedness and response chapter that outlines policies and goals relating to mitigating risks stemming from natural hazards. Policy SN-1.1 requires

geotechnical reports to determine the geologic stability of the site and to identify design measures to minimize geologic hazards. Adherence to the recommendations of the site-specific geotechnical report regarding foundation design and the CBC would reduce the risk of liquefaction occurring on-site.

As discussed above, groundwater on-site was encountered at depths of 27 to 43 feet bgs and construction of the parking garage would require excavation to a maximum depth of 19 feet bgs. Construction and operation of the project would not require dewatering; therefore, the project would not result in subsidence.

As discussed under Section 4.7.1.2 and Impact GEO-1, the project site is not subject to landslide, lateral spreading, or other forms of ground failure. **(Less than Significant Impact)**

Impact GEO-4: The project would not be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property. **(Less than Significant)**

As discussed under Section 4.7.1.2 Existing Conditions, the near-surface soils present on the project site have a relatively low potential for expansion. Expansive soils possess a “shrink-swell” characteristic. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may result over a long period of time, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils. Although expansive soils can be a hazard, it is generally mitigated through adherence with the standard engineering and building practices and techniques specified in the CBC and adherence to the recommendations in the site-specific geotechnical report. The City’s General Plan Policy SN-1.1 requires geotechnical reports, in part, to determine the geologic stability of the site and to identify design measures to minimize geologic hazards. With adherence to the recommendations of the site-specific geotechnical report and the current CBC, the project would not create substantial direct or indirect risks to life or property due to expansive soils. **(Less than Significant Impact)**

Impact GEO-5: The project would not 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. **(No Impact)**

The project would connect to the City’s existing sanitary sewer system. Therefore, the project would not need to support septic tanks or alternative wastewater disposal systems on-site. **(No Impact)**

Impact GEO-6: The project would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature. **(Less than Significant Impact with Mitigation Incorporated)**

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. Most of the City, including the project site, is situated on alluvial fan

deposits of Holocene age that have a low potential to contain significant nonrenewable paleontological resources.

Although it is improbable that paleontological resources would be discovered on-site given its prior disturbance from the existing development and the low potential for such resources, construction activities could result in the disturbance and/or accidental destruction of unknown paleontological resources if on-site.

Mitigation Measure:

MM GEO-6.1: Should a unique paleontological resource or site or unique geological feature be identified at the project site during any phase of construction, all ground disturbing activities within 25 feet shall cease and the Sunnyvale Community Development Director notified immediately. A qualified paleontologist shall evaluate the find and prescribe measures to preserve the find. Work may proceed on other parts of the project site while measures to preserve the paleontological resources or geologic features are implemented. One such measure would be a buffer that would be established by the qualified paleontologist. This buffer would preserve the area immediately surrounding the discovered resource while allowing work to happen beyond the buffer. Upon completion of the paleontological assessment, a report shall be submitted to the City and, if paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology shall also be submitted to the City.

With the implementation of the above mitigation measure, the project would halt work and implement measures to preserve any undiscovered paleontological resources encountered during construction, ensuring impacts to paleontological resources would be less than significant. **(Less than Significant Impact with Mitigation Incorporated)**

4.8 GREENHOUSE GAS EMISSIONS

The following discussion is based, in part, on an Air Quality & Greenhouse Gas Assessment prepared by Illingworth & Rodkin, Inc. in January 2022. This report is attached as Appendix A to this Initial Study.

4.8.1 Environmental Setting

4.8.1.1 *Background Information*

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. In GHG emission inventories, the weight of each gas is multiplied by its global warming potential (GWP) and is measured in units of CO₂ equivalents (CO₂e). The most common GHGs are carbon dioxide (CO₂) and water vapor but there are also several others, most importantly methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO₂ and N₂O are byproducts of fossil fuel combustion.
- N₂O is associated with agricultural operations such as fertilization of crops.
- CH₄ is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents, but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and SF₆ emissions are commonly created by industries such as aluminum production and semiconductor manufacturing.

An expanding body of scientific research supports the theory that global climate change is currently causing changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

4.8.1.2 *Regulatory Framework*

State

Assembly Bill 32

Under the California Global Warming Solutions Act, also known as AB 32, CARB established a statewide GHG emissions cap for 2020, adopted mandatory reporting rules for significant sources of GHGs, and adopted a comprehensive plan, known as the Climate Change Scoping Plan, identifying how emission reductions would be achieved from significant GHG sources.

In 2016, SB 32 was signed into law, amending the California Global Warming Solution Act. SB 32, and accompanying Executive Order B-30-15, require CARB to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its Climate Change Scoping Plan in December of 2017 to express the 2030 statewide target in terms of million metric tons of CO_{2e} (MMTCO_{2e}). Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 MMTCO_{2e}.

Senate Bill 375

SB 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 builds upon AB 32 by requiring CARB to develop regional GHG reduction targets for automobile and light truck sectors for 2020 and 2035. The per capita GHG emissions reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.

Consistent with the requirements of SB 375, the Metropolitan Transportation Commission (MTC) partnered with the Association of Bay Area Governments (ABAG), BAAQMD, and the Bay Conservation and Development Commission to prepare the region's Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan process. The SCS is referred to as Plan Bay Area 2050. Plan Bay Area 2050 establishes a course for reducing per capita GHG emissions through the promotion of compact, high-density, mixed-use neighborhoods near transit, particularly within identified Priority Development Areas (PDAs).

Regional and Local

2017 Clean Air Plan

To protect the climate, the 2017 CAP (prepared by BAAQMD) includes control measures designed to reduce emissions of methane and other super-GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. The jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing GHG impacts developed by BAAQMD within the CEQA Air Quality Guidelines. The

guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

City of Sunnyvale General Plan

The City’s General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to greenhouse gas reduction and are applicable to the proposed project.

Policy	Description
Land Use and Transportation Element	
LT-2.1	Enhance the public’s health and welfare by promoting the city’s environmental and economic health through sustainable practices for the design, construction, maintenance, operation, and deconstruction of buildings, including measures in the Climate Action Plan.
LT-2.2	Reduce greenhouse gas emissions that affect climate and the environment through land use and transportation planning and development.
LT-2.2	Reduce greenhouse gas emissions that affect climate and the environment through land use and transportation planning and development.

City of Sunnyvale Climate Action Playbook

The City of Sunnyvale Climate Action Playbook (August 2019) sets a vision for the City to reduce carbon emissions by 2050. The playbook includes six strategies with “plays” that identify areas for action to reduce GHG emissions. The following plays are applicable to the proposed project.

Play	Description
Strategy 1: Promoting Clean Electricity	
1.2	Increase local solar photovoltaics
Strategy 2: Decarbonizing Buildings	
2.3	Achieve all-electric new construction
Strategy 3: Decarbonizing Transportation & Sustainable Land Use	
3.2	Increase transportation options and support shared mobility
Strategy 4: Managing Resources Sustainably	
4.1	Achieve zero waste goals for solid waste
4.2	Ensure resilience of water supply
4.3	Enhance natural carbon sequestration capacity

Sunnyvale Reach Code

The CEC approved the City’s Reach Code Ordinance, which went in effect on January 26, 2021. The Reach Code is a local energy code for buildings design and construction that go beyond the

minimum state requirements. The purpose of the Reach Code is to help reduce GHG emissions by promoting electric versus natural gas energy use. The Reach Code Ordinance applies to new residential and nonresidential construction, and includes the following requirements:

- Gas appliances including cooking range, water heater, space heater, fireplace, etc. are not permitted
- Solar panels are required for all new buildings
- Electric vehicle charging stations (or conduit and preliminary wiring for them) are required for all new building parking lots.

Sunnyvale Construction and Demolition Waste Diversion

The City requires remodel or demolition projects where 50 percent or more of the exterior wall will be removed to recycle or reuse at least 65 percent of the project's nonhazardous waste.⁴⁷ Recycling of nonhazardous waste reduces the energy use to produce new materials from raw, non-renewable resources.

4.8.1.3 Existing Conditions

Unlike emissions of criteria and toxic air pollutants, which have regional and local impacts, emissions of GHGs have a broader, global impact. Global warming is a process whereby GHGs accumulating in the upper atmosphere contribute to an increase in the temperature of the earth and changes in weather patterns.

The existing uses on-site generate GHG emissions as a result of energy consumption, vehicle trips to and from the site, solid waste generation, and water usage. It is estimated that the existing uses on-site generate approximately 250.72 metric tons of CO_{2e} (MTCO_{2e}) annually.

4.8.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the determinations. As described in Section 3.8.1.1, BAAQMD adopted GHG thresholds of significance to assist in the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD has determined

⁴⁷ City of Sunnyvale. "Construction Waste." February 5, 2019. Accessed December 20, 2021. <https://sunnyvale.ca.gov/business/environmental/waste.htm>.

that GHG emissions would cause significant environmental impacts. The GHG emission thresholds identified by BAAQMD are 1,100 net MT CO₂e per year or 4.6 MTCO₂e per service population per year. These numeric thresholds set by BAAQMD were calculated to achieve the state's 2020 target for GHG emissions levels (and not the SB 32 specified target of 40 percent below the 1990 GHG emissions level). Since the project is proposed post-2020, a threshold that addresses the state's 2030 target is more appropriate to apply to the project.

CARB has completed a Scoping Plan, which will be utilized by BAAQMD to establish the 2030 efficiency threshold. The efficiency threshold would need to be met by individual projects in order for state and local governments to comply with the SB 32 2030 reduction target. BAAQMD has not published a quantified threshold for 2030. For the purposes of this analysis, an efficiency metric of 2.8 MTCO₂e per year per service population and a bright-line threshold of 660 net MTCO₂e per year has been calculated for 2030 based on the GHG reduction goals of SB 32 and EO B-30-15. The service population metric of 2.8 MTCO₂e per year is calculated for 2030 based on the 1990 inventory and the projected 2030 statewide population and employment levels. The 2030 bright-line threshold is a 40 percent reduction of the 2020 1,100 MTCO₂e per year threshold.

Impact GHG-1: The project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. **(Less than Significant Impact with Mitigation Incorporated)**

Construction

It is estimated that construction of the project would generate a total of approximately 701 MTCO₂e of GHG emissions. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction related GHG emissions. There is nothing atypical or unusual about the project's construction. In addition, the project would implement mitigation measure MM AQ-1.1 and MM AQ-3.1 to restrict idling of construction equipment and utilize energy-efficient equipment, which would in turn reduce GHG emissions. For these reasons, the project's construction GHG emissions are less than significant. **(Less than Significant Impact with Mitigation Incorporated)**

Operation

It is estimated that the project would be built and fully occupied by 2024. Table 4.8-1 shows the project's estimated operational year 2024 and 2030 emissions and includes area emissions, energy-related emissions, mobile emissions from vehicles traveling to and from the site, and emissions from solid waste generation and water usage. Refer to Appendix A for modeling details, data inputs, and assumptions.

Generally, new development results in new GHG emissions. Assessing a project on the bright line threshold alone is not adequate and the bright line threshold does not consider a project's density.⁴⁸ Promoting dense development in urban, infill locations is key to reducing GHG emissions. For this reason, to be considered significant, the project must exceed both the GHG significance threshold in

⁴⁸ The bright line threshold establishes an exact threshold that applies to all projects and does not take into account project specifics, such as density.

metric tons per year and the service population significance threshold. As shown in Table 4.8-1 below, the operational year 2024 and 2030 GHG emissions do not exceed the bright line threshold of 660 MT CO₂e or the efficiency metric of 2.8 MTCO₂e/year/service population. Therefore, the project would have a less than significant operational GHG emissions impact. Furthermore, the project proposes to install solar panels on-site and implement a TDM plan, which would further reduce GHG emissions from energy use and mobile sources. **(Less than Significant Impact)**

Table 4.8-1: Annual Existing and Project GHG Emissions (MTCO ₂ e)				
Source Category	Existing Land Uses in 2022	Proposed Project in 2024	Proposed Project in 2030	
Area (heating and cooling equipment or other individual appliances)	0.00	0.01	0.01	
Energy Consumption	12.83	8.70	8.70	
Mobile	233.80	786.60	704.31	
Solid Waste Generation	9.61	59.82	59.82	
Water Usage	3.92	14.10	14.10	
Total (MTCO ₂ e)	260.16	869.22	786.93	
Net Project Emissions (Project Emissions – Existing Emissions)		609.06	526.77	
Metric Ton Significance Threshold	660			
Service Population Emissions (MTCO ₂ e/year/service population)		1.70		1.54
Service Population Significance Threshold	2.8			
<i>Exceed Both Thresholds?</i>		<i>No</i>		<i>No</i>
The service population emissions were calculated assuming a service population of 512 individuals, based on a rate of 250 square feet per employee for general office space. Source: Keyser Marston Associates. <i>Fiscal Impact Analysis of Requested Amendments to Downtown Specific Plan</i> . July 2018.				

Impact GHG-2: The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. **(Less than Significant Impact with Mitigation Incorporated)**

2017 Scoping Plan Update

The proposed project would not impede implementation of potential reduction strategies identified by CARB. The project would benefit from efforts by the state and utility providers to increase the portion of electricity provided by renewable resources, and from state efforts to increase vehicle fuel economy standards and reduce the carbon content of fuels. The proposed project would use energy

efficient appliances and equipment, as required by Title 24 and CALGreen, and would comply with the City’s Green Building Program, and Reach Code Ordinance. Additionally, the project would receive its energy from Silicon Valley Clean Energy, who provides electricity generated from carbon free sources. **(Less than Significant Impact)**

2017 Clean Air Plan

The BAAQMD 2017 CAP focuses on two goals: protecting public health and protecting the climate. The 2017 CAP includes air quality standards and control measures designed to reduce emissions of methane, carbon dioxide, and other super-GHGs. As discussed in Section 4.3 Air Quality, the project is consistent with the 2017 Clean Air Plan because the project would not exceed BAAQMD criteria air pollutant emissions thresholds during construction with implementation of BAAQMD BMPs (mitigation measure MM AQ-1.1) and during operation. In addition, the project construction would implement mitigation measure MM AQ-3.1 by using energy-efficient and/or alternative fueled construction equipment to reduce air pollutant (DPM and PM_{2.5}) emissions. For these reasons, the proposed project would not conflict with the 2017 CAP goal to reduce GHG emissions. **(Less than Significant Impact with Mitigation Incorporated)**

General Plan

The proposed project would be consistent with General Plan Policies LT-2.1 and LT-2.2 by redeveloping an infill site with increased density, constructing a LEED Gold certified building, complying with Title 24 and CALGreen, City’s Green Building Program, and Reach Code Ordinance, and is screened to have a less than significant VMT impact. In addition, the project would comply with the City’s Construction and Demolition Waste Diversion program and proposes to utilize mass timber construction. A timber beam requires significantly less energy to create compared to a steel or concrete beam and a timber beam has the ability to sequester and store carbon over the course of its lifetime **(Less than Significant Impact)**

Climate Action Playbook

As discussed under Section 4.6.1.1, the Climate Action Playbook’s applicable strategies to reduce the proposed project’s GHG emissions are through reduction in vehicle trips and miles traveled, and carbon-emitting energy sources. The project’s consistency with applicable plays in the Climate Action Playbook is detailed in Table 4.8-2 below. **(Less than Significant Impact)**

Table 4.8-2: Project Consistency with Applicable Climate Action Playbook Plays		
Play	Description	Consistency
1.2	Increase local solar photovoltaics	Per the Playbook, the City is to research a mandatory solar roof ordinance for new commercial developments (Move 1.C). The City ‘s Reach Code Ordinance requires non-residential buildings greater than 10,000 square feet to install a minimum of five-kilowatt photovoltaic system. The project would install solar panels in accordance with the Reach Code.

Table 4.8-2: Project Consistency with Applicable Climate Action Playbook Plays		
Play	Description	Consistency
2.3	Achieve all-electric new construction	<p>Per the Playbook, the City would achieve this play by evaluating code and permit processes to streamline building electrification (Move 2.E), investigating the use of a differential Utility Use Tax where local taxes on electricity are lower than on natural gas (Move 2.F), and incentivizing energy efficient and high-performance buildings through updates to the Green Building Program.</p> <p>The City's Reach Code Ordinance requires non-residential buildings to have all electric appliances, and gas lines are prohibited. The project proposes to construct a 100 percent electric building.</p>
3.2	Increase transportation options and support shared mobility	<p>Per the Playbook, the City would achieve this play by enhancing the implementation of TDM programs (Move 3.C), advocating for regional service providers for high quality transit service (Move 3.D), updating the Active Transportation Plan (Move 3.E), piloting shared bicycle and scooter programs (Move 3.F), piloting shuttle service in Peery Park and other areas (Move 3.G), developing design standards for streets and parking lots to accommodate for rideshare services (Move 3.H), and monitoring autonomous vehicle testing and deployment (Move 3.I).</p> <p>As required by the DSP, new non-residential developments shall implement a TDM program. The project would be required to develop and implement a TDM program and be monitored by the City annually.</p>
4.1	Achieve zero waste goals for solid waste	<p>Per the Playbook, the City would achieve this play by implementing and expanding the food scraps diversion programs (Move 4.A), considering improvements to solid waste collection and processing to increase waste diversion (Move 4.B), and implementing campaigns for waste prevention (Move 4.C).</p> <p>The project would provide on-site recycling services, and recycle and/or salvage for reuse a minimum of 65 percent of nonhazardous construction and demolition waste. The project is consistent with the intent of this play.</p>
4.2	Ensure resilience of water supply	<p>Per the Playbook, the City would achieve this play by promoting and seeking incentives for making water conservation a way of life (Move 4.D) and partnering with Valley Water to expand water reuse (Move 4.E).</p> <p>The proposed project is required to be consistent with General Plan Policy EM-2.1 of lowering overall water demand through water conservation programs and subject to the water-efficiency design, planting, and irrigation requirements in SMC 19.37. In addition, the proposed project would be LEED Gold certified and incorporate green building measures,</p>

Table 4.8-2: Project Consistency with Applicable Climate Action Playbook Plays		
Play	Description	Consistency
		including water conservation measures. The project, therefore, is consistent with the intent of this play.
4.3	Enhance natural carbon sequestration capacity	<p>Per the Playbook, the City would achieve this play by implementing the City's UFMP and continuing to protect and expand the tree canopy (Move 4.F) and implementing the City's Green Stormwater Infrastructure Plan and other regulations to prevent stormwater pollution (Move 4.G).</p> <p>The proposed project would replace removed trees with new trees consistent with the Chapter 19.94 of the SMC as discussed in Section 4.4 Biological Resources. In addition, the project would comply with the MRP and other regulations to reduce water quality impacts as discussed in Section 4.10 Hydrology and Water Quality. The project, therefore, is consistent with the intent of this play.</p>

4.9 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based, in part, on a Phase I Environmental Site Assessment (ESA) and Phase I ESA Memorandum prepared by ATC Group Services LLC in July 2020 and December 2021, respectively. These reports are attached as Appendix E to this Initial Study.

4.9.1 Environmental Setting

4.9.1.1 *Regulatory Framework*

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

Worker health and safety and public safety are key issues when dealing with hazardous materials. Proper handling and disposal of hazardous material is vital if it is disturbed during project construction. Cal/OSHA enforces state worker health and safety regulations related to construction activities. Regulations include exposure limits, requirements for protective clothing, and training requirements to prevent exposure to hazardous materials. Cal/OSHA also enforces occupational health and safety regulations specific to lead and asbestos investigations and abatement.

Federal and State

Federal Aviation Regulations Part 77

Federal Aviation Regulations, Part 77 Objects Affecting Navigable Airspace (FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of potential structures and minimizing other potential hazards (such as reflective surfaces, flashing lights, and electronic interference) to aircraft in flight. These regulations require that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above the ground.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over five years, \$1.6 billion was collected and the tax went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA accomplished the following objectives:

- Established prohibitions and requirements concerning closed and abandoned hazardous waste sites;
- Provided for liability of persons responsible for releases of hazardous waste at these sites; and
- Established a trust fund to provide for cleanup when no responsible party could be identified.

The law authorizes two kinds of response actions:

- Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response; and
- Long-term remedial response actions that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life-threatening. These actions can be completed only at sites listed on the EPA's National Priorities List.

CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.⁴⁹

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), enacted in 1976, is the principal federal law in the United States governing the disposal of solid waste and hazardous waste. RCRA gives the EPA the authority to control hazardous waste from the “cradle to the grave.” This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also sets forth a framework for the management of non-hazardous solid wastes.

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization, phasing out land disposal of hazardous waste, and corrective action for releases. Some of the other mandates of this law include increased enforcement authority for the EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.⁵⁰

Government Code Section 65962.5

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by state and local agencies and developers to comply with CEQA requirements. The Cortese List includes hazardous

⁴⁹ United States Environmental Protection Agency. “Superfund: CERCLA Overview.” Accessed November 29, 2021. <https://www.epa.gov/superfund/superfund-cercla-overview>.

⁵⁰ United States Environmental Protection Agency. “Summary of the Resource Conservation and Recovery Act.” Accessed November 29, 2021. <https://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act>.

substance release sites identified by the Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB).⁵¹

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 provides the EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. The TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) Program aims to prevent accidental releases of regulated hazardous materials that represent a potential hazard beyond the boundaries of a property. Facilities that are required to participate in the CalARP Program use or store specified quantities of toxic and flammable substances (hazardous materials) that can have off-site consequences if accidentally released. The Sunnyvale Department of Public Safety reviews CalARP risk management plans as the CUPA.

Asbestos-Containing Materials

Friable asbestos is any asbestos-containing material (ACM) that, when dry, can easily be crumbled or pulverized to a powder by hand, allowing the asbestos particles to become airborne. Common examples of products that have been found to contain friable asbestos include acoustical ceilings, plaster, wallboard, and thermal insulation for water heaters and pipes. Common examples of non-friable ACMs are asphalt roofing shingles, vinyl floor tiles, and transite siding made with cement. The EPA phased out use of friable asbestos products between 1973 and 1978. National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines require that potentially friable ACMs be removed prior to building demolition or remodeling that may disturb the ACMs.

CCR Title 8, Section 1532.1

The United States Consumer Product Safety Commission banned the use of lead-based paint in 1978. Removal of older structures with lead-based paint is subject to requirements outlined by the Cal/OSHA Lead in Construction Standard, CCR Title 8, Section 1532.1 during demolition activities. Requirements include employee training, employee air monitoring, and dust control. If lead-based paint is peeling, flaking, or blistered, it is required to be removed prior to demolition.

Regional and Local

Municipal Regional Permit Provision C.12.f

Polychlorinated biphenyls (PCBs) were produced in the United States between 1955 and 1978 and used in hundreds of industrial and commercial applications, including building and structure

⁵¹ California Environmental Protection Agency. "Cortese List Data Resources." Accessed November 29, 2021. <https://calepa.ca.gov/sitecleanup/corteselist/>.

materials such as plasticizers, paints, sealants, caulk, and wood floor finishes. In 1979, the EPA banned the production and use of PCBs due to their potential harmful health effects and persistence in the environment. PCBs can still be released to the environment today during demolition of buildings that contain legacy caulks, sealants, or other PCB-containing materials.

With the adoption of the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (MRP) by the San Francisco Bay Regional Water Quality Control Board on November 19, 2015, Provision C.12.f requires that permittees develop an assessment methodology for applicable structures planned for demolition to ensure PCBs do not enter municipal storm drain systems.⁵² Municipalities throughout the Bay Area are currently modifying demolition permit processes and implementing PCB screening protocols to comply with Provision C.12.f. Buildings constructed between 1950 and 1980 that are proposed for demolition must be screened for the presence of PCBs prior to the issuance of a demolition permit. Single family homes and wood-frame structures are exempt from these requirements.

Comprehensive Land Use Plan for Moffett Federal Airfield

The project site is approximately two miles southeast of the Moffett Federal Airfield (Airfield); which is the closest airport to the site. The Moffett Federal Airfield Comprehensive Land Use Plan (CLUP), adopted by the Santa Clara County Airport Land Use Commission, is intended to safeguard the general welfare of the inhabitants within the vicinity of the airport, as well as aircraft occupants.⁵³ The CLUP is also intended to ensure that surrounding new land uses do not affect airfield operations. The CLUP identifies the Airfield's Airport Influence Area (AIA). The AIA is a composite of areas surrounding the Airfield that are affected by noise, height, and safety considerations. Within the AIA, the CLUP establishes a (1) noise restriction area, (2) height restriction area, and (3) safety restriction area.

Santa Clara County Operational Area Hazard Mitigation Plan

The City's Hazard Mitigation Plan, an annex to Santa Clara County's Operational Area Hazard Mitigation Plan (2017), performs a full risk assessment on the nine hazards that present the greatest concern in Santa Clara County. The nine hazards focused on for this mitigation plan are climate change/sea-level rise, dam and levee failure, drought, earthquakes, floods, landslides, severe weather, tsunamis, and wildfires.

The City's annex, Chapter 16 of the document, provides a detailed overview of the City's response capabilities, the organizational structure of local authorities, risk rating scores that determine which hazards present the greatest risk to Sunnyvale, and a priority schedule for mitigation measures planned by local and regional agencies.

⁵² California Regional Water Quality Control Board. *San Francisco Bay Region Municipal Regional Stormwater NPDES Permit*. November 2015.

⁵³ Santa Clara County Airport Land Use Commission. *Moffett Federal Airfield Comprehensive Land Use Plan*. November 2, 2016.

City of Sunnyvale General Plan

The City's General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to hazards and hazardous materials and are applicable to the proposed project.

Policy	Description
Safety and Noise Element	
SN-1.1	Evaluate and consider existing and potential hazards in developing land use policies. Make land use decisions based on an awareness of the hazardous and potential hazards for the specific parcel of land.
SN-1.5	Promote a living and working environment safe from exposure to hazardous materials.
SN-1.6	Operate a response system that will provide effective control and investigation of hazardous materials emergencies

Certified Unified Program Agency

Approved by CalEPA, the Sunnyvale Department of Public Safety serves as the CUPA within its jurisdiction and is responsible for the unified hazardous waste and hazardous materials management regulatory program established by Health and Safety Code, Division 20, Chapter 6.11, Section 25404, et seq. This program consolidates the administration and enforcement of six hazardous materials management programs and ensures the coordination and consistency of any regulations adopted pursuant to such program requirements. The six locally implemented programs are:

1. Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Program;
2. Aboveground Petroleum Storage Act;
3. Underground Storage Tank Program;
4. Hazardous Materials Release Response Plans and Inventories (Business Plans);
5. California Accidental Release Prevention (CalARP) Program; and
6. California Fire Code: Hazardous Material Management Plans and Inventory Statements.

Sunnyvale Municipal Code

Chapter 20.10 of the SMC outlines the City's Certified Unified Program Agency (CUPA) administration policies. This includes details on permits, fees, and enforcement policies regarding the regulation of hazardous materials in the City. Chapter 16.52 of the SMC includes additional regulations within the City's Fire Code which regulate the safe storage and proper containment of hazardous materials in the City.

4.9.1.2 *Existing Conditions*

The project site is located in an urban area of Sunnyvale, and it is currently developed with one commercial retail building and one office building. These buildings were originally constructed in 1976 and 1961, respectively. Both buildings have surface parking lots and landscaping primarily along the perimeter of the buildings and site.

Site History

Prior to the construction of the office building at 355 West Olive Avenue in 1961, the project site was partially utilized as an orchard and had an agricultural structure located on the property. The commercial retail building at 480/490 South Mathilda Avenue was constructed in 1976. Due to the historic agricultural use of the project site and the surrounding parcels, it is possible that the soils on-site contain residual agricultural chemicals.

Conditions On-Site

Hazardous Materials Storage and Use

A recognized environmental condition (REC) refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property; due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The Phase I ESA prepared for the proposed project did not identify any recognized environmental concerns on-site. Standard janitorial cleaners and paint were observed during site reconnaissance as properly stored with no evidence of spills or accidental release. There was no evidence of underground storage tanks or above ground storage tanks on the project site.

Polychlorinated Biphenyls-Containing Materials

Building Materials

Pursuant to MRP Provision C.12.f, buildings constructed between 1950 and 1980 that are proposed for demolition must be screened for the presence of PCBs prior to the issuance of a demolition permit. Due to the construction dates of the existing buildings, 1961 and 1976, it is possible that building materials (e.g., plasticizers, paints, sealants, caulk, and wood floor finishes) on-site contain PCBs.

Electrical Equipment

The Phase I ESA concluded that given the periodic renovations completed at the existing buildings, it is unlikely that any PCB-containing light ballasts are still present on-site. The Phase I ESA also identified two electrical transformers on-site that contain PCBs, one mounted on a pole and one located in a below-grade vault in the landscaping area. Both are owned and operated by PG&E, and neither showed any evidence of leaks or damage that may create an environmental concern.

Asbestos Containing Building Materials

The age of the existing buildings also indicates that the building materials may contain asbestos. A review of regulatory database shows ACM abatement appears to have been conducted for the buildings in 1990s. The completeness of the abatement work is unknown; therefore, ACMs may remain in the building. The existing buildings both have elevators with hydraulic fluid storage vessels, with both storage vessels are in good condition and no signs of stains that would indicate leaking.

Lead-Based Paint

Based on the relatively major renovations in 2007, the 480/490 South Mathilda Avenue building is unlikely to contain remnants of lead-based paint (LBP) on the exterior and interior surfaces. Based on the age of the 355 West Olive building, and the unknown date when the building exterior was last painted, LBP may remain on the exterior stucco or painted wood trim of the building.

Cortese List

The project site is not located on the Cortese List.⁵⁴

Off-Site Sources of Contamination

There are several sites within the immediate vicinity of the project site that are listed in federal and state databases for environmental issues. In 1988, three underground storage tanks at a fuel dock located approximately 0.15-mile southwest of the project site were removed, revealing soil stains from fuel that had leaked. Subsequent testing concluded that there were only trace concentrations present in the soil, so there was likely no impact on the underlying groundwater in the vicinity. In 1988, leaking underground storage tanks located at a gas station approximately 0.21-mile southwest of the project site were identified, but the contaminants resulting from the leak were limited to the general area of the gas station. None of the historical listings from the area surrounding the project site are considered to represent a recognized environmental condition for the project location.⁵⁵

Other Hazards

Airports

The proposed project site is approximately two miles southeast of the Moffett Federal Airfield and it is located outside of the Airfield's AIA, 65 dBA noise contour area, and airport safety zones.⁵⁶ As previously mentioned, FAR Part 77 requires that the FAA be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above ground. The project site is within the Airfield's FAR Part 77 Notification Surface Area.⁵⁷ For the project site, any structure exceeding 112 feet in height above grade would require submittal to the FAA for airspace safety review.

⁵⁴ California Environmental Protection Agency. "Cortese List Data Resources." Accessed December 9, 2021. <https://calepa.ca.gov/sitecleanup/corteselist/>.

⁵⁵ ATC Group Services, LLC. Phase I Environmental Site Assessment. July 22, 2020, Pages 21 to 26.

⁵⁶ Santa Clara County Airport Land Use Commission. *Moffett Federal Airfield Comprehensive Land Use Plan*. November 2, 2012. Figure 5, Figure 7, and Figure 8.

⁵⁷ Santa Clara County Airport Land Use Commission. *Moffett Federal Airfield Comprehensive Land Use Plan*. November 2, 2012. Figure 6.

Wildfire Hazards

The project site is in an urban area surrounded by existing development that is not near any wildlands that could present a fire hazard. The site is not located within an identified Very High Fire Hazard Severity Zone in a State Responsibility Area (SRA) or a Local Responsibility (LRA).^{58,59}

4.9.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) 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"/>
2) 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"/>
3) 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

⁵⁸ CAL FIRE. *Santa Clara County Fire Hazard Safety Zone Map – State Responsibility Area*. November 2007.

⁵⁹ CAL FIRE. *Santa Clara County Fire Hazard Safety Zone Map – Local Responsibility Area*. October 2008.

Impact HAZ-1: The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. **(Less than Significant Impact)**

The project does not propose any land uses that would result in hazardous materials being routinely transported, used, or disposed of in quantities that would pose a significant health hazard to the public. After construction is completed, the proposed office development would include the on-site use and storage of standard cleaning supplies and maintenance chemicals in small quantities. The four-story office building would have a hydraulic elevator, which would require hydraulic fluid storage vessels. These small quantities of cleaning supplies and materials would not pose a risk to site users or adjacent land uses as they would be properly stored and disposed of. **(Less than Significant Impact)**

Impact HAZ-2: The project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. **(Less than Significant Impact with Mitigation Incorporated)**

Given the historic agricultural use in the project area, soils on-site may contain levels of pesticides exceeding applicable screening thresholds.

Mitigation Measure:

MM HAZ-2.1: A Site Management Plan (SMP) and Health Safety Plan (HSP) shall be prepared and implemented for construction-related earthwork activities under the proposed project. The purpose of the SMP and HSP is to establish appropriate management practices for handling impacted soil or other materials that may potentially be encountered during construction activities. The SMP shall provide the protocols for accepting imported fill materials and protocols for sampling of in-place soil to facilitate profiling of the soil for appropriate off-site disposal or reuse.

To evaluate potential impacts associated with prior agricultural use, the soil profiling shall include (but not be limited to) the collection of shallow soil samples (upper one-foot) and analyses for agricultural pesticide chemicals (i.e., arsenic and chlorinated pesticides and herbicides).

If there are no contaminants identified that exceed applicable screening levels published by the RWQCB, DTSC and/or EPA, the SMP does not need to be submitted to an oversight agency and only submitted to the City prior to construction earthwork activities. If contaminants are identified at concentrations exceeding applicable screening levels, the SMP and planned remedial measures shall be reviewed and approved by an appropriate regulatory agency (i.e., RWQCB, DTSC or DEH), and the HSP and approved SMP shall be submitted to the City prior to the issuance of a permit for grading and excavation.

The proposed project with implementation of mitigation measure MM HAZ-1.1 would reduce impacts from potential soil contamination to a less than significant level by requiring sampling for contaminants, proper handling of hazardous materials contamination, and remediation of contamination under regulatory agency oversight if necessary. **(Less than Significant Impact with Mitigation Incorporated)**

Polychlorinated Biphenyls

As discussed above in Section 4.9.1.2 Existing Conditions, PCBs may be present in building materials. Pursuant to the MRP Provision C.12.f and the City's PCB screening program, the project must undergo a screening to test for the presence of PCBs. This screening process would test for the presence of PCBs in priority building materials such as caulk, fiberglass insulation, thermal insulation, adhesive mastics, and rubber window gaskets.⁶⁰ If building materials are found to have PCBs in excess of regulatory limits, that information is required to be reported to the appropriate agencies and the material would be disposed of properly to prevent accidental release into the environment. The proposed project, in compliance with the MRP Provision C.12.f and City's PCB screening program, would reduce impacts associated with release of PCBs to the environment to a less than significant level by requiring screening test and proper disposal of PCB-contaminated waste. As discussed above in Section 4.9.1.2 Existing Condition, the two transformers on-site showed no evidence of leaks or damages, and the project does not propose work to the transformers. **(Less than Significant Impact)**

Hydraulic Fluids

As described above in Section 4.9.1.2, Existing Conditions, both buildings on-site have elevators with hydraulic fluid storage vessels. If the hydraulic fluid storage vessels are not removed and properly disposed, the redevelopment of the site could create a hazard to the public or the environment.

Mitigation Measure:

MM HAZ-2.2: All hydraulic fluids within the elevator equipment shall be removed and properly disposed of prior to demolition.

During removal of the equipment with hydraulic fluids, contractors shall observe for staining and spilled oil. If stains and/or spills are observed, an Environmental Professional shall be retained to collect soil samples for laboratory analysis in accordance with commonly accepted environmental protocols. If contaminants are identified at concentrations exceeding applicable screening levels published by the RWQCB, DTSC and/or EPA, appropriate mitigation measures shall be incorporated into the demolition permit. Approval by an appropriate regulatory agency (i.e., RWQCB, DTSC or DEH) shall be obtained prior to conducting earthwork activities in the vicinity of the impacted soil.

⁶⁰ City of Sunnyvale. "PCBs Screening." Accessed December 1, 2021.
<https://sunnyvale.ca.gov/business/environmental/pcbs.htm>

The proposed project, with the implementation of mitigation measure MM HAZ-1.2, would reduce impacts associated with existing hazardous materials storage and use on-site by requiring proper removal and disposal of the hazardous materials and mitigation of contamination, if found. **(Less than Significant Impact with Mitigation Incorporated)**

Asbestos-Containing Materials and Lead-Based Paint

Due to the age of the existing structures, building materials may contain ACMs and/or LBP.

Mitigation Measures:

MM HAZ-2.3: Prior to the issuance of a demolition permit, an asbestos survey shall be completed for existing buildings on-site prior to demolition in accordance with the National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable ACMs prior to building demolition or renovation that may disturb the ACM.

MM HAZ-2.4: Prior to the issuance of a demolition permit, a lead-based paint survey shall be completed for the existing buildings on-site in accordance with the Cal/OSHA guidelines. If lead-based paint is bonded to the building materials, the removal of lead-based paint is not required. If the lead-based paint is flaking, peeling, or blistering, it shall be removed prior to demolition. In either case, applicable OSHA regulations shall be followed; these include requirements for worker training and air monitoring and dust control. Any debris containing lead shall be disposed appropriately.

The proposed project with implementation of mitigation measures MM HAZ-1.3 and MM HAZ-1.4 would reduce impacts from ACMs and LBP to a less than significant level by requiring a survey for asbestos and its removal in accordance with NESHAP guidelines to control asbestos emissions, and removal and disposal of LBP in accordance with OSHA regulations to protect worker health and safety. **(Less than Significant Impact with Mitigation Incorporated)**

Impact HAZ-3: The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. **(Less than Significant Impact with Mitigation Incorporated)**

The closest school to the project site is Little Tree Montessori International School, which is located approximately 0.20-mile northwest of the project site at 420 South Pastoria Avenue. The proposed office use would not emit hazardous emissions or handle hazardous (or acutely hazardous) materials, substances, or waste. During project construction, the project would implement mitigation measures MM HAZ-1.1 through MM HAZ-1.4 and comply with state and local regulations to properly screen, handle, transport, and dispose hazardous materials. In addition, as discussed in Section 4.3 Air Quality, the project would not result in significant air quality health risk impacts with implementation of mitigation measures MM AQ-1.1 and MM AQ-3.1 that require implementing BAAQMD best management practices and using efficient construction equipment to reduce emissions of air

pollutants. Therefore, the project would not significantly emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. **(Less than Significant Impact with Mitigation Incorporated)**

Impact HAZ-4: The project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment. **(No Impact)**

As discussed in Section 4.9.1.2 , the project site is not listed on any regulatory databases for hazardous materials compiled pursuant to Government Code Section 65962.5. Based on this, the project would not create a significant hazard to the public or the environment as a result of being listed on a hazardous materials site. **(No Impact)**

Impact HAZ-5: The project would not be 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. The project would not result in a safety hazard or excessive noise for people residing or working in the project area. **(No Impact)**

As discussed in Section 4.9.1.2 , the project site is located approximately two miles southeast of the Moffett Federal Airfield. It is outside of the Airfield's AIA, 65 dBA noise contour area, and airport safety zones. While the project site is located within the FAA's FAR Part 77 Notification Surface Area, the proposed maximum building height of 68.5 does not require notification and review by the FAA to determine potential aviation hazard. Therefore, the project's proximity to the Airfield would not result in a safety hazard or excessive noise for people working in the project area. **(No Impact)**

Impact HAZ-6: The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **(Less than Significant Impact)**

The City of Sunnyvale has a Hazard Mitigation Plan, which is an annex to Santa Clara County's Operational Area Hazard Mitigation Plan (2017) that provides a regional framework for coordinated and comprehensive emergency response in the County. The proposed project would intensify existing office uses within the City, which could incrementally increase the demand on emergency responders during an emergency response situation. However, Sunnyvale's Department of Public Safety would review site development plans to ensure fire protection design features are incorporated and adequate emergency access is provided. Based on this, the proposed project would not impair or physically interfere with the implementation of the Hazard Mitigation Plan. **(Less than Significant Impact)**

Impact HAZ-7: The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. **(No Impact)**

The project site is not located within a Very High Fire Hazard Severity Zone as delineated on CalFire State Responsibility Area and Local Responsibility Area maps. The project site is in a developed, urban area and is not located near wildland areas that would be susceptible to wildland fires. For these reasons, implementation of the proposed project would not expose people or structures to wildland fires. **(No Impact)**

4.10 HYDROLOGY AND WATER QUALITY

4.10.1 Environmental Setting

4.10.1.1 *Regulatory Framework*

Federal and State

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality in California. Regulations set forth by the EPA and the SWRCB have been developed to fulfill the requirements of this legislation. EPA regulations include the NPDES permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by the Regional Water Quality Control Boards (RWQCBs). The project site is within the jurisdiction of the San Francisco Bay RWQCB.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRMs) that identify Special Flood Hazard Areas (SFHAs). An SFHA is an area that would be inundated by the one-percent annual chance flood, which is also referred to as the base flood or 100-year flood.

Statewide Construction General Permit

The SWRCB has implemented an NPDES General Construction Permit for the State of California (Construction General Permit). For projects disturbing one acre or more of soil, a Notice of Intent (NOI) must be filed with the RWQCB by the project sponsor, and a Storm Water Pollution Prevention Plan (SWPPP) must be prepared by a qualified professional prior to commencement of construction and filed with the RWQCB by the project sponsor. The Construction General Permit includes requirements for training, inspections, record keeping, and, for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

Regional

San Francisco Bay Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The Basin Plan lists the beneficial uses that the San Francisco Bay RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The San Francisco Bay RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban runoff

discharged by a City's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

Municipal Regional Permit Provision C.3

The San Francisco Bay RWQCB re-issued the MRP in 2015 to regulate stormwater discharges from municipalities and local agencies (co-permittees) in Alameda, Contra Costa, San Mateo, and Santa Clara Counties, and the cities of Fairfield, Suisun City, and Vallejo.⁶¹ Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 10,000 square feet or more of impervious surface area are required to implement site design, source control, and Low Impact Development (LID)-based stormwater treatment controls to treat post-construction stormwater runoff. LID-based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and using stormwater as a resource (e.g., rainwater harvesting for non-potable uses). The MRP also requires that stormwater treatment measures are properly installed, operated, and maintained.

In addition to water quality controls, the MRP requires new development and redevelopment projects that create or replace one acre or more of impervious surface to manage development-related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, silt pollutant generation, or other impacts to local rivers, streams, and creeks. Projects may be deemed exempt from these requirements if they do not meet the minimized size threshold, drain into tidally influenced areas or directly into the Bay, or drain into hardened channels, or if they are infill projects in subwatersheds or catchment areas that are greater than or equal to 65 percent impervious.

Municipal Regional Permit Provision C.12.f

Provision C.12.f of the MRP requires co-permittee agencies to implement a control program for PCBs that reduces PCB loads by a specified amount during the term of the permit, thereby making substantial progress toward achieving the urban runoff PCBs wasteload allocation in the Basin Plan by March 2030.⁶² Programs must include focused implementation of PCB control measures, such as source control, treatment control, and pollution prevention strategies. Municipalities throughout the Bay Area are updating their demolition permit processes to incorporate the management of PCBs in demolition building materials to ensure PCBs are not discharged to storm drains during demolition. Buildings constructed between 1955 and 1978 that are proposed for demolition must be screened for the presence of PCBs prior to the issuance of a demolition permit.

Water Resources Protection Ordinance and District Well Ordinance

Valley Water operates as the flood control agency for Santa Clara County. Their stewardship also includes creek restoration, pollution prevention efforts, and groundwater recharge. Permits for well construction and destruction work, most exploratory boring for groundwater exploration, and projects within Valley Water property or easements are required under Valley Water's Water Resources Protection Ordinance and District Well Ordinance.

⁶¹ MRP Number CAS612008

⁶² San Francisco Bay Regional Water Quality Control Board. *Municipal Regional Stormwater Permit, Provision C.12*. November 19, 2015.

2016 Groundwater Management Plan

This 2016 Groundwater Management Plan (GWMP) describes the Valley Water's comprehensive groundwater management framework, including existing and potential actions to achieve basin sustainability goals and ensure continued sustainable groundwater management. The GWMP covers the Santa Clara and Llagas subbasins, which are located entirely in Santa Clara County. Valley Water manages a diverse water supply portfolio, with sources including groundwater, local surface water, imported water, and recycled water. About half of the County's water supply comes from local sources and the other half comes from imported sources. Imported water includes the District's State Water Project and Central Valley contract supplies and supplies delivered by the San Francisco Public Utilities Commission (SFPUC) to cities in northern Santa Clara County. Local sources include natural groundwater recharge and surface water supplies. A small portion of the County's water supply is recycled water.

Local groundwater resources make up the foundation of the County's water supply, but they need to be augmented by the District's comprehensive water supply management activities to reliably meet the County's needs. These include the managed recharge of imported and local surface water and in-lieu recharge through the provision of treated surface water, acquisition of supplemental water supplies, and water conservation and recycling.⁶³

Construction Dewatering Waste Discharge Requirements

Each of the RWQCBs regulate construction dewatering discharges to storm drains or surface waters within its Region under the NPDES program and Waste Discharge Requirements.

Santa Clara Valley Water District

Valley Water operates as the flood control agency for Santa Clara County. Their stewardship also includes creek restoration, pollution prevention efforts, and groundwater recharge. Permits for well construction and destruction work, most exploratory boring for groundwater exploration, and projects within Valley Water property or easements are required under Valley Water's Water Resources Protection Ordinance and District Well Ordinance.

Local

City of Sunnyvale General Plan

The City's General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to hydrology and water quality and are applicable to the proposed project.

Policy	Description
Environmental Management Element	
EM-8.3	Ensure that stormwater control measures and best management practices are implemented to reduce the discharge of pollutants in stormwater to the maximum extent practicable.

⁶³ Valley Water. *2016 Groundwater Management Plan, Santa Clara and Llagas Subbasins*. November 2016.

Policy	Description
EM-8.5	Prevent accelerated soil erosion. Continue implementation of a construction site inspection and control program to prevent discharges of sediment from erosion and discharges of other pollutants from new and redevelopment projects.
EM-8.6	Minimize the impacts from stormwater and urban runoff on the biological integrity of natural drainage systems and water bodies.
EM-10.1	Consider the impacts of surface runoff as part of land use and development decisions and implement BMPs to minimize the total volume and rate of runoff of waste quality and quantity (hydro modification) of surface runoff as part of land use and development decisions.
EM-10.2	Consider the ability of a land parcel to detain excess stormwater runoff in flood prone areas and require incorporation of appropriate controls. Require the incorporation of appropriate stormwater treatment and control measures for new and redevelopment regulated projects and/or any sites that may reasonably be considered to cause or contribute to the pollution of stormwater and urban runoff as defined in the current version of the stormwater Municipal Regional Permit.
EM-10.3	Require the incorporation of appropriate stormwater treatment and control measures for industrial and commercial facilities as identified in the stormwater Municipal Regional Permit.
Safety and Noise Element	
SN-1.1	Evaluate and consider existing and potential hazards in developing land use policies. Make land use decisions based on an awareness of the hazards and potential hazards for the specific parcel of land.
SN-1.2	Take measures to protect life and property from the effects of a 1% (100-year) flood.
SN-1.3	Operate and maintain the storm drainage system at a level to minimize damages and ensure public safety.

Sunnyvale Municipal Code

Chapter 12.60 (Stormwater Management) in Title 12 of the SMC include the currently adopted water quality, wastewater, and stormwater management regulations. This includes regulations for compliance with NPDES permits, best management practices, project design, and water quality.

Chapter 16.62 of the SMC provides regulations to prevent flood damage in Sunnyvale. This chapter establishes provisions for reducing flood hazards, including standards for construction, utilities, subdivisions, manufactured homes, floodways, and coastal high hazard areas.

4.10.1.2 *Existing Conditions*

Water Quality

The project site is developed with two existing buildings, surface parking lots, and small amounts of landscaping. Stormwater runoff from the project site enters the City's main storm drain system and eventually flows to the San Francisco Bay.

Groundwater

The City of Sunnyvale is located within the Santa Clara Valley Groundwater Basin.⁶⁴

Hydrologically, the groundwater basin is separated into recharge and confined zones. Geological conditions in the recharge areas allow precipitation, stream flow, and water diverted into percolation areas to recharge the deeper aquifers. The confined zones include areas of the valley where low permeability clays and silts overlie the major groundwater aquifers which impedes the vertical flow of groundwater into the deeper aquifers. The City of Sunnyvale, including the project site, lies entirely within the area of the confined zone.⁶⁵

As discussed in Section 4.7.1.2, groundwater was encountered on-site at approximately 27 to 43 feet bgs. Actual groundwater levels on-site may vary depending on seasonal precipitation, irrigation practices, and other climate conditions.

Stormwater Drainage

The storm drainage system that serves the project site is owned and maintained by the City of Sunnyvale. Currently, the project site consists of approximately 47,763 square feet (or 87 percent) of impervious surfaces and the remaining 7,000 square feet (or 13 percent) are pervious surfaces. The nearest drainage inlets to the project site are located on West Olive Avenue and at the intersection of West Olive Avenue and South Mathilda Avenue. The storm drain lines in the immediate vicinity are 15- to 18-inches in diameter.⁶⁶

Flooding

The project site is not located within a 100-year flood hazard area. According to the FEMA, the project site is in Zone X with 0.2 percent annual chance of flood.⁶⁷

Other Inundation Hazards

A seiche is a standing wave oscillating in a body of water that can produce flooding along the shoreline under certain natural conditions.⁶⁸ There are no bodies of water such as lakes, harbors, or reservoirs near the project site that would affect the site in the event of a seiche. The project site is not close enough to San Francisco Bay to be affected in the event of a tsunami.⁶⁹

⁶⁴ USGS. "Groundwater Quality in the San Francisco Bay Groundwater Basins, California". March 2013. Accessed November 11, 2021. <https://pubs.usgs.gov/fs/2012/3111/pdf/fs20123111.pdf>.

⁶⁵ Santa Clara Valley Water District. 2016 Groundwater Management Plan. Accessed November 11, 2021. <https://s3.us-west-2.amazonaws.com/assets.valleywater.org/2016%20Groundwater%20Management%20Plan.pdf>.

⁶⁶ City of Sunnyvale. "Utility Maps." Accessed November 11, 2021. <https://sunnyvale.ca.gov/services/online/map/utility.htm>

⁶⁷ FEMA. "FEMA Flood Map Service Center". Accessed November 11, 2021. <https://msc.fema.gov/portal/search?AddressQuery=480%20s%20mathilda%20ave%20sunnyvale#searchresultsanchor>

⁶⁸ National Ocean Service. *What is a Seiche?* Accessed November 11, 2021. <https://oceanservice.noaa.gov/facts/seiche.html>

⁶⁹ Association of Bay Area Governments. *Tsunami & Additional Hazards*. Accessed November 11, 2021. <https://abag.ca.gov/our-work/resilience/data-research/tsunami-additional-hazards>

4.10.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
– result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
– substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
– create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
– impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact HYD-1: The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. **(Less than Significant Impact)**

Construction

Implementation of the proposed project would require demolition, excavation, grading, and paving of the project site, which can result in temporary impacts to surface water quality. These construction activities could expose building materials containing PCBs and increase erosion and sedimentation

once the disturbed soil is exposed to water and wind. This would increase the potential for soil, sediment, and pollutants to be carried by runoff into local waterways and the San Francisco Bay.

Since the proposed project would disturb more than one acre, it is required to comply with the State of California General Construction Permit and submit a SWPPP and NOI to the SWRCB. Compliance with the General Construction Permit would ensure that all BMPs related to stormwater pollution prevention for construction projects are implemented. Further, the project is required to comply with the MRP Provision C.12.f and the City's PCB screening program, which requires applicants to test priority building materials for levels of PCBs and complete abatement procedures if threshold-exceeding levels are found.⁷⁰ For these reasons, project construction would not result in significant water quality impacts. **(Less than Significant Impact)**

Post-Construction

The project would replace more than 10,000 square feet of impervious surface at the project site; therefore, it is required to comply with Provision C.3 of the MRP and SMC Section 12.60. Provision C.3 requires the project to incorporate site design, source control, and LID-based stormwater treatment controls to reduce the pollutant loads of runoff from the project. The project would reduce and treat surface runoff on site by using flow-through planters, self-retaining areas, interceptor trees, and bioretention areas within the project site. Development of the proposed project, in compliance with existing regulations and best management practices (including the MRP and SMC), would not result in significant water quality impacts. **(Less than Significant Impact)**

Impact HYD-2: The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. **(Less than Significant Impact)**

Groundwater recharge occurs when surface water percolates through the soil to recharge groundwater aquifers. As shown in Table 4.10-1, the proposed project would decrease the amount of impervious surface on-site from 87 percent to 82 percent. Therefore, implementation of the project would not interfere with groundwater recharge by reducing the level of surface water that is allowed to percolate on-site. In addition, the project site is not located in a recharge area as identified by the 2016 GWMP.⁷¹

Table 4.10-1: Impervious Surface Square Footage On-Site		
	Square Footage	Percent
A. Existing Conditions	47,763	87
B. Project Conditions	45,063	82
<i>Net Difference (A-B)</i>	<i>-2,700</i>	<i>-5</i>

⁷⁰ City of Sunnyvale. "PCBs Screening." Accessed November 12, 2021.

<https://sunnyvale.ca.gov/business/environmental/pcbs.htm>

⁷¹ Valley Water. 2016 Groundwater Management Plan, Santa Clara and Llagas Subbasins. November 2016. Page 2-1

Implementation of the project would not require pumping of groundwater underneath the project sites. Development of the proposed below grade parking garages would require a maximum excavation depth of 19 feet bgs. Given the estimated high groundwater level of 22 feet bgs, groundwater would not be encountered during construction and dewatering would not be required. Based on the above discussion, implementation of the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. **(Less than Significant Impact)**

Impact HYD-3: The project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows. **(Less than Significant Impact)**

There are no streams or rivers on-site, therefore, the proposed project would not affect the existing drainage pattern of any streams or rivers. As discussed in HYD-2, the proposed project would decrease the amount of impervious surfaces on-site from 87 to 82 percent, thereby reduce the amount of surface runoff compared to existing conditions. The existing storm drain system, therefore, would continue to adequately serve the project site under project conditions. The proposed project would construct a new 15-inch storm drain in West Olive Avenue. The storm drain improvement is needed in order to convey stormwater to the existing storm drain line in South Taaffe Street. The project would comply with the Construction General Permit and MRP, which requires the implementation of standard stormwater control measures to reduce the pollutant loads of stormwater runoff. The project would also be subject to SMC Chapter 12.60 (Stormwater Management), which presents regulations for compliance with NPDES permits, best management practices, project design, and water quality. Adherence to these regulations would reduce the potential for project-generated runoff to result in erosion, siltation, and/or flooding to a less than significant level. Based on this discussion, the proposed project would not substantially alter the existing drainage pattern of the site or create or contribute runoff which would exceed existing stormwater drainage capacity or result in flooding on- or off-site. **(Less than Significant Impact)**

Impact HYD-4: The project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. **(Less than Significant Impact)**

The proposed office use would not use or store substantial quantities of hazardous materials on-site. As discussed in Section 4.10.1.2, the project site is not located within a 100-year flood hazard area. According to the FEMA, the project site is in Zone X with 0.2 percent annual chance of flood.⁷²

⁷² FEMA. "FEMA Flood Map Service Center". Accessed November 11, 2021.
<https://msc.fema.gov/portal/search?AddressQuery=480%20s%20mathilda%20ave%20sunnyvale#searchresultsanchor>

San Francisco Bay presents an inundation risk to sections of the coastline during a tsunami. The project site is not located near enough to San Francisco Bay to be affected in the event of a tsunami.⁷³ As discussed previously, there are no bodies of water such as lakes, harbors, or reservoirs near the project site that would affect the site in the event of a seiche.

Based on the above discussion, implementation of the proposed project would not risk release of pollutants due to inundation in flood hazard, tsunami or seiche zones. **(Less than Significant Impact)**

Impact HYD-5: The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. **(Less than Significant Impact)**

The San Francisco Basin Plan provides a framework for state and local governments to meet water quality objectives and criteria to protect the beneficial uses of local aquifers, streams, marshes, and San Francisco Bay. Consistent with the San Francisco Basin Plan, the proposed project would comply with the MRP requirement to install LID treatment controls to treat stormwater runoff. In addition, the project would increase pervious surfaces on-site and not require any dewatering during excavation. Therefore, the project would not interfere with implementation of the 2016 Groundwater Management Plan.

For these reasons, the project would not conflict with water quality control plans or sustainable groundwater management plans. **(Less than Significant Impact)**

⁷³ Association of Bay Area Governments. *Tsunami & Additional Hazards*. Accessed November 11, 2021. <https://abag.ca.gov/our-work/resilience/data-research/tsunami-additional-hazards>

4.11 LAND USE AND PLANNING

4.11.1 Environmental Setting

4.11.1.1 *Regulatory Framework*

Regional and Local

City of Sunnyvale General Plan

The City's General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to land use and planning and are applicable to the proposed project.

Policy	Description
Land Use and Transportation Element	
LT-1.2	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.
LT-1.3	Contribute to a healthy jobs-to-housing ratio in the region by considering jobs, housing, transportation, and quality of life as inseparable when making planning decisions that affect any of these components.

Downtown Specific Plan

The DSP contains specific land use and design standards for new development in downtown Sunnyvale that envisions more intense development in the Commercial Core. As outlined in Section 5.2 of the DSP, it also provides flexibility in regard to maximum development levels and building height.

Additional development beyond what is identified in the DSP may be allowed through use of local or the State's Affordable Housing density bonus program (California Government Code section 65915 et. seq.), provision of community benefits, other citywide development incentive programs (such as a Green Building Program), or a combination of any of these techniques. If community benefits are being offered, a Development Agreement is required. A development agreement is required to memorialize the details and timeframe for providing community benefits. Examples of community benefits include, but are not limited to, the following:

- Affordable housing units;
- Contribution to a community benefit fund;
- Dedication of land for public improvements; and
- Additional public and/or shared parking.

Additional building height beyond what is identified in the DSP may be approved through the provision of open space and increased building setbacks around open space, as a concession associated with the State Housing Density Bonus provisions, community benefits, other citywide development incentive programs (such as a Green Building Program), or a combination of any of

these techniques. The following policies are specific to land use and planning and are applicable to the proposed project.

Policy	Description
Land Use	
A-1.8	Where appropriate, allow for additional development beyond the base allowable development in exchange for amenities that benefit the community.
Community Form and Character	
B-2.4	Buffer lower density neighborhoods from higher density residential or commercial uses using lower building heights and privacy measures, such as increased landscaping and reduction in windows along elevations that directly face single-family properties.
C-1.2	Promote the use of transit by intensifying land use and activities near transit cores.

Sunnyvale Municipal Code

The Zoning Code, Title 19, defines the various zoning districts and allowable land uses within the City and provides development standards (i.e., building height limits, building density, sign regulations, etc.) to enhance the visual appeal of new development.

4.11.1.2 *Existing Conditions*

The existing General Plan land use designation of the project site is Transit Mixed-Use. This designation allows for a mix of residential uses at various densities, high-intensity commercial uses, regional commercial uses, and office uses located near rail stops or other mass transit. The General Plan expects high-intensity office uses in this land use designation.

The project site is zoned DSP (Downtown Specific Plan), and it is located in Block 13 of the South of Iowa District identified in the DSP. The South of Iowa District is described as a low to medium-density residential district which is meant to serve as a transitional area between the single-family neighborhoods to the south and the more intense development in the Commercial Core. The DSP Land Use Plan for Block 13 splits the block into two land use types, Office and Low Medium Density Residential. The project site lies within the Office use section of Block 13. Block 13 has a development allocation of 176,100 square feet of office space and 21,000 square feet of commercial space. The project site is allotted with 47,660 square feet of office space and 5,683 square feet of commercial space of that total. The DSP allows a maximum building height of 50 feet for the area designated as Office on Block 13.

The project site is surrounded by a variety of land uses that includes commercial, residential, and public facilities. There are residential uses to the east, southeast, and northwest of the project site. There is an existing office building to the south, and Sunnyvale City Hall is located to the southwest, on the west side of South Mathilda Avenue. There are commercial uses to the north and west of the site.

4.11.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact LU-1: The project would not physically divide an established community. **(Less than Significant Impact)**

The project site is currently comprised of two parcels developed with a 6,212 square foot commercial building and a 13,543 square foot office building. The proposed project would redevelop the site with a four-story, 127,886 square foot office building. A lot tie agreement is included as part of the project, requiring the property owners to hold the parcels as a single parcel for the life of the project. The proposed project would intensify the level of development on-site, but this change would not involve the construction of substantial infrastructure, such as highways, freeways, or major arterial streets that would physically divide the existing community. Movement of residents to and from the project area would not be inhibited by the proposed project. **(Less than Significant Impact)**

Impact LU-2: The project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **(Less than Significant Impact)**

General Plan

The project site is in an area designated as Transit Mixed Use by the City's General Plan, which allows for a mix of residential, commercial, and office uses at various levels of intensity, where buildings may be up to eight stories tall. The General Plan refers to the area's specific plan or area plan for densities allowed. The proposed four-story office development is consistent with the land use allowed under the Transit Mixed Use designation. The project is consistent with applicable General Plan land use policies (including those identified in Section 4.11.1.1) by intensifying development in downtown Sunnyvale, proposing job-generating land uses near transit, and contributing to a healthy jobs-to-housing ratio in the region. **(Less than Significant Impact)**

Downtown Specific Plan

Under the DSP, the project site is located within the Office use section of Block 13. Block 13 has a development allocation of 176,100 square feet of office space and 21,000 square feet of commercial space. The project site is allotted with 47,660 square feet of office space and 5,683 square feet of commercial space of that total. The DSP allows a maximum building height of 50 feet for office uses

in Block 13. The proposed office land use is consistent with the DSP. The project includes 80,226 square feet more office development than currently allowed but proposes no commercial use. In addition, the maximum proposed building height of 68.5 feet exceeds the building height allowed on-site by the DSP. The portion of the building fronting Mathilda Avenue to the west and residential uses to the east would step down to be 50 feet tall, which is consistent with the maximum allowable building height. The project includes a Development Agreement to allow for the additional 80,226 square feet of office space on-site and exceedance of height by 18.5 feet, pursuant to Policy A-1.8 of the DSP. As part of the Development Agreement, the project would contribute to a community benefit fund in order to be granted concessions for the additional development and height proposed beyond the base amount allowed in the DSP.

The project is consistent with DSP land policies by entering into a development agreement that benefits the community, intensifying development on-site, stepping down the building fronting residential land use, and planting buffer trees along the eastern site boundary and street trees on Mathilda Avenue and West Olive Drive. **(Less than Significant Impact)**

Sunnyvale Municipal Code

The project site is zoned Downtown Specific Plan and is subject to the development standards in SMC Chapter 19.28 for minimum project size (0.4 acres), minimum setbacks, and minimum usable open space. The project would meet all these development standards. **(Less than Significant Impact)**

4.12 MINERAL RESOURCES

4.12.1 Environmental Setting

4.12.1.1 *Regulatory Framework*

State

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) was enacted by the California legislature in 1975 to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property, and the environment. As mandated under SMARA, the State Geologist has designated mineral land classifications in order to help identify and protect mineral resources in areas within the state subject to urban expansion or other irreversible land uses which would preclude mineral extraction. SMARA also allowed the State Mining and Geology Board (SMGB), after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance.

4.12.1.2 *Existing Conditions*

The project site is in an urban area and is currently developed with commercial and office buildings. According to the US Geologic Service (USGS), there are no critical mineral resources in Sunnyvale, including this project site.⁷⁴

4.12.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) 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"/>

⁷⁴ USGS. "Mineral Resources Online Spatial Data." Accessed October 27, 2021.
<https://mrdata.usgs.gov/general/map-us.html>

Impact MIN-1: The project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **(No Impact)**

There are no known mineral resources on-site, nor are there any in the immediate vicinity of the project area. The proposed project, therefore, would not result in impacts to mineral resources. **(No Impact)**

Impact MIN-2: The project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. **(No Impact)**

The proposed project site is not identified in the General Plan or Downtown Specific Plan as containing any locally important mineral resources and no known mineral resources have previously been discovered on-site. The project, therefore, would not result in impacts to locally important mineral resource recovery sites. **(No Impact)**

4.13 NOISE

The following is based, in part, on a Noise and Vibration Assessment prepared by Illingworth & Rodkin, Inc. in April 2022. This report is attached as Appendix F to this Initial Study.

4.13.1 Environmental Setting

4.13.1.1 *Background Information*

Noise

Factors that influence sound as it is perceived by the human ear, include the actual level of sound, period of exposure, frequencies involved, and fluctuation in the noise level during exposure. Noise is measured on a decibel scale, which serves as an index of loudness. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness. Because the human ear cannot hear all pitches or frequencies, sound levels are frequently adjusted or weighted to correspond to human hearing. This adjusted unit is known as the A-weighted decibel, or dBA.

Since excessive noise levels can adversely affect human activities and human health, federal, state, and local governmental agencies have set forth criteria or planning goals to minimize or avoid these effects. Noise guidelines are generally expressed using one of several noise averaging methods, including L_{eq} , L_{dn} , or CNEL.⁷⁵ These descriptors are used to measure a location's overall noise exposure, given that there are times when noise levels are higher (e.g., when a jet is taking off from an airport or when a leaf blower is operating) and times when noise levels are lower (e.g., during lulls in traffic flows on freeways or in the middle of the night). L_{max} is the maximum A-weighted noise level during a measurement period.

Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Vibration amplitude can be quantified using Peak Particle Velocity (PPV), which is defined as the maximum instantaneous positive or negative peak of the vibration wave. PPV has been routinely used to measure and assess ground-borne construction vibration. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 inches/second (in/sec)

⁷⁵ L_{eq} is a measurement of average energy level intensity of noise over a given period of time. Day-Night Level (L_{dn}) 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. Community Noise Equivalent Level (CNEL) includes an additional five dB applied to noise occurring between 7:00 PM and 10:00 PM. Where traffic noise predominates, the CNEL and L_{dn} are typically within two dBA of the peak-hour L_{eq} .

4.13.1.2 Regulatory Framework

Federal

Federal Transit Administration

Vibration Limits

The Federal Transit Administration (FTA) has developed vibration impact assessment criteria for evaluating vibration impacts associated with transit projects. The FTA has proposed vibration impact criteria based on maximum overall levels for a single event. The impact criteria for groundborne vibration are shown in Table 4.13-1 below. These criteria can be applied to development projects in jurisdictions that lack vibration impact standards.

Table 4.13-1: Groundborne Vibration Impact Criteria			
Land Use Category	Groundborne Vibration Impact Levels (VdB inch/sec)		
	Frequent Event	Occasional Events	Infrequent Events
Category 1: Buildings where vibration would interfere with interior operations	65	65	65
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime use	75	78	83
Source: Federal Transit Administration. <i>Transit Noise and Vibration Assessment Manual</i> . September 2018.			

State

California Green Building Standards Code

For commercial uses, CalGreen (Section 5.507.4.1 and 5.507.4.2) requires that wall and roof-ceiling assemblies exposed to the adjacent roadways have a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 when the commercial property falls within the 65 dBA L_{dn} or greater noise contour for a freeway or expressway, railroad, or industrial or stationary noise source. The state requires interior noise levels to be maintained at 50 dBA $L_{eq(1-hr)}$ or less during hours of operation at a proposed commercial use.

Regional and Local

Comprehensive Land Use Plan for Moffett Federal Airfield

The project site is located two miles southeast of the Moffett Federal Airfield, which is the closest airport to the site. As described in Section 4.9 Hazards and Hazardous Materials, the Moffett Federal Airfield CLUP is intended to safeguard the general welfare of the inhabitants within the vicinity of

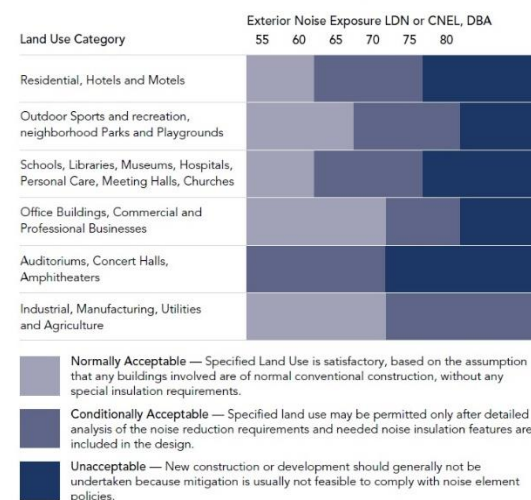
the airport, as well as aircraft occupants.⁷⁶ The CLUP is also intended to ensure that surrounding new land uses do not affect airport operations. The CLUP establishes 65 dBA CNEL as the maximum allowable exterior noise level considered compatible with residential uses and 45 dBA CNEL as the maximum allowable interior for residences.

City of Sunnyvale General Plan

The City’s General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to noise and vibration and are applicable to the proposed project.

Policy	Description
Safety and Noise Element	
SN-8.4	Prevent significant noise impacts from new development by applying state noise guidelines and Sunnyvale Municipal Code noise regulations in the evaluation of land use issues and proposals.
SN-8.5	Comply with “State of California Noise Guidelines for Land Use Planning” (Figure 6-5 below) 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.

Figure 6-5: State of California Noise Guidelines for Land Use Planning
Summary of Land Use Compatibility for Community Noise Environment



SN-8.6 Use Figure 6-6 below, “Significant Noise Impacts from new Development on Existing Land Use” to determine if proposed development results in a “significant noise impact” on existing development.

⁷⁶ Santa Clara County Airport Land Use Commission. *Moffett Federal Airfield – Comprehensive Land Use Plan*. Amended November 2016.

Policy	Description
Figure 6-6: Significant Noise Impacts from New Development on Existing Land Use	
Ldn Category of Existing Development Per Figure 6-4	Noise Increase Considered "Significant" over Existing Noise Levels
Normally Acceptable	An increase of more than 3 dBA and the total Ldn exceeds the "normally acceptable" category
Normally Acceptable	An increase of more than 5 dBA
Conditionally Acceptable	An increase of more than 3 dBA
Unacceptable	An increase of more than 3 dBA
SN-9.1	Regulate land use operation noise.
SN-9.2	Regulate select single-event noises and periodically monitor the effectiveness of the regulations.
SN-9.3	Apply conditions to discretionary land use permits which limit hours of operation, hours of delivery and other factors which affect noise.

Downtown Specific Plan

The DSP contains specific implementation actions including a requirement for developers to develop a construction management plan that considers construction-related mitigation for projects in downtown Sunnyvale. Among other requirements, developers must include a point of contact for construction, a community outreach plan to inform residents of construction impacts, coordinated hours of operation, and noise control measures.

Sunnyvale Municipal Code

Chapter 19.42 of the SMC presents operational noise standards enforced on residential zoned property. Operational noise cannot exceed 75 dBA at any point on the property line of the premises upon which the noise or sound is generated or produced; provided, however, that the noise or sound level is not to exceed 50 dBA during nighttime or 60 dBA during daytime hours at any point on adjacent residentially zoned property. If the noise occurs during nighttime hours and the enforcing officer has determined that the noise involves a steady, audible tone such as a whine, screech, or hum, or is a staccato or intermittent noise (e.g., hammering), or includes music or speech, the allowable noise or sound level cannot exceed 45 dBA.

Specifically, Section 19.42.030, powered equipment used on a temporary, occasional or infrequent basis which produces a noise greater than the applicable operational noise limit shall be used only during daytime hours when used adjacent to a property with a residential zoning district. Powered equipment used on other than a temporary, occasional or infrequent basis shall comply with the operational noise requirements. This provision does not include the use of leaf blowers or construction activity.

Chapter 16.08 of the SMC limits construction activity to between 7:00 AM and 6:00 PM daily Monday through Friday. Construction operations on Saturday are limited to between 8:00 AM and 5:00 PM. No construction activities are allowed on Sunday or federal holidays when the city offices are closed. Exceptions to these hours may be granted by the Chief Building Official when it is determined emergency construction activity is required or construction activity will not be a nuisance to surrounding properties.

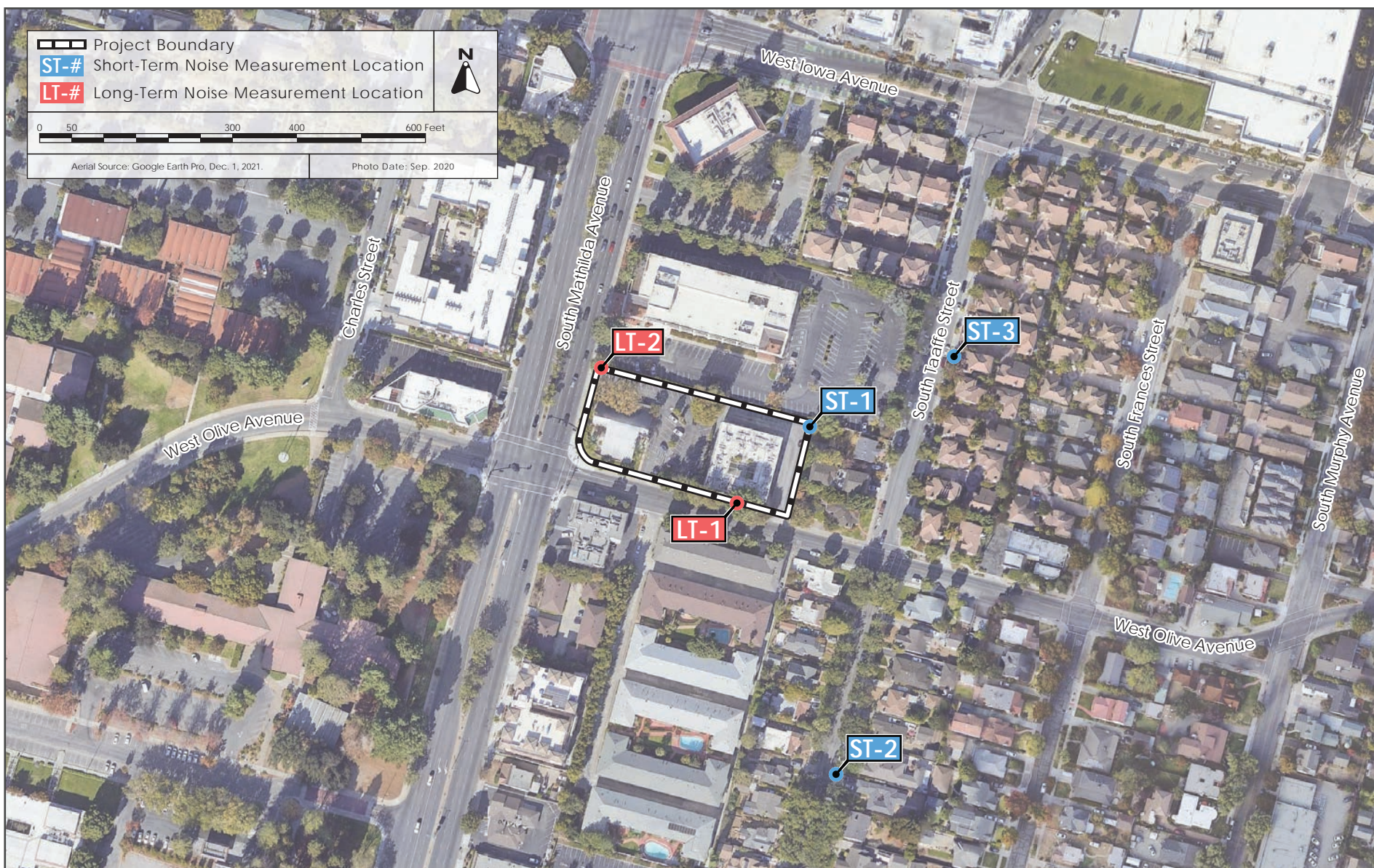
While the SMC does not define the acoustical time descriptor such as L_{eq} or L_{max} that is associated with the above limits, a reasonable interpretation of the SMC would identify the ambient base noise level criteria as L_{eq} .

4.13.1.3 Existing Conditions

The noise environment at the proposed project site is currently dominated by the vehicular traffic from South Mathilda Avenue and the nearby El Camino Real and West Iowa Avenue. A summary of the noise levels measured on-site are included in Table 4.13-2 and Table 4.13-3 below. The noise measurement locations are shown on Figure 4.13-1 below.

Table 4.13-2: Summary of Long-Term Noise Measurement Data (dBA)			
Noise Measurement Location	Daytime L_{eq} Range	Nighttime L_{eq} Range	Average Noise Level (L_{dn})
LT-1: easternmost portion of the project site	57 to 64	45 to 58	62
LT-2: northwest corner of project site	68 to 74	56 to 68	72
Source: Illingworth & Rodkin, Inc. 480 South Mathilda Office Project Noise and Vibration Assessment. April 12, 2022.			

Table 4.13-3: Summary of Short-Term Noise Measurement Data (dBA)						
Noise Measurement Location	L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	$L_{eq(10)}$
ST-1: northeast corner of project site	58	56	53	48	45	50
ST-2: front of 536 and 542 South Taaffe Street	57	52	47	43	40	45
ST-3: front of 448 South Taaffe Street	65	63	56	47	44	53
Source: Illingworth & Rodkin, Inc. 480 South Mathilda Office Project Noise and Vibration Assessment. April 12, 2022.						



NOISE MEASUREMENT LOCATIONS

FIGURE 4.13-1

4.13.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
1) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would 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"/>

CEQA does not define what noise level increase would be considered substantial. The following criteria based on City practice, standards identified by the FTA, and standards in the CBC, CALGreen, General Plan, and SMC were used to evaluate the significance of environmental noise resulting from the project:

- A significant noise impact would be identified if the project would generate a substantial temporary or permanent noise level increase over ambient noise levels at existing noise-sensitive receptors surrounding the project site and that would exceed applicable noise standards at existing noise-sensitive receptors surrounding the project site.
 - Due to the temporary nature of construction activities, construction noise levels are treated differently than operational noise levels. Hourly average noise levels during construction that would exceed 60 dBA L_{eq} at residential land uses, and the ambient by at least five dBA L_{eq} for a period of more than one year require noise attenuating mitigation measures to reduce the impact to a less than significant level.
 - A significant permanent noise level increase would occur if project-generated traffic generated by the project or project improvements/operations would substantially increase noise levels at sensitive receivers in the vicinity. A substantial increase would occur if: a) the noise level increase is five dBA L_{dn} or greater, with a future noise level of less than the “normally acceptable” standard, or b) the noise level increase is three dBA L_{dn} or greater, with a future noise level equal to or greater than the “normally acceptable” standard.
 - A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the General Plan or Municipal Code.

- A significant impact would be identified if the construction of the project would generate excessive vibration levels surrounding receptors. Consistent with the 2017 Land Use and Transportation Element (LUTE) EIR (SCH# 2012032003), groundborne vibration levels exceeding 0.25 in/sec PPV would have the potential to result in cosmetic damage to older buildings.
- A significant noise impact would be identified if the project would expose people residing or working in the project area to excessive aircraft noise levels.
- A significant cumulative traffic noise impact would occur if two criteria are met: (1) noise levels at existing sensitive receivers would be substantially increased (i.e., three dBA L_{dn} above existing noise levels where noise levels would exceed 60 dBA L_{dn}); and (2) if the project would make a “cumulatively considerable” contribution to the overall noise level increase. A “cumulatively considerable” contribution is defined as an increase of one dBA L_{dn} or more attributable solely to the project.

Impact NOI-1: The project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. **(Less than Significant Impact with Mitigation Incorporated)**

Construction Noise

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.

Chapter 16.08 of the SMC allows for construction between the hours of 7:00 AM and 6:00 PM on weekdays and between 8:00 AM and 5:00 PM on Saturdays. Construction activity is not permitted on Sundays or federal holidays when the City offices are closed. This chapter also states that no loud environmentally disruptive noises, such as air compressors without mufflers, continuously running motors or generators, loud playing musical instruments, radios, etc., would be allowed where such noises may be a nuisance to adjacent residential neighborhoods. Chapter 19.42.030 provides quantitative limits on noise levels; however, those limits do not apply to construction noise that is regulated by Chapter 16.08 of the SMC. The City does not establish quantitative thresholds for the impact of temporary increases in noise due to construction. It is the City’s practice that hourly average noise levels during construction that would exceed 60 dBA L_{eq} at residential land uses, and the ambient by at least five dBA L_{eq} for a period of more than one year, would require the implementation of noise attenuating mitigation measures to reduce impacts to a less than significant level.⁷⁷

⁷⁷ City of Sunnyvale. 2017 *Land Use and Transportation Element Draft Environmental Impact Report*. August 2016. Page 3.6-42. SCH# 2012032003.

Construction of the proposed project would take approximately 20 months and include demolition, site preparation, grading and excavation, trenching, building construction, and paving. As shown in Table 4.13-4 below, at the nearby residences, exterior construction noise levels would range from 59 to 80 dBA L_{eq} . As a result, construction noise levels are estimated to exceed the threshold of 60 dBA L_{eq} at residences, and the ambient noise environment by five dBA L_{eq} for a period of more than one year.

Table 4.13-4: Estimated Construction Noise Levels at Nearby Land Uses			
Phase and Duration	Construction Equipment (Quantity)	Receptor and Distance	Calculated Hourly Average L_{eq}, dBA
Demolition	Concrete/Industrial Saw (1) Excavator (1) Tractor/Loader/Backhoe (3)	East Residences (165 feet)	77
		South Residences & Commercial (130 feet)	79
		North Commercial (80 feet)	83
		West Residences & Commercial (290 feet)	72
Site Preparation	Grader (1) Tractor/Loader/Backhoe (1)	East Residences (165 feet)	73
		South Residences & Commercial (130 feet)	75
		North Commercial (80 feet)	80
		West Residences & Commercial (290 feet)	68
Grading/Excavation	Excavator (2) Grader (1) Rubber-Tired Dozer (2) Tractor/Loader/Backhoe (2)	East Residences (165 feet)	77
		South Residences & Commercial (130 feet)	79
		North Commercial (80 feet)	83
		West Residences & Commercial (290 feet)	72
Trenching/Foundation	Tractor/Loader/Backhoe (1) Excavator (2)	East Residences (165 feet)	73-78 ^a
		South Residences & Commercial (130 feet)	75-80 ^a
		North Commercial (80 feet)	79-85 ^a
		West Residences & Commercial (290 feet)	68-73 ^a
Building Exterior	Crane (1) Forklift (2) Welder (2)	East Residences (165 feet)	67
		South Residences & Commercial (130 feet)	69

Table 4.13-4: Estimated Construction Noise Levels at Nearby Land Uses			
Phase and Duration	Construction Equipment (Quantity)	Receptor and Distance	Calculated Hourly Average L _{eq} , dBA
		North Commercial (80 feet)	73
		West Residences & Commercial (290 feet)	62
Building Interior/Architectural Coating	Aerial Lift (5)	East Residences (165 feet)	64-69 ^b
		South Residences & Commercial (130 feet)	66-71 ^b
		North Commercial (80 feet)	71-75 ^b
		West Residences & Commercial (290 feet)	59-64 ^b
Paving	Paver (2) Paving Equipment (1) Roller (2) Tractor/Loader/Backhoe (2)	East Residences (165 feet)	76-77 ^c
		South Residences & Commercial (130 feet)	78-79 ^c
		North Commercial (80 feet)	83 ^c
		West Residences & Commercial (290 feet)	72 ^c

^a Range of noise levels represents the trenching/foundation phase only and during the overlapping period with the site preparation and grading/excavation phases.

^b Range of noise levels represents the building – interior/architectural coating phase only and during the overlapping period with the building – exterior phase.

^c Range of noise levels represents the paving phase only and during the overlapping period with the building – exterior phase.

Mitigation Measures:

MM NOI-1.1: Consistent with mitigation measure MM 3.6.3 of the 2017 LUTE EIR, the project shall employ site-specific noise attenuation measures during construction to reduce the generation of construction noise and vibration. These measures shall be included in a Noise Control Plan that shall be submitted for review and approval by the City prior to issuance of demolition permit. Measures specified in the Noise Control Plan and implemented during construction shall include, at a minimum, the following noise control strategies:

- Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds);

- Impact tools (e.g., jackhammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools; and
- Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or include other measures.
- Unnecessary idling of internal combustion engines should be strictly prohibited.
- Construction staging areas shall be established at locations that will 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.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
- Where feasible, temporary power service from local utility companies should be used instead of portable generators.
- Locate cranes as far from adjoining noise-sensitive receptors as possible.
- During final grading, substitute graders for bulldozers, where feasible. Wheeled heavy equipment are quieter than track equipment and should be used where feasible.

Pursuant to the 2017 LUTE EIR, the project's conformance with the SMC limits on allowable construction hours and implementation of mitigation measure MM NOI-1.1 that requires preparing and implementing a noise control plan to reduce construction noise to the extent feasible, would reduce the project's construction noise impact to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Operational Noise

Mechanical Equipment Noise

The proposed project would include a transformer room, an electrical room, and a pump room. Transformers typically produce noise levels up to 64 dB; however, the building façade would reduce the noise by a minimum of 20 dB which would result in a noise level of 44 dB at one meter (approximately 3.28 feet) from the building. The nearest residential property would be 20 feet away, and would be subject to an approximate noise level of less than 30 dB from the on-site transformer. The day-night average noise level would be 35 dBA L_{dn} at the nearest residential property line to the east of the project site, which would be within the normally acceptable noise level of 60 dBA L_{eq} for residential use.

In addition to the mechanical equipment inside the proposed building, there would also be mechanical equipment such as heating pumps and air-cooled chillers on the roof of the proposed

building. Typical heating pumps would generate noise levels ranging from 56 to 66 dBA at a distance of three feet. Assuming up to eight heating pumps would run simultaneously at any given time, hourly average noise levels would range from 65 to 75 dBA L_{eq} at a distance of three feet. Three air-cooled chillers would generate a collective noise level of 54 dBA at 210 feet. The estimated collective noise source at three feet from the rooftop equipment would be 91 dBA. The collective day-night average noise level, assuming 91 dBA each hour in a 24-hour period, would be 97 dBA L_{dn} at three feet from the rooftop equipment. The design of the building façade would provide a 20 dBA reduction in noise level and the proposed screening around the equipment would provide an additional 15 dBA reduction in noise level. The proposed rooftop equipment would result in a day-night average noise level ranging from 48 dBA to 53 dBA, which would not result in an increase to the existing ambient noise levels of 62 to 72 L_{dn} .

The emergency generator for the proposed project would be located in the below-grade parking structure and would be tested during daytime hours for one hour once a month. The location and infrequent usage of the generator would result in no increase in ambient noise levels for the surrounding uses. **(Less than Significant Impact)**

Project Traffic

As discussed in Section 4.17 Transportation, the proposed project would generate 200 net-new daily weekday trips, including 66 net new AM peak hour and 30 net new PM peak hour vehicle trips. This increase in trips would result in an increase in noise levels of one dBA or less over existing conditions, which is not considered a substantial permanent noise increase at the surrounding noise-sensitive receptors. In addition, project peak hour trips were added to the future cumulative volumes for roadways in the project vicinity to generate cumulative plus project traffic volumes.⁷⁸ When the cumulative traffic volumes with and without the project are compared to existing volumes, an increase of less than two dBA L_{dn} was calculated, which would not result in a significant cumulative traffic noise impact. Therefore, the project would also not cause a significant cumulative noise increase at noise-sensitive uses in the project vicinity. **(Less than Significant Impact)**

Trash Pick Up

Trash pickup already occurs on-site on a weekly basis for the existing office and commercial buildings. This service would continue and would not result in an increase in ambient noise levels over existing conditions as it is already included in the existing noise level conditions. **(Less than Significant Impact)**

Impact NOI-2:	The project would not result in generation of excessive groundborne vibration or groundborne noise levels. (Less than Significant Impact with Mitigation Incorporated)
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Construction activities associated with the project may generate vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used in close proximity to existing buildings on surrounding properties. Construction activities would include grading, foundation work (including

⁷⁸ Cumulative traffic volumes buildout of the LUTE plus the six DSP Amendments projects approved in August 2020.

garage tiebacks), paving, and new building framing and finishing. Impact or vibratory pile driving, which can cause excessive vibration, are not expected to be utilized for the proposed project.

As discussed in Section 4.5 Cultural Resources, no historical buildings have been identified in proximity to the project site. The project-specific Noise and Vibration Assessment used a groundborne vibration level of 0.25 in/sec PPV as the threshold of significance at which buildings in the project vicinity would have the potential to be subject to a significant vibration impact.

Areas within 200 feet of the project site would be subject to vibration levels that would potentially be perceptible. Table 4.13-5 shows the estimated vibration levels at nearby structures resulting from operation of construction equipment at the project site.

Table 4.13-5: Vibration Source Levels for Construction Equipment						
Equipment		PPV at 25 ft. (in/sec)	Estimated Vibration Levels at Structures Surrounding the Project Site, in/sec PPV			
			East Residences (15 feet)	North Commercial (80 feet)	South Residences & Commercial (60 feet)	West Residences & Commercial (475 feet)
Clam shovel drop		0.202	0.354	0.056	0.077	0.008
Hydromill (slurry wall)	in soil	0.008	0.014	0.002	0.003	0.0003
	in rock	0.017	0.030	0.005	0.006	0.001
Vibratory Roller		0.210	0.368	0.058	0.080	0.008
Hoe Ram		0.089	0.156	0.025	0.034	0.003
Large bulldozer		0.089	0.156	0.025	0.034	0.003
Caisson drilling		0.089	0.156	0.025	0.034	0.003
Loaded trucks		0.076	0.133	0.021	0.029	0.003
Jackhammer		0.035	0.061	0.010	0.013	0.001
Small bulldozer		0.003	0.005	0.001	0.001	0.0001
Bolded = significant impact						

As shown in Table 4.13-5, operation of heavy equipment during the construction process would result in vibration levels of up to 0.368 in/sec PPV for the residential uses to the east of the project site. This would exceed the 0.25 in/sec PPV threshold and would have the potential to result in cosmetic damage, which would be a significant impact.

Mitigation Measure:

MM NOI-2.1: The following additional vibration controls shall be implemented as part of the Noise Control Plan required by the 2017 LUTE EIR mitigation measure MM 3.6.3:

- Comply with the construction noise ordinance to limit hours of exposure. The City's Municipal Code allows construction activities between the hours 7:00 AM and 6:00 PM on weekdays and between 8:00 AM and

5:00 PM on Saturdays. Construction activity is not permitted on Sundays or federal holidays when the City offices are closed.

- Prohibit the use of heavy vibration-generating construction equipment within 25 feet of residences. Use a smaller vibratory roller, such as the Caterpillar model CP433E vibratory compactor, when compacting materials within 25 feet of residences adjoining the site.
- Avoid dropping heavy equipment within 25 feet of residences. Use alternative methods for breaking up existing pavement, such as a pavement grinder, instead of dropping heavy objects within 25 feet of residences adjoining the site.
- The contractor shall alert heavy equipment operators to the close proximity of the adjacent structures so they can exercise extra care.

With implementation of MM NOI-1.1, impacts related to groundborne vibration at adjacent Structures would be reduced to a less than significant level by avoiding the drop of heavy equipment to break up pavement and using smaller vibration-generating equipment within 25 feet of adjacent structures. **(Less than Significant Impact with Mitigation Incorporated)**

Impact NOI-3: The project would not be located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport. The project would not expose people residing or working in the project area to excessive noise levels. **(Less than Significant Impact)**

The nearest airport to the project site is Moffett Federal Airfield, which is approximately two miles northwest of the site. According to the CLUP, the project site is not located within its AIA, nor is it located within the 65 dB noise contour of Moffett Federal Airfield.⁷⁹ Therefore, the project would not expose people residing or working in the project area to excessive noise levels. **(Less than Significant Impact)**

⁷⁹ Santa Clara County Airport Land Use Commission. *Moffett Federal Airfield Comprehensive Land Use Plan*. December 2018.

4.14 POPULATION AND HOUSING

4.14.1 Environmental Setting

4.14.1.1 *Regulatory Framework*

State

Housing-Element Law

State requirements mandating that housing be included as an element of each jurisdiction's general plan is known as housing-element law. The Regional Housing Need Allocation (RHNA) is the state-mandated process to identify the total number of housing units (by affordability level) that each jurisdiction must accommodate in its housing element. California housing-element law requires cities to: 1) zone adequate lands to accommodate its RHNA; 2) produce an inventory of sites that can accommodate its share of the RHNA; 3) identify governmental and non-governmental constraints to residential development; 4) develop strategies and a work plan to mitigate or eliminate those constraints; and 5) adopt a housing element and update it on a regular basis.⁸⁰

Regional and Local

Plan Bay Area 2050

Plan Bay Area 2050 is a long-range plan for the nine-county San Francisco Bay Area that provides strategies that increase the availability of affordable housing, support a more equitable and efficient economy, improve the transportation network, and enhance the region's environmental resilience. Plan Bay Area 2050 promotes the development of a variety of housing types and densities within identified PDAs. PDAs are areas generally near existing job centers or frequent transit that are locally identified for housing and job growth.⁸¹

ABAG allocates regional housing needs to each city and county within the San Francisco Bay Area, based on statewide goals. These allocations are designed to lay the foundation for Plan Bay Area 2050's long-term envisioned growth pattern for the region. ABAG also develops a series of forecasts and models to project the growth of population, housing units, and jobs in the Bay Area. ABAG, MTC, and local jurisdiction planning staff created the Forecasting and Modeling Report, which is a technical overview of the of the growth forecasts and land use models upon which Plan Bay Area 2050 is based.

City of Sunnyvale General Plan

The General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to population and housing resources and are applicable to the proposed project.

⁸⁰ California Department of Housing and Community Development. "Regional Housing Needs Allocation and Housing Elements" Accessed November 2, 2021. <http://hcd.ca.gov/community-development/housing-element/index.shtml>.

⁸¹ Association of Bay Area Governments and Metropolitan Transportation Commission. *Plan Bay Area 2050*. October 21, 2021. Page 20.

Policy	Description
Land Use and Transportation Element	
LT-1.3	Contribute to a healthy jobs-to-housing ratio in the region by considering jobs, housing, transportation, and quality of life as inseparable when making planning decisions that affect any of these components.
Housing Element	
HE-6.7	Continue to permit and encourage a mix of residential and job-producing land uses, as long as there is neighborhood compatibility and no unavoidable environmental impacts.

The City of Sunnyvale General Plan Housing Element was last updated in December 2014 and is an eight-year plan for the years 2015 through 2023.⁸²

Downtown Specific Plan

The DSP contains specific land use and design standards for new development in downtown Sunnyvale. Under the adopted DSP, the project site is designated as Office space in the Land Use Plan. The DSP area is broken down into blocks, with the project site located within the larger Block 13. Block 13 has a development allocation of 176,100 square feet of office space and 21,000 square feet of commercial space. The project site is allotted with 47,660 square feet of office space and 5,683 square feet of commercial space of the total Block 13 development allocated.

As outlined in Section 5.2 of the DSP, it also provides flexibility in regard to maximum development levels and building height.

Additional development beyond what is identified in the DSP may be allowed through use of local or the State's Affordable Housing density bonus program (California Government Code section 65915 et. seq.), provision of community benefits, other citywide development incentive programs (such as a Green Building Program), or a combination of any of these techniques. If community benefits are being offered, a Development Agreement is required. A development agreement is required to memorialize the details and timeframe for providing community benefits.

4.14.1.2 Existing Conditions

As of May 2021, the City of Sunnyvale had an approximate population 153,978 with an average of 2.65 persons per household.⁸³ ABAG estimates that in 2040, the City's population will be 221,040 residents.⁸⁴ ABAG is projecting jobs in the City to increase from approximately 92,305 in 2020 to 108,640 by 2040.⁸⁵ The project site is currently developed with a 6,212 square foot commercial

⁸² City of Sunnyvale. *Housing Element of the General Plan*. December 16, 2014. Page 1.

⁸³ Population: California Department of Finance. "E-5 City/County Population and Housing Estimates – May 1, 2018." Accessed: November 3, 2021. Available at: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/>.

⁸⁴ Association of Bay Area Governments. *Plan Bay Area Projections 2040*. November 2018.

⁸⁵ Ibid

building and a 13,543 square foot office building on-site, which generates approximately 70 (16 commercial and 54 office) jobs.⁸⁶

4.14.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Impact POP-1: The project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
(Less than Significant)

The proposed project does not include any new housing. The project proposes 127,886 square feet of office uses, which would generate approximately 512 jobs. Compared to existing conditions, the project would result in a net increase of 442 jobs on-site.⁸⁷ The site is allocated 47,660 square feet of office uses and 5,683 square feet of commercial uses under the DSP, which equates to approximately 206 jobs. Compared to what was assumed under the DSP, the project would result in a net increase of 306 jobs. The DSP allows for additional development pursuant to Section 5.2 of the DSP. The net additional jobs resulting from the project represents a 2.67 percent increase in jobs beyond the base development assumed in the DSP.⁸⁸ The project's net additional job growth represents a 0.23 percent increase in jobs projected with the buildout of the General Plan.⁸⁹ This nominal increase in jobs from implementation of the project is not substantial. In addition, a new 15-inch storm drain line extension would be constructed in West Olive Avenue connecting from the existing 18-inch storm drain line in the intersection of South Taaffe Street and west to the project frontage. The project would connect to the new 15-inch storm drain line in West Olive Avenue. The segment would be approximately 340 feet in length. There are existing storm drain lines in the project area and the extension would not

⁸⁶ Jobs based on 400 square feet/retail employee and 250 square feet/office employee. (Source: Keyser Marston Associates. *Fiscal Impact Analysis of Requested Amendments to Downtown Specific Plan*. July 2018.)

⁸⁷ Jobs based on 250 square feet/office employee. (Source: Keyser Marston Associates. *Fiscal Impact Analysis of Requested Amendments to Downtown Specific Plan*. July 2018.)

⁸⁸ The DSP area allows for the buildout of 11,445 jobs. Source: City of Sunnyvale. *DSP Amendments and Specific Development Project Draft Environmental Impact Report*. November 2019. Page 199. SCH# 2018052020.

⁸⁹ ⁸⁹ The General Plan allows for the buildout of 135,885 jobs, including the additional jobs from the DSP Amendments approved by the City in 2020. Source: City of Sunnyvale. *DSP Amendments and Specific Development Project Draft Environmental Impact Report*. November 2019. Page 199. SCH# 2018052020.

extend to an area not currently served by the stormwater drainage system and the extension would be sized to serve existing and planned growth, and the proposed project only. For these reasons, the project would not induce substantial unplanned population growth. **(Less than Significant Impact)**

Impact POP-2: The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **(No Impact)**

The existing project site is developed with office and commercial buildings and provides no housing. Therefore, the project would not displace existing housing or people or require replacement housing to be constructed. **(No Impact)**

4.15 PUBLIC SERVICES

4.15.1 Environmental Setting

4.15.1.1 *Regulatory Framework*

State

Government Code Section 66477

The Quimby Act (included within Government Code Section 66477) requires local governments to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two.

Government Code Section 65995 through 65998

California Government Code Section 65996 specifies that an acceptable method of offsetting a project's effect on the adequacy of school facilities is the payment of a school impact fee prior to the issuance of a building permit. Government Code Sections 65995 through 65998 set forth provisions for the payment of school impact fees by new development by "mitigating impacts on school facilities that occur (as a result of the planning, use, or development of real property)" (Section 65996[a]). The legislation states that the payment of school impact fees "are hereby deemed to provide full and complete school facilities mitigation" under CEQA (Section 65996[b]).

Developers are required to pay a school impact fee to the school district to offset the increased demands on school facilities caused by the proposed residential development project. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Regional and Local

Countywide Trails Master Plan

The Santa Clara County Trails Master Plan Update is a regional trails plan approved by the Santa Clara County Board of Supervisors. It provides a framework for implementing the County's vision of providing a contiguous trail network that connects cities to one another, cities to the County's regional open space resources, County parks to other County parks, and the northern and southern urbanized regions of the County. The plan identifies regional trail routes, sub-regional trail routes, connector trail routes, and historic trails.

City of Sunnyvale General Plan

The City's General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to public services and are applicable to the proposed project.

Policy	Description
Land Use and Transportation Element	
LT-14.8	Ensure that development projects provide appropriate improvements or resources to meet the future infrastructure and facility needs of the City, and provide development incentives that result in community benefits and enhance the quality of life for residents and workers.
Community Character Element	
CC-7.2	Maintain a full-service Library adequate to meet community needs.
Safety and Noise Element	
SN-3.1	Provide rapid and timely response to all emergencies.
SN-5.1	Assure that equipment and facilities are provided and maintained to meet reasonable standards of safety, dependability, and compatibility with fire service operations.

Sunnyvale Municipal Code

SMC Chapter 16.52 is the City's Fire Code and, adopted by reference, the 2018 International Fire Code (IFC) in its entirety as published by the International Code Council and the California Fire Code under Ordinance 3018-13 are included in the City's Fire Code. The Fire Code regulates, among other things, issuance of permits where operations or business or the installation or modification of any systems regulated under the Fire Code are planned (Section 16.52.105), application and collection of applicable fire permit fees (Section 16.52.106), and installation of residential and commercial automatic sprinkler systems (Section 16.52.903).

4.15.1.2 *Existing Conditions*

Fire and Police Protection Services

Fire and police protection services are provided for the project site by the Sunnyvale Department of Public Safety (DPS). The DPS is staffed by Public Safety Officers who are cross-trained as police officers, firefighters, and emergency medical technicians.⁹⁰ The DPS is divided into four main programs: Fire Services, Police Services, Special Operations, and Internal Affairs. The Fire Services program is responsible for responding to fire calls and providing emergency medical services. The Fire Services program provides fire prevention compliance inspections, fire code enforcement, and hazardous materials regulation. The Police Services program is responsible for providing law enforcement and SWAT services to the community.⁹¹

The Fire Services program operates a total of six fire stations that serve the City of Sunnyvale. The nearest fire station to the project site is Sunnyvale Fire Station #1 at 171 North Mathilda Avenue, which is approximately 0.9 mile away north of the project site. The Police Services program is based out of the Sunnyvale DPS complex at 700 All America Way, which is approximately 0.3 mile

⁹⁰ City of Sunnyvale. "Public Safety." Accessed November 9, 2021. Available at <https://sunnyvale.ca.gov/services/departments/dps.htm>.

⁹¹ City of Sunnyvale. "DPS Organizational Chart." Accessed November 9, 2021. Available at <https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?BlobID=25679>

southwest of the project site. The City and DPS do not have an established response time goal or service ratio for fire and police protection services.

The City of Sunnyvale participates in a mutual aid program with neighboring cities, including the cities of Mountain View, Santa Clara, and San José. Through this program, should Sunnyvale need additional assistance, one or more of the mutual aid cities would provide assistance in whatever capacity was needed.

Schools

The project site is within the boundaries for Sunnyvale School District and Fremont Union High School District. Sunnyvale School District is comprised of eight elementary schools that serve kindergarten through fifth grade and two middle schools that serve sixth through eighth grade.⁹²

Parks

Parks and open space in the City are managed by the Parks Division within the Department of Public Works. The City currently has approximately 765 acres of parkland, including 177 acres of parks, 264 acres of special use facilities (including the Sunnyvale Golf Course and Baylands Park Wetlands), 87 acres of school open space, three acres of public grounds (including orchards and open space surrounding the Community Center and Civic Center campuses), and 48 acres of greenbelts and trails. The City's parkland total includes other recreational facilities such as the John W. Christian Greenbelt, a senior center, tennis courts, a skate park. The nearest recreational facilities to the project site are Washington Park and Las Palmas Park, which are 0.37-mile northwest and 0.38 mile south of the project site, respectively.

Libraries

Sunnyvale Public Library is the sole public library in the City. It is located at 665 West Olive Avenue, which is approximately 0.14 mile west of the project site. Library features include book rentals, computer services, wireless internet, access to 3D printing, and a sewing lab.⁹³

⁹² Sunnyvale School District. "About Us." Accessed November 10, 2021. <https://www.sesd.org/domain/295>

⁹³ City of Sunnyvale. "Sunnyvale Public Library: About." Accessed November 10, 2021. <https://sunnyvale.ca.gov/community/library/about/default.htm>

4.15.2 Impact Discussion

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

Impact PS-1: The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services. **(Less than Significant Impact)**

Implementation of the proposed project would intensify the level of development on-site and increase the demand for fire protection services compared to the existing conditions. While staffing levels may change as a result of the buildout of the General Plan (including the DSP), the construction of new or expanded fire protection facilities would not be required.⁹⁴ While the project would develop 80,226 square feet more of office development than what is anticipated in the General Plan and DSP, this additional development would not require the need to construction new or expanded fire protection facilities. In addition, the project would be required to meet current California Building Standards Code and requirements in SMC Chapter 16.52 that ensure future development include adequate design and infrastructure for fire protection. For those reasons, development of the proposed project would not result in a significant impact to fire protection services in the City or require the construction of new or expanded fire protection facilities. **(Less than Significant Impact)**

⁹⁴ City of Sunnyvale. *Draft EIR: Downtown Specific Plan Amendments and Specific Development Project*. SCH# 2018052020. Page 206. November 2019.

Impact PS-2: The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services. **(Less than Significant Impact)**

As discussed under Impact PS-1, the development of this project would intensify the level of office development on-site and increase the demand for police protection services compared to existing conditions. Similar to fire protection services, while staffing levels may change as a result of the buildout of the General Plan (including the DSP), the construction of new or expanded police protection facilities would not be required.⁹⁵ While the project would develop 80,226 square feet of additional office development than what is allowed in the DSP, this additional development would not require the need to construct new or expanded fire protection facilities. For those reasons, development of the proposed project would not result in a significant impact to police protection services in the City or require the construction of new or expanded police protection facilities. **(Less than Significant Impact)**

Impact PS-3: The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools. **(No Impact)**

The proposed project does not include any residential units and, therefore, would not generate any new students that could increase demand on public schools in the project area. The project would not impact existing school services or result in the need for new schools in the project area. **(No Impact)**

Impact PS-4: The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks. **(Less than Significant Impact)**

The City collects park in-lieu fees from residential developments. Parkland demand, therefore, is based on residents and not employees. The proposed project would not generate new residents that could increase demand on local parks. While some of the new employees may use nearby parks such as Las Palmas Park and Washington Park on during their break time, this would not be substantial enough to require the construction of any new or expanded parks. In addition, the project proposes approximately 12,000 square feet of indoor amenity space and an approximately 21,000-square foot

⁹⁵ City of Sunnyvale. *Draft EIR: Downtown Specific Plan Amendments and Specific Development Project*. SCH# 2018052020. Page 207. November 2019.

outdoor, rooftop terrace to offset the project's demand on park/recreational facilities. Therefore, the proposed project would not result in the need for new or physically altered parks in the project area. **(Less than Significant Impact)**

Impact PS-5:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for other public facilities. (Less than Significant Impact)
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The proposed project does not include any residential development and would not increase the number of residents in the area. Therefore, the proposed project would not increase demand on other public facilities such as libraries. **(Less than Significant Impact)**

4.16 RECREATION

4.16.1 Environmental Setting

4.16.1.1 *Regulatory Framework*

State

Government Code Section 66477

The Quimby Act (included within Government Code Section 66477) requires local governments to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two.

Local

City of Sunnyvale General Plan

The City's General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to recreation and are applicable to the proposed project.

Policy	Description
Land Use and Transportation Element	
LT-9.1	Ensure that the planned availability of open space in both the city and the region is adequate.
LT-14.8	Ensure that development projects provide appropriate improvements or resources to meet the city's future infrastructure and facility needs, and provide development incentives that result in community benefits and enhance the quality of life for residents and workers.

4.16.1.2 *Existing Conditions*

Parks and open space in the City are managed by the Parks Division within the Department of Public Works. The City currently has approximately 765 acres of parkland, including 177 acres of parks, 264 acres of special use facilities (including the Sunnyvale Golf Course and Baylands Park Wetlands), 87 acres of school open space, three acres of public grounds (including orchards and open space surrounding the Community Center and Civic Center campuses), and 48 acres of greenbelts and trails.⁹⁶ The City's parkland total includes other recreational facilities such as the John W. Christian Greenbelt, a senior center, tennis courts, and a skate park. The nearby recreational facilities

⁹⁶ City of Sunnyvale. *Draft EIR: Downtown Specific Plan Amendments and Specific Development Project*. SCH# 2018052020. Page 212. November 2019.

to the project site include Washington Park and the Sunnyvale Municipal Tennis Center, which are 0.37-mile northwest and 0.37-mile southwest of the project site, respectively.

4.16.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
1) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) 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"/>

Impact REC-1: The project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. **(Less than Significant Impact)**

Unlike a residential development project, which increases City population and associated demand on City parks, the development of the proposed office space would not substantially increase the use of existing parks or other recreational facilities. While some of the employees may visit nearby recreational facilities on their breaks, the incremental increase in use would not result in substantial physical deterioration of those facilities. In addition, the project proposes approximately 12,000 square feet of indoor amenity space and an approximately 21,000-square foot outdoor, rooftop terrace at would offset the project's demand on local recreational facilities. Therefore, the proposed project would result in less than significant impacts to existing recreational facilities. **(Less than Significant Impact)**

Impact REC-2: The project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **(Less than Significant Impact)**

The proposed office building does not include recreational facilities. As discussed above under Impact REC-1, employees may use nearby recreational facilities during their breaks and the usage would not be substantial and would not necessitate the construction or expansion of new recreational facilities. In addition, the project's demand would be offset by on-site amenities proposed as part of the project. **(Less than Significant Impact)**

4.17 TRANSPORTATION

The following is based, in part, on a Transportation Analysis (TA) prepared by Fehr & Peers in April 2022. This report is attached as Appendix G to this Initial Study.

4.17.1 Environmental Setting

4.17.1.1 *Regulatory Framework*

State

Regional Transportation Plan

MTC is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area, including Santa Clara County. MTC is charged with regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities in the region. MTC and ABAG adopted Plan Bay Area 2050 in October 2021, which includes a Regional Transportation Plan to guide regional transportation investment for revenues from federal, state, regional and local sources through 2050.

Senate Bill 743

SB 743 establishes criteria for determining the significance of transportation impacts using a vehicle miles traveled (VMT) metric intended to promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. Specifically, SB 743 requires analysis of VMT in determining the significance of transportation impacts. Local jurisdictions were required by Governor's Office of Planning and Research (OPR) to implement a VMT policy by July 1, 2020.

SB 743 did not authorize OPR to set specific VMT impact thresholds, but it did direct OPR to develop guidelines for jurisdictions to utilize. CEQA Guidelines Section 15064.3(b)(1) describes factors that might indicate whether a development project's VMT may be significant. Notably, projects located within 0.50 mile of transit should be considered to have a less than significant transportation impact based on OPR guidance.

Regional and Local

Congestion Management Program

VTA oversees the Congestion Management Program (CMP), which is aimed at reducing regional traffic congestion. The relevant state legislation requires that urbanized counties in California prepare a CMP in order to obtain each county's share of gas tax revenues. State legislation requires that each CMP define traffic level of service (LOS) standards, transit service standards, a trip reduction and transportation demand management plan, a land use impact analysis program, and a capital improvement element. VTA has review responsibility for proposed development projects that are expected to affect CMP-designated intersections.

City of Sunnyvale General Plan and Downtown Specific Plan

The City's General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to transportation and traffic and are applicable to the proposed project.

Policy	Description
Land Use and Transportation Element	
LT-1.6	Integrate land use planning in Sunnyvale and the regional transportation system.
LT-3.1	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.
LT-3.4	Require large employers to develop and maintain transportation demand management programs to reduce the number of vehicle trips generated by their employees.
LT-3.5	Follow California Environmental Quality Act requirements, Congestion Management Program requirements, and additional City requirements when analyzing the transportation impacts of proposed projects and assessing the need for offsetting transportation system improvements or limiting transportation demand.
LT-3.11	As they become available, use multimodal measures of effectiveness to assess the transportation system in order to minimize the adverse effect of congestion. Continue to use level of service (LOS) to describe congestion levels. Use vehicle miles traveled (VMT) analysis to describe potential environmental effects and impacts to the regional transportation system.
LT-3.14	Require roadway and signal improvements for development projects to improve multimodal transportation system efficiency.
LT-3.27	Require appropriate roadway design practice for private development consistent with City standards and the intended use of the roadway.

Downtown Specific Plan

The DSP contains specific land use and design standards for new development in downtown Sunnyvale. The DSP contains the following policies related to transportation and traffic.

Policy	Description
C-1.5	Follow the VTA standards for bicycle parking.
C-1.7	Require new non-residential developments and multifamily residential developments of 10 or more units to implement a transportation demand management (TDM) program to reduce the impact of single-occupancy automobile trips. Encourage existing employers to participate in TDM programs.

City of Sunnyvale Active Transportation Plan 2020

The City's Active Transportation Plan 2020 was approved by the Sunnyvale City Council in August 2020. The plan recommends improvements that integrate pedestrian, bicycling, and safe routes to schools throughout the City to create a connected and efficient network. The Active Transportation Plan serves as an update to the 2006 Bicycle Plan, 2007 Pedestrian Safety and Opportunities Study, and the 2012 Comprehensive School Traffic Study.

City Council Policy 1.2.8: Transportation Analysis Policy

In June 2020, the Sunnyvale City Council adopted Council Policy 1.2.8 to comply with the requirements set forth in California Senate Bill (SB) 743, which requires the use of VMT rather than level-of-service (LOS) to identify significant transportation impacts under CEQA. Council Policy 1.2.8 identify that a land use project is not required to conduct a VMT analysis to identify significant transportation impacts under CEQA if it meets any of the exemption criteria under Section 2. Exemption of the policy. For office and research/development projects, the development must have a FAR greater than 75 percent and be within one-half of a mile of an existing major bus stop or existing stop along a high-quality transit corridor (i.e., within a TPA) to meet the exemption criteria F: Transit Supportive Project. Additionally, the project must meet all of the following requirements:

- Support the multimodal transportation network by facilitating access to multimodal transportation with improved pedestrian facilities, bike lanes, transit stops; does not harm or hinder access to multimodal transportation;
- Does not exceed maximum parking requirements or propose higher than what is allowed per the development standards;
- Is transit oriented in design:
 - Has a walkable design that prioritizes pedestrians;
 - Is sustainable, and compact;
 - Facilitates ease of bicycle use;
 - Is focused or centered around transit; and
- Redevelopment of a site which provides at least as many affordable units as previously existed.

4.17.1.2 *Existing Conditions*

Regional Access

Regional access to the project site is provided by State Route 237, US 101, Interstate 280, Central Expressway, and El Camino Real, as described below.

SR 237 is a primarily east-west freeway located northwest of the project site providing two to three travel lanes in each direction. One travel lane in each direction is designated as a high-occupancy vehicle (HOV) lane for some segments of this freeway. SR 237 merges into Grant Road in Mountain View and extends east to I-680 in Milpitas. SR 237 provides access to the project site via El Camino Real, Mathilda Avenue, and Central Expressway via the Middlefield Road interchange.

US 101 extends north through San Francisco and south through San Jose. Near the project site, US 101 travels in an east-west direction. The freeway has three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction. HOV lanes, also known as diamond or carpool lanes, restrict use to vehicles with two or more persons (carpool, vanpool, and buses), motorcycles, or qualified clean air vehicles during the morning (5:00 AM to 9:00 AM) and evening (3:00 PM to 7:00 PM) commute periods. Primary access to the project site is provided via the Mathilda Avenue interchange.

I-280 is located south of the project site. It provides regional access between San Francisco and San Jose. I-280 is a north-south freeway with three mixed-flow lanes and one high occupancy vehicle lane (HOV) in each direction. I-280 provides access to the project site via interchanges with De Anza Boulevard, Wolfe Road, and Lawrence Expressway.

Central Expressway is a divided four-lane east-west expressway between San Antonio Road in the City of Mountain View and De La Cruz Boulevard in the City of Santa Clara. West of San Antonio Road, Central Expressway continues to Menlo Park as Alma Road. Central Expressway provides access to the project site via an interchange at Mathilda Avenue.

El Camino Real (SR 82) connects the cities of San Francisco and San Jose. It is a divided six-lane Class I Arterial traveling northwest-southeast providing access to the project site via Mathilda Avenue.

Local Roadway Access

Local roadway access to the project site is provided by Mathilda Avenue, Olive Avenue, and Taaffe Street, as described below.

Mathilda Avenue is a six- to eight-lane north-south arterial that extends from Caribbean Drive to Talisman Drive where it merges with Sunnyvale-Saratoga Road. This road provides direct access to the project site via the project driveway near the intersection at Olive Avenue.

Olive Avenue is a two-lane east-west roadway that extends from Bernardo Avenue to Hawthorn Avenue. Olive Avenue runs parallel to El Camino Real. This road provides direct access to the project site via the project driveway near the intersection at Mathilda Avenue.

Taaffe Street is a two-lane north-south roadway extending from Altair Way to El Camino Real. Taaffe Street runs parallel to Mathilda Avenue, although access is prohibited between El Camino Real and Olive Avenue for through vehicles. This road provides access to the project site via Olive Avenue.

Existing Bicycle, Pedestrian, and Transit Facilities

Bicycle Facilities

Bicycle facilities within the vicinity of the project site consist of Class II bike lanes, Class IIB buffered bicycle lanes, and Class III bike routes. Class II bike lanes are characterized as on-street bike lanes with a striped lane, pavement markings, and signage for one way bicycle traffic. Class IIB buffered bicycle lanes are a dedicated lane for bicycle travel separated from vehicle traffic by a

painted buffer. Class III bike routes are typically characterized as streets where the lanes are wide enough, and the number of vehicles is low enough for both bicycles and vehicles to share the road.

Olive Avenue, which is adjacent to the southern border of the project site, is classified as a Class III bike route that is oriented in an east-west direction. Portions of South Mathilda Avenue and South Sunnyvale Avenue have Class II bike lanes and Class IIB buffered bicycle lanes that are generally oriented in a north-south direction. Portions of El Camino Real have Class II bike lanes that are generally orientated in an east-west direction. East Evelyn Avenue, which is north of the project site, also provides Class II bike lanes in an east-west direction. The bicycle facilities in the immediate vicinity of the project site are segmented and therefore not well-connected; however, the connectivity of bicycle facilities surrounding the DSP area is more conducive to bicycle travel. The existing bicycle facilities are shown on Figure 4.17-1.



EXISTING BICYCLE FACILITIES

FIGURE 4.17-1

Pedestrian Facilities

The streets adjacent to the project site, South Mathilda Avenue and West Olive Avenue, have sidewalks on both sides of the street. The two nearest intersections, South Mathilda Avenue/West Olive Avenue and South Taaffe Street/West Olive Avenue both have striped crosswalks on each of the sides of the intersection. The South Mathilda Avenue/West Olive Avenue intersection is a signalized intersection, and the South Taaffe Street/West Olive Avenue is unsignalized intersection.

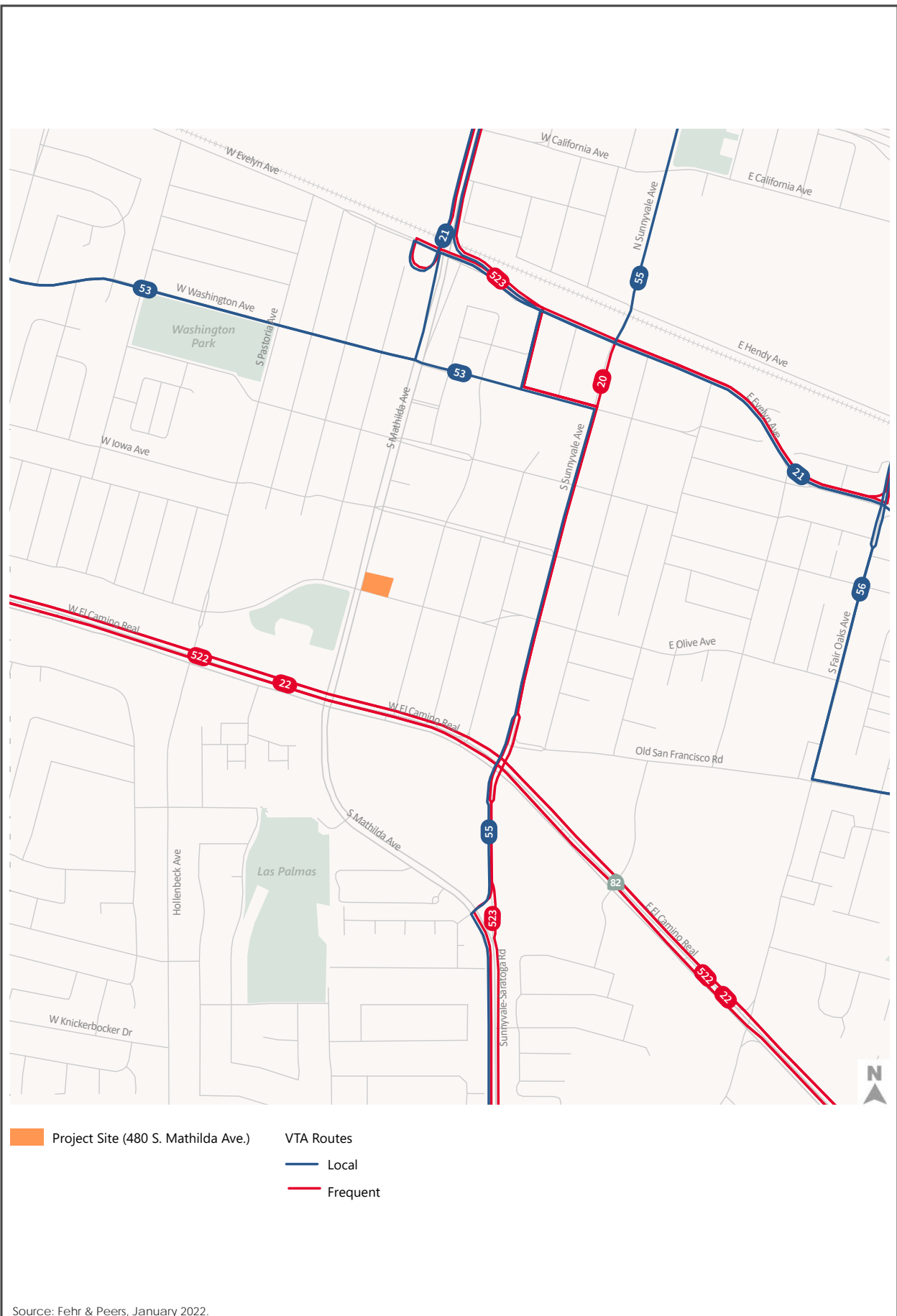
Transit Facilities

The existing bus transit services in the vicinity of the project site are provided by the Santa Clara Valley Transportation Authority (VTA) and commuter rail service is provided by Caltrain. The nearest bus stop to the project site is located on El Camino Real, approximately 0.3 mile south of the project site. The nearest commuter rail station is located approximately 0.7 mile north of the project site. The VTA and Caltrain services operating in the vicinity of the project area are listed below with information regarding their headways, or the frequency at which transit vehicles arrive at the transit stop during peak travel hours. Existing transit facilities are shown on Figure 4.17-2.

- **Local Route 20** runs from the Milpitas BART station to the Sunnyvale Transit Center with peak headways of 30 minutes.
- **Local Route 21** runs from the Stanford Shopping Center to the Santa Clara Transit Center with peak headways of 30 minutes.
- **Local Route 53** runs from the Sunnyvale Transit Center to the Santa Clara Transit Center with peak headways of 30 minutes.
- **Local Route 55** runs from the Old Ironsides Station to De Anza College with peak headways of 30 minutes.
- **Local Route 56** runs from the Lockheed Martin transit stop to De Anza College with peak headways of 30 minutes.
- **Frequent Route 22** runs from the Palo Alto Transit Center to the Eastridge Transit Center with peak headways of 15 minutes.
- **Rapid Route 522** runs from the Palo Alto Transit Center to the Eastridge Transit Center with peak headways of 15 minutes.
- **Rapid Route 523** runs from San José State University to Lockheed Martin via De Anza College with peak headways of 15 minutes.
- **Caltrain** runs from San Francisco to Gilroy with peak headways that range from 20 to 40 minutes.

It is estimated that the existing uses on-site generate approximately 2 transit riders during the AM peak hour and 4 transit users during the PM peak hour.⁹⁷

⁹⁷ Caldera, Ryan. Senior Transportation Engineer, Fehr & Peers Transportation Engineer. Personal Communication. February 23, 2022.



EXISTING TRANSIT FACILITIES

FIGURE 4.17-2

4.17.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Impact TRN-1: The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities. (Less than Significant Impact)				

Roadway System

The project-specific TA reviewed the project's compliance with City Council Policy 1.2.8: Transportation Policy, which provides screening guidelines for evaluating the transportation impacts of land use projects. As further discussed in Impact TRN-2 below, the project meets the screening criteria for a transit supportive project, therefore, is screened to have a less than significant VMT impact and does not need to prepare a VMT analysis. The TA calculated the amount of traffic that would be anticipated to be added to the roadway system in the vicinity of the project site as a result of the project. The number of net-new trips was calculated relative to the land uses and square footage totals that had previously been studied as part of the 2019 Downtown Specific Plan Amendments and Specific Development Project EIR (SCH# 2018052020). According to the TA, the project would generate a net increase of 66 AM peak hour and 30 PM peak hour vehicle trips.⁹⁸ This projected net increase in net-new peak-hour trips was under the threshold of 100 AM and PM peak hour trips established in the City's Transportation Analysis Guidelines that would trigger the requirement to conduct a Local Transportation Analysis (LTA) for Level of Service (LOS) analysis. As a result, the project would comply with the City's Council Policy 1.2.8 and Transportation Analysis Guideline. Pursuant to the DSP requirements for new non-residential developments, the project would be required to prepare and implement a TDM program to reduce the impact of automobile trips. Based on this discussion, the project would not conflict with any program, plan, ordinance, or policy addressing the roadway system, which would result in a less than significant impact. **(Less than Significant Impact)**

⁹⁸ Fehr & Peers. Transportation Analysis (TA) for 480 Mathilda Avenue. April 2022. Table 2.

Pedestrian Facilities

Pedestrian facilities in the project area consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections and sidewalks and crosswalks at unsignalized intersections. In the vicinity of the project site, sidewalks are provided on both sides of South Mathilda Avenue, South Taaffe Street, and West Olive Avenue. The project would upgrade sidewalks to six feet in width with four feet in width of landscaping (total of 10 feet wide) along its frontages on the South Mathilda Avenue and West Olive Avenue. The project would also install landscaping and lighting along the building frontages to create a more walkable pedestrian space within and adjacent to the project site. The proposed office development would not conflict with a program, plan, ordinance, or policy addressing the pedestrian circulation system. **(Less than Significant Impact)**

Bicycle Facilities

Bicycle facilities within the vicinity of the project site consist primarily of Class II bike lanes, Class IIB buffered bicycle lanes, and Class III bike routes. Olive Avenue, which is adjacent to the southern border of the project site, is classified as a Class III bike route. Portions of South Mathilda Avenue and South Sunnyvale Avenue have Class II bike lanes and Class IIB buffered bicycle lanes that are generally oriented in a north-south direction. Portion of El Camino Real have Class II bike lanes that are generally oriented in an east-west direction. East Evelyn Avenue, which is north of the project site, also provides Class II bike lanes in an east-west direction. The bicycle facilities in the immediate vicinity of the project site are not well-connected because certain segments are isolated and stretches of South Mathilda Avenue do not have any bike lanes; however, the connectivity of bicycle facilities surrounding the Downtown Specific Plan area is more conducive to bicycle travel. To prevent obstructions for cyclists on West Olive Avenue and South Mathilda Avenue, the project would provide on-site trash pickup instead of on-street pickup.

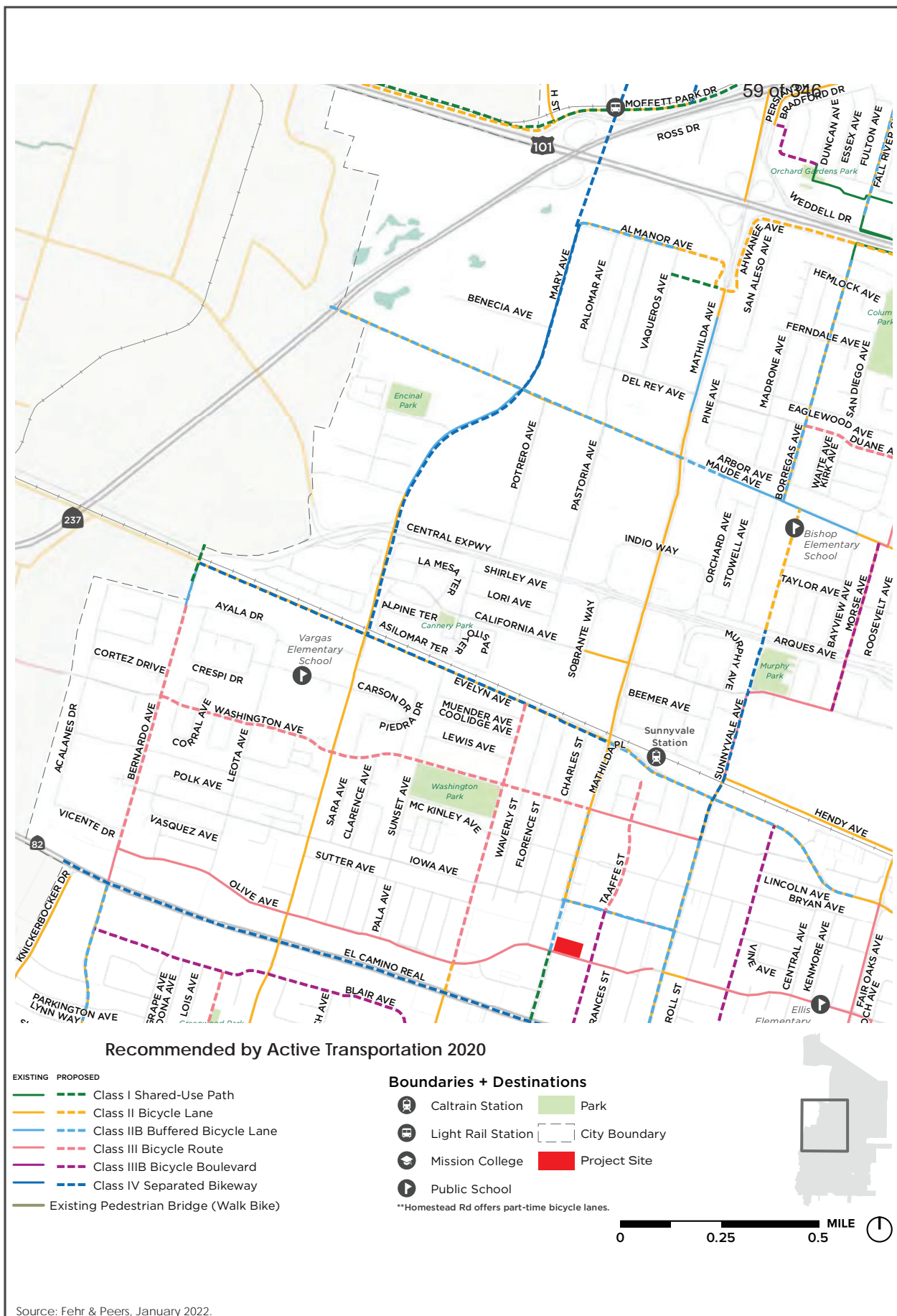
The Active Transportation Plan 2020 recommends the installation of Class I and Class IIB buffered bicycle lanes near the project site on South Mathilda Avenue, in addition to Class III bicycle routes and Class IIIB bicycle boulevard on South Taaffe Street. The recommended improvements on South Mathilda Avenue are on the High Priority list and the recommended improvements on South Taaffe Street are on the Medium Priority list in the Active Transportation Plan. Funding for these proposed improvements would be sourced from a variety of local, regional, state, and federal grant programs. These additions to the bicycle network would improve bicycle access to the site. A map of the recommended improvements in the vicinity of the project area is shown on Figure 4.17-3. The proposed project install Class IIB buffered bicycle lanes along the project frontage on Mathilda, therefore, would not impede implementation of these planned improvements, nor would it conflict with another program, plan, ordinance, or policy addressing the bicycle circulation system. **(Less than Significant Impact)**

Transit Facilities

The project area is served by eight VTA bus routes with stops within walking distance of the project site, in addition to a Caltrain station that provides commuter rail service between San Francisco and Gilroy. The proposed project would generate approximately 13 new transit riders during the AM

peak hour and 11 new transit users during the PM peak hour,⁹⁹ which would not exceed the capacity of or obstruct the operation of the existing transit facilities, or conflict with a program, plan, ordinance, or policy addressing the transit circulation system. **(Less than Significant Impact)**

⁹⁹ Caldera, Ryan. Senior Transportation Engineer, Fehr & Peers Transportation Engineer. Personal Communication. February 23, 2022.



ACTIVE TRANSPORTATION 2020 RECOMMENDED BICYCLE FACILITIES IMPROVEMENTS

FIGURE 4.17-3

Impact TRN-2: The project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). **(Less than Significant Impact)**

The City of Sunnyvale adopted Council Policy 1.2.8 in June 2020 to implement a VMT analysis policy that would be consistent with the requirements of SB 743 and CEQA Guidelines Section 15064.3, subdivision (b). Pursuant to CEQA Guidelines Section 15064.3, subdivision (b), land use projects within one-half mile of an existing major transit stop or a stop along a high-quality transit corridor are presumed to result in a less than significant transportation impact. Council Policy 1.2.8 implements additional requirements and criteria for projects to be screened out of preparing a VMT analysis. These criteria include proximity to transit, land use density, design that supports the multi-modal transportation network, transit-oriented design, parking supply, and number of affordable residential units. The project's qualifications to meeting the screening criteria is summarized below in Table 4.17-1.

Table 4.17-1: Project Consistency with Transit Supportive Screening Criteria	
Screening Criteria	Project
Distance to Transit. A proposed development must be within one-half mile of an existing major bus stop or existing stop along a high-quality transit corridor to qualify for a VMT analysis exemption.	The project is within half a mile of the El Camino Real transit corridor, which qualifies as a high-quality transit corridor because VTA's Rapid 523 bus-rapid transit route runs along El Camino Real. Therefore, the proposed project meets this criterion for VMT analysis exemption.
Land Use Density. A proposed office or research & development project must have a FAR of more than 75 percent to qualify for a VMT analysis exemption.	The project proposes 177,866 square feet of office use on parcels totaling approximately 54,000 square feet, resulting in an FAR of approximately 236 percent, which is greater than 75 percent. Therefore, the proposed project meets this criterion for VMT analysis exemption.
Multi-modal Transportation. A proposed development must satisfy at least four of the following sub-criteria: <ul style="list-style-type: none">• Limit the number and width of curb cuts,• Install sidewalks wider than minimum requirement along the project frontage,• Provide trash pickup not within bike lanes,• Improve transit accessibility or facilities, and/or,	The project would satisfy four of the above sub-criteria by: <ul style="list-style-type: none">• Limiting the number of curb cuts along its frontages on Mathilda Avenue and Olive Avenue and not installing driveways wider than standard• Installing sidewalks at six feet wide and four feet wide landscaping strip (total of 10 feet wide) along its project frontages• Providing on-site trash pickup such that trash pickup would not occur on either Mathilda Avenue or Olive Avenue

Table 4.17-1: Project Consistency with Transit Supportive Screening Criteria	
Screening Criteria	Project
<ul style="list-style-type: none"> Implement new bike lanes or pedestrian facilities not along the project frontage. 	<ul style="list-style-type: none"> Providing internal bicycle and pedestrian facilities on-site to facilitate multimodal circulation within the site. <p>Therefore, the proposed project meets this criterion for VMT analysis exemption.</p>
<p>Parking Supply. A proposed development's parking supply must not exceed maximum parking requirements or propose a higher parking supply than what is allowed per the development standards to qualify for a VMT analysis exemption. Office developments in the City of Sunnyvale must provide 4 spaces per 1,000 square feet of use per City of Sunnyvale Municipal Code Section 19.46.100. The proposed Project is required to provide at least 512 vehicular parking spaces (127,866 square feet of office use*4 spaces per 1,000 square feet = 512 spaces).</p>	<p>The project proposes to provide 272 spaces of below-ground vehicle parking, which is less than what is allowed per the applicable development standards. Therefore, the proposed project meets this criterion for VMT analysis exemption.</p>
<p>Transit-Oriented Design. A proposed development must be transit-oriented in design to qualify for a VMT analysis exemption. The Guidelines outline a number of sub-criteria that a proposed development must satisfy to meet this criterion for walkable design, sustainable and compact, ease of bicycle use, and transit focus.</p>	<p>The project satisfies the four sub-criteria for transit-oriented design, as described below.</p> <p><u>Walkable Design</u> - The project would include adequate lighting and landscaping to promote walking within the site. The project frontages would include six-foot wide sidewalks and four-foot wide landscaping to enhance the pedestrian experience. The project would have minimal building setbacks from the public sidewalks on Mathilda Avenue and Olive Avenue, creating pedestrian-scaled environments. The project would also have an adequate and complete on-site pedestrian circulation system to support pedestrians walking to, from, and within the site. Therefore, the proposed project meets this sub-criterion for transit-oriented design designation.</p> <p><u>Sustainable and Compact</u> - As identified under the Land Use Density criterion section, the project would have an FAR of approximately 236%, which is greater than 75%. As identified under the Walkable Design sub-criterion</p>

Table 4.17-1: Project Consistency with Transit Supportive Screening Criteria	
Screening Criteria	Project
	<p>section, the project would have minimal building setbacks from public sidewalks, which also places the project building close to the property lines on the edges of the site and promotes appealing pedestrian-scaled environments. The project also increases the building height and bulk on-site compared to the existing land uses as demonstrated through the FAR calculations. Therefore, the proposed project meets this sub-criterion for transit-oriented design designation.</p> <p><u>Ease of Bicycle Use</u> - The project would have an adequate and complete on-site bicycle circulation system to support bicyclists walking to, from, and within the site. The project would provide 112 on-site bicycle parking spaces, including 108 secured bicycle parking spaces and four uncovered bicycle parking spaces. The project would also provide on-site amenities for bicyclists, including lockers, showers, and changing facilities. Therefore, the proposed project meets this sub-criterion for transit-oriented design designation.</p> <p><u>Transit Focus</u> - The project includes improvements on the site frontages on Mathilda Avenue and Olive Avenue. These improvements would facilitate unobstructed travel to the high-quality transit corridor on El Camino Real. Therefore, the proposed project meets this sub-criterion for transit-oriented design designation.</p>
Affordable Residential Units. A proposed development must provide at least as many affordable residential units as currently exists to qualify for a VMT analysis exemption.	The project proposes to replace office and commercial use with an intensified office development; therefore, this sub-criterion does not apply to the proposed project.

Based on the discussion in Table 4.17-1, the project meets the City's screening criteria and is assumed to have a less than significant VMT impact. **(Less than Significant Impact)**

Impact TRN-3: The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). **(Less than Significant Impact)**

Currently, vehicles enter and/or exit the project site via one driveway on Mathilda Avenue and four driveways on West Olive Avenue. Under the proposed project, the existing driveway on Mathilda Avenue would be removed and vehicular access to the site would be provided by a single two-way driveway on the south side of the project site on West Olive Avenue. The removal of the Mathilda Avenue driveway would improve pedestrian and bicycle safety on Mathilda Avenue by reducing conflicts between vehicular traffic entering and exiting the site and bicyclist and pedestrians on Mathilda Avenue. The reduction in the number of existing driveways on West Olive Avenue would also reduce conflicts between vehicles and bicycles and pedestrians. The proposed driveway on West Olive Avenue would meet the design standards from Chapter 19.46.120 of the SMC that require a minimum width of 20 feet for two-way driveways. The driveway, therefore, would not result in a hazardous design feature. Based on the existing traffic volumes on West Olive Avenue and traffic expected to be generated by the proposed office building, the project driveways would operate acceptably.¹⁰⁰

In addition, the project would remove a northbound travel lane and add a new Class IIB buffered bicycle lane on South Mathilda Avenue along the project frontage, which would further improve bicycle safety on Mathilda Avenue. The project site is surrounded by a mix of land uses, including office, commercial, and residential. The project proposes to replace the existing commercial and office development on-site with office uses. The proposed office use is not a new use on-site or in the project area. For this reason, the project would not be an incompatible land use. Based on the discussion above, the project would not substantially increase hazards due to a geometric design feature or incompatible uses. **(Less than Significant Impact)**

Impact TRN-4: The project would not result in inadequate emergency access. **(Less than Significant Impact)**

The project would not include development of structures within the public rights-of-way and no alteration to the geometry of adjacent roadways would occur. The proposed development would be reviewed for consistency with applicable California Building Code and Fire Code requirements for access and safety. As such, the proposed project would have a less than significant emergency access impact. **(Less than Significant Impact)**

¹⁰⁰ Fehr & Peers. *Transportation Analysis (TA) for 480 Mathilda Avenue*. April 2022. Page 20.

4.18 TRIBAL CULTURAL RESOURCES

4.18.1 Environmental Setting

4.18.1.1 *Regulatory Framework*

State

Assembly Bill 52

AB 52, effective July 2015, established a new category of resources for consideration by public agencies called Tribal Cultural Resources (TCRs). AB 52 requires lead agencies to provide notice of projects to tribes that are traditionally and culturally affiliated with the geographic area if they have requested to be notified. Where a project may have a significant impact on a TCR, consultation is required until the parties agree to measures to mitigate or avoid a significant effect on a TCR or until it is concluded that mutual agreement cannot be reached.

Under AB 52, TCRs are defined as follows:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are also either:
 - Included or determined to be eligible for inclusion in the California Register of Historic Resources, or
 - Included in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).
- A resource determined by the lead agency to be a TCR.

4.18.1.2 *Existing Conditions*

There are no known TCRs on-site. The Tamien Nation tribe requested for notification of all projects within the City of Sunnyvale. As discussed in Section 4.5 Cultural Resources, the site has moderate sensitivity for pre-historic resources and a low sensitivity for historic-era archaeological resources.

4.18.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact TCR-1: The project would not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). **(Less than Significant Impact with Mitigation Incorporated)**

The project site does not contain any known TCRs. The City contacted Chairwoman Geary of the Tamien Nation on December 7, 2021, via email and invited the Tamien Nation to initiate formal consultation with the City of Sunnyvale, pursuant to AB 52. The AB 52 30-day consultation window ended on January 14, 2022, and the Tamien Nation did not request formal consultation with the City in regard to the proposed project.

The project would implement mitigation measures MM CR-2.1, MM CR-2.2, MM CR-2.3, and MM CR-3.1 identified in Section 4.5 Cultural Resources to reduce the potential for adverse impacts to buried cultural resources (including TCRs) to a less than significant level by providing cultural sensitivity training to educate all contractors on types of artifacts and features that may be encountered and what to do if those items are encountered, monitoring excavation work by a qualified archaeologist, and stopping construction and preparing a research design and treatment plan if resources are found. Based on this discussion, the project would not cause a substantial adverse change in the significance of a TCRs. **(Less than Significant Impact with Mitigation Incorporated)**

Impact TCR-2: The project would not cause a substantial adverse change in the significance of a tribal cultural resource that is 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. **(Less than Significant Impact with Mitigation Incorporated)**

As discussed under Impact TCR-1, no TCRs were identified on the project site and the implementation of mitigation measures MM CR-2.1 MM CR-2.2, and MM CR-3.1 would reduce impacts unknown, buried TCRs (if present on-site) to a less than significant level. As such, the project would not cause a substantial adverse change in the significance of a TCR. **(Less than Significant Impact with Mitigation Incorporated)**

4.19 UTILITIES AND SERVICE SYSTEMS

The following discussion in this section is based, in part, on a Utility Impact Study prepared by Schaaf & Wheeler dated October 2021 and two technical memorandums prepared by BKF Engineers, both dated March 2021. Copies of these reports are included in Appendix H of this Initial Study.

4.19.1 Environmental Setting

4.19.1.1 *Regulatory Framework*

Federal and State

Federal Clean Water Act and California Porter-Cologne Water Quality Control Act

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality in California. Regulations set forth by the EPA and the SWRCB have been developed to fulfill the requirements of this legislation. EPA regulations include the NPDES permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). NPDES permits establish discharge limits on what can be discharged to the waters of the United States, and contains monitoring and reporting requirements, and other provisions to ensure that the discharge does not hurt water quality or people's health. These regulations are implemented at the regional level by the Regional Water Quality Control Boards (RWQCBs), specifically by the San Francisco Bay RWQCB for the San Francisco Bay Area region.

State Water Code

Pursuant to the State Water Code, water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (approximately 980 million gallons) of water annually must prepare and adopt an urban water management plan (UWMP) and update it every five years. As part of a UWMP, water agencies are required to evaluate and describe their water resource supplies and projected needs over a 20-year planning horizon, water conservation, water service reliability, water recycling, opportunities for water transfers, and contingency plans for drought events. The City of Sunnyvale adopted its most recent UWMP in June 2020.

Assembly Bill 939

The California Integrated Waste Management Act of 1989, or AB 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation measures.

Assembly Bill 341

AB 341 sets forth the requirements of the statewide mandatory commercial recycling program. Businesses that generate four or more cubic yards of garbage per week and multi-family dwellings

with five or more units in California are required to recycle. AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

Senate Bill 1383

SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The bill grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that at least 20 percent of currently disposed edible food is recovered for human consumption by 2025.

California Green Building Standards Code

In January 2010, the State of California adopted the California Green Building Standards Code, establishing mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and indoor environmental quality. These standards include the following mandatory set of measures, as well as more rigorous voluntary guidelines, for new construction projects to achieve specific green building performance levels:

- Reducing indoor water use by 20 percent;
- Reducing wastewater by 20 percent;
- Recycling and/or salvaging 65 percent of nonhazardous construction and demolition debris; and
- Providing readily accessible areas for recycling by occupants.

Local

City of Sunnyvale General Plan

The City's General Plan includes policies for the purpose of avoiding or mitigating environmental impacts resulting from planned development projects within the City. The following policies are specific to utilities and service systems and are applicable to the proposed project.

Policy	Description
Environmental Management Element	
EM-1.3	Provide enough redundancy in the water supply system so that minimum potable water demand and fire suppression requirements can be met under both normal and emergency circumstances.
EM-2.1	Lower overall water demand through the effective use of water conservation programs in the residential, commercial, industrial and landscaping arenas.
EM-10.1	Consider the impacts of surface runoff as part of land use and development decisions and implement BMPs to minimize the total volume and rate of runoff of waste quality and quantity (hydro modification) of surface runoff as part of land use and development decisions.

Policy	Description
EM-14.2	Maximize diversion of solid waste from disposal by use of demand management techniques, providing and promoting recycling programs, and encouraging private sector recycling.
EM-14.3	Meet or exceed all federal, state and local laws and regulations concerning solid waste diversion and implementation of recycling and source reduction programs.

Downtown Specific Plan

The DSP contains specific land use and design standards for new development in downtown Sunnyvale. The DSP contains the following policy related to infrastructure improvements needed to reduce environmental impacts.

Policy	Description
B-1.2	Ensure adequate public utility services and infrastructure.

Sunnyvale Water Pollution Control Plan Master Plan

In 2016, the City adopted its Water Pollution Control Plant Master Plan to rebuild the Donald M. Somers Water Pollution Control Plant (WPCP) over the next 20 years. Implementation of the plan will upgrade existing outdated equipment and aging infrastructure, complying with all applicable federal, state, and local regulations.

Sunnyvale Water Utility Master Plan

The City's Water Utility Master Plan (WUMP) was adopted in 2010 and later updated as part of the Potable Water System Comprehensive Preliminary Design Study Report (CPDS, 2013). The City's WUMP and CPDS identify CIPs and pipeline upsizing projects to address the City's fire flow deficiencies and provide sufficient fire flow in the City through 2033.¹⁰¹

Sunnyvale Wastewater Collection System Master Plan

The City's 2015 Wastewater Collection System Master Plan (WWMP) evaluated the capacity and condition of the sanitary sewer and storm drain collection system in order to recommend a long-term Capital Improvement Program with improvements.¹⁰² The City's sewer system performance criteria defines a pipe as potentially deficient when the Maximum Flow Depth/Pipe Diameter (d/D) is greater than 0.75 for 12 inch and greater diameter pipes and 0.5 for 10 inch and smaller diameter pipes.¹⁰³ Based on the findings, the WWMP identifies CIPs to be implemented to ensure the sanitary sewer and storm drain systems can accommodate the existing development and projected growth in the City. CIPs identified for the DSP area include the following:

¹⁰¹ City of Sunnyvale. *Water Utility Master Plan*. November 2010. Page 9, Table 7-2 for CIPs and Table 8-2 for pipeline upsizing.

¹⁰² The 2015 WWMP evaluated 12-inch or larger pipelines.

¹⁰³ City of Sunnyvale. *Wastewater Collection System Master Plan*. December 2015. Pages 28-29.

*Sanitary Sewer Improvements*¹⁰⁴

- CIP-7 – Close west outlet at Manhole 432-228 to 18-inch diameter pipe between 27-inch and 16-inch diameter pipes in Borregas to reduce surcharging in 16-inch diameter pipe.
- CIP-8 – Construct diversion structure in Manhole 287-2022 and new 12-inch diameter pipe in Mathilda from El Camino Real to Washington Avenue to offload flows in Fair Oaks Avenue Manhole 287-202 to 353-255.
- CIP-9 – Close north outlet at Manhole 331-207 (150 feet south of Hendy Avenue in Fair Oaks Avenue) to prevent surcharging of 12-inch diameter pipe.

*Storm Drain Improvement*¹⁰⁵

- Line C - From Evelyn Avenue across Caltrain tracks to North Frances Street, add new 42-inch diameter reinforced concrete pipe.

Only CIP-9 is funded and planned for near-term implementation. The other CIPs have not been implemented and are not fully funded. The City plans to update the WWMP in the near future. As part of the update, updated data would be collected and updated modeling would be completed, and the existing, identified CIPs in the WWMP may be updated as a result.

Furthermore, the certified 2019 Downtown Specific Plan Amendments and Specific Development Project EIR Table 3.18-2 identifies additional CIP, which has since been added to the City's current Capital Improvement Program.¹⁰⁶

Improvements needed to the City's sewer system, including the WPCP, are funded through the collection of sewer connection fees. Developers are required to pay the appropriate sewer connection fee prior to redevelopment of a property

Sunnyvale Municipal Code

Section 12.16.020 (Types of charges and fees) states that the City Council from time to time shall establish by resolution fees and charges for sewage services provided by the City. Such fees and charges shall be based on cost influencing factors such as flow, pollutant loading rates, volumes, and the degree of effort required for purposes of billing, inspection, sampling, testing and permitting.

Section 12.40.010 (Allocation of Sewage Treatment Capacity) states that the entire sewage treatment capacity of the WPCP shall be allocated to four categories as follows: (A) Industrial (consisting of all zoning districts M-1, M-2, M-3, M-4 or any replacement district intended to be primarily for manufacturing land use); (B) Commercial/Public (consisting of all zoning districts O, P-F, CD, C-H, C-1, C-2, C-3, C-4); (C) Residential (consisting of all zoning districts R-0, R-1, R-2, R-3, R-4, R-5, R-MH); which allocations shall total 96% of the WPCP's rated capacity. In addition, a fourth category, (D) "Reserves" shall be established totaling four percent of the WPCP's rated capacity.

¹⁰⁴ City of Sunnyvale. *Wastewater Collection System Master Plan*. December 2015. Table 4-7.

¹⁰⁵ City of Sunnyvale. *Wastewater Collection System Master Plan*. December 2015. Table 5-5.

¹⁰⁶ City of Sunnyvale. *Draft EIR: Downtown Specific Plan Amendments and Specific Development Project*. SCH# 2018052020. Table 3.18-2. November 2019.

Section 12.40.030 (Initial baseline limits) states there shall be established for each of Categories A, B and C, an “Initial Baseline Limit,” which shall be defined as the initial allocations, less the present estimated vacant land needs of 1.485 MGD for Category A (Industrial), 0.256 MGD for Category B (Commercial/Public), and 1.160 MGD for Category C (Residential).

Section 12.40.060 (Monitoring of Wastewater Flows) states the Director of Community Development or his or her designate shall monitor wastewater flows to the WPCP and periodically calculate, on the basis of water sales information, and any other relevant information, the amount of wastewater flow originating from the zoning districts comprising each of the wastewater capacity allocation categories.

Section 12.40.070 (Declaration of need for wastewater capacity evaluations) states if the calculated amount of wastewater from any allocation category reaches the baseline limit for such category, the Director of Community Development, or designate, shall immediately issue and cause to be filed with the City Clerk a Declaration of Need for Wastewater Capacity Evaluation. The City Clerk shall within 10 days publish this Declaration in the official newspaper of the City. Thereupon for a period of 60 days, or until the Declaration is withdrawn, whichever is earlier, no new wastewater discharge permits shall be issued, and no existing permits shall be modified to permit increased flow. The Director of Community Development or his or her designate shall perform within such 60 days an analysis of the remaining vacant land in each wastewater capacity allocation category, and the wastewater capacity anticipated to be needed to service such vacant land when developed. For each acre of vacant land in Categories A and B, three thousand gallons per acre per day will be reserved. For each vacant acre of land within Category C, capacity needs based upon the maximum density allowed in each zoning district making up Category C, will be calculated and reserved. A new baseline limit for each capacity allocation category shall be calculated by subtracting vacant land needs in each category from total WPCP capacity allocation in each category.

Chapter 19.37 (Landscaping, Irrigation and Usable Open Space) promotes the conservation and efficient use of water. All new landscaping installations of 500 square feet or more or rehabilitated landscaping projects of 1,000 square feet or more are subject to water-efficiency design, planting, and irrigation requirements.

Sunnyvale Construction and Demolition Waste Diversion

The City requires remodel or demolition projects where 50 percent or more of the exterior wall will be removed to recycle or reuse at least 65 percent of the project’s nonhazardous waste.¹⁰⁷ Recycling of nonhazardous waste reduces the energy use to produce new materials from raw, non-renewable resources.

4.19.1.1 *Existing Conditions*

The project site is located in a developed area within the City of Sunnyvale and is currently served by existing wastewater/sanitary sewer, water, stormwater, and solid waste service systems.

¹⁰⁷ City of Sunnyvale. “Construction Waste.” February 5, 2019. Accessed December 20, 2021.
<https://sunnyvale.ca.gov/business/environmental/waste.htm>.

Wastewater Treatment and Sanitary Sewer System

Wastewater Treatment

Wastewater within the City is treated at the WPCP, which collects wastewater from residential, commercial, and industrial sources in Sunnyvale, the Rancho Rinconada portion of Cupertino, and Moffett Federal Airfield. Sewage is collected through approximately 310 miles of gravity pipelines which direct the flow of wastewater through five interceptors (the Lawrence, Borregas, Lockheed, Moffett, and Cannery interceptors) to the WPCP for treatment. Treated effluent from the WPCP is discharged into the San Francisco Bay via the Guadalupe Slough.¹⁰⁸

The WPCP has five different process areas, which are comprised of preliminary, primary, secondary, tertiary, and solid processing facilities. The WPCP's average dry weather flow (ADWF) design capacity is 29.5 million gallons per day (mgd) and the peak wet weather design capacity is 40 mgd. The amount of influent wastewater handled by the WPCP varies within the time of day and within seasonal changes in demand. In 2020, the ADWF was approximately 12.6 mgd.¹⁰⁹

Sanitary Sewer System

The existing development on-site has a sewer flow of 3,824 gallons per day (gpd) based on the current land use and density.¹¹⁰ Based on the maximum development of what is currently allowed on-site (i.e., 5,683 square feet of commercial and 5,683 square feet of commercial), the sewer flow would be 9,495 gpd. Sewage generated on-site flows to an existing six-inch main line in West Olive Avenue.

The performance criteria of the sanitary sewer system is calculated by dividing the maximum flow depth of the sewage by the diameter of the pipe (d/D). Based on the City's standard design guidelines, for pipes with a diameter equal to or less than 10 inches, a d/D performance criteria ratio of 0.50 or less is considered adequate, and any ratio higher than that would be considered deficient. Pipes with a diameter greater than or equal to 12 inches would have to meet a d/D performance criteria ratio of 0.75 or lower to be considered adequate, and any ratio higher than that would be considered deficient.

Based on the current capacity and existing sewer flow, the sanitary sewer system downstream of the project area does not meet the City performance design criteria.¹¹¹ Currently, there are 39 pipe segments (approximately 9,374 feet of pipe) within the sanitary sewer system that do not meet the City-designated performance criteria ratio. Of those deficient sections, there are three pipe sections (approximately 485 feet of pipe) with a d/D ratio of 0.95 or higher that are near surcharging.

Water Supply and Demand

Water service is provided to the project site by the Sunnyvale municipal water system. Potable water supply in the City is sourced from the San Francisco Public Utilities Commission (SFPUC), Santa

¹⁰⁸ City of Sunnyvale. *Wastewater Collection System Master Plan*. December 2015. Pages 9-15.

¹⁰⁹ City of Sunnyvale. *Water Pollution Control Plant 2020 Annual NPDES Report*. February 1, 2021. Pages 3-13.

¹¹⁰ Schaaf & Wheeler Consulting Civil Engineers. *480 Mathilda Utility Impact Study*. October 5, 2021.

¹¹¹ Ibid. Page 5-1.

Clara Valley Water District (Valley Water), and groundwater from six City-owned wells.¹¹² The City also provides recycled water that has been treated at the WPCP to certain locations throughout Sunnyvale. The City's Water Utility Master Plan projects the Average Daily Demand (ADD) for water under buildout of the General Plan is estimated to be approximately 24.41 million gallons per day (mgd). The total supply available to the City is projected to be 36.54 mgd, which exceeds the demand and results in a surplus of available water. Projections from the 2020 UWMP indicate that the City will be able to meet water demands during normal, single-dry year, and five consecutive dry-year conditions.

Water demand at the project site is currently estimated to be approximately 5,479 gpd based on the existing land uses and densities.

Water System

Water Storage

The State Water Resources Control Board Division of Drinking Water (DDW) requires cities to store enough water to meet eight hours of Maximum Day Demand (MDD) in addition to four hours of fire flow volume. In order to meet DDW requirements for existing development in the City, the City must have storage capacity for 18.74 million gallons (mg) of water. The City's maximum water storage capacity is approximately 19.70 mg, which provides sufficient storage capacity for current needs. Under the future cumulative conditions (2035 General Plan buildout plus DSP Amendments approved in 2020), the City's eight hours of MDD would be approximately 15.14 mg, which would also be sufficiently stored based on the City's storage capacity of 18.74 mg.

Hydraulic Conveyance

The water system must meet minimum allowable pressure levels under two scenarios, Maximum Day Demand with Fire Flow (MDD+FF) and Peak Hour Demand (PHD). The minimum allowable pressure for the PHD scenario is 40 psi and the minimum allowable pressure for the MDD+FF scenario is 20 psi. Sunnyvale is split into three different pressure zones, and the project site is located in Pressure Zone 2. Under existing conditions, the pressure citywide (i.e., in all three pressure zones) under the Peak Hour Demand (PHD) scenario meets the performance criteria of 40 psi.

Fire Flow

Based on existing conditions, the fire flow rate required for the project site is approximately 3,500 gallons per minute (gpm). This demand is adequately served by the existing infrastructure in the area, which can provide a maximum flow rate of 5,658 gpm. Outside of the project site, there are several nodes with existing deficiencies under the MDD+FF scenario that do not meet the required flow rate.

Storm Drain System

The City stormwater system is comprised of approximately 150 miles of storm drains and two pump systems that convey water to four separate waterways that lead to San Francisco Bay. These

¹¹² City of Sunnyvale. *2020 Urban Water Management Plan*. Adopted June 29, 2021.

waterways are the Sunnyvale West Channel, Sunnyvale East Channel, Stevens Creek, and Calabazas Creek.¹¹³

The project site is comprised of approximately 47,763 square feet (or 87 percent) of impervious surfaces and the remaining 7,000 square feet (or 13 percent) are pervious surfaces. Runoff from the project site flows into the nearest drainage inlets on West Olive Avenue and in the intersection of West Olive Avenue and South Mathilda Avenue. The storm drain lines in the immediate vicinity are 15- to 18-inches in diameter and eventually carry the storm water into the San Francisco Bay.

Solid Waste

Solid waste collected in the City is transported to the Sunnyvale Materials Recovery and Transfer Station (SMaRT Station[®]). The SMaRT Station currently serves the cities of Mountain View, Palo Alto, and Sunnyvale. In 2020, the SMaRT Station processed an average peak tonnage of 952 of materials, with a permitted peak capacity of 1,500 tons of material each day.¹¹⁴ The SMaRT Station receives municipal solid waste, recyclables, and yard trimmings. The SMaRT Station diverts approximately 41 percent of the materials delivered from being landfilled.¹¹⁵ Diverted materials primarily include compostable organics, concrete, dirt, carpet, mattresses, and yard trimmings. The remaining waste is disposed of at Kirby Canyon Landfill in south San José. Kirby Canyon Landfill has a capacity of 36.4 million cubic yards and is permitted to receive 2,600 tons of waste per day.¹¹⁶ As of January 1, 2021, the landfill has a remaining Phase 1 capacity of 14.67 million cubic yards. Based on the current remaining capacity available and projected volumes, Kirby Canyon Landfill is projected to close its Phase 1 section in 2060.¹¹⁷ There are additional phases available that are also accepting waste, but the remaining capacity for those future phases is currently unknown.

The project site currently generates approximately 19.11 tons (38,220 pounds or 20.65 cubic yards) per year of solid waste.¹¹⁸

¹¹³ City of Sunnyvale. *2020 Urban Water Management Plan*. Adopted June 29, 2021. Page 6-5.

¹¹⁴ CalRecycle. "Sunnyvale MRF & Transfer Station (43-AA-0009)." Accessed December 2, 2021. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/SiteInspection/Index/3376>. This average was calculated using the average peak tonnage measured during each of the monthly inspections for 2020.

¹¹⁵ City of Sunnyvale, Environmental Services Department. "SMaRT Station Annual Report 2018-2019." Accessed: December 2, 2021. Available at: <https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?blobid=25741>.

¹¹⁶ CalRecycle. "Kirby Canyon Recycle & Disposal Facility (43-AN-0008)." Accessed December 2, 2021. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1370?siteID=3393>.

¹¹⁷ Azevedo, Becky. Technical Manager, Waste Management, Inc. Personal Communication. December 27, 2021.

¹¹⁸ 1) Solid waste tonnage based on the CalEEMod modeling outputs in the air quality & greenhouse gas assessment. Source: Illingworth & Rodkin, Inc. 480 South Mathilda Avenue Air Quality & Greenhouse Gas Assessment. January 21, 2022. Attachment 2. 2) Cubic yards based on a compaction rate of 1,850 pounds per cubic yard.

4.19.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5) Be noncompliant with federal, state, or local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<hr/>				
Impact UTL-1:	The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (Less than Significant Impact)			

Water Supply and Demand

Water supply is analyzed cumulatively based on the buildout of the General Plan. The Average Daily Demand (ADD) under future cumulative conditions (2035 General Plan buildout plus DSP Amendments approved in 2020) is estimated to be approximately 24.71 million gallons per day (mgd). According to the Utility Impact Study conducted for this project, the demand for potable water on-site would increase from approximately 5,479 to 31,204 gpd, which results in a net increase of 25,725 gpd (approximately 0.0257 mgd). With the project's net increase in ADD, the citywide ADD would increase slightly by 0.08 percent (or 0.02 mgd) from approximately 24.71 to 24.73 mgd. The total supply available to the City is projected to be 36.54 mgd, which is adequate to meet the demand from buildout of the General Plan and the project. For these reasons, no improvements to or

expansion of existing water supply infrastructure is required to serve the proposed project. **(Less than Significant Impact)**

Water System

The project's impact on the City's water storage, hydraulic conveyance, and fire flows are discussed below

Water Storage

The proposed project's impact on the utility system for water storage was analyzed under cumulative conditions. The cumulative condition scenario incorporates the projected buildout of the City, the recommended Capital Improvement Projects (CIPs), and other recommended upgrades that have been previously identified. As discussed above, DDW requires the City to maintain a storage capacity for 18.74 mg of water. Sunnyvale's maximum storage capacity is 19.70 mg, which provides sufficient storage capacity for current needs. With the project, the citywide total for eight hours of MDD would increase slightly by 0.01 mg from 15.14 to 15.15 mg. This incremental increase in demand would not require any additional increases in storage capacity, as the City's infrastructure is capable of storing 19.70 mg. Therefore, the project would have a less than significant impact on water storage infrastructure. **(Less than Significant Impact)**

Hydraulic Conveyance

The proposed project's impact on the utility system for hydraulic conveyance was analyzed under existing conditions and cumulative conditions. The existing conditions scenario models the project's impact on the existing condition and configuration of the utility system. The cumulative condition scenario incorporates the projected buildout of the City, the recommended Capital Improvement Projects (CIPs), and other recommended upgrades that have been previously identified. As discussed in Section 4.19.1.2 Existing Conditions, the water system must meet minimum allowable pressure levels under two scenarios, Maximum Day Demand with Fire Flow (MDD+FF) and Peak Hour Demand (PHD). The minimum allowable pressure for the PHD scenario is 40 psi and the minimum allowable pressure for the MDD+FF scenario is 20 psi.

Under existing conditions, the performance criteria is met system-wide. With implementation of the project, the analysis in the Utility Impact Study found that the pressures near the project site within Pressure Zone 2 would decrease slightly by approximately one pound per square inch (psi).¹¹⁹ Despite this slight decrease in pressure, the system would continue to meet the required performance criteria. Under future cumulative conditions, the analysis in the Utility Impact Study found that the system would continue to maintain an adequate pressure level in both with implementation of the project.¹²⁰

Based on this analysis, the project would have a less than significant impact on pressure levels within the system. **(Less than Significant Impact)**

¹¹⁹ Schaaf & Wheeler Consulting Civil Engineers. *480 Mathilda Utility Impact Study*. October 5, 2021. Page 3-3.

¹²⁰ Ibid. Page 3-4.

Fire Flow

The proposed project's impact on the utility system for fire flow was analyzed under existing conditions and cumulative conditions. The existing conditions scenario models the project's impact on the existing condition and configuration of the utility system. The cumulative condition scenario incorporates the projected buildout of the City, the recommended Capital Improvement Projects (CIPs), and other recommended upgrades that have been previously identified. Under existing conditions, the required flow rate is approximately 3,500 gallons per minute (gpm). With implementation of the project, required flow rate would increase slightly to 3,576 gpm. The existing infrastructure in the area would be able to provide an available flow rate of 5,646 gpm, which would continue to adequately serve the project site with implementation of the project. Outside of the project site, there are several nodes with existing deficiencies that do not meet the required flow rate. Ten of these deficiencies would increase by less than one percent due to the project, which would not result in a significant impact.

Under cumulative conditions, with the implementation of the CIPs identified in the 2010 WUMP and pipeline up-sizing projects identified in the certified 2019 Downtown Specific Plan Amendments and Specific Development project EIR (which have since been added to the City's current Capital Improvement Program),¹²¹ the utility system would continue to provide adequate fire flow to the project site. There are several existing deficiencies in the surrounding area and the addition of the project would increase those existing deficiencies by less than one percent, which would not result in a significant impact. Based on this discussion, the project would not require new construction or expansion of infrastructure to ensure adequate levels of fire flow in the City. **(Less than Significant Impact)**

Sanitary Sewer Infrastructure

The project site is adjacent to two separate six-inch sewer main lines, one in South Mathilda Avenue and one in West Olive Avenue. The proposed project would construct new lateral lines to connect to the existing six-inch sewer main in West Olive Avenue. The estimated sewer flow for the proposed project is 21,741 gpd.

Existing Plus Project Impacts

Under existing conditions, there are 39 pipe segments (approximately 9,374 feet of pipe) within the sanitary sewer system that do not meet the City-designated performance criteria. With implementation of the project, one new deficiency in the system would be created. The completion of the project would increase the d/D performance criteria ratio from 0.7440 to 0.7540 in a one, 38-foot pipe segment along Washington Avenue between Evelyn Avenue and Fair Oaks Avenue. The d/D performance criteria ratios of the other 39 pipe segments with existing deficiencies would also experience slight increases ranging from 0.001 to 0.009. The certified 2019 Downtown Specific Plan Amendments and Specific Development Project EIR identifies a CIP (SS DSP-5) along Washington Avenue between Evelyn Avenue and Fair Oaks Avenue, which encompasses the deficient 38-foot

¹²¹ City of Sunnyvale. *Draft EIR: Downtown Specific Plan Amendments and Specific Development Project*. SCH# 2018052020. Table 3.18-2. November 2019.

pipe segment, to widen the pipes from 10 to 15 inches to 18 inches.¹²² The sanitary sewer system CIPs are funded through the collection of sewer connection fees. Developers, including the project applicant, are required to pay appropriate sewer connection fees prior to redevelopment of a property that will fund CIPs required to provide adequate service to their projects.

Cumulative Plus Project Impacts

The future cumulative condition assumes that the CIPs recommended as part of the 2015 Wastewater Collection System Master Plan are constructed, in addition to other pipeline up-sizing projects identified in the certified 2019 Downtown Specific Plan Amendments and Specific Development Project EIR.¹²³ The model also accounts for the buildout of the 2035 General Plan (including the DSP Amendments approved in 2020). As described above, the sewer flow under the maximum development of what is currently allowed on-site is 9,495 gpd.

There are 32 pipeline segments identified as CIPs downstream of the project site, and when these improvements are added to the model, most of the existing deficiencies in the system are resolved. Two pipe segments would still be considered deficient under the future cumulative conditions. These pipe segments would remain deficient with implementation of the project; however, the project would only increase the d/D performance criteria ratio of one of the pipe segments by 0.001. The project would not increase the d/D performance criteria ratio of the other deficient pipe. No new pipes would be deficient. These two pipe segments have a diameter of 24 inches and a performance ratio of less than 0.80. While these pipe segments would not meet the City's standard design guideline, they would not exceed the performance criteria of 0.9, which is used by the City to determine and prioritize CIP needs. Regardless, the project would incrementally worsen the cumulative deficiencies in the sanitary sewer system.

As described above, developers, including the project applicant, would be required to pay the appropriate sewer connection fee prior to redevelopment of the proposed project site, which would be used by the City to fund CIPs and reduce its fair-share impact to the sanitary sewer system to a less than significant level. Any CIPs required to reduce the number of deficiencies would be subject to a separate project specific environmental review. At the time the design and construction details of the CIPs are known, the City shall complete environmental review. Based on previous analyses for utility improvements located within existing rights-of-way in developed South Bay locations, the primary environmental effects are associated with construction and can be mitigated to a less than significant level. Mitigation measures for construction-related impacts (such as the ones identified in Sections 4.3 Air Quality, 4.4 Biological Resources, 4.5 Cultural Resources, 4.9 Hazards and Hazardous Materials, 4.10 Hydrology and Water Quality, and 4.13 Noise in this Initial Study) typically to reduce construction-related impacts to a less than significant level. **(Less than Significant Impact)**

¹²² City of Sunnyvale. *Draft EIR: Downtown Specific Plan Amendments and Specific Development Project*. SCH# 2018052020. Table 3.18-1. November 2019.

¹²³ City of Sunnyvale. *Draft EIR: Downtown Specific Plan Amendments and Specific Development Project*. SCH# 2018052020. Table 3.18-1. November 2019.

Stormwater Drainage Infrastructure

The project site is currently comprised of approximately 47,763 square feet (or 87 percent) of impervious surface, and the proposed project would decrease impervious surfaces to 45,063 square feet (or 82 percent). This reduction in impervious surface would result in a corresponding decrease the amount of runoff from the project site. The runoff from the project site currently flows into the street then to drainage inlets on West Olive Avenue and in the intersection of West Olive Avenue and South Mathilda Avenue.

As part of the improvements proposed by this project, a new 15-inch storm drain line would be constructed in West Olive Avenue connecting from the existing 18-inch storm drain line in the intersection of South Taaffe Street and west to the project frontage. The project would connect to the new 15-inch storm drain line in West Olive Avenue via two 12-inch lateral lines. The storm drain improvement is needed in order to convey stormwater to the existing storm drain line in South Taaffe Street. Construction of the storm drain would require trenching during construction. Construction-related impacts and mitigation measures to reduce those impacts to a less than significant level are identified in Sections 4.3 Air Quality, 4.4 Biological Resources, 4.5 Cultural Resources, 4.9 Hazards and Hazardous Materials, 4.10 Hydrology and Water Quality, and 4.13 Noise of this Initial Study. **(Less than Significant Impact)**

Electric Power and Telecommunications Facilities

Existing natural gas, electricity, and telecommunications utility infrastructure currently serve the project site. Given the project proposes 100 percent electric building, besides natural gas, electricity and telecommunications would continue to serve the site under the proposed project. The proposed project would underground the existing power lines located on the southeast corner of the project site. The work would be completed within the boundaries of the project area, limiting the impact on the public right-of-way. Similar to construction of the proposed 15-inch storm drain, undergrounding the existing power lines would require trenching during construction. Construction-related impacts and mitigation measures to reduce those impacts to a less than significant level are identified in Sections 4.3 Air Quality, 4.4 Biological Resources, 4.5 Cultural Resources, 4.9 Hazards and Hazardous Materials, 4.10 Hydrology and Water Quality, and 4.13 Noise of this Initial Study. The project, therefore, would not result in a significant environmental effect from the construction or relocation of natural gas, electricity, or telecommunication utilities. **(Less than Significant Impact)**

Impact UTL-2:	The project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. (Less than Significant Impact)
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The current water demand at the project site is estimated to be approximately 5,479 gpd based on the existing land uses and densities. That demand would increase by 25,725 net gpd for a total of 31,204 gpd after the project is completed. The project proposes to receive LEED Gold certification, which requires the installation of water efficient fixtures and drought tolerant landscaping to further reduce the demand for water on-site.

As part of Sunnyvale's 2020 UWMP, a Drought Risk Assessment was conducted to determine whether the City would be able to adequately meet the demand for water during normal, single-dry

year, and five consecutive dry-year conditions. The assessment was calculated in five-year intervals from 2025 to 2040. This assessment found that the City has adequate water supplies to maintain a surplus level of water supply during normal, dry, and multiple (five-year) drought years even when accounting for future growth in the City.¹²⁴ Based on the City's projected water supply (36.54 mgd), future citywide projected water demand (24.41 mgd), and net increase in project site demand (25,725 gpd, or approximately 0.026 mgd), the City would continue to have adequate water supply to serve development within the City and the proposed project during normal, single- and multiple-dry years. **(Less than Significant Impact)**

Impact UTL-3:	The project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. (Less than Significant Cumulative Impact)
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Existing Plus Project Impacts

As discussed above, the WPCP has an existing, permitted capacity of 29.5 mgd for ADWF. Based on the most recently published data, the current ADWF is approximately 12.6 mgd; therefore, the available treatment capacity at the WPCP is 16.9 mgd.¹²⁵

As described above, the project is estimated to result in a net increase of approximately 17,917 gpd (or approximately 0.018 mgd) of wastewater compared to existing conditions. Given the existing, available treatment capacity at the WPCP (16.9 mgd) and the project's net increase in ADWF (0.018 mgd), there is sufficient capacity at the WPCP to serve the project and existing treatment demand.

The ADWF processing capacity of the WPCP would be reduced from the current 29.5 mgd to 19.5 mgd¹²⁶ by end of 2022.¹²⁷ Based on the future, planned capacity of the WPCP (19.5 mgd) and the current ADWF generated by the City (12.6 mgd), the updated available WPCP treatment capacity would be 6.9 mgd post 2022. Given the WPCP's available treatment capacity post 2022 and the project's net increase in ADWF (0.018 mgd), there would continue to be sufficient capacity at the WPCP to serve the project and existing treatment demand. **(Less than Significant Impact)**

Cumulative Plus Project Impacts

The projected wastewater flows for the WPCP in 2035, per flow data and population and growth assumptions in the 2015 WPCP Master Plan, which is based on the 2017 LUTE update buildout, is 19.5 mgd of ADWF.¹²⁸ The proposed project would generate an estimated net increase in 17,917 gpd (approximately 0.018 mgd) of ADWF compared to existing conditions. The project would result in a net increase of 12,246 gpd (approximately 0.012 mgd) of ADWF compared to the maximum development intensity allowed by the DSP for the site and assumed for the project site in the 2015 WPCP Master Plan and 2017 LUTE update. Given the incremental increase in wastewater generated

¹²⁴ City of Sunnyvale. *2020 Urban Water Management Plan*. Adopted June 29, 2021. Pages 7-24 through 7-26.

¹²⁵ City of Sunnyvale. *Water Pollution Control Plant 2020 Annual NPDES Report*. February 1, 2021. Page 13.

¹²⁶ City of Sunnyvale. *Draft Sunnyvale Water Pollution Control Plant Master Plan Program Environmental Impact Report*. February 2016.

¹²⁷ Jennifer Ng, Assistant Director, City of Sunnyvale Department of Public Works. March 22, 2022.

¹²⁸ City of Sunnyvale. *Sunnyvale Water Pollution Control Plant Master Plan*. February 2016. Pages 5-5 and 5-6.

by the project, the projected wastewater flows projected in the 2015 WPCP Master Plan and 2017 LUTE EIR would continue to be approximately 19.5 mgd. That is, the project's net increase in ADWF would not result in a meaningful or substantial increase or change to the projected ADWF planned to be accommodated by the WPCP. The WPCP, therefore, has sufficient planned, permitted capacity (19.5 mgd of ADWF) to treat wastewater for the project and other development that is consistent with the growth assumptions in 2015 WPCP Master Plan and 2017 LUTE update.

However, there would not be sufficient treatment capacity at the WPCP for population and growth beyond the assumptions in the 2015 WPCP Master Plan and 2017 LUTE update. That is, the WPCP would not have treatment capacity for projects requiring General Plan amendments resulting in substantial increases in wastewater generation compared to the assumptions for those sites in the 2015 WPCP Master Plan and 2017 LUTE update. The City's two most recent General Plan Amendment projects with measurable increases in wastewater generation are the Lawrence Station Area Plan Update and the Downtown Specific Plan Amendments and Specific Development projects. These projects allowed for land uses and densities that would result in a total net increase of approximately 1.13 mgd (or approximately six percent) above the WPCP's planned capacity.¹²⁹ As a result, the City is in the process of updating the WPCP Master Plan to plan for adequate wastewater treatment that includes the buildout of Lawrence Station Area Plan and the Downtown Specific Plan Amendments and Specific Development projects, as well as other future growth in the City. Subsequent environmental review for the WPCP Master Plan update shall be completed by the City. The specific design and improvements needed are unknown at this time, therefore, it is speculative to evaluate the environmental impacts of those undetermined improvements at this time. For this reason, the environmental impact from the construction of new or expanded wastewater treatment facilities to provide adequate cumulative wastewater treatment that includes these two larger projects was conservatively disclosed as significant and unavoidable in the EIRs for these projects.¹³⁰ The project's contribution to the overall cumulative increase in wastewater generated above the WPCP's planned capacity is negligible and, as discussed above, does not meaningfully change the amount of wastewater estimated to be generated in the 2015 WPCP Master Plan and 2017 LUTE update and adequately treated by the WPCP; therefore, the project's contribution to the cumulative wastewater treatment impact is not cumulatively considerable.

As described above, the City's WPCP operates under the NPDES permit and is required to treat wastewater to meet applicable water quality standards prior to discharge. Compliance with the NPDES is enforced by monitoring and reporting the type and volume of pollutants discharged in an annual Discharge Monitoring Report prepared by the City. In addition, the City periodically calculates the amount of wastewater flow originating from each of the wastewater capacity allocation categories based on water sales information, and other relevant information. Through the annual monitoring reports and periodic calculations, the City actively monitors the wastewater flows to the

¹²⁹ 1) The Downtown Specific Plan Amendments and Specific Development Project would result in a net increase of 0.17 mgd of sewer flow. Source: City of Sunnyvale. *Downtown Specific Plan Amendments and Specific Developments Project Draft Environmental Impact Report*. SCH# 2018052020. Page 300. 2) The Lawrence Station Area Plan Update Project would result in a net increase of 0.96 mgd of sewer flow. Source: City of Sunnyvale. *Lawrence Station Area Plan Update/Intuitive Surgical Corporate Campus Project Draft Subsequent Environmental Impact Report*. May 2021. SCH# 2019012022. Page 3.15-23.

¹³⁰ (1) City of Sunnyvale. *Downtown Specific Plan Amendments and Specific Development Project Draft Environmental Impact Report*. SCH#2018052020. November 2019. Page 300. (2) City of Sunnyvale. *Lawrence Station Area Plan Update/Intuitive Surgical Corporate Campus Project Draft Subsequent Environmental Impact Report*. May 2021. SCH# 2019012022. Page 4-22.

WPCP to ensure continued capacity at the WPCP to treat existing and approved development in the City. If the flow of one of the categories reaches to its Initial Baseline Limits, the City will issue a Declaration of Need for Wastewater Capacity Evaluation and will not issue new or modify to increase capacity of wastewater discharge permits until a new baseline limit can be established to ensure there is sufficient capacity reserved for vacant land in each category. For these reasons, existing regulations (including compliance with the NPDES permit and Municipal Code) ensure adequate sewage treatment for development in the City.

Based on the above discussion, the project's contribution to a cumulative wastewater treatment impact is not cumulatively considerable. **(Less than Significant Cumulative Impact)**

Impact UTL-4: The project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. **(Less than Significant Impact)**

In order to reduce the amount of solid waste disposed of within the City, contractors are required to use a waste diversion and recycling tracking system called Green Halo to create a Construction and Demolition Waste Management Plan (CDWMP) for any construction and demolition projects. This program helps the contractor and City track diversion rates for construction waste. In compliance with CALGreen construction waste management requirements, the City requires a minimum 65 percent waste diversion of building materials or a disposal rate of less than or equal to two pounds of waste per square foot of building area.¹³¹

Once operational, the proposed project would generate approximately 118.94 tons (or 128.58 cubic yards) per year of solid waste. Compared to existing conditions, the project would result in a net increase in 99.83 tons (or 107.93 cubic yards) per year of solid waste. The City has implemented a waste reduction goal to divert 90 percent of solid waste out of the landfills by 2030.¹³² This project would be subject to the City's construction waste management requirements, in addition to AB 341 and SB 1383 which require businesses to implement recycling programs on-site and recycle their organic waste respectively. Additionally, the project would obtain LEED Gold certification, which requires the developer to conduct a waste stream study and then list the top four waste streams for which recycling collection and storage space would be provided on-site. Compliance with these waste reduction programs would further reduce solid waste generated by the project.

Given the remaining capacity (14.67 million cubic yards), estimated lifespan of the landfill (year 2060), and the project's net increase in solid waste (107.93 cubic yards per year), there is sufficient capacity at Kirby Canyon Landfill to accommodate the project's solid waste disposal needs. The construction and operation of the project would comply with applicable federal, state, and local regulations and policies related to diversion of materials from disposal in addition to meeting the

¹³¹ City of Sunnyvale. "Construction and Demolition Waste Tracking Requirements for Projects in Sunnyvale." Accessed December 3, 2021. Available at:

<https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?t=62203.68&BlobID=26111>.

¹³² City of Sunnyvale. "Managing Resources Sustainably." Accessed: December 2, 2021. Available at: <https://sunnyvaleclimateaction.org/category/managing-resources-sustainably#understanding-waste-levels>.

requirements for LEED Gold certification. Adherence to these policies and requirements would result in less than significant impact. **(Less than Significant Impact)**

Impact UTL-5: The project would not be noncompliant with federal, state, or local management and reduction statutes and regulations related to solid waste.
(Less than Significant Impact)

As discussed in the response to Impact UTL-4, the proposed project would comply with state and local regulations related to solid waste reduction. The proposed project would comply with AB 341 by utilizing the City's garbage service, which commercially sorts recyclable material at the SMaRT Station. The project would comply with CALGreen requirements regarding the diversion of construction waste and debris by recycling or reusing a minimum of 65 percent of the non-hazardous waste. As of 2022, in order to comply with the requirements of SB 1383, commercial businesses that produce two or more cubic yards of waste per week must recycle food scraps and yard trimmings. The proposed project would comply with this requirement by recycling their organic waste. Additionally, the proposed project would comply with General Plan Policy EM-14.2 by maximizing their diversion of solid waste through participation in a recycling program. Consistent with General Plan Policy EM-14.3, future occupants of the site would be required to recycle waste consistent with federal, state, and local requirements. Thus, the project would comply with federal, state, and local solid waste statutes and regulations. **(Less than Significant Impact)**

4.20 WILDFIRE

4.20.1 Environmental Setting

4.20.1.1 *Existing Conditions*

The proposed project site is in an urban area surrounded by existing development. The site is not located within an identified Very High Fire Hazard Severity Zone in a State Responsibility Area (SRA) or a Local Responsibility (LRA).^{133,134} The project site is not located near wildlands that could present a fire hazard.

4.20.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
1) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, the project would not result in wildfire impacts. **(No Impact)**

¹³³ CAL FIRE. *Santa Clara County Fire Hazard Safety Zone Map – State Responsibility Area*. November 2007.

¹³⁴ CAL FIRE. *Santa Clara County Fire Hazard Safety Zone Map – Local Responsibility Area*. October 2008.

4.21

MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
1) Does the project have the potential to substantially 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, substantially 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"/>
2) 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact MFS-1: The project does not have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. **(Less than Significant Impact with Mitigation Incorporated)**

As discussed in Section 4.0 of this Initial Study, 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 not impact sensitive habitats or special-status species. The project would implement mitigation measure MM BIO-1.1 to reduce impacts to nesting birds to a less than significant level. As discussed in Sections 4.5 Cultural Resources and 4.18 Tribal Cultural Resources, there are no cultural resources on-site and the project would implement mitigation measures CR-2.1, CR-2.2, and CR-3.1 to reduce impacts to unknown resources (if encountered on-site during construction) to a less than significant level. **(Less than Significant with Mitigation Incorporated)**

Impact MFS-2: The project does not have impacts that are individually limited, but cumulatively considerable. **(Less than Significant Impact with Mitigation Incorporated)**

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, mineral resources, or wildfires; therefore, the project would not contribute to cumulative impacts to these resources. The project’s impacts to geology and soils and hazards and hazardous materials are specific to the site and no other cumulative projects contribute to the project’s site-specific geology and soil and hazards and hazardous materials impacts. The geographic boundary for cumulative construction noise impacts is 500 feet from the project site. There are no development applications on file within 500 feet of the project site. The project, therefore, would not contribute to a cumulative construction noise impact. Cumulative operational noise impacts are discussed in Section 4.13 Noise and concluded that the cumulative impact would be less than significant.

Pursuant to SB 743, the project results in less than significant aesthetic (including cumulative aesthetic) impacts. Given the project’s consistency with the General Plan, compliance with existing regulations, and implementation of standard mitigation measures, the project and other cumulative projects consistent with the General Plan would not contribute to significant cumulative biological resources, cultural resources, geology and soils, hydrology and water quality, land use, population and housing, public services, and recreation impacts beyond what was disclosed in the certified 2017 LUTE EIR.

In general, an individual project’s impact on broader resources including air quality, energy, GHGs, and VMT are evaluated at a cumulative level. That is, if a project results in a significant impact to air quality (specifically criteria air pollutants), energy, GHGs, and VMT, the project would be considered to have a significant cumulative impact to those resources. As discussed in Sections 4.3 Air Quality, 4.6 Energy, 4.8 GHG emissions, and 4.17 Transportation, the project would not result in significant impacts to those resources areas with the implementation of the identified mitigation measures (i.e., MM AQ-1.1, MM AQ-3.1). The geographic boundary for cumulative community health risk impacts is 1,000 feet from the project site. There are three cumulative projects within 1,000 feet of the site: (1) 300 South Mathilda Avenue (7,141 square feet of commercial and 153,000 square feet of office) 570 feet northwest of the project site, (2) 311 South Mathilda Avenue (75 residential units and 5,000 square feet of commercial) 570 feet north of the project site, and (3) 365 South Mathilda Avenue (90 residential units) 740 feet northwest of the project site. Table 4.21-1 summarizes the cumulative community risk impacts from the combined TAC sources at project MEI.

Table 4.21-1: Cumulative Health Risk Impacts to the Off-Site MEI			
Emission Source	Cancer Risk (per million)*	Annual PM_{2.5} (mg/m³)*	Hazard Index
Total Project (Construction + Operation)			
Unmitigated	35.2	1.7	<0.1
Mitigated*	9.1	0.3	
El Camino Real, Average Daily Trips (ADT) 38,530	0.14	0.01	<0.01
Mathilda Avenue, ADT 60,770	3.17	0.36	<0.01
City of Sunnyvale City Hall (Facility ID #154886 Generator)	2.1	<0.01	<0.01
City of Sunnyvale Department of Public Safety (Facility ID #15529 Generator)	34.8	0.04	0.05
Verizon Wireless (Facility ID #20030 Generator)	<0.01	<0.01	<0.01
Christensen Holdings LP (Facility ID #23097 Generator)	<0.01	<0.01	<0.01
City of Sunnyvale (Facility ID 106769 Gas Dispensing Facility)	0.10	---	<0.01
300 South Mathilda Avenue Construction	<5.00	<0.15	<0.50
311 South Mathilda Avenue Construction	<5.00	<0.15	<0.50
365 South Mathilda Avenue Construction	<5.00	<0.15	<0.50
Combined Sources			
Unmitigated	<90.53	<2.59	<0.21
Mitigated*	<64.43	<1.19	<0.21
BAAQMD Cumulative Source Threshold	100	0.8	10.0
<i>Exceed Threshold?</i>			
<i>Unmitigated</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
<i>Mitigated*</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
*Assumes implementation of mitigation measures MM AQ-1.1 and MM AQ-3.1.			

All projects would be required to implement mitigation measures required under the 2017 LUTE EIR to reduce project construction period emissions, such as implementing BAAQMD's construction BMPs, which reduces PM_{2.5}. The PM_{2.5} concentration from existing sources alone exceeds the cumulative threshold at 0.89 µg/m³. Cumulative risks exceed the PM_{2.5} concentration threshold because of the influence of potentially multiple simultaneous nearby developments at the MEIs. However, according to BAAQMD the health risks would be less than significant to the MEIs if the

risks from the project are reduced below the single-source thresholds.¹³⁵ Since the proposed project would implement mitigation measures MM AQ-1.1 and MM AQ-3.1 to reduce its single-source impacts to a less than significant level, the project would not substantially contribute to the total cumulative PM_{2.5} concentration. The project would not be cumulatively considerable, and no additional mitigation would be required on the part of the project to mitigate the exceedance of the cumulative source threshold for annual PM_{2.5} concentration.

As discussed in Section 4.19 Utilities and Service Systems, the project would contribute to a cumulative impact to the WPCP and sanitary sewer system, however, the project's contribution to the cumulative wastewater treatment capacity impact at the WPCP is not cumulatively considerable and the project would pay appropriate connection fees to mitigate its fair-share contribution to the necessary cumulative utility CIPs.

Based on the above discussion, the project would not result in significant, unavoidable cumulative impacts. **(Less than Significant Impact with Mitigation Incorporated)**

Impact MFS-3: The project does not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly. **(Less than Significant Impact with Mitigation Incorporated)**

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 it would cause substantial adverse effects to humans, either directly or indirectly. This factor relates to adverse changes to the environment of human beings generally, and not effects on particular individuals.

The potential for the proposed project to result in changes to the environment that could directly or indirectly affect human beings is evaluated in each section of this Initial Study using the CEQA Checklist. Adherence to existing regulations and implementation of the identified mitigation measures would reduce all project-related impacts to a less than significant level. No other direct or indirect adverse effects of the project on human beings have been identified. **(Less than Significant Impact with Mitigation Incorporated)**

¹³⁵ Flores, Areana, MSc. Environmental Planner, Bay Area Air Quality Management District. Personal Communication. February 23, 2021.

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- Becky Azevedo, Technical Manager, Waste Management, Inc. December 27, 2021.
- Ryan Caldera, Senior Transportation Engineer, Fehr & Peers Transportation Engineer. February 23, 2022.
- Jennifer Ng, Assistant Director, City of Sunnyvale Department of Public Works. March 22, 2022.

SECTION 6.0 LEAD AGENCY AND CONSULTANTS

6.1 LEAD AGENCY

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SECTION 7.0 ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACM	Asbestos-Containing Material
ADD	Average Daily Demand
ADWF	Average Dry Weather Flow
AIA	Airport Influence Area
BAAQMD	Bay Area Air Quality Management District
BMPs	Best Management Practices
Btu	British Thermal Units
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Department of Industrial Relations, Division of Occupational Safety and Health
CalARP	California Accidental Release Prevention
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CDWMP	Construction and Demolition Waste Management Plan
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFCs	Chlorofluorocarbons
CGS	California Geological Survey
CH ₄	Methane
CHRIS	California Historical Resources Information System
CIP	Capital Improvement Program
CIPs	Capital Improvement Projects
CLUP	Comprehensive Land Use Plan

CMP	Congestion Management Program
CO ₂	Carbon dioxide
CPDS	Potable Water System Comprehensive Preliminary Design Study Report
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agency
DDW	State Water Resources Control Board Division of Drinking Water
DPM	Diesel Particulate Matter
DPS	Sunnyvale Department of Public Safety
DSOD	Division of Safety of Dams
DSP	Sunnyvale Downtown Specific Plan
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FAR Part 77	Federal Aviation Regulations, Part 77
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GPD	Gallons Per Day
GWMP	Groundwater Management Plan
GWP	Global Warming Potential
HFCs	Hydrofluorocarbons
HI	Hazard Index
HOV	High-Occupancy Vehicle
HSP	Health Safety Plan
HSWA	Federal Hazardous and Solid Waste Amendments
IFC	International Fire Code
IS	Initial Study
LBP	Lead-Based Paint
LID	Low Impact Development
LOS	Level of Service
LRA	Local Responsibility Area

LTA	Local Transportation Analysis
MBTA	Migratory Bird Treaty Act
MDD	Maximum Day Demand
MDD+FF	Maximum Day Demand with Fire Flow
MEI	Maximally Exposed Individual
MM	Mitigation Measure
MND	Mitigated Negative Declaration
MPG	Miles Per Gallon
MRP	Municipal Regional Stormwater Permit
MTC	Metropolitan Transportation Commission
N ₂ O	Nitrous Oxide
NAHC	Native American Heritage Commission
NCP	National Contingency Plan
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act of 1966
NOD	Notice of Determination
NPDES	Stormwater National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OPR	Governor's Office of Planning and Research
PCBs	Polychlorinated Biphenyls
PDAs	Priority Development Areas
PFCs	Perfluorocarbons
PG&E	Pacific Gas and Electric Company
PHD	Peak Hour Demand
PPV	Peak Particle Velocity
PSI	Pounds Per Square Inch
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RHNA	Regional Housing Need Allocation
ROG	Reactive Organic Gases
ROW	Right-of-Way
RWQCB	Regional Water Quality Control Board

SB	Senate Bill
SF ₆	Sulfur Hexafluoride
SFHAs	Special Flood Hazard Areas
SFPUC	San Francisco Public Utilities Commission
SHMA	Seismic Hazards Mapping Act
SMARA	Surface Mining and Reclamation Act
SMaRT Station®	Sunnyvale Materials Recovery and Transfer Station
SMC	Sunnyvale Municipal Code
SMGB	State Mining and Geology Board
SR	State Route
SRA	State Responsibility Area
SVCE	Silicon Valley Clean Energy
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TA	Transportation Analysis
TACs	Toxic Air Contaminants
TCRs	Tribal Cultural Resources
TDM	Transportation Demand Management
TMU	Transit Mixed-Use
TPA	Transit Priority Area
TSCA	Toxic Substances Control Act
UFMP	Urban Forest Management Plan
UIS	Utility Impact Study
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	US Geologic Service
VMT	Vehicle Miles Traveled
VTa	Santa Clara Valley Transportation Authority
WPCP	Donald M. Somers Water Pollution Control Plant
WUMP	Water Utility Master Plan