Palm Villas Saratoga Project
Final Environmental Impact Report

Image Source: Metro Design Group

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AUGUST 2020

Printed on 30% post-consumer recycled material.

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
AAQS	ambient air quality standards
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACOE	U.S. Army Corps of Engineers
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
amsl	above mean sea level
AP Act	Alquist-Priolo Earthquake Fault Zoning Act
BAAQMD	Bay Area Air Quality Management District
Basin Plan	Water Quality Control Plan for the San Francisco Bay Basin (Region 2)
bgs	below ground surface
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHRIS	California Historical Resources Information System
City	City of Saratoga
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Construction General Permit	General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources

Acronym/Abbreviation	Definition
CRPR	California Rare Plant Rank
CWA	Clean Water Act
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
District	Saratoga Fire Protection District
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EIR	environmental impact report
EISA	Energy Independence and Security Act
EO	executive order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noi
FTA	Federal Transit Administration
General Plan	City of Saratoga General Plan
GHG	greenhouse gas
GSP	groundwater sustainability plan
GWP	global warming potential
HAP	hazardous air pollutant
HARP2	Hotspots Analysis and Reporting Program Version 2
HFC	hydrofluorocarbon
HRA	health risk assessment
HVAC	heating, ventilation, and air conditioning
IFC	International Fire Code
IPaC	USFWS Information, Planning, and Conservation
IPCC	Intergovernmental Panel on Climate Change
kBtu	thousand British thermal units
kW	kilowatt
kWh	kilowatt hour
LACM	Natural History Museum of Los Angeles County
LCFS	Low Carbon Fuel Standard
L_{dn}	day–night average sound level
L_{eq}	equivalent sound level
LID	low impact development
L_{max}	maximum sound level
L_{min}	minimum sound level
LOS	level of service
L_{xx}	percentile-exceeded sound level

Acronym/Abbreviation	Definition
MBTA	Migratory Bird Treaty Act
MEIR	maximally exposed individual residence
MM	Mitigation Measure
MMRP	Mitigation and Monitoring Reporting Program
MMT	million metric tons
MPO	metropolitan planning organization
MROSD	Midpeninsula Regional Open Space District
MRP	San Francisco Bay Region Municipal Regional Stormwater NPDES Permit
MS4	Municipal Separate Storm Sewer System
MT	metric ton
MTC	Metropolitan Transportation Commission
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NFPA	National Fire Protection Association
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NOP	notice of preparation
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
O_3	ozone
OCP	organochlorine pesticide
OSHA	Occupational Safety and Health Administration
PA	Professional Administrative
PFC	perfluorocarbon
PG&E	Pacific Gas & Electric
PGA	peak ground acceleration
PM_{10}	coarse particulate matter
$PM_{2.5}$	fine particulate matter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
PSHA	probabilistic seismic hazard assessment
QSD	Qualified SWPPP Developer
QSP	Qualified SWPPP Practitioner
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act
RFS	Renewable Fuel Standard
ROG	reactive organic gas
RPS	Renewables Portfolio Standard

Acronym/Abbreviation	Definition
RTP	regional transportation plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCCFD	Santa Clara County Fire Department
SCCSO	Santa Clara County Sheriff's Office
SCS	sustainable communities strategy
SCVPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SCVWD	Santa Clara Valley Water District
SDC	Seismic Design Category
SF_6	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SFHA	Special Flood Hazard Area
SGMA	Sustainable Groundwater Management Act
SJWC	San Jose Water Company
SLF	Sacred Lands File
SO_2	sulfur dioxide
SR	State Route
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCR	tribal cultural resource
TIA	Palm Villas Saratoga Transportation Impact Analysis
TMDL	total maximum daily load
UCMP	University of California at Berkeley Museum of Paleontology
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	urban water management plan
VdB	vibration decibels
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VTA	Santa Clara Valley Transportation Authority
WDR	Waste Discharge Requirement
WVCR	West Valley Collection & Recycling LLC
WVSD	West Valley Sanitation District

VOLUME I
INTRODUCTION

Purpose of This Document

The purpose of this Final Environmental Impact Report (Final EIR) document is to present public comments and responses to those comments received on the Draft Environmental Impact Report (Draft EIR) for the Palm Villas Saratoga Project (proposed project). The California Environmental Quality Act (CEQA) requires that before a decision can be made to approve a project with potentially significant environmental effects, an EIR must be prepared that fully describes the environmental effects of the project. This EIR is a public information document for use by governmental agencies and the public to identify and evaluate potential environmental consequences of a proposed project, to recommend mitigation measures to lessen or eliminate adverse impacts, and to examine feasible alternatives to the project. The information contained in the EIR is reviewed and considered by the governing agency prior to the ultimate decision to approve, disapprove, or modify the proposed project. The City of Saratoga (City) is the Lead Agency.

A total of 11 letters and emails were received during the 30-day public review period. Written responses, included in this document, have been prepared to all written comments received during the comment period. During the public review of the Draft EIR, a community meeting was held on February 27, 2020 at 6:00 PM at the Saratoga Senior Center, S. Ku Hall, 19655 Allendale Avenue, Saratoga, California 95070. The Planning Commission held a Study Session on July 7, 2020 to learn more information about the proposed project and allow for further public comment.

As required by Section 15132(d) of the CEQA Guidelines, this Final EIR responds to comments regarding “significant environmental points raised in the review and consultation process”. This Response to Comments document provides revisions and clarifications to the Draft EIR, as appropriate. In keeping with the requirement of Section 21092.5 of the California Public Resources Code, which requires the lead agency to provide a copy of the written response to each public agency that commented on the Draft EIR, the City will send copies of the Responses to Comments not only to any public agencies that commented, but also to all parties that commented on the Draft EIR. This will be done at least ten (10) days prior to the Planning Commission meeting.

Environmental Review Process

The review process for the EIR includes the following general procedural steps:

Notice of Preparation and Scoping Process

The City published a Notice of Preparation (NOP) on February 7, 2019. The NOP requested those agencies with regulatory authority over any aspect of the project to describe that authority and to identify the relevant environmental issues that should be addressed in the EIR. The 30-day public review period ended on March 11, 2019. In addition, a public scoping meeting was held by the City of February 26, 2019.

A total of 13 letters and emails were received during the scoping period. Comments received in response to the NOP were considered when determining the scope of the Draft EIR.

Notice of Availability and Public Review of the Draft EIR

The City published a public Notice of Availability (NOA) for the Draft EIR on January 30, 2020, inviting comments from the general public, agencies, organizations, and other interested parties. The NOA was mailed to properties within a 500-foot radius of the proposed project site, pursuant to the public noticing requirements. The Draft EIR was available for a 30-day public review period from January 31, 2020 through March 2, 2020.

The Draft EIR contains a description of the proposed project, description of the environmental setting, identification of proposed project impacts, and mitigation measures for impacts found to be potentially significant. The Draft EIR also identifies issues determined to have no impact or that are less-than-significant, providing a detailed analysis of potentially significant impacts. The Draft EIR also includes an analysis of proposed project alternatives, identification of any significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts.

Final EIR and Responses to Comments

Following the close of the public review and comment period, written responses were prepared that address all substantive comments on the Draft EIR. The Final EIR consists of the Draft EIR, the comments received during the public review period, responses to the comments, and any revisions to the Draft EIR as a result of the public agency and public comments, pursuant to CEQA Guidelines 15088. The Final EIR must be certified by the City before it can be used as the basis for decision making.

Next Steps in the CEQA Process

The Planning Commission will review and consider the Final EIR prior to taking any action on the proposed project. Before it can approve the project, the Planning Commission must first certify that the EIR has been completed in compliance with CEQA, that the EIR was presented to it and that it has reviewed and considered the information in the EIR, and that the document reflects the City's independent judgment (see CEQA Guidelines, Section 15090[a]).

Following review and consideration of the Final EIR, the Planning Commission may take action to approve, revise and approve, or reject the proposed project. Should the City certify and approve the proposed project, a program of monitoring and reporting on the mitigation measures imposed to reduce and avoid significant environmental impacts must be adopted. This Mitigation Monitoring and Reporting Program (MMRP) has been provided as an appendix (refer to Appendix M) to this Final EIR. No significant and unidentifiable impacts were identified for the proposed project.

Organization of the Final EIR

The Final EIR has been prepared consistent with Section 15132 of the CEQA Guidelines, which identifies the content requirements for Final EIRs. The Final EIR is organized in the following manner:

Volume I – Introduction

Volume I introduces the Final EIR and Responses to Comments document.

Volume II – Comments on the Draft EIR and Response to Comments

Volume II provides a list of commenters, copies of written comments made on the Draft EIR (coded for reference), and master and individual response to those written comments.

Volume III – Clarifications and Revisions as Part of the Final EIR

Volume III provides clarifications and revisions to the Draft EIR based on the input received from commenters during the public review period and City-identified changes to reflect the updated project plans (site plans). Project plans were updated in August 2020 (refer to Appendix L), to reflect a 25-foot minimum setback from the top of creek bank, associated design adjustments (e.g., minor changes in building square footage, roof design, and interior and exterior spaces), to provide clarifications on proposed project details (e.g., details on trash enclosures, on-site signage, and bicycle/parking spaces), and to refine the plan legend and symbols. Project plan updates did not change the number of resident beds or rooms, proximity to existing adjacent buildings, nor did it alter building heights. None of the clarifications and revisions to the Draft EIR

represent a substantial change to the proposed project, nor do they result in a new or previously unidentified impact or intensification of an impact already identified in the Draft EIR. Therefore, the clarifications and revisions do not trigger re-circulation of the EIR under CEQA.

All substantive additions to the Draft EIR are shown in underlined text (underline text) and substantive deletions are shown in strikethrough text (~~strikethrough text~~). If figures and tables have been revised, it is marked in the table of contents with an asterisk (*).

VOLUME II
COMMENTS ON THE DRAFT EIR AND RESPONSES TO COMMENTS

Under CEQA, the City of Saratoga (City), as lead agency must solicit and respond to comments from the public and from other agencies concerned with the proposed Saratoga Palm Villas project (proposed project). The Draft Environmental Impact Report (EIR) was made available by the City for public review from January 31, 2020, through March 2, 2020. Comments were received on the Draft EIR from local agencies, organizations, and individuals.

To finalize the EIR for the proposed project, City staff has prepared the following responses to comments that were received during the public review period. These responses will be available on the City's website and will be distributed to the Planning Commission, and sent to all parties that commented on the Draft EIR. This will be done at least ten (10) days prior to the Planning Commission meeting.

All written comments received on the Draft EIR have been coded to facilitate identification and tracking. Each of the written comments received during the public comment period were assigned an identification number. These comments were reviewed and divided into individual comments, with each comment containing a single theme, issue, or concern. Individual comments and the responses to them were assigned corresponding numbers. Each comment letter is the submittal of an individual (or individuals), agency, or organization. The comment letters' identification consists of two parts. The first part is the number of the comment letter and the second is the number of the comment. As an example, Comment 2-1 refers to the first comment made and addressed in Comment Letter 2. To aid the readers and commenters, electronically bracketed comments (letters, emails, cards, etc.) have been reproduced in this document together with their corresponding responses.

Master Response 1: Development Setbacks

Master Comment Summary: Comments received on the Draft EIR express concern that the proposed development setbacks from Saratoga Creek are not adequate. Comments state that Saratoga Creek top of bank, from which setbacks are determined, should be delineated by a licensed biologist, and be based on historical conditions absent of human influences in order to accurately assess potential impacts to the resource and wildlife species that utilize it. In addition, comments note that the proposed development setback from Saratoga Creek does not appear to comply with Santa Clara Valley Water District (SCVWD) guidelines.

Master Response:

Saratoga Creek Setback. As discussed in Section 3.3, *Biological Resources*, in the Draft EIR, professional biologists conducted in-person surveys of the proposed project site in 2016, 2018, and 2019. The State CEQA Guidelines direct that EIRs should generally describe environmental

conditions as they exist at the time the notice of preparation (NOP) is published. The proposed project NOP was published on February 7, 2019.

In 2016, an Environmental Collaborative biologist conducted a general reconnaissance survey of the proposed project site to identify potential biological resources and project-related resource impacts (refer to Appendix C-5). The biological survey report from Environmental Collaborative includes a summary of the 2016 fieldwork, as well as habitat and/or impact assessments for Saratoga Creek and special-status plant and wildlife species.

In 2018 and 2019, professional biologists from Dudek surveyed the site to determine if the previously described existing site conditions from 2016 remain valid. These biological surveys, conducted per industry standards and using a sub-meter accurate global positioning system (GPS) device, demarcated the top of bank of Saratoga Creek. The surveys and qualifications of the biologists that performed them are provided in Appendix C-6.

The top of bank of Saratoga Creek and the extent of the riparian vegetation were determined as part of establishing baseline conditions. The top of bank was recorded from the top of the incised natural channel, and not from areas of fill or rip-rap. Based on a review of current and historical aerial photographs, the top of bank in the proposed project area is obscured below tree canopy (Google Earth 2020; Historic Aerials 2020); however, tree removal or other major modifications are not evident from review of historic aerial photographs, so if trees were removed it did not appear to affect the extent of canopy. The City has no records of unauthorized vegetation clearing in this area.

As discussed in Section 3.3.3.2, *Existing Project Site*, in the Draft EIR, the biologist noted evidence of disturbances (i.e., tree stumps and downed logs) along the segment of Saratoga Creek adjacent to the proposed development. Although disturbed soils were viewed at the site in April 2019, the area was heavily vegetated with ruderal grassland species. There was no placement of fill or broken concrete. The amount of vegetation recorded along the top of bank area suggests that disturbance at the site in recent years has been minimal.

Section 3.3, *Biological Resources*, in the Draft EIR, provided supplemental information to the 2016 assessment, including an updated literature review and subsequent field surveys in 2018 and 2019. The analysis within Section 3.3 is based on these in-person surveys of the proposed project site, as well as the most recent, relevant, and sound scientific literature available. The Draft EIR included multiple mitigation measures to appropriately address potential impacts to Saratoga Creek and affected species, including requirements that: 1) a qualified biologist perform preconstruction surveys and worker environmental awareness training; 2) exclusion fence and erosion control materials between the creek and limits of construction; and 3) public access be excluded from to the creek following project construction.

Project site plans have been updated (refer to Appendix L) to accurately reflect the proposed project's intended setback from the top of bank of Saratoga Creek, as mapped by professional biologists in 2019. An updated arborist report prepared on April 14, 2020 (refer to Appendix C-4) also provides clarifications to existing mitigation measure (Mitigation Measure BIO-7 [MM BIO-7]) already included as part of the 2017 arborist report (refer to Appendix C-3). Chapter 3.3, *Biological Resources*, in the Draft EIR and the language of MM-BIO-7 have been modified to reflect this. The creek setback is also depicted in revised Figure 3.3-4A. As shown, the proposed project's setback from Saratoga Creek ranges from 25 to 35 feet, and therefore, complies with SCVWD guidelines and the City's setback requirements. See revised Figure 3.3-4B and Response to Letter 1 Comment 1 for details regarding proposed riparian woodland setbacks.

Master Response 2: Saratoga Creek Easement

Master Comment Summary: Comments received on the Draft EIR question aspects of easements in the vicinity of Saratoga Creek and assert the proposed project site should be decreased in size to account for these easements.

Master Response: The City does not hold any easements along the section of Saratoga Creek adjacent to the proposed project site, nor does it require easements from any landowners proposing development in the area. An 18-foot easement was dedicated to SCVWD as part of the original subdivision and shown in the parcel map. However, SCVWD may not have accepted the dedication which is why there is no record of the easement being recorded. As shown in revised Figure 2-4 of the Draft EIR, the proposed project's development footprint does not encroach within the easement dedicated to SCVWD.

Master Response 3: Recreational Trail

Master Comment Summary: Comments received on the Draft EIR assert that the proposed project is required to dedicate land for a public trail easement consistent with the Open Space and Conservation Element ("OSC Element") of the City's General Plan.

Master Response: The OSC Element directs the City to explore all possibilities for acquiring land for trails and open space when a new development is proposed. The OSC Element also includes provisions for the City to include dedication of land for park and trail easements when considering subdivision maps (City of Saratoga 2007). The OSC Element prioritizes linkages connecting public facilities to parklands. The OSC Element provides examples of these priority linkages trails connecting to Stevens Creek County Park and to Sanborn County Park.

As described in comments, in Exhibit OSC-2 the OSC Element included a conceptual alignment for a trail along the proposed project site and Saratoga Creek, and identifies it as "Other Proposed Public Trails." This same figure also shows that no other plans for trails in the area (to the north

or south of the proposed project site) are proposed by the City (C. Borg and J. Cherbone, pers. comm. 2020). However, a proposed trail in this location is not shown in the City's Parks and Trails Master Plan (1991).

The OSC Element Policy 5.1 (page 23) states that "the City shall continue to use the Parks and Trails Master Plan as a day-to-day guide for the development, maintenance and financing of trails through purchase, dedication, or gift." OSC Element Policy 5.4 (page 23) also states that "Trails shall be established along traditional routes whenever feasible, consistent with the Parks and Trails Master Plan, and in a manner that insures linkages to existing and proposed trails."

As indicated in the Draft EIR, City staff and a member of the City's Pedestrian, Equestrian & Bicycle Trails Advisory Committee (or "PEBTAC") confirmed that the City is not pursuing planning such a trail, as the topography and dense vegetation would make implementation of a trail at that location challenging (J. Stallman and K. Borel, pers. comm. 2019). This conclusion was further affirmed by the City's Public Works Director, J. Cherbone (C. Borg and J. Cherbone, pers. comm. 2020).

Typically, dedication of trail easements by the City are part of the subdivision approval process. Such an easement was not required by the City when the subdivision was approved in May 2000.[1] Therefore, based on the combined facts that: a) construction of a trail at this location would be challenging based on the steep slopes and dense vegetation along the creek; b) construction of a trail, including vegetation removal, and use of the trail would have adverse impacts to and along Saratoga Creek, c) the City did not plan for nor does it have any future plans for a trail at this location; d) the trail is not shown in the City's Parks and Trails Master Plan which is the day-to-day guide for the development of trails; and, e) because a trail easement was not required or dedicated at the time the subdivision was approved by the City, the City will not require a trail easement on the proposed project site and adjacent to Saratoga Creek.

Master Response 4: Noise

Master Comment Summary: Comments received on the Draft EIR express concerns about the analysis of noise impacts (described in Section 3.11, *Noise,* in the Draft EIR) associated with the construction and operation of a 24-hour facility; heating, ventilation, and air conditioning (HVAC) systems; emergency vehicles and sirens; delivery vehicles; added employee and visitor traffic; and general vehicular movement.

Master Response: Impacts to noise were evaluated in Section 3.11, *Noise,* in the Draft EIR (refer to Appendix J). Section 3.11 includes a description of federal, state, and local noise

[1] The Vesting Tentative Map was approved on May 10, 2000 and the Parcel Map was recorded on May 10, 2005.

standards; methods of analysis (which included short and long-term noise measurements and noise modeling), and concluded that all noise impacts would be less than significant.

Vehicle Traffic. Predicted noise levels from the proposed project were compared to existing noise levels, which were determined by taking one hour continuous noise measurements in four locations in the neighborhood. As described in Section 3.11.4, *Impacts*, traffic from the proposed project would increase noise levels by less than 1 decibel (dB) over current levels. An increase or decrease in noise level of at least 3 dB is required before any noticeable change would be perceptible (Caltrans 2013). Therefore, there would be no discernible increase in noise associated with the addition of proposed project-generated traffic to the area roadway network.

Construction. Construction noise impacts are detailed in the noise technical report (refer to Appendix J) and are described in 3.11.4, *Impacts*, in the Draft EIR. As outlined in Table 3.11-6, noise produced by construction activities would be audible and exceed existing noise levels in the vicinity of the proposed project site during the construction period. However, Section 7-30.060 of the City's Municipal Code regulates construction noise by establishing a maximum allowable noise level and restricting the allowable hours of construction; the maximum noise level is 100 dBA[2] at any point 25 feet from the noise source. The estimated construction noise levels at the nearest residence 120 feet away would range from approximately 66 to 78 dBA L_{eq}[3]. The proposed project would be below the City's significance threshold. Construction duration is expected to be 15 months; the greater noise-producing construction activities (earthwork and foundation construction) would last approximately three months. Noise impacts from construction would be temporary and less than significant.

Emergency Vehicles. As noted in Chapter 7-30.030 of the City's Municipal Code, "Persons and equipment engaged in essential activities necessary to preserve, protect or save lives or property from imminent danger, loss or harm" such as ambulances or fire trucks, are exempt from the established noise regulations. The decision to use sirens or lights associated with emergency vehicles would be at the discretion of the emergency vehicle driver. While sound levels generated by emergency vehicles could be considered excessive, they would occur over a short time span and be in response to emergencies only. Anticipated response would be similar in nature to emergency calls that could occur within the surrounding residential neighborhood. There is no evidence that emergency vehicles would visit the proposed project site substantially more often than other similar Residential Care Facilities for the Elderly (RCFE)

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[2] A-weighted decibel (dBA) is an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

[3] Equivalent sound level (Leq) is the constant level that, over a given time period, transmits the same amount of acoustic energy as the actual time-varying sound. Equivalent sound levels are the basis for both the day–night average sound levels (Ldn) and community noise equivalent level (CNEL) scales.

facilities or the surrounding residential neighborhood, nor would the emergency vehicles sound their sirens approaching or leaving (posing a noise nuisance) substantially more.

Delivery Vehicles. Delivery trucks would serve the proposed project during working daytime hours and are anticipated to use the circular driveway on Lot 1 or the loading zone on Lot 2. Although temporary increases in noise may occur from individual delivery trucks (such as alerts that sound when backing), the noise would be similar to Federal Express, UPS, and/or other delivery trucks that already serve the professional office buildings and single-family residential homes in the surrounding neighborhood.

24/7 Operations. The only nighttime operation will be shift changes of a small number of employees (5 employees arriving for their shift at 10:00 p.m. and 14 employees off-shift at 10:00 p.m.). As noted in Section 3.11.4, *On-Site Operational Noise Generation*, in the Draft EIR, due to the low number of vehicles generated by the proposed project during peak AM and PM hours, nighttime parking lot noise would be negligible. Nighttime operations will otherwise be typical of residential areas.

Mechanical Equipment. Table 3.11-8 in the Draft EIR showed the results of the mechanical equipment operations noise analysis. The combined noise from mechanical equipment would not exceed 34.5 dBA, and would be below the City's noise ordinance standards of 55 dBA in the daytime, 45 dBA in the evening, and 40 dBA at nighttime.

Master Response 5: Aesthetics

Master Comment Summary: Comments received on the Draft EIR raise concerns about the compatibility of the proposed project with the standards of the Professional and Administrative Office (P-A) zoning district under Article 15-18 of the City's Municipal Code, and the character and scale of the surrounding neighborhood.

Master Response: The changes to the visual character of the proposed project site are analyzed in of Section 3.1 *Aesthetics,* in the Draft EIR, under Impact 3.1-3. As described in this section, the proposed project's height (up to 30 feet), site coverage, building setbacks, limitations of building coverage, and landscaping are consistent with the P-A zoning district and consistent with the standards laid out in Article 15-46.010, Design Review: Multi-Family Dwellings and Commercial Structures of the City's Municipal Code. The proposed project would comply with Article 15-18.100 and would construct a six-foot fence with 2 foot lattice on the eastern side of Lot 2 and maintain the existing fences on the northern sides of both lots. Proposed lighting is shown in the updated project site plans (refer to Appendix L, Sheets A.1.3, Proposed Lighting Plan).

The commercial buildings of the Professional Village and single-family houses within the surrounding residential neighborhoods represent an eclectic ensemble of architectural styles. A unifying architectural feature within the Professional Village is the predominance of conventional

hip and gable roofs. The Craftsman architectural style of the proposed project is characterized as having a simple roofline and integrated wraparound porches. The proposed lines, color, texture, and night lighting included in the proposed project design are compatible with existing development in the area. As viewed from both Saratoga Avenue and Cox Avenue, both Buildings 1 and 2 are located behind existing development and mature trees that would screen views from sensitive receptors. In addition to being allowed by the P-A zoning standards, the size and scale of the two buildings are in proportion to existing vegetation (many trees along Saratoga Creek are several stories in height) and other development in the vicinity (two-story multi-family residential development is located on parcels to the south). Furthermore, as shown in revised Figure 2-3, *Site Plan Overvie*w, the proposed project buildings are separated from adjacent commercial buildings in the Professional Village by existing vegetation, fencing, roadway setbacks, and parking lots. Due to intervening development and distance, potential impacts related to shading and shadows from the proposed project on adjacent commercial buildings would be less than significant. Similarly, the proposed project buildings are separated from the closest residential developments by Saratoga Creek, associated vegetation, fencing, roadways, and existing Professional Village buildings and landscaping. Due to the tall trees and vegetation along Saratoga Creek, no impacts related to shading and shadows from the proposed project on nearby residential and commercial developments are anticipated.

Although the development of the proposed project would result in a change to the existing visual character in the area, as described in Section 3.1, *Aesthetics*, impacts would be less than significant.

Master Response 6: Adjacent Lots

Master Comment Summary: Comments received on the Draft EIR raise concerns related to the fact that proposed project buildings (on Lot 1 and Lot 2) are not located on ‘adjacent’ lots because they are separated by a road, and therefore should not be permitted to provide shared parking and a shared loading area.

Master Response: As described in the Draft EIR Section 2.3, *Project Characteristics*, the proposed project would consist of the construction and operation of a RCFE consisting of two buildings (herein referred to as Building 1 and Building 2) on two adjacent lots referred to as Lot 1 and Lot 2. The two buildings have been designed to function as a single complex.

Each lot has enough parking for each proposed building. In other words, each lot functions independently in serving parking demand and neither lot relies on parking in the adjacent lot within the proposed project. Moreover, the City Municipal Code was amended in 2019 to clarify that parking is permitted on adjacent lots. Section 15-35.020 states that “In all districts except a C-H district, the off-street parking spaces prescribed in Section 15-35.030 shall be located on the same site as the use for which the spaces are required, or on an adjacent site.” Nevertheless, the City

Municipal Code amendment is not relevant to the proposed project since each lot independently complies with the City's parking requirements.

Residents would not be transported between buildings unless they are moving permanently. If transport is necessary because a resident is moving permanently from one building to another, transport will occur with supervising staff via the crosswalk.

Facility supplies would be delivered by light- or medium- duty trucks or vans.[4] The size of these trucks or vans would be no larger than a typical neighborhood UPS delivery truck also commonly referred to as dual-axle cube truck or box van. No tractor trailers or 5th-wheel size trucks would make deliveries to the proposed project site.

An on-site parking attendant would facilitate deliveries to the site. Deliveries to Building 1 would use the off-street drop-off area (i.e., the circular driveway). Small deliveries would typically take 5 minutes or less to deliver; larger deliveries would typically take 10-15 minutes. If the Building 1 off-street drop-off area is occupied, then the delivery trucks and vans would park in the Building 2 loading area. Deliveries would then be delivered to Building 1 by hand-cart via crosswalk or in some cases by an on-site electrical utility cart. Deliveries to Building 2 would use the Building 2 loading area and ramp. The Building 1 off-street drop-off area and Building 2 loading area are shown in revised Figures 2-4 and 2-5.

In the event that residents need to be transferred to an emergency vehicle, emergency vehicles responding to Building 1 would park in the off-street drop-off area. Emergency vehicles responding to Building 2 would park in front of Building 2. It is anticipated that the Santa Clara County Sheriff Department and/or Santa Clara County Fire Department will require that curbs in front of both buildings be painted red, providing no parking zones, which will ensure parking availability for emergency vehicles.

The City's Municipal Code in Section 15-35.050 allows for shared loading areas on adjacent lots as follows: "Off-street loading spaces shall be located on the same site as the use for which the loading spaces are required or on an adjacent site."

Based on the description of the project site and the proposed project, the City has determined that the proposed project site consists of two adjacent lots, and that the term "adjacent" applies to lots separated by a road. Furthermore, the lots are contiguous with one another as they share a boundary at the centerline of Saratoga Creek Drive. Saratoga Creek Drive is an easement over

[4] Any company or business can specify custom-sized deliveries and delivery frequency, thus ensuring that delivery vehicles to their location are limited in size.

a portion of Lot 1 and Lot 2. Therefore, the proposed project's one loading area on Lot 1 is consistent with City requirements.

Master Response 7: Parking

Master Comment Summary: Comments received on the Draft EIR express concerns about parking. Comments also express concerns about the shared nature of the parking spaces across Lots 1 and 2 and the uneven distribution of parking spaces.

Master Response: The parking assessment presented in Section 3.14, *Transportation and Circulation,* in the Draft EIR (also refer to Appendix K), describes that the proposed parking supply of 48 spaces across both lots exceeds the City's parking minimum requirement of 37 spaces per the City's Municipal Code, Chapter 15-35 (Off-Street Parking and Loading Facilities). The Code requires one parking space per every three beds, plus one space for every two doctors providing medical services on a regular basis, and one space for every two employees. The proposed project would provide 78 beds and up to 21 employees[5] would be working at the busiest time.

As shown in Table II-1, each lot and building has enough parking to serve the individual uses of each lot and building, independent of the other. As explained in Section 2.3, *Project Characteristics,* in the Draft EIR on page 2-3 and shown in the updated project site plans (refer to Appendix L), the proposed project would include 22 parking spaces serving Lot 1 (22 required), and 26 parking spaces serving Lot 2 (15 required). Based on the City's parking requirements, a total of 37 vehicle parking spaces are required. However, 48 spaces (a surplus of 11 spaces) would be provided by the proposed project, meeting and exceeding the City's requirements.

Table II-1
Proposed Project Parking By Lot/Building

Parking Summary	Lot 1/Building 1 (48 beds)	Lot 2/Building 2 (30 beds)	Total (78 beds)
Provided	22	26	**48**
Required per City Code	22	15	**37**
Difference from Required (Provided minus Required)	0	+11	**+11**

In addition to analyzing the City's Municipal Code requirements, parking observations were conducted at an existing Palm Villas facilities located at 3333 South Bascom Avenue in Campbell, CA. Based on the observations, the existing Palm Villa facility had a peak parking

[5] On-site employees do not include medical staff (doctors or nurses).

demand of 0.3 spaces per bed. When this parking demand rate is applied to the proposed project, the peak parking demand would be 24 parking spaces. Therefore, observations at the Campbell Palm Villas support the assertion that 48 parking spaces would meet and exceed the anticipated parking demand. Furthermore, the applicant proposes to require employees to first use basement-level parking life spaces, so that proposed project visitors would have priority for surface lot spaces. To facilitate the efficient use of the lift parking spaces, an on-site parking attendant (valet-style) would be available. This attendant would also be able to direct visitors and employees to appropriate parking spaces and ensure that employees use the lift-spaces if available. Additionally, the proposed project plans have been revised to include four (4) bicycle spaces (refer to Appendix L, Sheet A-1.2, Proposed Site Development Plan).

Master Response 8: Loading and Delivery

Master Comment Summary:

Comments received on the Draft EIR express concerns that the proposed project includes an off-street loading area immediately adjacent to Saratoga Creek Drive. The comments state that the loading area should be set back from the roadway and screened from view. Commenters also express concerns regarding the absence of a passenger-loading zone near each building entrance, which they assert could endanger pedestrians, cause congestion in the driveways, and reduce circulation of arriving and departing vehicles from the parking lot. Finally, commenters state the proposed emergency vehicle turnaround is not suitable for delivery trucks or trailers, and no suitable truck turnaround is identified for accessing the loading area on Lot 2.

Master Response: Vehicle turning templates were used to analyze the travel paths of single-unit delivery trucks. Based on this analysis, the vehicles are able to turn around using the surface parking lot on Lot 2.

The proposed loading area on Lot 2 satisfies the City's requirement of one off-street loading space for a nursing home. The proposed space measures 50 feet by 14 inches which exceeds the minimum size required per the City's Municipal Code. There is no loading zone on Lot 1. Parking is discussed in Master Response 7, Parking.

Recycle and garbage trucks would not park at Lot 1 parking spaces. Based on the location of the recycle and garbage bins on both parcels**,** staff would move the dumpsters out of the trash enclosure for collection to the Lot 1 driveway, prior to the trash trucks arrival and return them after the trash is picked up (to be arranged with the trash service provider). Arrangements for trash pick-up and a schedule would be defined with West Valley Collection and Recycling and would likely occur no more than twice a week. The trash collection truck drivers would have the option to enter the Lot 1 driveway and pull up in front of the trash area which is sized to accommodate two 4-yard trash bins. Once the trash receptacles are emptied into a typical trash collection truck, the truck would turn left and exit Lot 1 back onto Saratoga Creek Drive or if already on Saratoga

Creek Drive facing south, backup into Lot 2 and turnaround, back onto Saratoga Creek Drive facing north.

Master Response 9: Pedestrian Crossing

Master Comment Summary: Comments received on the Draft EIR express concerns related to public and pedestrian safety that could be affected by operation of the proposed project between two lots/buildings. Comments indicated that potential pedestrian/vehicular conflicts could occur. Commenters also express the desire for sidewalks to be installed along the length of the proposed project frontages.

Master Response: Site access and internal circulation were analyzed and the findings presented in Section 3.14, *Transportation and Circulation,* in the Draft EIR (also refer to Chapter 6 of the Transportation Impact Analysis included as Appendix K).

As shown in updated project site plans (refer to Appendix L) the proposed project includes a 6-foot-wide, high-visibility mid-block pedestrian crosswalk between Lot 1 and Lot 2, and across Saratoga Creek Drive. Standard required crosswalk signage would be provided to enhance the visibility of the crosswalk. While crosswalks are typically provided at intersections, mid-block crosswalks can also be provided. The City of Saratoga's Crosswalk Guidelines (2011), indicate that mid-block locations should be marked only when there is sufficient demand, the location has sufficient sight distance, and safety considerations do not preclude a crosswalk. At mid-block locations, pedestrians cannot cross legally without a marked crosswalk. However, mid-block crossings may be appropriate to create safe, convenient crossing opportunities between destinations that generate pedestrian demand. In this case, given that pedestrians will need to cross Saratoga Creek Drive, which ends at the facility boundary, a crosswalk at this location facilitates safe crossings.

The driveway slopes have been designed so there is a <4 percent slope from the back of sidewalk for approximately 10 feet and steepens to 20 percent slope as it enters the garage. Sidewalk slopes are 1.8 percent and would not impede pedestrian travel. There are no planting strips or signs that would block potential sight lines of drivers or pedestrians.

A continuous sidewalk along the frontages of Building 1 and Building 2 is not required, however as shown in updated site plans (refer to Appendix L) the proposed project does provide sidewalks along the frontage of both Lots 1 and 2. Furthermore, the proposed project design does not preclude future connection to sidewalks to the north and south. The sidewalk that is provided at the building frontages would primarily be used by visitors and employees addressing administrative activities between Lots 1 and 2 and not for general operations of the facilities themselves (i.e. laundry, kitchen, etc.). As discussed in Master Response 7, Parking, Lot 1 and Lot 2 include adequate on-site parking for their individual operations. Visitors are not expected to regularly cross Saratoga Creek Drive. In addition, due to the nature of the proposed project as a

RCFE for Alzheimer's/dementia where Building 1 would house seniors with medium to advanced stages of dementia and Building 2 would house seniors with early to mild stages of dementia, residents would not regularly be walking or traveling between Building 1 and Building 2 because each building contains independent operations and distinct resident populations.

Master Response 10: Extension of Saratoga Creek Drive

Master Comment Summary: Comments received on the Draft EIR raise concerns related to extension of Saratoga Creek Drive. Comments assert that extension of the roadway is required by the City's General Plan, and that the EIR must evaluate cumulative traffic issues associated with the parcel to the south (and "full area-wide buildout"), addressing "back and forth traffic" in the future.

Furthermore, comments request that the EIR study and describe (1) how each building has the means and facilities to independently provide all service independent of the other buildings without movement of goods, services and personnel between the buildings [and] or (2) how goods, services, and personnel will move safely between buildings without impeding traffic flow or causing a public nuisance or safety concern.

Master Response: The extension of Saratoga Creek Drive is not required by the City's General Plan. It was included in the approved subdivision of the proposed project site in 2005.

The Draft EIR evaluates the environmental impacts associated with implementation of the proposed project. Under CEQA, cumulative impacts are evaluated for "past, present, and reasonably foreseeable probable future projects," CEQA Guidelines Sections 15355(a)-(b). The Cumulative analysis presented in the transportation analysis accounts for reasonably foreseeable growth in traffic from proposed and pending land use projects, including the proposed Quito Village development, across Saratoga Avenue. In addition, the analysis assumes an annual growth factor of one percent applied to the existing volumes at the study intersections, which is a conservative approach to account for growth that would occur under the City's General Plan, which includes development of the vacant parcel to the south.

Additionally, there are no development proposals that have been submitted to the City for the 10-acre parcel to the south of the proposed project site. Therefore, it would be speculative to assume that future development of the parcel south of the proposed project site would occur, would result in an increase in traffic on Saratoga Creek Drive through the proposed project site, and would be entirely dependent on Saratoga Creek Drive as an access point. The parcel to the south, should it be developed, could be accessible from other access points, such as Village Drive or Saratoga Avenue. That being said, extension of Saratoga Creek Drive 140 feet for the proposed project would not preclude future extension of the roadway. If a future project included extension of Saratoga Creek Drive to the vacant parcel to the south, that project would be responsible for analyzing any related environmental or traffic impacts that may result from the development.

As described in Section 2.3, *Project Characteristics*, in the Draft EIR, the proposed project's buildings would both include resident beds, bathing facilities, and living space. They would also both include office space, control stations, dining/activity rooms, lounges, covered porches, kitchen/pantry, storage rooms, housekeeping areas, pharmacy, and hairdresser areas. The exception would be that central administrative offices would be located in Building 1 only, and would serve activities for the facility overall. Thus, except for this one function, each building would operate independently and the movement of goods, services, and personnel between the two buildings across Saratoga Creek Drive would generate minimal pedestrian activity that would be adequately served by the proposed crosswalk. No impediment to proposed project vehicular traffic or public nuisance as a result of the pedestrian travel between buildings is anticipated. Furthermore, it would likely generate pedestrian travel between existing buildings similar to other uses within and to and from the Professional Village. In addition, there is no need for vehicular traffic to occur between the two buildings.

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Comment Letter 1

From: Colleen Haggerty <CHaggerty@valleywater.org>
Sent: Monday, March 2, 2020 4:56 PM
To: Nicole Johnson <njohnson@saratoga.ca.us>
Subject: RE: PV DEIR

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Hi Nicole,
We have reviewed the DEIR for the Palms Villas Saratoga Project submitted to us for review on February 19, 2020. Based on our review we have the following comments:

1. The proposed 25 foot setback from the creek top of bank while it appears to meet the setback for slope stability provides a very minimal riparian corridor setback. Guide 1 of the Guidelines and Standards for Land Use Near Streams notes a buffer should be provided between the riparian corridor and development; however, there is no discussion of the riparian corridor limits or what setback to the corridor is provided for as part of the development. Also, it is not clear if the project complies with the tree protection zones noted in Design Guide 1. 1-1 1-2
2. The DEIR notes in multiple places that Valley Water does regular maintenance of Saratoga Creek at the project site. Valley Water does not have any easement over the creek at the project site and does no maintenance at the site. On Valley Water owned properties along the creek in the vicinity of the site maintenance is done on an as needed basis only. 1-3
3. Page 3.3-33 notes that Saratoga Creek is located adjacent to the site; however, the creek runs through the site though the proposed development area does not encroach into the creek. 1-4
4. It is unclear in the hydrology section if all the storm water from the site will be pre-treated utilizing the bioretention areas before entering the two proposed infiltration systems. Please clarify how storm drainage will be handled. 1-5
5. It is unclear is the proposed infiltration systems meet SCVURPPP c.3 Handbook Appendix I Infiltration Guidelines as there is no discussion of how these systems meet the guidelines. In order to protection groundwater is it important that stormwater measures that include infiltration meet the SCVURPPP guidelines, which could include approval by Valley Water. 1-6
6. Page 3.9-3 notes there is an existing 18-foot Valley Water easement along the creek; however, as noted in our March 11, 2019 letter on the NOP we have no record of this easement being recorded. Please see our letter on the NOP for more information regarding this easement. 1-7
7. Page 3.9-16 incorrectly references the "Napa River" instead of " Saratoga Creek." 1-8
8. Valley Water data notes the depth to first groundwater in the vicinity of the project site to be 30-50 feet, not 75 feet as noted on page 3.9-16. 1-9
9. Page 3.9-21 notes that storm runoff in excess of the storage capacity of the infiltration system will be directed to the City's storm drain system; however, the plans provided don't show connections to the storm drain system. 1-10
10. The DEIR does not discuss our comments regarding landscaping at the site and conformance with the Guidelines and Standards noted in our March 11, 2019 letter on the NOP. 1-11

Please forward the Final EIR with responses to our comments when available. 1-12

Colleen Haggerty, PE
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Response to Comment Letter 1

Santa Clara Valley Water District
Colleen Haggerty
March 2, 2020

1-1 Page 4.3 of the Design Guide 1 of the Santa Clara Valley Water Resources Protection Collaborative's Guidelines & Standards for Land Use Near Streams (Guidelines) recommend that riparian vegetation be avoided by development and states that, "all development activities need to be outside this riparian corridor where at all possible. Any exceptions to this rule need to be justified and mitigated." Page 11.3 of the Guidelines defines the edge of riparian as "the outer boundary of the existing riparian vegetation; for trees, the dripline is the outer boundary."

In July 2015, January 2016, and November 2016, arborists mapped the dripline of trees on site in accordance with the Guidelines and City Municipal Code 15-46.030 and 15-50.020(v); the survey results are summarized in the December 2017 City arborist report included as Appendix C-3 of the Draft EIR, and the 2016 arborist reports conducted prior to project design (refer to Appendices C-1 and C-2). The November 2016 arborist report recommended siting the limits of development to avoid protected trees, as well as installing protection fencing as close around the tree root protection zone as possible (Appendix C-2). Protected trees and their location relative to the limits of development are shown on revised Figure 2-3, *Site Plan Overview* and revised Figure 2-4, *Lot 1 Site Plan*. Tree protection fencing is shown on the tree maps attached to the December 2017 arborist report (Appendix C-3) and in revised Figure 2-4.

As discussed in Section 3.3, *Biological Resources*, in the Draft EIR, a professional biologist from Dudek (refer to Appendix C-6), mapped existing site conditions in April 2019, including the extent of riparian vegetation (see Figure 3.3-1, *Vegetation Communities and Land Cover Types*). A new figure (Figure 3.3-4B, *Existing Biological Resources and Proposed Setbacks*) has been prepared and included in the EIR that shows the limits of riparian vegetation as of 2019 and the proposed limits of development. Revised Figure 3.3-4B demonstrates that two sections (approximately 0.01 acre; 458 square feet) of the riparian corridor overhang the limits of development of Lot 1.

Based on conditions observed during the 2019 fieldwork, the area of overlap consists of overhanging riparian trees (Trees 3, 4, and 9) with an understory dominated by ruderal grassland species in an area that has been previously disturbed by prior vegetation and land management activities. Vegetated swales, sidewalk, open patio, and an approximately 264-square foot corner of the building on Lot 1 are the main proposed project components that could be constructed below the overhanging riparian canopy.

As described in Section 3.3, the proposed project does not anticipate removal of trees from the California sycamore woodland, vegetation and tree removal in the proposed project site would be minimized to the maximum extent feasible, and avoided riparian habitat would be fenced to ensure that no impacts would occur. No construction, staging areas, or other ground-disturbance of riparian vegetation, or of the bed, bank, or channel of Saratoga Creek, is expected to occur as a result of the proposed project. Furthermore potential indirect impacts (such as runoff and siltation) would be avoided and/or minimized with implementation of best management practices and incorporation of MM—BIO-1 and MM-BIO-6, which would reduce any direct or indirect impacts to a less-than-significant level. Incorporation of MM-BIO-7 and MM-BIO-8 would further ensure that any impacts related to conflict with local policies or ordinances protecting biological resources (including riparian woodland) would be less than significant.

Note that the Draft EIR also provides analysis of an alternative (Alternative 5), which considers a reduced project footprint, increasing the potential setback from riparian vegetation or trees overhanging the site (as much as increasing a setback by approximately 11.4 feet or an overall reduction in 1,200 square feet on the ground floor). This alternative (referred to as Alternative 5 – General Plan and Zoning Change Alternative) is discussed in Section 5.0, *Project Alternatives,* in the Draft EIR and would require approval of a General Plan Amendment for approval of a three-story building. Similar to the proposed project, potential impacts on riparian habitat and conflict with local policies or ordinances protecting biological resources would be lessened to a less-than-significant impact by implementation of MM-BIO-1, MM-BIO-6, MM-BIO-7, and MM-BIO-8.

Design Guide 1 of the Guidelines recommends avoiding riparian vegetation, but "where there are other site constraints, anticipated encroachment within the recommended tree protection zone, an arborist should be consulted to determine the appropriate protection measures or alternative setbacks." Condition 13 of the 2017 arborist report (refer to Appendix C-3) does not permit encroachment or removal of trees other than those approved by the City for removal (Trees 11-13, 15, and 16). In addition, Condition 10 of the arborist report requires that the proposed project arborist be on site to monitor all work within 8 feet of Tree 1 and 20 feet of Tree 9 (refer to revised Figure 3.3-4B), and Condition 18 requires that any permitted tree or root pruning be performed in accordance with International Society of Arboriculture standards to ensure minimal impacts to riparian trees on site. In accordance with Condition 17, roots of any protected tree (measuring ≥ 2 inches in diameter) shall not be cut without prior approval of the project arborist (refer to Appendix C-3). In addition, a 2020 Arborist report provided greater detail related to Tree 9, a sycamore (refer to Appendix C-4). Per the latest arborist report, development of the proposed project

would not preclude continued health of Tree 9 assuming tree protection recommendations are followed.

As such, the updated project site plans (refer to Appendix L, Sheets L-1.0, Landscape Plan), incorporates the latest arborist survey data (including the arborist report included as Appendix C-4), avoids riparian vegetation to the extent feasible, and complies with Design Guide 1 of the Guidelines. In addition, and as discussed in Section 3.3.5, *Impacts*, in the Draft EIR, implementation of MM-BIO-1, 6, and 7 would avoid and minimize potential impacts to riparian vegetation by: 1) informing construction workers of the importance of avoiding the riparian corridor; 2) by installing fencing between the limits of disturbance and avoided riparian vegetation; and 3) by following additional tree protection measures outlined as conditions of approval in the 2017 and 2020 arborist reports, such as monitoring and reporting by a certified arborist for any project activities that encroach on a protected tree.

Finally, as a tree canopy fluctuates over time (as shown by the 2019 field data presented on revised Figure 3.3-4B), there is a possibility that pruning of overhanging riparian vegetation may become necessary to facilitate project construction. Should any pruning in the riparian corridor become necessary, MM-BIO-6 requires coordination with the City and the California Department of Fish and Wildlife (CDFW) and preparation of an agency-approved compensatory mitigation plan prior to project construction. Also refer to Master Response 1, Development Setbacks, and Master Response 2, Saratoga Creek Easements.

1-2 Refer to Response to Comment 1-1. As described, the proposed project complies with the tree protection zones, to the extent feasible, as noted in Design Guide 1. Furthermore, additional consultation with an arborist occurred in 2020 (refer to Appendix C-4).

1-3 The text on page 3.3-4 of the Draft EIR has been revised as follows: “there is a paved access road that runs north–south through the center of the proposed project site that serves as an easement for the Santa Clara Valley Water District (SCVWD), which performs creek maintenance as needed along Saratoga Creek in the area.”

1-4 The text on page 3.3-33 of the Draft EIR has been revised to indicate that “there are no potentially jurisdictional waters, including wetlands, within the areas of proposed development on the proposed project site. Saratoga Creek is a potentially jurisdictional water that runs through the western portion project site and proposed development does not encroach into the creek”.

1-5 The proposed project includes an underground infiltration system that acts as a pre-treatment filter to remove sediment and solids from surface storm water before it

infiltrates native soils. Storm water flows into a subsurface vault that contains a bio treatment soil mix or other filtration media and is underlain with drain rock and an underdrain. The water flows through the soil mix/media where suspected solids are filtered. After passing through the soil the water flows through the drain rock section then is allowed to infiltrate into the exposed native soil at the base of the vault. If the storm water flows into the vault at a higher rate than the water can infiltrate into the soil, the vault fills with water and stormwater flows into an overflow pipe and into the City's storm drain system (N. Johnson and D. Dorcich, pers. comm. 2020).

Refer to new Figure 2-9, *Lot 1 Stormwater Management Plan*, new Figure 2-10, *Lot 2 Stormwater Management Plan*, new Figure 2-11, *Lot 1 Utility Plan*, and new Figure 2-12, *Lot 2 Utility Plan*, for details on the infiltration system (these figures include details on drainage areas, self-treating areas, the subsurface infiltration system, drains, catch basins, and trenches).

1-6 The proposed underground infiltration system is designed and sized to capture all the stormwater runoff which falls on site and infiltrates to the subsurface soils per the Santa Clara Valley Urban Runoff Pollution Prevention Plan (SCVURPPP) C.3 Stormwater Handbook Appendix I Infiltration Guideline requirements. The storm runoff in excess of the storage capacity of the infiltration system, above C.3 requirements, would be directed to the City's storm drain system by the overflow storm drain from the infiltration system (refer to Appendix L, Sheet C-4.0 Preliminary Utility Plan).

The proposed infiltration systems are consistent with the SCVURPPP Guidelines (Table A-1 – SCVWD Guidelines for Stormwater Infiltration Devices) listed in SCVURPPP Appendix A as follows:

Required Horizontal Setbacks:

- No drinking water wells within 600 feet from the proposed infiltration system.
- No Septic System within 100 feet from the proposed infiltration system.
- No active Underground Storage Tanks within 250 feet from proposed infiltration system.
- No known contamination site within 1,500 feet from the proposed infiltration system.

The bottom of the infiltration system is proposed to be at approximately 7 feet below ground elevation, which is higher than the proposed finish floor elevation of the basement level of the proposed building. Per the Geotechnical Report, dated October 13, 2016 by GeoForensics Inc., no groundwater was encountered during the drilling of the 5 boring holes (depths vary from 12.5 feet to 27.5 feet below ground).

The sediment removal feature is proposed as pre-treatment filter before the storm water infiltrating to subsurface soil. A containment row of chambers with woven

geotextile between chambers and bedding is part of the proposed underground infiltration chambers system as sediment removal measure.

1-7 An 18-foot easement was dedicated to SCVWD as part of the original subdivision and shown in the parcel map. However, SCVWD may not have accepted the dedication which is why there is no record of the easement being recorded. As shown in revised Figure 2-4 of the Draft EIR, the proposed project's development footprint does not encroach within the easement dedicated to SCVWD.

1-8 The text in Section 3.9, *Hydrology and Water Quality*, has been updated to reflect the recommended revisions related to references to Saratoga Creek, contained in this comment.

1-9 The text in Section 3.9, *Hydrology and Water Quality*, has been updated to reflect the recommended revisions related to depth of first groundwater, contained in this comment. Also refer to Response to Comment 1-6.

1-10 As described in Response to Comment 1-5, stormwater runoff in excess of the storage capacity of the infiltration system will be directed to the City's storm drain system as shown on new Figure 2-11 and new Figure 2-12.

1-11 The comment discusses proposed project compliance with Design Guide 1, 2, and 3 of the Guidelines, which include recommendations for riparian vegetation setbacks and landscaping near streams. As discussed in Section 3.3.5, *Impacts*, the Guidelines have been incorporated into project design and implementation. For example, any landscaping and/or restoration would be designed to incorporate non-invasive, drought-tolerant plants appropriate to the watershed in accordance with Design Guide 2 and 3. In addition, MM-BIO-8 requires project implementation to be conducted in accordance with the Guidelines. See also Response to Comment 1-1 and 3-6 regarding compliance with the Guidelines.

1-12 The City will notify SCVWD when the Final EIR with responses to comments is available.

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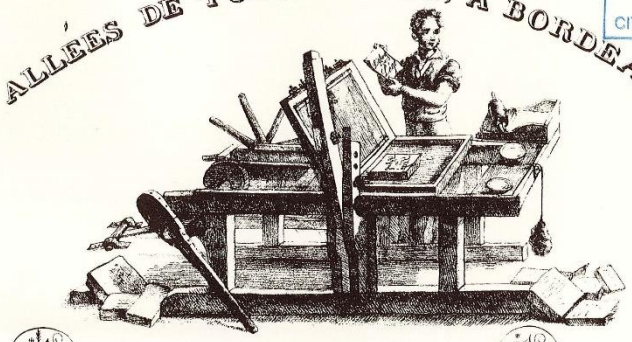
Comment Letter 2

RECEIVED
FEB 18 2020
CITY OF SARATOGA



Lithographie de Lège

Bordeaux Le

M

bonnie + lee Stone
19212 Shubert dr.
Saratoga, Ca 95070

Feb. 14, 2020

Attention: Ms. N. Johnson

As you can see from our address we live very close to the proposed Palm Villas Saratoga Project and we are both very much in favor of the construction of the facility. 2-1

Sincerely,
Bonnie M Stone

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Response to Comment Letter 2

Individual
Bonnie and Lee Stone
February 14, 2020

2-1 The comment letter expresses support of the proposed project. The comment is noted and no further response is needed.

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Comment Letter 3

-------- Original message --------
From: Purvi Savla <purvi_a_savla@yahoo.com>
Date: 2/26/20 6:31 AM (GMT-08:00)
To: Nicole Johnson <njohnson@saratoga.ca.us>
Subject: Palm Villas Project

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

TO: Nicole Johnson
FROM: Savla Family
ADDRESS: 12780 Saratoga Creek Dr.

Our house is the 1st house on the right from Cox Ave. on Saratoga Creek Dr. to the proposed facility. Please find below a summary of our concerns regarding the Palm Villas project:

1) Extension & use of Saratoga Creek Dr. as the designated entrance and exit to the proposed facility

- **Add increased traffic congestion to the intersection of Cox Ave & Saratoga Creek Dr.** Cox Ave. traffic has dramatically increased since the completion of the Saratoga Ave. on/off ramp to 85 North/South and is used as a cut-through from Saratoga-Sunnyvale Rd. to Saratoga Ave. and Quito Rd. to avoid 85 commute traffic. Turning left & right from Saratoga Creek Dr. onto Cox Ave. is already dangerous due to high traffic volume and speed during much of the day and especially commute hours. 3-1

2) Lack of parking to accommodate employee, Doctor, emergency vehicles, patient and visitors for 79 bed facility.

- **38 spaces is not enough to serve a full service 24/7 facility with 79 beds as defined in the project description.** This will not only create traffic overflow to the existing building complex parking lots but also force people to street park on Cox Ave. & across Cox to our existing Saratoga Creek Dr neighborhood. Even without this facility, there are times right now when people park on the street blocking our mailbox and now it will become a regular issue. Street parking obscures our sight when pulling out of our driveway due to a slight road curve creating an extremely dangerous situation since we're unable to see cars turning onto Saratoga Creek Dr. from Cox Ave. In addition, there is no marked crossing designated to accommodate pedestrians and they would need to navigate crossing a heavily traveled, 35 MPH Cox Ave. to get to the facility. If stop signs or signals are considered to mitigate driver and pedestrian safety, this would hinder traffic flow and create a back up onto Saratoga Ave. and other streets especially during commute hours. This also might require considering a neighborhood permit parking program to prevent facility employee and visitor parking on Saratoga Creek Dr. 3-2 3-3 3-4

3) Noise & Lighting - 24/7 use facility and construction. The existing building complex housed at the Cox Ave. site does not operate 24/7 and generates minimal noise and lighting issues on off hours (M-F after 6p and weekend). The proposed facility is a 24 hour operation which will add noise and lighting issues that can be seen and heard from our home. Examples of this include emergency vehicle noise (sirens, back up alert), building heating/cooling units, delivery and garbage trucks, employee traffic, parking lot (pole-mounted lighting vs less intrusive lighting forms) and surrounding area lighting installed for safety, etc. We have 2 young kids and we do see this as a major concern. The reason we chose to live in the Saratoga Woods neighborhood with our kids is the rural feel-no streetlights, sidewalks & the peaceful sounds of crickets & frogs. A 24/7 operation will severely impact this. Lighting must be adequate for facility safety and to deter neighborhood crime, but would create more urban-like conditions. The facility design should fit in with the existing commercial buildings on the neighboring properties with a one-story structure preferred. Also the noise during the construction phase is a major concern for our family with young kids. **Although we understand the need for age related care facilities, we are opposed to a 24/7 operation at this site**. 3-5

4) **Open-space & environmental concerns**. According to the current plan, trees would need to be cleared and we are in favor of limiting landscape changes to ensure the open space and and natural beauty of this area is preserved. Creek maintenance, water conservation and protection, preserving the access trail, and environmental concerns that come with construction and building maintenance are all major issues for our family. Also, medical waste and disposal of bio-hazardous materials are a major concern. 3-6 3-7

Hope you can understand our concerns and we look forward to your support on this. Please keep us posted on the project updates as they become available. 3-8

Sincerely,
Purvi Savla

Response to Comment Letter 3

Individual
Purvi Savla
February 26, 2020

3-1 Intersection operations for the Cox Avenue/Saratoga Creek Drive intersection were evaluated under Existing, Background, and Cumulative conditions with and without the proposed project for the morning and evening peak periods. Existing conditions are based on recent vehicle counts. Background conditions account for vehicle trips added by approved developments near the proposed project. Cumulative conditions include an annual growth factor to account for future travel growth. For each scenario with the proposed project analysis added the traffic projections from the proposed Quito Villages project. The intersection operations analysis shows that the Cox Ave/Saratoga Creek Dr. intersection will meet City level of service (LOS) standards for all three scenarios under the proposed project conditions; therefore, no additional analysis or improvements are needed.

3-2 Refer to Master Response 7, Parking. No further response is needed.

3-3 Refer to Master Response 9, Pedestrian Crossing. No further response is needed.

3-4 Refer to Master Response 7, Parking. The proposed project meets and exceeds the required parking spaces at the proposed project site (for employees and visitors), and it is not anticipated that parking would spill over into adjacent parking lot areas. The City does not currently have any residential parking permit programs, nor is it anticipated that a parking permit program is needed.

3-5 Refer to Master Response 4, Noise and Master Response 5, Aesthetics. No further response is needed.

3-6 As discussed in Section 2.3.6, *Landscaping/Lighting/Signage*, in the Draft EIR, the proposed project would remove five (5) trees (three [3] native coast live oak and two [2] non-native Brazilian pepper trees), to accommodate the proposed extension of Saratoga Creek Drive. Four (4) replacement trees would be planted along Saratoga Creek Drive. In addition, the proposed project would involve landscaping throughout the site, including extensive planting of water-efficient ground cover, shrubs, and trees in open areas and along the frontages of Saratoga Creek Drive. No trees would be removed from the riparian corridor.

The proposed project includes components designed to protect Saratoga Creek, as well as minimize surface run-off. As described in Section 2.3.4, *Hydrology and Drainage*, in the Draft EIR, vegetated swales and underground storage and infiltration

systems would be installed on each lot to facilitate on-site treatment and percolation of stormwater volumes generated by the impervious surfaces proposed by the project. In addition, there would be a 25 to 35-foot-wide setback from the creek for slope stability purposes and to maintain access for future creek maintenance. The 18-foot-wide easement dedicated to SCVWD allows access and maintenance along Saratoga Creek in the vicinity of the proposed project site.

The comment also mentions preservation of an access trail. Refer to Master Response 3, Recreational Trail, for further discussion in regards to recreational trails located at the proposed project site.

3-7 As discussed in EIR Section 3.8.4 *Hazards and Hazardous Materials*, the proposed project would not generate biohazardous waste as defined by the California Medical Waste Act. Expired or leftover pharmaceuticals would be disposed of in an appropriate fashion and in accordance with Santa Clara County Department of Environmental Health policies.

3-8 The Final EIR and response to comments will be made available in accordance with CEQA requirements. No further response is needed.

Comment Letter 4

SARATOGA California

Palm Villas Saratoga
Draft Environmental Impact Report
Community Meeting
February 27, 2020

Comment Form
(please print)

Name*: SUSAN LEVIN
Affiliation (*if any*):* long time resident
Email:* SUSANLEVIN@YAHOO.COM

I am in favor of this project.
1) A COMMUNITY HAS A NEED to care for its seniors, for example, a woman whose husband has memory issues should be able to "place him" in her community so she can continue to live in the family home + visit him regularly. 4-1
2. The location is perfect - Close to 85 AND BUS Routes.

** Please print. Your name and comments become public information and may be released to interested parties if requested.*

Please either deposit this sheet at the sign-in table before you leave today, or fold, stamp, and mail. Insert additional sheets if needed. Comments can also be emailed.

Mailing address: ***Palm Villas Project***
c/o Nicole Johnson
13777 Fruitvale Avenue
Saratoga, CA 95070

Email: **Nicole Johnson**
njohnson@saratoga.ca.us

Public Comment Period: January 31, 2020 – March 2, 2020

Comments will be accepted until March 2, 2020 by 5:00 PM

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Response to Comment Letter 4

Individual
Susan Levin
February 27, 2020

4-1 The comment letter expresses support of the proposed project. The comment is noted and no further response is needed.

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Comment Letter 5

From: Judy Goldman <judy@goldmanfamily.org>
Sent: Thursday, February 27, 2020 4:32 PM
To: Nicole Johnson <njohnson@saratoga.ca.us>
Subject: Comments re DEIR for Proposed Saratoga Palm Villas project

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

I am writing in support of the proposed project for a new Alzheimers Dementia Care Facility in Saratoga. I have reviewed the draft environmental impact report and my opinion is that the benefits of supporting the future residents afflicted by Alzheimers and dementia, as well as their families, significantly outweigh the environmental, transportation, traffic and noise impacts that have been identified.

I am a 20 year resident of Saratoga who has raised my children here and brought my parents from the East Coast to to live nearby. I'm lucky that my parents and my husbands parents are still living independently, but I anticipate the need in the not so distant future for a facility such as the kind being proposed in the Palm Villas project. I've been impressed by the facilities available for the seniors in Saratoga and would like to think that this project would be an extension of that community support. We need to take care of those afflicted by Alzheimers (not only seniors) and family members who are often deeply involved in patient care would benefit by having a facility close to where they live. In addition I've recently participated in a search of local senior resident facilities with skilled care. The area is by no means oversaturated, another reason why I think the Saratoga community could benefit from the addition of this facility.

My home is currently located in a neighborhood that is adjacent to the Saratoga Retirement Community, which includes a skilled nursing facility and serves a variety of resident needs. The facility has positively impacted our neighborhood - some of the benefits include access to its walking paths, minimal traffic and noise, and the opportunity to engage with the residents. I think we should envision the addition of another senior facility as a positive enhancement of the quality of life for all of us in Saratoga.

5-1

Thank you,
Judy Goldman
14720 Gypsy Hill Road, Saratoga
(408) 741-3311

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Response to Comment Letter 5

Individual
Judy Goldman
February 27, 2020

5-1 The comment letter expresses support of the proposed project. The comment is noted and no further response is needed.

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Comment Letter 6

-------- Original message --------
From: Diane Fisher <diane@jvalley.org>
Date: 2/28/20 10:51 AM (GMT-08:00)
To: Nicole Johnson <njohnson@saratoga.ca.us>
Subject: DRAFT EIR Palm Villas Comment

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

I am writing in support of the proposed project for a new Alzheimer's/Dementia Care Facility in Saratoga.

I have owned my home in Saratoga for 35 years, and also grew up in the community. I think it is really important to have adequate services in the community for seniors, including this residential memory care facility. I know a number of neighbors living at home with dementia, and there has never been an issue with increased ambulances or fire engines, nor would we expect that to be an issue at this facility. We know we are an aging population, due to the Baby Boomer generation's age. Studies show that 1 in 4 adults in Santa Clara County will be over the age of 65 by 2060. The need is clearly present now for additional facilities, and the location of this facility is excellent, with both easy access to the facility and proximity to families in need of this resource. 6-1

Sincerely,
Diane Fisher
20114 Glen Brae Drive
Saratoga
(408)867-0297

Diane Fisher
Community Relations Council
Jewish Federation of Silicon Valley
(408)242-7246 cell
(408)357-7504 office

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Response to Comment Letter 6

Individual
Judy Goldman
February 27, 2020

6-1 The comment letter expresses support of the proposed project. The comment is noted and no further response is needed.

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Comment Letter 7

-------- Original message --------
From: Jun Cao <juncao.lac@gmail.com>
Date: 3/1/20 5:09 PM (GMT-08:00)
To: Nicole Johnson <njohnson@saratoga.ca.us>
Cc: Jun Cao <juncao.lac@gmail.com>
Subject: Concerns about Palm Villas Project

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear City of Saratoga Planning committee:

I am a doctor who is currently practicing near the proposed Palm Villas Project. I've attended the meeting last Thursday, and was deeply troubled by some incorrect information in the EIR. The EIR should be an unbiased and factual report that critically considers all environmental impacts with diligent study and discussion. A legally valid EIR process needs to be conducted, while ensuring that the project conforms to the Saratoga Municipal Code and the Saratoga General Plan. Unfortunately, the Draft EIR fails to complete required studies and makes false statements about the facts. Obvious examples of false facts include the site photos with incorrect descriptions, the stated 5' distance from the top of creek bank to existing building on the adjacent lot to the North, and statements about public policy concerning trails and open space.

Please find below a bullet list of some items that were not addressed in the EIR. In some cases, the Draft EIR simply gives false information based on hear-say, with no expert analysis to support the unfounded claims. I have heard from a City Council member that this project is been reviewed using a simplified process enabled by SB-35. If so, could the City provide justification on why a simplified review process is justified for this project, given its potential impact to our city and to many people living near the project site? Could this simplified process leads to some of the false information and seriously undermined the quality of the EIR and any due diligence being carried out? As a resident of Saratoga, I urge the City's Planning Committee to examine the following listed issues and concerns, perform more rigid investigations, and to conduct a more objective review of the project.

7-1

- NOT ADJACENT: The project does not consist of two "adjacent lots" or "adjacent parcels." The two lots are not adjacent because they do not abut each other with a common property line. They are separated by a public road, Saratoga Creek Drive.
  - The applicant proposes shared parking between the two lots with most of the parking located on Lot 2. This scheme is in direct conflict with Section 15-35.020(h) of the City's Zoning Ordinance which states: "In all districts except a C-H district, the off-street parking spaces prescribed in Section 15-35.030 shall be located on the same site as the use for which the spaces are required, or on an adjacent site *or a site separated only by an alley* from the use for which the spaces are required." The words "only by an alley" further define adjacent to mean parcels with abutting property lines, with one exception of being separated only by an alley. Saratoga Creek Dr. is a public road, not an alley.
  - The applicant is also proposing to share one loading area (located on Palm Villas lot 2) between two separate sites. Similar to the proposed shared parking, this is in direct

7-2

7-3

conflict with section 15-35.050(g). "Off-street loading spaces shall be located on the same site as the use for which the loading spaces are required or on an adjacent site." 7-3 Cont.

- The two lots are separate legal parcels, which can be sold separately in the future, which would leave two separate projects divided by a public street, with each having illegal parking facilities under the City's municipal code. 7-4
- The EIR must address the inconsistency between the proposed project and the municipal code. 7-5
- The EIR must address the safety issues posed by operating a single-campus residential care facility for the elderly, which is separated on two sides of a public road. There will certainly be traffic conflicts caused by pedestrian flow between the two buildings across the public road, in addition to vehicular traffic exiting the five driveways that serve the project. 7-6
- The EIR must address the functional limitations of operating a single campus facility which is separated on two sides of a public road. 7-7
- Saratoga Creek Drive will eventually be extended to serve a much larger parcel to the South, which is currently vacant and will likely be developed in the future. The EIR must study and discuss all of the above issues in respect to the cumulative traffic that will travel on Saratoga Creek Drive, through middle of the proposed facility. 7-8

• Aesthetics: The Saratoga Professional Village was developed under governing CC&Rs and the oversight of its own Architectural Review Board that existed at that time. This resulted in a uniform development that was designed under stricter guidelines than what the City Code allows today. The design of the Professional Village includes 5 parking spaces per 1,000 S.F. of building area, integrated driveways and parking away from the front landscaping setbacks, and increased landscaping buffers between parking lots, intersecting driveways and adjacent structures. This creates an open and well landscaped appearance, with parking that is easy to navigate. The proposed Palm Villas project was designed to be subdivided within the boundaries of the Professional Village development, by including parking and driveway easements on Lot 2 of the project that serve neighboring parcels within the Professional Village. 7-9

- The EIR must study and discuss the compatibility of the proposed Palm Villas development in respect to the compatibility with the existing buildings and uses in the Professional Village. 7-10
  - Our CC&Rs controlled the allowed uses, which include only Dental, Medical and Professional office uses. No residential or nursing facilities were allowed or exist in the Professional Village. While current Saratoga Zoning could allow nursing homes in the PA Zone, this use is incompatible in the Professional Village. 7-11
  - The oversized buildings that are proposed would tower over and dwarf the existing buildings, casting shade over the parcels in the existing development. 7-12
  - The building on Palm Villas 2 is shown to abut a parking and driveway easement with no setback for landscaping. 7-13
  - The parking lot on Palm Villas 2 is shown to abut the adjacent parking easement to the East. No landscape medians are offered to separate Palm Villas parking or loading zone spaces from the parking directly to the East. 7-14
  - The "shared loading zone" on Palm Villas 2 must be screened, according to City Code; however, no screening is offered. 7-15

- The proposed building and loading zone on Palm Villas 2 does not have adequate setbacks to the private roadway easement located on that property. 7-16
- The look, size, mass and scale of the buildings must be compatible with the existing neighborhood. The EIR fails to study the office-park design and look of the existing Professional Village neighborhood. The EIR fails to discuss design alternatives, including increased setbacks from adjacent properties or Saratoga Creek. 7-17
- Palm Villas lot 1 offers almost no landscaping in the front-yard setback to Saratoga Creek Dr., which is almost completely covered by driveways and parking spaces. Palm Villas 2 also has extremely limited landscaping in the front-yard setback; most of which is covered by the two driveways, parking spaces and the trash access. In contrast, Most of the front-yard setbacks in the existing Professional Village neighborhood are entirely covered by landscaping with almost no hardscaping. The EIR fails to study the amount of landscaping provided in the front-yard setbacks and other landscaping buffers provided in the existing Professional Village neighborhood. The EIR fails to offer alternatives to eliminate driveway and parking coverage on the front-yard setbacks of the proposed development. 7-18

- The City has set a precedent of requiring the deeding of land within the boundaries of the Saratoga Creek riparian corridor, as a condition of development. Two instances of this include Sturla's parcel, immediately adjacent to the North of the proposed Palm Villas site, and The Vineyards condo development to the South of our 10-acre, undeveloped parcel. By failing to deed the creek land prior to mapping the final subdivision of Palm Villas lot 1, the lot area is calculated to be artificially larger than it should be. The area of the subdivided lot should be reduced by the creek land deeding, as well as required easements for creek maintenance and a public trail. The proposed building is substantially larger than would be allowed if the lot size were appropriately reduced. The EIR fails to study this important requirement, although it was voiced in public comments during the EIR Scoping period. 7-19

- Traffic: The EIR failed to discuss the traffic impacts on the existing developments in the Professional Village, Village Drive and Saratoga Creek Drive. The traffic study focused on the incremental and cumulative increase in traffic on larger arteries, including Saratoga Avenue and Highway 85. Parking and traffic within our Professional Village neighborhood is a valid concern that was addressed by many tenants and owners in the Professional Village. The EIR ignored this issue entirely. 7-20
  - The proposed Palm Villas is severely under-parked. The false assumption that the two Palm Villas Lots are "adjacent" is one of the major causes of the shortage. The EIR must study the inefficiency of sharing parking across a public road and the impacts on public safety and congestion within the Professional Village.
  - The proposed "shared" parking scheme is divided between four separate parking lots on two separate (non-adjacent) parcels. The four parking lots are also separated from view of each other. This is inconsistent with the existing design of parking lots in the Professional Village, which have only one driveway and parking lot serving each of the separate buildings, with all parking in clear view of approaching visitors. The separated, multi-lot parking scheme on the proposed development would surely cause their visitors to get confused and trespass over our driveways and park in our 7-21

parking lots. The EIR must have an expert study of the traffic circulation and parking, in respect to the existing Professional Village development. 7-21 Cont.

- Congestion may be caused throughout the private driveways and roads by vehicles of visitors, delivery trucks, emergency responders, and maintenance vehicles who may use our private driveways to access Palm Villas. The EIR should address this potential congestion nuisance, by an expert study of neighborhood circulation conducted by a traffic engineer. 7-22

- Saratoga Creek, Biological and Geological issues: The EIR fails to address the artificial altering of the riparian corridor by years of brush and tree suppression along the bank of Saratoga Creek. The EIR fails to address the artificial extension of the creek bank into Saratoga Creek by years of dumping fill and broken concrete. An expert study should be conducted to find the natural top of bank and natural tree canopy of the riparian corridor. This could be done by comparing the undisturbed areas along the creek bank on the large parcel to the South, which obviously look different than the Palm Villas 1 parcel or the developed parcel to the North of it. This issues was raised during the EIR Scoping period, but ignored completely in the Draft EIR. The biology report simply accepts the contour lines of the top of bank as presented, and the existing tree canopy as the basis for finding the top of creek bank and riparian corridor. No actual study was done to determine if the existing contours are artificially altered or natural. 7-23
- Recreation: The EIR did not conduct any studies to obtain actual facts. The Draft EIR completely disregards this entire subject, based on hear-say by City Planning Staff. The requirement for a trail dedication was raised during the public scoping comment period, but was ultimately disregarded. This is in clear violation of the General Plan and is therefore illegal. The General Plan requires Planning to explore all possibilities of acquiring land for trails and open space when a new development is proposed. In this case, the Saratoga Creek Trail is already identified as a Proposed Trail in the OPEN SPACE AND CONSERVATION ELEMENT 2007, which is part of the General Plan. Additionally, there are specific rules that require the dedication of open space and trails according to the subsection of the Open Space Element: Trails and Open Space Linkages. See attached, highlighted copy of the Open Space and Conservation Element 2. 7-24
- Noise: The EIR did not do a specific study to find the typical frequency of emergency response to the Professional Village or the surrounding residential neighborhoods. The representatives at the public meeting said that they counted emergency responses to the other two Palm Villas locations; however that is not an expert study and is not factual information. It is completely ridiculous to assume that the frequency of fire and ambulance responses to a facility caring for 78 elderly, severe-stage Alzheimer patients would be the same as the existing Professional Village neighborhood or the surrounding residential neighborhoods. This is a serious and legitimate concern. Emergency vehicles are not offered a drive loop turnaround, but must back up onto Saratoga Creek Drive for a three-point turn. These vehicles have back-up beepers which would cause a noise nuisance. If they chose do loop through our driveways, additional noise would be caused by the large trucks on our driveways. The EIR should conduct an expert study of potential noise nuisance caused by all types of delivery trucks, cars and emergency vehicles visiting Palm Villas that are likely to trespass on our driveways and loop around the Professional Village. 7-25

Best regards,

Jun Cao, L.Ac.

Response to Comment Letter 7

Individual
Jun Cao
March 1, 2020

7-1 This comment generally introduces several issues discussed later in the comment letter (in bullet list format), including references to site photos, distances (setbacks) from the creek top of bank, and related to public policy statements concerning trails and open space.

State Bill 35 (SB 35) passed in 2017 and provides a ministerial approval process for certain affordable multifamily housing projects, streamlining project approval. The proposed project is not an affordable multifamily housing project and the SB 35 process is not applicable. No further response is needed.

7-2 Refer to Master Response 6, Adjacent Lots. No further response is needed.

7-3 Refer to Master Response 8, Loading and Delivery. No further response is needed.

7-4 The commenter correctly states that the two lots are separate legal parcels, which can be sold separately in the future. However, the Draft EIR evaluates the proposed project as a project that spans the two adjacent lots, that is intended to function as a single complex. Refer to Master Response 6, Adjacent Lots which discusses how the two separate lots are adjacent even though they are separated by a road and Master Response 7, Parking which provides more details about how proposed parking is sufficient.

7-5 The comment generally indicates that the "EIR must address inconsistency between the proposed project and the municipal code" but it does not indicate what that specific inconsistency is in regards to. Section 3.10 *Land Use and Planning*, in the Draft EIR, analyzes the existing and planned land uses within and adjacent to the proposed project site, current land uses, General Plan land use designations, zoning districts, and the Municipal Code. The EIR concludes that the proposed project is consistent with all applicable standards and regulations.

7-6 Refer to Master Response 9, Pedestrian Crossing and Master Response 6, Adjacent Lots. No further response is needed.

7-7 Refer to Master Response 6, Adjacent Lots. No further response is needed.

7-8 The Draft EIR evaluates the environmental impacts associated with implementation of the proposed project. Under CEQA, cumulative impacts are evaluated for "past, present, and reasonably foreseeable probable future projects," CEQA Guidelines Section 15355(a)-(b).

There are no development proposals that have been submitted to the City for the parcel to the south of the proposed project site. It is speculative to assume that future development of the parcel south of the proposed project site would occur and would result in an increase in traffic on Saratoga Creek Drive through the proposed project site. Furthermore, the parcel to the south, should it be developed, could be accessible from other access points, such as Village Drive or Saratoga Avenue and further extension of Saratoga Creek Drive to serve that parcel is speculative. That being said, extension of Saratoga Creek Drive for the proposed project would not preclude future extension of the roadway. At that time, that proposed project would be responsible for analyzing any related environmental or traffic impacts that may result. Refer to Master Response 10, Extension of Saratoga Creek Drive.

7-9 The comment provides a description of the historical development and design of the Professional Village and vicinity (including the Covenants, Conditions, and Restrictions [CC&R's] that apply only to the Saratoga Professional Village). The CC&R's for the Saratoga Professional Village are no longer enforceable and do not apply to the proposed project. Refer to Master Response 5, Aesthetics, as it relates to potential aesthetic impacts.

7-10 Refer to Master Response 5, Aesthetics, as it relates to potential visual impacts of the proposed project and compatibility of the proposed project with existing buildings and uses.

In addition, see Section 3.1 *Aesthetics* and Section 3.10, *Land Use and Planning,* in the Draft EIR, that provide more discussion of the proposed project's visual impacts (as it relates to visual character or quality and light and glare) and land use impacts (as it relates to division of an established community and potential conflict with land use plans, policies, or regulations).

7-11 The proposed project site is zoned P-A under Article 15-18 of the City's Municipal Code. As described under Article 15.18-030 Conditional Uses, nursing home facilities are allowed on the proposed project site upon the granting of a conditional use permit by the Planning Commission. Therefore, the proposed project would be in compliance with the P-A zoning district. In addition, Section 3.10, *Land Use and Planning,* in the Draft EIR, provides more discussion of the proposed project's land use impacts (as it relates to division of an established community and potential to conflict with land use plans, polices, or regulations).

7-12 Refer to Master Response 5, Aesthetics. No further response is needed.

7-13 Building 2 meets and exceeds the required building setbacks on all sides. Project site plans have been updated (refer to Appendix L). Furthermore, new Figure 2-8, *Lot 2 Landscaping Plan*, depicts proposed landscaping on Lot 2. In addition to a six-foot tall fence, screening plants and succulents are planned adjacent to the parking and driveway easement, north of the Common Parking Lot.

7-14 Project site plans have been updated (refer to Appendix L). As shown in those plans and new Figure 2-8, *Lot 2 Landscaping Plan*, there is no landscaping proposed between the proposed project and the adjacent parking and driveway easement to the east.

7-15 The off-street loading area on Lot 2 would be surrounded by a 6-foot-high fenced enclosure (see revised Figure 2-5, *Lot 2 Site Plan*). This is consistent with 15-35.070 Design Standards for Off-Street Loading Facilities of the City's Municipal Code. Refer to Master Response 8, Loading and Delivery.

7-16 Refer to Master Response 8, Loading and Delivery. No further response is needed.

7-17 Refer to Master Response 1, Development Setbacks and Master Response 5, Aesthetics. Chapter 5.0, Alternatives, of the Draft EIR includes discussion of four alternatives (including the No Project/No Build Alterative). Alternative 3 – Landscaping Alternative, would provide additional landscaping and vegetation and focuses on the northern boundary of Lot 1 and Lot 2 and eastern boundary of Lot 2, in order to screen views of truck delivery from public vantage points. Alterative 4 – General Plan and Zoning Change Alternative would add an additional story to Building 1 and would require approval of a General Plan Amendment. This would allow the building to reduce its footprint to be further away from Saratoga Creek.

7-18 Project site plans have been updated and included as Appendix L. Landscaping on Lot 1 is depicted in new Figure 2-7, *Lot 1 Landscaping Plan*. As shown, landscaping fronting Saratoga Creek Drive includes existing and planted trees, mulched areas/groundcover, and drought-tolerant shrubs and grasses in planters. Landscaping on Lot 2 is depicted in new Figure 2-8, *Lot 2 Landscaping Plan*. As shown, landscaping fronting Saratoga Creek Drive includes planted trees, mulched areas/groundcover, and drought-tolerant shrubs and grasses. In addition, Chapter 5.0, *Alternatives*, of the Draft EIR includes discussion of four alternatives, one of which is Alternative 3 – Landscaping Alternative, that could provide additional landscaping and vegetation.

7-19 As explained in Master Response 2, Saratoga Creek Easements, the City does not require easements along Saratoga Creek. The proposed project includes a 25-foot minimum setback with some areas set back up to 35 feet between Building 1 and the top of bank of Saratoga Creek. In addition, the City has no future plans, nor would it be feasible to develop a public recreational trail in the vicinity and adjacent to Saratoga Creek. Please refer to Master Response 3, Recreational Trail. Thus, the lot area for the proposed project site was calculated in accordance with City standards and no adverse environmental impacts related to this topic was described in the Draft EIR's analysis.

7-20 As analyzed in Section 3.14 *Transportation and Circulation,* the proposed project would not generate a substantial amount of traffic during the morning and evening peak travel times. The proposed project is estimated to generate a total of 360 daily trips, 21 morning peak hour trips, and 28 evening peak hour trips. Drivers will typically seek the most direct access route to a facility like the proposed project, which is Saratoga Creek Drive, rather than a more circuitous route through the Professional Villages parking lot(s) and on Village Drive. In addition, Saratoga Creek Drive is designed as a roadway without on-street parking. Access through the surface parking lot on Lot 2 through the Professional Village is not likely to be appealing to drivers because that route would use a more narrow ingress/egress and would likely be less efficient.

7-21 The Draft EIR included an evaluation of traffic circulation and parking in Section 3.14, *Transportation and Circulation* that relies on the Traffic Impact Analysis (TIA) prepared by Fehr & Peers (the revised TIA is included in Appendix K). As stated in Master Response 7 Parking, the surface lot and parking structures would operate as a single parking supply. Visitors would primarily park in the surface lot and employees will be assigned to parking spaces in the underground parking. If needed, visitors can park in the underground parking. Since many of the visitors would be family members making repeat visits, these visitors would be familiar with the facilities and aware there is underground parking. Also refer to Master Response 6, Adjacent Lots, for a discussion of adjacent parcels.

7-22 Refer to Response to Comment 7-20. No further response is needed.

7-23 Refer to Master Response 1. Development Setbacks, for discussion of the setback from Saratoga Creek.

In addition to concerns about the setback, the comment notes that the Draft EIR lacks information regarding the artificial alteration of the riparian corridor adjacent to the proposed project. The CEQA Guidelines direct that EIRs should generally describe environmental conditions as they exist at the time the notice of preparation is published.

To that end, in 2016, one professional biologist conducted a general biological survey of the proposed project site (see Attachment C-2 and C-3 for biological report and biologist qualifications), and in 2018 and 2019, three professional biologists surveyed the site to determine if those previously described existing site conditions remain valid. The top of bank of Saratoga Creek and the extent of the riparian vegetation were determined as part of baseline conditions. Based on a review of current and historical aerial photographs, tree removal or other major modifications of the riparian area are not evident from review of historic aerial photographs, so if trees were removed it did not appear to affect the extent of canopy. A qualified biologist conducted biological resource mapping, in-person using industry standards and a sub-meter accurate GPS device.

As discussed in Section 3.3.3.2, *Existing Project Site*, in the Draft EIR, the biologist noted evidence of disturbances (i.e., tree stumps and downed logs) along the segment of Saratoga Creek adjacent to the proposed development. Although disturbed soils were viewed at the site in April 2019, the area was heavily vegetated with ruderal grassland species and placement of fill and broken concrete described by the commenter were not recorded. The amount of vegetation recorded along the top of bank area suggests that disturbance at the site in recent years has been minimal. The top of bank for Saratoga Creek was recorded from the top of the incised natural channel, and not from areas of fill or rip-rap.

7-24 Refer to Master Response 3, Recreational Trail. No further response needed.

7-25 Refer to Master Response 4, Noise. No further response needed.

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Comment Letter 8

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Our File Number:
22899-01

March 2, 2020

VIA E-MAIL ONLY
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Nicole Johnson, Planner
City of Saratoga
Community Development Dept.
13777 Fruitvale Avenue
Saratoga, CA 95070

Re: Comment Letter for Draft Environmental Impact Report for the Palm Villas Saratoga Project (APN's 389-06-020 and 389-06-021)

Dear Ms. Johnson:

This firm represents the Abrams family, majority owners of seven parcels in the surrounding professional village, two of which are vacant and immediately adjacent to the proposed project site. The Abrams family, and many other owners within the professional village, have serious concerns with the proposed use and design of the project related primarily to parking and circulation, aesthetics, neighborhood compatibility, protection of riparian resources, and recreation. The comments below are similar to the scoping comments we previously provided to you by letter in March 2019. Our clients and we are very disappointed that our legitimate comments were largely ignored by the City's EIR consultant. In addition, it appears that City staff have ignored mandatory provisions of the City's General Plan and Zoning Ordinance. All of this is discussed below. In our view, the draft EIR cannot legally be supported. Unless there are 8-1

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significant changes to the project, the City's certification of the EIR will surely lead to significant litigation. 8-1 Cont.

Chapter 2 – Project Description

The project description provided in Chapter 2 states that the project will be built on two ***adjacent*** lots. As we pointed out in our scoping letter, the two lots are not adjacent because they do not abut each other. They are separated by a public street, Saratoga Creek Drive. This is relevant because the applicant is proposing to provide shared parking between the two lots with the majority of parking located on Lot 2. This scheme is in direct conflict with Section 15-35.020(h) of the City's Zoning Ordinance which states, in part, as follows:

> "In all districts except a C-H district, the off-street parking spaces prescribed in Section 15-35.030 shall be located on the same site as the use for which the spaces are required, or on an adjacent site ***or a site separated only by an alley*** from the use for which the spaces are required." (emphasis added)

8-2

Clearly, the intent to allow shared parking or loading areas on an adjacent (abutting) site, or across an alley is substantially different from sharing across a public roadway, where significant traffic conflicts between vehicles and pedestrians would result. There is only one reason for the reference to **only** an **alley** in section 15-35.030. This defines the meaning of the word "adjacent" in the same section. If the City municipal code intended that the properties could be separated by a public street, the statute would have said so. We understand that it is your position that the word "adjacent" has been given a relaxed meaning for this project. There is no legal basis for that presumption, and the municipal code does not support such an unfounded interpretation. This is a clear legal error, and our client vigorously opposes the treatment of this project as a single site.

The applicant is also proposing to share one loading area between two separate sites. Similar to the proposed shared parking, this is in direct conflict with section 15-35.050(g):

> "Off-street loading spaces shall be located on the same site as the use for which the loading spaces are required or on an adjacent site."

8-3

The EIR states that the "two buildings have been designed to function as a single complex." (See EIR, p. 2-1.) But this is a project separated by a public street. Our client owns the property directly to the south which will eventually be developed. Without comment, the EIR accepts the fact that the subject project will safely function with the obvious pedestrian and vehicular traffic between the two properties. Absolutely no consideration has been given to the danger this back-and-forth traffic will cause in the future, when our client's property is developed.

8-4

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In addition to the foregoing, the City has no ability to control the owner's sale of one of the two properties in the future. The two lots are separate legal parcels, which can be separately sold in the future. There is absolutely nothing legally preventing the current owner from dividing the project in the future, and selling one of the buildings to a different operator. That would leave two separate projects divided by a public street, with each having illegal parking facilities under the City's municipal code. 8-5

The EIR must discuss not only these inherent design-related traffic impacts but also the inconsistency between the proposed project configuration and the codified parking requirements of the zoning ordinance. Additionally, the EIR must discuss the limited functionality related to operating a residential care facility located on two lots separated by a public roadway and the related public safety concerns and identify appropriate alternative designs to minimize or avoid such impacts 8-6

Chapter 3.1 – Aesthetics

The two lots proposed for the Palm Villas project are part of a Tract Map that was created by the Saratoga Professional Village subdivision in 1961. At the time of the subdivision, the developer recorded a set of Covenants, Conditions, and Restrictions (CC&R's) and its own Architectural Review Board to govern the layout, design and function of the Professional Village separate and apart from the zoning regulation in effect at the time. As a result, the building layout, design, parking configuration, and internal vehicle circulation are unique and do not match what current zoning would allow today. Specifically, the existing structures in the Professional Village have relaxed street frontage setbacks to provide for parking at the "rear" of each building such that patrons enter individual offices from parking areas away from street frontage. In addition, City parking standards at the time required only one space per 500 square feet of office space, but the development was parked at a higher ratio of one space per 200 square feet. This standard was later adopted by the City for the PA Zone. To create an aesthetically pleasing office-park neighborhood, driveways and parking areas are shared via reciprocal easements with consistent landscaping buffers throughout. While the CC&R's and Architectural Review Board are no longer in enforcement, the design of any new project within the Professional Village must respect the unique layout and configuration of the existing buildings, landscape buffers and parking areas in order to ensure neighborhood compatibility and the rights of the various parking and driveway easements. Unfortunately, the Palm Villas project completely ignores these important considerations, and this omission was not addressed in the EIR. 8-7

As a result of the manner in which the Professional Village was designed and constructed, there is a consistent look and function to the area with respect to architectural style, street frontage setbacks, landscaping and lot coverage. The EIR states that the two buildings would be "designed to integrate with the wooded backdrop of Saratoga Creek." (See EIR, p. 3.1-16.) The EIR does 8-8

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not state how the project will integrate with the existing character of the Professional Village. The EIR concedes that "the project would change the visual character in the immediate vicinity of the project site," but that the "change is in keeping with surrounding land uses and would not degrade the visual character or quality of the site and its surroundings." (See EIR, p. 3.1-16.) This is an unfounded conclusion. There is no analysis of the compatibility of the proposed project with the surrounding existing development. 8-8 Cont.

Our clients, and their neighbors, have significant concerns about the mass and scale of the proposed buildings, which are totally out of proportion to the existing one-story professional buildings within the Professional Village. There appears to be a lack of landscaping setbacks, as are present with the existing buildings. The proposed, massive two-story buildings are likely to tower over neighboring buildings and will cause sunlight to be shaded on the adjacent parcels. 8-9

The project proposes an off-street loading area which is immediately adjacent to a primary driveway easement that provides egress to many separate parcels and creates a private road. The loading area should be set back from the roadway and be screened from view. 8-10

The project fails to include adequate landscape buffers in several instances. For instance, we understand that there is a required landscape buffer on the east side of the building on parcel 2, to separate the proposed building and fence from our clients' adjacent parking easement. There is no landscape median at the east end of the Lot 2 parking stalls and loading zone, where they abut parking easements for our client's adjacent parcel. There is no screening of the shared loading space on Lot 2. There is no landscape median designed in the front yard setback of Lot 1, which is almost entirely covered by the hardscape of three driveways and several parking spaces. There is minimal landscaping in the front yard setback of Lot 2, which is mostly covered by the hardscape of two driveways and a trash access pathway. 8-11

The minimal setback of the building on Lot 1 from Saratoga Creek is a significant aesthetic issue which is not discussed at all in the EIR. There is inadequate setback to the Saratoga Creek bank and the proposed Saratoga Creek Trail. See extensive discussion below, under the Recreation section. The dimensions of Lot 1 should reflect the requirement that the property owner must dedicate property adjacent to the creek, just as has been done for the Sturla property immediately to the north of Lot 1, and so the south in The Vineyard condominium project. Prior to completing the parcel map and determining building coverage on Lot 1, the area from the centerline of Saratoga Creek to a line on the top of the creek bank should be deeded to the City of Saratoga or the appropriate agency. Additionally, as currently designed and proposed in the EIR, Lot 1 is artificially much larger than it should be if the required creek trail area is to be dedicated, as required by the City's General Plan. The failure to consider the required deeding of creek land to the City or appropriate agency, in addition to the failure to consider the deeding of the trail easement has resulted in insufficient setbacks and excessive building coverage on the property. 8-12

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No analysis has been done of any of these important aesthetic issues. The project is inconsistent with the current layout and design of the existing Professional Village and would negatively impact the aesthetics of the area.

With these obvious inconsistencies, the EIR must include a thorough analysis of the aesthetic impacts of the project, specifically focused on the compatibility with adjacent development and a visual demonstration of the project's proposed landscaping and screening. The EIR must also identify alternative design changes such that a cohesive pattern of development is maintained, with a range of feasible alternatives. 8-13

Chapter 3.3 – Biological Resources and Chapter 3.6 – Geology and Soils

As discussed in other sections, the EIR is significantly deficient in its discussion of potential impacts to Saratoga Creek and the need for a public trail along the creek. As also mentioned previously, our client is personally aware that the riparian corridor along the Creek adjacent to the project site has been artificially suppressed by years of unregulated vegetation removal. A licensed biologist must actually study the location of the natural riparian corridor in this area, including a survey of the existing riparian corridor on the property immediately to the south of the subject. This can clearly be seen in Figure 3.3-4 of the EIR. In addition, the top of the creek bank has been artificially altered for years by inappropriate filling with foreign material including broken concrete. This has artificially altered the location of the top of the bank. This must also be studied in order to determine the true top-of-bank and therefore appropriate structure setbacks. 8-14

As you know, Saratoga Creek borders the project's western boundary. The creek corridor is vegetated with dense riparian vegetation and provides important habitat and a migration corridor for wildlife. As such, the biological resources of the creek are protected under various state and local jurisdictions including, but not limited to, the California Dept. of Fish and Wildlife and the Santa Clara Water District. It appears from the project site plan that creek setbacks from top-of-bank and the edge of the riparian vegetation are inadequate. The EIR does not analyze appropriate setbacks for habitat protection, in coordination with responsible resource agencies and a licensed biologist. 8-15

Our client's family has owned properties in the vicinity of the subject property for approximately 60 years. Our client is very familiar with the Saratoga Creek riparian corridor. On the subject property, the riparian corridor has been artificially suppressed by years of tree removal on the property. The EIR is deficient in its analysis of this subject. There is no biological report cited in the EIR. A biologist must properly study the location of the natural riparian corridor. It is actually fairly simple to do this, as our client has not made any alterations of the riparian corridor 8-16

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for approximately 60 years. A biologist needs to simply inspect our client's property in the vicinity of the creek, and the natural riparian corridor will be plainly evident. In addition, our client has observed extensive placement of foreign fill, including concrete rubble, along the creek on the subject property and the adjoining Sturla property to the north. This illegal filling has artificially extended the top of bank to the west. Again, a licensed biologist should examine the creek corridor, so that the EIR is based on scientific analysis as required, rather than complete speculation with no scientific basis. Appropriate creek restoration must be analyzed and considered. 8-16 Cont.

Chapter 3.10 – Land Use and Planning

The EIR properly states that "a significant impact would occur if the project would result in a significant environmental impact due to a conflict with the City's General Plan or Municipal Code, including the Zoning Ordinance." (See EIR, p. 3.10-7.)

The proposed project is clearly inconsistent with the City's General Plan and Zoning Ordinance in at least two instances:

1. As discussed above, it is not remotely possible that the project could comply with the City's requirement that design standards for multiple parcels can be considered together only when the parcels are "adjacent." The two parcels are not adjacent to each other. Rather they are separated by a public street. The developer is attempting to evade parking and traffic requirements by engaging in an artifice that the two properties are adjacent to each other. The two parcels are separate legal parcels, to be separated by a public street. They could be sold separately to different parties in the future. There is nothing legally preventing the owner from abandoning an Alzheimer facility on one of the properties, and converting it to another use in the future, consistent with zoning. In that case, both parcels would be in clear violation of multiple zoning requirements, most particular involving parking and traffic requirements. The EIR has not evaluated this clear inconstancy with City legal requirements. 8-17

2. As discussed in the below section for Chapter 3.13, the EIR improperly dismisses the City's mandatory requirement that property for a public trail be dedicated by the project, based only on an un-named City staff member. This is in clear violation of the City's General Plan, as discussed below. This inconsistency has not been properly discussed in the EIR. 8-18

Chapter 3.11 – Noise

Saratoga Professional Village is occupied only by Permitted Uses listed in Section 15-18.020 of the City Municipal Code, as it has been over the past sixty years. These uses, as previously governed by the CC&Rs and Architectural Board, include medical, dental, and legal offices, and similar professional offices. This aggregation of compatible uses creates a quiet 8-19

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environment for peaceful enjoyment of service providers and their clients. The proposed Palm Villas Residential Care Facility is incompatible with the peaceful environment of the Professional Village neighborhood. A Residential Care Facility for the Elderly would certainly cause a significant increase in noise from emergency response vehicles, as well as delivery trucks. This poses a noise nuisance from sirens approaching or leaving, and loud beeping from trucks backing up through the three-point turnaround proposed on Saratoga Creek Dr. 8-19 Cont.

Full-time services of a nursing home will require regular deliveries. Delivery trucks could idle diesel engines while in the loading areas, or while circling around the private driveways and parking areas of the Professional Village. In addition to the potential noise disturbance, this would also produce toxic emissions from engine exhaust. This is incompatible with the quiet, clean and health-focused environment of the existing uses in the neighborhood. The EIR must include a thorough analysis of noise related impacts resulting from operation of the proposed facility on adjacent properties and identify feasible mitigation measures and alternatives where necessary. 8-20

Chapter 3.14 – Transportation and Circulation

In our scoping comment letter, we discussed how the proposed project would result in several instances of trespass over our clients' driveway and parking easements. Those areas include the walk gate through the easterly (rear) fence, which opens onto our clients' parking and driveway easement, installation of curbs within our clients' easement in the southwest portion of parcel 2, and additional curbs which encroach on our clients' property in the Overhang Easement along the southern property line of parcel 2. None of this has been addressed in the EIR. 8-21

A nursing facility which is bisected by a public street presents many obvious and significant traffic, parking and circulation issues. The EIR virtually ignores this very important issue. At page 3.14-18, the EIR states:

> Currently there are no pedestrian crossing facilities proposed across Saratoga Creek Drive. There would be pedestrians crossing Saratoga Creek Drive to travel between the two lots. However, the two buildings have been designed to function as a single complex and no hazardous or incompatible uses are anticipated.

8-22

In essence, the EIR admits that there will be a "free for all" crossing between the two buildings on a public at all points along that street, without any pedestrian controls. Only one loading zone has been designed, on Lot 2. Deliveries will be made across the street, with no controls whatsoever. Only one emergency vehicle parking facility is designed on Lot 1. No consideration is made for handling emergency transportation of delicate patients across the public street. Utterly no consideration has been made for the fact that our client, the owner of the property immediately to the south, may eventually develop that property, with resulting traffic along

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Saratoga Creek Drive. The EIR seems to be premised on the incorrect assumption that the roadway will essentially be a cul-de-sac, with no use to the south. This is incorrect, and the EIR must analyze this obvious traffic hazard, anticipating buildout of the adjacent vacant parcel to the south. We are providing you with a copy of a traffic and parking study prepared for our client by Keith Higgins, a licensed traffic engineer. The report will need to be supplemented, and the supplement will be provided to you as soon as possible. 8-22 Cont.

In addition to the foregoing, the project plans fail to describe the completion of Saratoga Creek Drive. The project plans indicate that the roadway will not be extended to the subject property's southern boundary. Extension of this road is required by the City's General Plan. Instead, an emergency vehicle turnaround is being proposed within the public roadway. It is unclear how this turnaround will function and what impacts its design will have on public safety, circulation or on-street parking, particularly when the adjacent lots to the south are developed. None of these issues have been discussed in the EIR, nor have reasonable alternatives been identified, consistent with City parking and circulation policy. Saratoga Creek Drive is designed to extend to the accompanying 10-acre, undeveloped parcel immediately to the south of the proposed project. This parcel, owned by the Abrams family, will eventually be developed and will depend on Saratoga Creek Drive for access and circulation. Traffic congestion caused by the emergency turnaround, as well as the project's internal circulation across Saratoga Creek Drive, will cause obvious conflicts with the future use of this public street. This has been completely ignored in the EIR. 8-23

The proposed emergency vehicle turnaround is not indicated as suitable for delivery trucks or trailers, and no suitable truck turnaround is identified for accessing the loading area on Lot 2. The loading area is designed so that truck must park parallel within the loading zone, at right angles with vehicles parked in the spaces to the west. This obvious hazard is completely ignored. 8-24

As we mentioned earlier in our scoping letter, the entire project appears to be substantially under-parked. This is exacerbated by the elimination of approximately 6 surface parking spaces on Parcel 2, as shown on the applicant's original proposal, which are now dedicated to the loading area on Lot 2 (See accompanying report from Keith Higgins). As a consequence of this deficiency in parking, traffic from the proposed project will be forced onto private driveways and parking areas of adjoining properties. This would constitute a trespass and negatively impact the parking capacity of the adjoining lots. 8-25

The project's traffic, circulation and parking design present substantial issues of incompatibility with adjoining and long-standing uses in the Professional Village. There appears to be inadequate egress and turn-around areas for large vehicles, including emergency vehicles which surely would be making a substantial number of visits to the proposed nursing facility. In addition, it is not clear whether the proposed underground parking entrances will be easily 8-26

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observable by motorists, and those entrances appear to conflict with immediately adjoining entrances to the Professional Village parking lots, and the assumed pedestrian crossing of Saratoga Creek Drive. We note that the current plans have omitted a marked pedestrian crossing of Saratoga Creek Drive, which was on the original plans. There obviously will be pedestrian traffic between the two buildings. We previously asked that the line of sight between autos and pedestrians at the various driveway openings be fully evaluated, but this has been completely ignored. This is particularly true for this project, as there will be a 15% slope on the driveways to the underground garages, creating obvious line of sight concerns for auto/pedestrian conflicts. 8-26 Cont.

There is an existing sidewalk on Cox Avenue, which is used by pedestrians who are unable to drive, or prefer using alternative transportation. The sidewalks offer a critical link to public transportation. The proposed development fails to allow for future sidewalks along the east and west sides of Saratoga Creek Dr., which should connect to the sidewalks on Cox Avenue. These sidewalks on Saratoga Creek Dr. must be able to accommodate disabled people. Due to the above-mentioned 15% slope on the underground parking driveways, those driveways must be set back a sufficient distance from the future sidewalks to allow exiting cars to have a level approach to the sidewalks. 8-27

The proposed development erects numerous barriers along the Saratoga Creek Dr. right of way, which would block wheelchair access and pedestrians who require an accessible path of travel. These barriers include excessive slopes and curbs at each of the driveways to the underground parking lots. These permanent barriers to the public would pose a safety hazard to pedestrians who would be forced to walk in the path of vehicular traffic on Saratoga Creek Dr. in order to access the proposed development. In addition, these barriers would pose permanent barriers to future compliance with ADA law. This includes the impact on future development of our clients' 10-acre parcel to the south of the proposed development. 8-28

The EIR should include a traffic study addressing the safety risks to pedestrians using future sidewalks on Saratoga Creek Dr., with specific attention to the blind driveway ramps which will access the underground parking lots. The EIR should also perform a CASp study to identify all permanent barriers to ADA access on future sidewalks built in the Saratoga Creek Dr. right of way. City Planning should require that the developer actually build the sidewalks, prior to dedication of Saratoga Creek Drive to the City of Saratoga. Failure to require the developer to remove all barriers to pedestrian access will certainly expose the City to future ADA lawsuits. 8-29

The traffic conflicts mentioned above have been completely ignored in the EIR and must be identified and thoroughly analyzed. Mitigations and alternatives must also be identified to insure feasibility and compatibility with the immediate surrounding neighborhood. 8-30

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Chapter 3.13 - Recreation

The Saratoga Creek Trail is identified in both the City's Open Space and Conservation Element and the Circulation and Scenic Highways Element as a proposed trail to be located along the eastern bank of the creek immediately adjacent to the project site. This proposed trail would connect Brookglen Park to Congress Springs Park and is an important link across the Highway 85 barrier, in the City's trail and park network. Although the EIR acknowledges the trail designation in the General Plan, the EIR concludes, without any evidence, that the trail is infeasible. See EIR, p. 3.13-2. In particular, the EIR states that "City staff have indicated that a trail in that location is neither planned nor considered feasible by the City." (Ibid.) The EIR also concludes that placement of the trail was "conceptual and could not be accommodated based on existing site conditions." (Ibid.) Later in the EIR, there is a statement that there "is approximately 5 feet or less of space between the creek's top of bank and the existing development to the north," and that a trail is therefore not feasible because normally there is a requirement for a 17-foot wide paved trail corridor. (EIR, p. 3.13-5.) All of these statements are completely wrong and without any evidentiary or legal support, for the following reasons: 8-31

1. According to the EIR consultant, City staff reported that a trail is not "planned" next to the property. This is demonstrably false. <u>The City's General Plan identifies a trail on this property</u>. Anyone can plainly see that by examining Figure OSC-2 of the City's Open Space/Conservation Element of the General Plan, and Figure C-6 of the City's Circulation and Scenic Highway Element of the General Plan. The City's Open Space/Conservation Element contains <u>mandatory policies</u> requiring that the City actively pursue establishment of trails depicted in the General Plan. For instance, Implementation Requirement OSC.5.b. states that "the City <u>shall</u> continue to require dedication of trails through the development and subdivision entitlement process." (Emphasis added.) This is a mandatory requirement that is illegally being ignored by City staff for unknown reasons. 8-32

2. The City has already imposed dedication requirements on the Sturla property immediately to the north of the subject property, and to the south in The Vineyard condominium project. Again, this can be plainly seen in the existing subdivision maps for those properties. (See Attachment 1.) For unknown reasons, City staff has concluded (again in violation of the City's General Plan), that this dedication requirement will be eliminated for the proposed Palm Villas Lot 1, thereby forever preventing establishment of the trail. This is not allowed. On Figure 2-4 of the EIR, the Top of Bank of Saratoga Creek is clearly labeled. The projection of the Top of Bank to the north clearly goes through the existing city-owned property immediately to the west of the Sturla Parcel (APN 389-06-019). There is plenty of room for establishment of a public trail in this area. The statement in the EIR that there is only "5 feet or less" of space between the Top of Bank and the existing building is again obviously false. My client inspected that area and there is at least 20 feet of space in this area. We also note that there is utterly no biological support for this 8-33

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remarkable statement in the EIR. To our knowledge, no biologist has been consulted about this. For the EIR consultant to cavalierly accepted an unfounded statement from un-named "City staff" is the height of impropriety. 8-33 Cont.

3. Our client owns the real property immediately to the south of the subject. When and if that property is developed, my client expects to provide the necessary area for establishment of a public trail next to the creek, as required by the City's General Plan. Our client vigorously contests any plan to eliminate this trail on the proposed project. This would constitute a complete about-face by the City, considering that all neighboring properties have been required to provide the required area for a trail. It would be a dis-service to the Saratoga community, and would forever prevent any pedestrian trail linkage between Congress Springs Park and Brookglen Park. It would also clearly violate the City's General Plan. Finally, such a decision would be completely devoid of any competent evidence that in fact there is not room for establishment of a trail on the City's adjoining creek property to the north. 8-34

4. Again, as indicated in our prior scoping letter, The EIR must include a thorough discussion of implementing this segment of Saratoga Creek Trail through dedication of a trail easement as required by mandatory City policy. Competent evidence must be obtained from a licensed biologist, as opposed to un-named City staff members who have made significant decisions without any basis or public consideration by the City Council. Appropriate setbacks, as prescribed for habitat protection, must be identified to ensure the trail can be implemented consistent with the various policies contained in the Open Space and Conservation Element, and other relevant design guidelines. If the current proposed building location or design is found incompatible to achieve these standards, the EIR must identify alternatives that would facilitate completion of this trail segment, including increased setbacks from the creek, a reduced building footprint, and changes in building height and design. 8-35

Conclusion

The EIR is filled with illegal and unfounded assumptions. Particularly egregious is the EIR's conclusion that un-named City staff have unilaterally concluded that the General Plan's mandatory requirement for a public trail along Saratoga Creek must be completely abandoned. Staff have absolutely no right to decide City policy on this subject. We are sure that the Saratoga City Council will take a dim view of this remarkable decision by City staff, who are duty-bound to follow the requirements of the General Plan, rather than unilaterally dismiss those requirements because they want the subject project to proceed. We genuinely hope that this serious error will be corrected prior to consideration by the City Council. However, if not, we will vigorously point out this inappropriate behavior to the Council, and our clients obviously will retain their rights to file legal proceedings against this illegal action. 8-36

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Also significant is staff's unfounded assumption that the two lots within the project constitute a single campus, regardless of the public street between the two buildings which provides public access not only to this proposed project, but also to our clients' adjoining 10-acre property to the south. The City's municipal code only allows **alleys** to divide two lots with respect to satisfying traffic and circulation requirements. A public street is not an alley. Again, this appears to be a unilateral decision by staff that the City may use a loose definition of "adjacent." Again, we expect that the City Council will take a dim view of this obvious overreach by staff in an inappropriate effort to promote this project for reasons unknown to us. 8-37

We look forward to the City's appropriate response to these significant comments.

Very Truly Yours,

Todd A. Amspoker
For PRICE, POSTEL & PARMA LLP

TAA:ks
Attachments

cc: Daryl Abrams

BLACK KNIGHT

ASSESSOR MAP REPORT

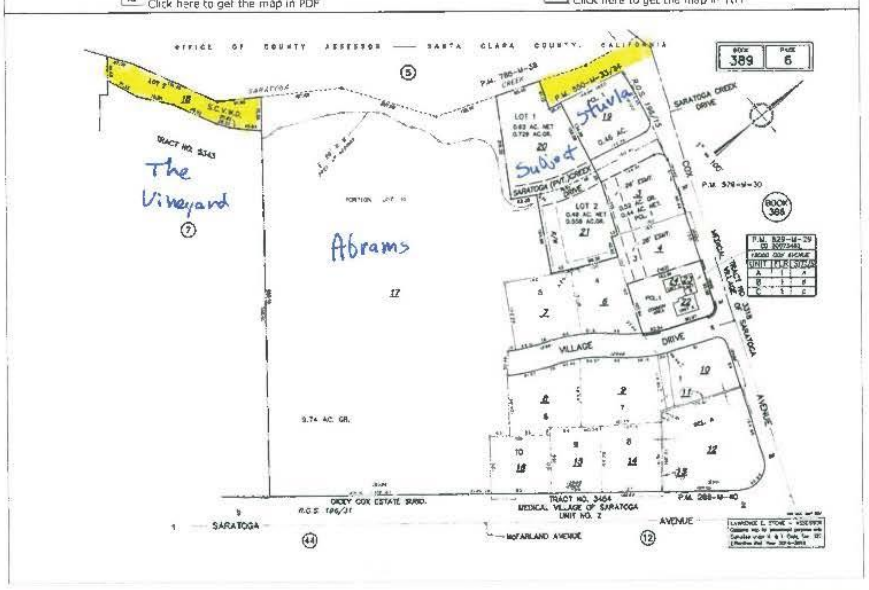
Subject Property Location

Report Date: 02/25/2020
Order ID: R5142538

Property Address			
City, State & Zip	SARATOGA, CA 95070		
County	SANTA CLARA COUNTY	**Property Use**	Orchard (fruit; nut)
Mailing Address	3333 S BASCOM AVE, CAMPBELL, CA 95008-7005	**Parcel Number**	389-06-020
Map Reference			

Click here to get the map in PDF

Click here to get the map in TIFF



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Response to Comment Letter 8

Individual
Price, Postel, and Parma LLP
March 2, 2020

8-1 The comment generally introduces several issues discussed later in the comment letter (in an itemized list), including references to parking and circulation, aesthetics, neighborhood compatibility, protection of riparian resources, and recreation. The comment letter also asserts that the Draft EIR cannot legally be supported and will lead to litigation, which is noted.

8-2 Refer to Master Response 6, Adjacent Lots. No further response is needed.

8-3 Refer to Master Response 8, Loading and Delivery. No further response is needed.

8-4 Refer to Master Response 6 Adjacent Lots, Master Response 9, Pedestrian Crossing, Master Response 10 Extension of Saratoga Creek Drive, and Response to Comment 7-8 as it relates to extension of Saratoga Creek Drive.

8-5 Refer to Master Response 6, Adjacent Lots, Response to Comments 7-4, 7-8, and 10-4.

8-6 Refer to Master Response 6 Adjacent Lots, Master Response 9, Pedestrian Crossing, Comment 7-8, and 7-20.

8-7 This comment provides a description of the historical development and design of the Professional Village and vicinity (including the CC&Rs that apply to the Saratoga Professional Village). The comment points out that the CC&R's for the Saratoga Professional Village are no longer enforceable and do not apply to the proposed project.

Contrary to the commenter's assertion that the proposed project ignores neighborhood compatibility and parking and driveway easements, the Draft EIR Section 3.14.7.5 evaluated the proposed project's parking facilities and consistency with the City's parking requirements in Chapter 15.35.030 of the Municipal Code.

Also refer to Master Response 7, Parking, and Response to Comment 7-9 as it relates to the historical development and design of the Professional Village and vicinity.

8-8 As acknowledged in the Section 3.1 *Aesthetics*, of the Draft EIR, the proposed project would change the visual character of the immediate vicinity because it would convert an undeveloped site to a development with buildings, parking areas, landscaping, fencing, etc. The proposed project would not degrade the visual character or quality of

the site and surroundings because the proposed project is designed to be compatible with existing development on adjacent lots and would be substantially screened from public views by existing and proposed vegetation. Refer to Master Response 5, Aesthetics and to revised Figure 3.1-3.

8-9 Refer to Master Response 5, Aesthetics and Response to Comment 7-12. No further response is needed.

8-10 Refer to Master Response 8, Loading and Delivery. No further response is needed.

8-11 Refer to Response to Comment 7-13 as it relates to building setbacks and Response to Comment 7-18 as it relates to landscaping. Project site plans have been updated and included as Appendix L, Sheets L-1.0, Landscape Plan. No further response is needed.

8-12 Refer to Master Response 1, Development Setbacks. No further response is needed.

8-13 Refer to Master Response 5, Aesthetics. No further response is needed.

8-14 Refer to Master Response 1, Development Setbacks, Master Response 3, Recreational Trail, and Response to Comment 7-23 as it relates to the artificial alteration of the riparian corridor. No further response is needed.

8-15 Refer to Section 3.3.3, *Environmental Setting*, in the Draft EIR for a detailed discussion of the existing biological setting within the proposed project site and Master Response 1, Development Setbacks, and Response to Comment 1-1 as it relates to biological resources and the tree protection zone. No further response is needed.

8-16 As stated in Section 3.3.2 *Summary of Previous Studies*, multiple field reconnaissance surveys have been conducted in preparation for the Draft EIR and associated impact analysis. Please refer to Section 3.3, Biological Resources, in the Draft EIR for a general overview of the biological resource impacts identified for the proposed project and prescribed mitigation measures; response to Master Response 1, Development Setbacks; Response to Comment 1-1 as it relates to the creek/riparian corridor; and Response to Comment 7-23 as it relates to the reviewing biologist(s) qualifications.

8-17 Refer to Master Response 6, Adjacent Lots, and Response to Comment 7-4.

8-18 Refer to Master Response 2, Saratoga Creek Easements, and Master Response 3, Recreational Trail. No further response is needed.

8-19 Refer to Master Response 4, Noise. No further response is needed.

8-20 Refer to Master Response 4, Noise, for information regarding noise related to construction and operation of the proposed project. In addition, Section 3.2.4.3, *Impacts and Mitigation Measures*, in the Draft EIR analyzes the daily emissions from project-related operational sources; operation of the proposed project would not result in emissions that exceed the BAAQMD emission thresholds for any criteria air pollutant or result in potential adverse health effects. As described in the Draft EIR, impacts related to air quality and greenhouse gas emissions would be less than significant.

8-21 Project site plans have been updated and included as Appendix L. As shown on Sheets A-1.2, Proposed Site Development Plan, the proposed project does not encroach on the adjacent parking and driveway easements.

8-22 Refer to Master Response 9, Pedestrian Crossing. Also see Response to Comment 7-8 regarding development of the parcel to the south of the proposed project.

8-23 Refer to Master Response 10, Extension of Saratoga Creek Drive, and Response Comment 7-8 for clarification regarding development of the parcel south of the proposed project.

The proposed project includes implementation of the Saratoga Creek Drive extension as described in the approved subdivision in 2005. The subdivision approval describes extension of the roadway but does not require paving of the roadway to the parcel boundary, which is consistent with City of Saratoga Municipal Code Section 14-25.030 (c) - Design standards and dedication of streets.

The commenter states that extension of Saratoga Creek Drive is required by the General Plan, however, the commenter fails to reference a specific policy that requires this.

Also refer to Master Response 9, Pedestrian Crossing, for clarification regarding on-site circulation and public safety.

8-24 Refer to Master Response 8, Loading and Delivery. No further response is needed.

8-25 Refer to Master Response 6, Adjacent Lots and Master Response 7, Parking. No further response is needed.

8-26 Refer to Master Response 8, Loading and Delivery and Master Response 9, Pedestrian Crossing.

8-27 Refer to Master Response 9, Pedestrian Crossing. As described, the proposed project does provide sidewalks along the frontage of both Lots 1 and 2. Furthermore, the proposed project design does not preclude future connection to sidewalks to the north and south. However, there are no sidewalks provided on Saratoga Creek Drive from

Cox Avenue along the frontages of the Professional Villages to the proposed project site boundary and thus even with the provision of the sidewalks on the northern portion of the proposed project site, a continuous sidewalk to Cox Avenue would not be possiblesince the Professional Village does not provide an existing connection.

The proposed project design has been revised to include ramp ingress/egress with slopes of 1.8 percent to allow cars to have a level approach to the sidewalk (refer to Appendix L, Sheets A-1.2, Proposed Site Development Plan).

8-28 Project site plans have been updated (refer to Appendix L). The site plans of both lots currently show Americans with Disabilities Act (ADA) compliant walkways between the building entrances and the surface parking area. With the addition of sidewalks along the Saratoga Creek Drive frontages the sites are ADA compliant.

8-29 Refer to Response to Comments 8-26 and 8-27 as they relate to traffic impacts, and Response to Comment 8-28 as it relates to sidewalks. No further response is needed.

8-30 Section 3.14, *Transportation and Circulation,* in the Draft EIR analyzes the potential transportation and circulation-related impacts of the proposed project. As outlined in Section 3.14.7, *Impacts*, there would be no significant traffic impacts caused by the proposed project and therefore, no mitigation measures related to traffic would be required. Alternatives to the proposed project are discussed in Chapter 5.0, *Alternatives*, in the Draft EIR and Alternative 2 – Reduced Project Alternative, which would reduce the total number of resident beds by 8 (to 70 beds total).

8-31 Refer to Master Response 3, Recreational Trail. No further response is needed.

8-32 Refer to Master Response 3, Recreational Trail. No further response is needed.

8-33 Refer to Master Response 2, Saratoga Creek Easements and Master Response 3, Recreational Trail. No further response is needed.

8-34 Refer to Master Response 3, Recreational Trail. No further response is needed.

8-35 Refer to Master Response 3, Recreational Trail. As shown in the updated project site plans (refer to Appendix L), the development setback is a minimum of 25-feet from the creek top-of-bank. The 8-feet SCVWD easement is within this development setback.

8-36 Refer to Master Response 3, Recreational Trail. No further response is needed.

8-37 Refer to Master Response 6, Adjacent Lots. No further response is needed.

Keith Higgins
Traffic Engineer

March 31, 2017

Todd A. Amspoker
Price, Postel & Parma LLP
200 E. Carrillo Street, Suite 400
Santa Barbara, CA 93101

Re: Palm Villas – Saratoga

Dear Todd:

As you requested, this is an evaluation of vehicular access, internal circulation and parking associated with the proposed Palm Villas Memory Center, Saratoga, California. It is based on the plan set dated 2-22-17 with relevant information from the plan set dated 4-21-16. The proposed project would have a capacity of 52 residents and 13 employees during the day shift (6 am to 2:15 pm) on Lot 1 and 30 residents with 8 employees during the day shift (6 am to 2:15 pm) on Lot 2. 8A-1

The following are my comments.

1. **Marginal Parking Supply**
   The proposed parking supply is inadequate for the following reasons.
   a. The project is proposed to include two parcels which will be separated by Saratoga Creek Drive. The project parking supply is thus fragmented, resulting in a lower parking efficiency due to the need for drivers to find available parking in multiple locations. Vehicles will enter one of the three parking lots that are separated physically as well as visually. If parking is not available, they will need to exit the first lot and reenter a second lot until a vacant space is located. This will increase traffic conflicts on Saratoga Creek Drive. 8A-2

   b. The separate parcels may have separate ownership in the future. Parking deficiency at one parcel cannot be compensated for by another parcel, especially if separated by a public street. 8A-3

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Todd Amspoker
March 31, 2017

c. The adequacy of the proposed parking supply is asserted to be substantiated by the "Palm Villas Dementia Center (Saratoga) Parking and Trip Generation Study", Hexagon Transportation Consultants, September 19, 2016 (Parking Study). The Parking Study indicates that the City of Saratoga parking requirements for nursing homes (Article 15-35.030 of the Code of Ordinances) is the closest land use category in City standards. According to the Parking Study, this land use designation would require one space for every three beds and one space for every two employees. Lot 1 would then require 24 parking spaces and Lot 2 would require 14 parking spaces for a total of 38 spaces. The proposed parking supply is 16 spaces for Lot 1 (8 spaces below City requirements) and 27 spaces for Lot 2 (a surplus of 13 spaces) for a total of 43 spaces. The total parking supply is indicated to be adequate, but it is acknowledged that a reciprocal parking agreement would be needed between the two parcels to meet the City ordinance. 8A-4

d. Section 15-35.030(j) – The schedule of off-street parking spaces for nursing homes also states that one space should be provided for each two doctors providing medical services on a regular basis. This does not state that the number of spaces should be measured by the number of doctors at a given time, but the total number of doctors regularly serving the project. The intent appears to be to ensure that parking is available on-site for doctors who may need to arrive on an emergency basis as well as to eliminate any inefficiency for the doctor in finding a parking space. It appears that several parking spaces should be reserved for medical personnel. These would then not be available for regular staff or visitors. 8A-5

e. The practical capacity of the parking lot is actually less than the proposed 40 spaces because there would be three separate lots with no visual connection. Drivers would be required to search the three lots individually to find an available space. While circulating for parking, additional vehicles are more likely to arrive, potentially creating unmet demand. An industry standard is to design for a maximum practical utilization of 85%. This would then require about 44 spaces. The proposed parking supply of 40 spaces is thus less than the practical capacity. 8A-6

f. Numbers of employees and times of work shifts are tabulated on **Table 1** on the following page. The resulting overlap in parking demand is also indicated. 8A-7

2

Todd Amspoker
March 31, 2017

	Lot 1	Lot 2	Total
Shift	# Employees	# Employees	# Employees
6:00a-2:15p	13	8	21
2:00p-10:15p	9	5	14
10:00p-6:30a	3	2	5

Number of Staff On-site During Shift Overlaps, and Shifts	Lot 1	Lot 2	Total
6:00a-6:30a	16	10	26
6:30a-2:00p	13	8	21
2:00p-2:15p	22	13	35
2:15p-10:00p	9	5	14
10:00p-10:15p	12	7	19
10:15p-6:30a	3	2	5

Number of Staff at Shift Overlaps, assuming 15 minute egress	Lot 1	Lot 2	Total
5: 45a-6:45a	16	10	26
1:45p-2:30p	22	13	35
9:45p-10:30p	12	7	19

# Parking Spaces	Lot 1	Lot 2	Total
Regular Grade	13	18	31
Handicap Grade	1	2	3
Regular Basement	1	6	7
Handicap Basement	1	1	2
Total	16	27	43

Table 1 - Palm Villas Work Shifts and Resulting Overlap in Parking Demand at Shift Changes

8A-7 Cont.

g. The Parking Study asserts that since the project is a dementia center rather than a nursing home that it has lower parking generation than what is required by City ordinance. This is due to lower car ownership by residents. To document this assertion, a parking occupancy study was conducted at four dementia care centers in the south Bay Area. The four sites

8A-8

3

Todd Amspoker
March 31, 2017

were found to have an average on-site parking occupancy of 0.269 parked vehicles per resident. The parking counts in the Parking Study appear reasonable. However, there are several aspects of the study that result in an underestimation of typical dementia center parking demand (which is different from on-site parking occupancy).

Dementia Center	Max Regular Spaces Occupied	Spaces Provided	Parking/Resident Ratio	On-Street Spaces Available
Redwood City	8	9	.163	Yes
Los Gatos	22	22	.379	Yes
Campbell	12	12	.25	Yes
Sunnyvale	11	Underground – Not Counted	.262	Yes

Table 2 – Parking Occupancy Rates at Comparable Facilities

8A-8 Cont.

As indicated in **Table 2** above, a count of on-site spaces indicates that there is nearly 100% parking occupancy at all three facilities that only have surface parking. Google Earth aerials and street view show vehicles parked on the streets along each Dementia Center's frontage, indicating there is a strong likelihood of additional parking demand beyond what can be accommodated on-site. The parking study should have documented whether there were staff and visitors that walked onto the site, which would have also indicated parking demand accommodated by off-site parking supplies such as nearby on-street parking.

The resulting recommended parking supplies of 14 standard spaces for 52 residents in Lot 1 and 8 standard spaces for the 30 residents in Lot 2 are not sufficient. If the highest ratio of .379 is used, the parking requirement would be 20 for Lot 1 and 11 for Lot 2. Using an 85% practical parking efficiency, the total base line parking supply requirement would be 36. This does not account for employees and visitors parking off-site or arriving by transit, walking or biking at the surveyed sites. It also does not account for the requirement for on-site doctor parking as discussed in Item d above.

8A-9

h. The residents of the proposed dementia residence are assumed to not be able to drive their own cars, so they will not have a car parked on-site. This is a reason for the reduced parking requirement according to the 'nursing home' use. However, residents would therefore require drivers to pick them up for transportation to and from the facilities. In addition, dementia care residents would likely be unable to walk to a car on their own and may need to be loaded from a wheelchair. This would require a safe, van-accessible location to load and unload passengers to vehicles. The absence of a passenger-loading zone near each building entrance could endanger pedestrians, cause congestion in the driveways and reduce circulation of arriving and departing vehicles from the parking lot. Absence of a passenger-loading zone on Parcel 2 may cause vehicles picking up or dropping off residents to block the aisle providing access to the driveway easement for Lot

4

Todd Amspoker
March 31, 2017

4. The driveway easement over Parcel 2 serves as a primary egress for future development of Professional Village Lot 4 to the East of Parcel 2. 8A-9 Cont.

i. The Parking Study recorded occupancy at 30-minute intervals, on the hour and half hour. However, the peak occupancy likely occurred during the shift change at 2:15 pm, when the entire day and evening shifts were on-site. This is an important detail because the evening shift is not able to occupy parking spaces occupied by the day shift. This will result in a higher peak demand. Empty spaces may be left after the day shift departs giving the impression of a reduced demand; however, the evening shift will continue to occupy the same spaces after the day shift departs for the day. If evening shift vehicles need to park off-site at the time of their arrival, they will continue to occupy those spaces throughout their shift. This can only be prevented by providing enough on-site parking to accommodate the peak shift change demand. 8A-10

j. There are aspects of the location of the proposed Saratoga project that are unique and would almost certainly result in higher parking demand than the average of the four centers included in the parking study. The first is access to transit service. As indicated in **Table 3** below, most of the four surveyed facilities have multiple transit routes along their frontages as well as additional routes within easy walking distance. The Palm Villas project in Saratoga is located about 500 feet from Saratoga Avenue, which only has VTA Route 58. 8A-11

Dementia Center	Transit Routes Along Frontage	Transit Routes within One Half Mile
Redwood City	275, 278	72, 87
Los Gatos	None	27, 49, 61, 62
Campbell	49, 61	101,328, 330
Sunnyvale	None	55
Palm Villas Saratoga	None	58

Table 3 – Transit Service at Comparable Facilities

k. The second unique aspect of the Palm Villas location compared to the four surveyed sites is proximity to affordable housing. Affordable housing that would be more appropriate for the income levels of many of the facility staff are within walking distance of each of the four survey sites. However, there is no affordable housing within walking distance of the project. 8A-12

l. There is very little on-street parking (a total of 6 spaces) currently on Saratoga Creek Drive. The project may add about 6 spaces along the project frontage. The street has a width of 34 feet, which would accommodate 18 feet for two-way traffic assuming an eight-foot parking lane on each side of the street. Nine-foot travel lanes are very narrow when adjacent to parked vehicles and can restrict maneuvering by vehicles entering and exiting the project's five driveways. 8A-13

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m. The parking layout may contribute to some parking inefficiency as well. For example, Parking Space 1 in the Lot 1 Parking Garage and Parking Space 4 in the Lot 2 Parking Garage are located near walls and will be difficult to enter and exit. 8A-14

n. The most easterly spaces in the common parking lot are located immediately adjacent to the 20-foot parking and driveway easement along the east side of Parcel 2. These will be accessible for the Palm Villas project but will impact the ability to provide parking along the ingress and egress easement along the Lot 2 easterly property line. The van-accessible parking stall is 9 feet wide, but immediately abuts the building. 8A-15

o. There will be a likelihood of parking intrusion into the existing, private parking lots that serve the adjacent medical/professional offices. This is due to the marginal parking supply and additional complexity associated with three separate parking lots on two parcels separated by a narrow street. 8A-16

p. Finally, there is a potential for conversion of the facility to a use with additional parking demand. This will create additional burden on off-site parking facilities. It is also possible that the two parcels have separate ownership in the future. A parking deficiency on one parcel may not be able to be accommodated by the other parcel. 8A-17

2. Mid-Block Pedestrian Crossings

There will be regular pedestrian traffic across Saratoga Creek Drive between Parcels 1 and 2 that will create pedestrian-vehicular conflicts. Originally, the project site plan included a marked crosswalk. This is eliminated on the current site plan. The crosswalk still exists but is now unmarked. This creates several problems.

a. The first is that mid-block pedestrian crossings are strongly discouraged. According to the California Manual on Uniform Traffic Control Devices 2014 Edition (MUTCD), Section 3B.18, "Mid-block pedestrian crossings are generally unexpected by the motorist and should be discouraged unless, in the opinion of the engineer, there is strong justification in favor of such installation. Particular attention should be given to roadways with two or more traffic lanes in one direction as a pedestrian may be hidden from view by a vehicle yielding the right-of-way to a pedestrian." Although Saratoga Creek Drive has only one lane in each direction, there is a potential for a driver to attempt to pass a vehicle stopped to yield to a pedestrian crossing the street if it is not evident to the second driver why the first vehicle stopped. This is more problematic if the stopped vehicle is a delivery vehicle such as USPS, UPS or FedEx, which limit visibility around the vehicle. 8A-18

The MUTCD later states in "Notes for Figure 6H-29—Typical Application 29 Crosswalk Closures and Pedestrian Detours" that "Parking should be prohibited in advance of mid-block crosswalks. Mid-block crosswalks should be avoided, when possible. See Section 3B.18." This second quote pertains to temporary traffic control during construction

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or special events but emphasizes that mid-block pedestrian crossings are strongly discouraged. They should generally be avoided altogether. The basic principal is universally recognized that mid-block pedestrian crossings should not occur. They certainly should not be designed as an inherent part of a project such as proposed at Palm Villas Saratoga. 8A-18 Cont.

b. The crosswalk is unmarked. This is a problem because there is no demarcated crossing path for pedestrians crossing the street between Parcels 1 and 2. It is understood that pedestrians will be directed by the Parcel 2 sidewalk between the building entry and the street. However, the path connects with the entrance driveway to Parcel 1. There is no apparent method of indicating to visually impaired pedestrians that this is a driveway. Conditions that make it difficult to identify the boundary of sidewalk and street or driveway creates an "Information Barrier" according to "Designing Sidewalks and Trails for Access - Part II of II: Best Practices Design Guide," Federal Highway Administration, 2/10/2014. This is an undesirable condition that is exacerbated by the fact that dementia patients with additional mobility and visual disabilities will be using this facility.

The FHWA publication also states that "Midblock crossings present some design challenges because motorists often do not expect pedestrians to be crossing at a midblock location. *In addition, midblock crossings are difficult for pedestrians with vision impairments to locate*; if signalized, pedestrians with visual impairments are often unable to identify when it is their turn to cross because their customary cue, the surge of traffic in the street beside them, isn't present. If not signalized, *they are often unable to tell when there is a gap in traffic or whether all approaching cars have stopped (the sound of one idling car can mask the sound of approaching cars).* (Emphasis with italics and underline added). 8A-19
See:
https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/sidewalks208.cfm

Midblock crossings are used across public streets when there is a preexisting, high-volume pedestrian crossing. However, they are strongly discouraged as a design feature that creates mid-block, unexpected pedestrian crossing conflicts. In this case, pedestrians could be dementia patients, patients in wheelchairs, staff delivering supplies and meals as well as emergency services personnel responding to a medical emergency. Staff and emergency services personnel will be travelling within a single quasi-medical facility and concentrating on work-related issues. This will lead to a higher possibility of distracted or impaired pedestrians. It will create a non-standard, unexpected condition with a higher probability of an unsafe situation.

Midblock crossings can be made more pedestrian friendly by the addition of curb extensions, which shorten the distance across the travel way. This would also alert drivers

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to the potential presence of pedestrians. In this case, the introduction of a curb extension on the Parcel 1 off-street loading exit driveway would result in exiting vehicles encroaching on the curb extension. 8A-19 Cont.

The introduction of regular pedestrian crossings creates difficult design issues and on-going liability exposure for the project and the Town of Saratoga.

3. The proposed loading area does not comply with the City parking ordinance

a. The Lot 1 building floor area excluding the basement is 16,273 square feet. Section 15-35.060(a) of the City parking ordinance states that one off-street loading space shall be provided for a nursing home with 5,000 to 50,000 square feet of floor area. The loading area shall be not less than 45 feet in length and 12 feet in width. The proposed loading zone will occupy the off-street loading driveway in front of the building. However, the City parking ordinance states that the loading area shall not be located in a required front, side or rear setback area, and shall be screened from adjoining sites by a solid wall or fence or vine-covered fence not less than six feet in height. 8A-20

b. The Lot 2 building floor area excluding basement is 9,580 square feet. The Saratoga City parking ordinance therefore also requires one off-street loading space for Lot 2. However, no loading space is provided. The Palm Villas proposal is to share parking between the facilities that are separated by a public street. The issues with the shared parking are a separate consideration for the loading zone deficiency. It is not practical to assign a loading space to another parcel separated by a public street, because of the intention to deliver large items and not simply cross as a pedestrian. This will require deliveries of supplies, furniture and staging of emergency vehicles to occur off Lot 2. This will create congestion and vehicular-pedestrian conflicts on Saratoga Creek Drive, which is an issue the City Ordinance is attempting to prevent. 8A-21

c. The ordinance states that sufficient room for turning and maneuvering vehicles shall be provided on the site. However, the loading zone will block entering traffic attempting to access the only van accessible stall on Lot 1. In addition, it appears that large vehicles will have difficulty maneuvering on and off Lot 1 without significantly encroaching into oncoming traffic as the vehicle enters and exits the site. 8A-22

d. Accessibility for large vehicles is important not only for delivery vehicles but also garbage pickup, which will need to access the covered trash area on Lot 1. 8A-23

e. Large vehicle access will be most important for emergency vehicles, which will respond to a higher number of emergency health incidents at this type of facility than typical residential facilities. City emergency services will need to review the proposed site plan to confirm the 8A-24

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adequacy of site access and internal circulation. Turning templates must be provided showing the adequacy of driveway geometrics at the off-street loading driveway. 8A-24 Cont.

4. **Extension of Saratoga Creek Drive is incomplete.**
The proposed development of Parcel 1 includes construction of a portion of Saratoga Creek Drive, which extends just beyond the southern edge of the Parcel 1 off-street loading area exit and parcel 2 surface driveway. The project should be responsible for completing frontage improvements along the Lot 1 frontage of Saratoga Creek Drive. If the Town of Saratoga does not require this improvement to be constructed, the applicant should be responsible for in lieu payment or bond to ensure payment in the future. This improvement should not be borne by the owner of the vacant parcel to the south. 8A-25

5. **Public Turnaround is not Provided at the dead-end of Saratoga Creek Drive**
Saratoga Creek Drive will be a dead-end street that is approximately 630 feet long. Although the City of Saratoga does not have specific standards, most agencies require cul-de-sacs at the terminus of dead-end streets that are as short as 150 feet. A public turnaround should be provided at the dead-end of the Saratoga Creek Drive, suitable for large vehicles and trucks. This is especially important for a land use such as a dementia facility, due to the high frequency of medical incidents requiring emergency service vehicles. 8A-26

6. **Sight distance adequacy needs to be documented for the driveways serving underground parking.**
Vehicles exiting the underground parking garages will have limited sight distance from the lower vantage point when stopped on the ramp. This will be exacerbated by landscaping and parked vehicles. The narrow street further limits sight distance because vehicles will be traveling near the curb, with little clearance from vehicles on the ramp. The sight distance needs to be carefully analyzed to ensure it is adequate. 8A-27

7. **The proposed building and parking spaces along the east edge of the surface parking lot on Parcel 2 have no setback from the 20-foot easement on its east side**.
The 20-foot easement along the easterly property line of Lot 2 appears to be master planned for perpendicular parking to serve Lot 4. A preliminary design of perpendicular parking along the easement on the east side of Parcel 2 should be provided to verify that all setbacks and landscape requirements can be met. 8A-28

8. **Include cumulative traffic from development to the south of the project.**
There is a large parcel of vacant land immediately to the south of Palm Villas that will add traffic to Saratoga Creek Drive. The traffic operations from full area-wide buildout should be considered in further environmental and site plan review. 8A-29

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9. **Include cumulative traffic from development to the east of the project.**
Lot 4 of the Saratoga Professional Village has a driveway easement over the proposed Palm Villas Parcel 2 parking lot, connecting to the extension of Saratoga Creek Drive. The driveway easement serves as the primary access to the Lot 4 parking easement, on the East end of Parcel 2. The future development of Lot 4 will require standard driveway aisles and parking space dimensions. This improvement should be illustrated on the project site plan to document that adequate setbacks and parking aisle intersections can be designed properly. 8A-30

If you have any questions regarding this evaluation, please do not hesitate to contact me at your convenience. Thank you for the opportunity to assist you with your review of this project.

Respectfully submitted,

Keith Higgins

Keith B. Higgins, PE, TE

February 28, 2020

Dear Todd,

I submitted the above comment letter to you in 2017 based on the Palm Villas project description and site plan proposed at that time. I understand that the Palm Villas project has been subsequently modified. I will provide an updated letter next week that will provide comments on the latest site plan. 8A-31

Please let me know if you have any questions.

Thanks for the opportunity to assist you,

Keith Higgins

Keith Higgins, PE, TE

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Response to Comment Letter 8A

Appendix to Comment Letter 8
Keith Higgins
March 2, 2020

8A-1 The comment is noted. Project site plans have been updated (refer to Appendix L). No further response is needed.

8A-2 Refer to Master Response 6, Adjacent Lots and Master Response 7, Parking. As described in Master Response 7, a way to minimize recirculation would be to designate where visitors and staff should park. Visitors would be directed to the surface parking on Lot 2 while staff would be directed to park in the underground parking spaces and use the lifts. Visitors that make frequent visits would also be encouraged to take advantage of the underground parking.

8A-3 Refer to Master Response 6, Adjacent Lots. No further response is needed.

8A-4 Refer to Master Response 6, Adjacent Lots and Master Response 7, Parking. No further response is needed.

8A-5 Refer to Master Response 7, Parking. Furthermore, the proposed project does not include any doctors on staff. The proposed project is a residential care facility for medically-stable residents, not a skilled-nursing facility.

8A-6 Refer to Master Response 7, Parking. In addition, City parking supply requirements already take into consideration "maximum practical utilization" factors. Such factors, more commonly referred to as "circulation factors," are applied to parking demand rates to develop parking supply requirements. In addition, an 85 percent circulation factor is more appropriate for large retail developments with high turnover rates. The parking pattern of this facility would not fall into the category of a high turnover development.

8A-7 Refer to Response to Comment 8A-6. No further response is needed.

8A-8 The City of Saratoga Municipal Code Chapter 15.35 provides parking rates based on both number of beds and number of employees and doctors, which requires the development to provide a minimum of 37 parking spaces for both visitors and the employees. The proposed project is providing 48 spaces which is higher than the City's requirement. The parking occupancy survey conducted at the Bascom facility shows maximum of 93 percent parking occupancy during the peak use of the facility, so there were available spaces. In addition, the field observation showed that the on-street parking in front of this facility is not being used by either the visitors of Palm Villas or

its employees, but is being used by the apartment residents across the street. Therefore, no parking spill over in front of the facility on the street was observed.

8A-9 Revised Figure 2-4 Lot 1 Site Plan and revised Figure 2-5 Lot 2 Site Plan show ADA, wheelchair access parking on-site with designated walkways to the building entrances. Vehicles could park in the surface lots and load passengers from there, as needed. Based on information from the project applicant, it is not anticipated that the loading of residents will be a frequent occurrence.

8A-10 The timing of the parking observations was developed using 24-hour driveway count data collected at the Bascom Palm Villas facility. The inbound and outbound counts were collected in 15-minute increments. Based on that data, three peak demand periods were determined including 8:00 - 9:00 AM, 11:00 AM - 1:00 PM, and 4:00 - 5:00 PM.

These time periods were used for the parking occupancy survey conducted at the Bascom facility during June 2019. The maximum parking occupancy of 93 percent without on-street spill over occurred between 11:00 to 1:00 during the lunch period when there are visitors and dining staff on site. Therefore, the field observations supports that there will not be a parking shortage at this facility based on conditions at existing Palm Villas facilities.

8A-11 The VTA Route 26 bus stop is located on Saratoga Avenue at the intersection of Saratoga Avenue / Cox Avenue, a five minute walking distance to/from the proposed project site. This route connects the West Valley College to the Eastridge Transit Center with connections to other VTA routes. As proposed, the project exceeds the City's parking requirements by 11 spaces and would be able to accommodate the projected parking demand on site.

8A-12 In addition to the proposed project being located within one-half mile of a Valley Transportation Authority (VTA) transit route (Route 26 that runs along Saratoga Avenue), the proposed Quito Village development located at the corner of Cox Avenue/Paseo Presada is a mixed-use townhome project with 10 percent of its residential units allocated to affordable housing (9-10 units). Quito Village will be within a 10 minute walking distance to/from the proposed project site. Potential employees could live in affordable units such as these, which are within walking distance. As proposed, the project exceeds the City's parking requirements by 11 spaces and would be able to accommodate the projected parking demand on site.

8A-13 The proposed project provides sufficient parking spaces in two (marked) surface parking lots and two basement garages. Therefore, there are no proposed on-street

parking spaces on Saratoga Creek Drive, which can be exclusively used for (two) travel lanes.

8A-14 The proposed project site plans (and the parking spaces in the common parking lot and basement garages) have been revised (refer to revised Figure 2-4, *Lot 1 Site Plan* and revised Figure 2-5, *Lot 2 Site Plan* and Appendix L, Sheets 2.0, Parking Garage). Turning movements were tested in both parking garages. In Lot 1 and 2, all of the basement spaces are accessible with multiple movements (refer to Appendix K). Furthermore, a parking lot attendant would be available to facilitate parking in the basement garages.

8A-15 The proposed project site plans (and the parking spaces in the common parking lot) have been revised (refer to revised Figure 2-4, *Lot 1 Site Plan* and revised Figure 2-5, *Lot 2 Site Plan* and Appendix L). No further response is needed.

8A-16 Refer to Master Response 6, Adjacent Lots and Master Response 7, Parking. No further response is needed.

8A-17 Conversion of the proposed project to a different future use is speculative. Any use of the parcels included in the proposed project site would be subject to City's parking standards. No further response is needed.

8A-18 Refer to Master Response 9, Pedestrian Crossing as it relates to pedestrian crossings. No further response is needed.

8A-19 Refer to Master Response 9, Pedestrian Crossing as it relates to the crosswalk. No further responses is needed.

8A-20 The total floor area (excluding the basement level) on Lot 1 is 15,066 square feet and Lot 2 is 9,141 square feet. Providing one loading zone on Lot 2 satisfies the City's requirement of 1 off-street loading space for a nursing home totaling 5,000 to 50,000 square feet. The proposed loading space measures 50 feet by 14 feet which exceeds the minimum standard size required per the City's Municipal Code.

8A-21 The total floor area of both buildings (excluding the basement levels) is less than 30,000 square feet and therefore requires only one loading space. The loading space is located on Lot 2 and meets the City's standards in terms of design and requirements. No loading zone is allocated for Lot 1. Refer to Master Response 8, Loading and Delivery.

8A-22 There is adequate space on Lot 2 for passenger vehicles and single unit trucks to park and exit without having conflicts with each other. However, Lot 1 surface parking

cannot be easily accessed by large vehicles. Per the proposed project site plans, no loading zone is proposed on Lot 1.

8A-23 Refer to Master Response 8, Loading and Delivery. No further responses is needed.

8A-24 Refer to Master Response 8, Loading and Response to Comment 10-15 as it relates to emergency vehicle ingress and egress. No further response is needed.

8A-25 Refer to Master Response 10, Extension of Saratoga Creek Drive, Master Response 9, Pedestrian Crossing and Response to Comment 7-8 as it relates to the extension of Saratoga Creek Drive. No further improvements or payment of fees are being considered. No further response is needed.

8A-26 The comment indicates that a public turnaround should be provided at the dead-end of the Saratoga Creek Drive, suitable for large vehicles and trucks.

The City does not require the provision of a cul-de-sac for the proposed project, and emergency vehicles accessing the site would primarily use the proposed project driveways to maneuver.

8A-27 The proposed project site plans (included as Appendix L) have been updated to improve the lines of site at the driveways. There will be minimal plantings located in this area that could block site lines.

8A-28 The proposed parking spaces on the east side of Lot 2 do not infringe on the 20 foot parking and driveway easement or the 14-foot ingress and egress easement. Perpendicular parking along the easement on the east side of Parcel 2 is not planned as part of the proposed project, and a preliminary design is unwarranted.

8A-29 Refer to Master Response 10, Extension of Saratoga Creek Drive. No further response is needed.

8A-30 Refer to Master Response 10, Extension of Saratoga Creek Drive. Use of the parking lot on Lot 2 is anticipated to primarily be for the proposed project, and visitors are anticipated to use Saratoga Creek Drive to access the site. Future improvements east of the proposed project are speculative. The proposed project would not preclude future improvements to Lot 4 should they be warranted. At that time, that future project would be responsible for analyzing any related environmental or traffic impacts that may result. No further response is needed.

8A-31 The comment is noted. No further response is needed.

Comment Letter 9

From: bmartinpt@aol.com <bmartinpt@aol.com>
Sent: Monday, March 2, 2020 12:23 PM
To: bmartinpt@aol.com; Nicole Johnson <njohnson@saratoga.ca.us>
Subject: Palm Villas

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

City of Saratoga Planning Dept

My name is Bradford Martin. I own a building on Village Dr and my back parking lot is next to the proposed Bldg 2. 9-1
There may be a need for a facility like this in Saratoga but I believe this is the wrong location and too large for these two individual parcels. It is in an area of consistent sized buildings for professional, health, medical use. 9-2
This is more residential and I understand there may be allowance for this. 9-3
The lots are not adjacent but separated by a public street. 9-4
There was no traffic study done which looks at auto and pedestrian flow within the business community already in place. 9-5 The proposed building has a loading zone on bldg two, there should be one for each side. 9-6 In addition to this I feel the trucks will be using driveways that are not allowed, they will not back up to exit on saratoga creek drive.. 9-7
There may be parking overflow into other building lots which of course would not be allowed but difficult for the current owners to monitor. 9-8
There may be excessive noise day and night from emergency vehicles as well as trucks making delivery. 9-9
The building use could not be changed for office space as it would never meet the parking requirement. 9-10
The walking trail mentioned at the meeting should be completed and preserved. Just because it has not been done does not mean that it should be scraped because of one building. I heard that two other developments gave land to the city for a nature trail so why would this one building be exempt from that. 9-11
The developer wants a certain size building and by making room for a trail does not allow for the size they desire. I think that a three story building so close to the perimeter would not fit well. 9-12
I think there may be a better area for this type of development with more land which would also allow for a better facility. 9-13 This proposed plan I feel is just to large with too many beds. Reducing the number of beds by 8 is no where near enough. 9-14
Thank you for considering my concerns and I hope they will be replied to during future hearings related to this proposed project. 9-15

Sincerely,
Bradford Martin
For future meeting notification or mail please send to the following address:
3005 Sloat Road, Pebble Beach, CA 93953

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Response to Comment Letter 9

Individual
Bradford Martin
March 2, 2020

9-1 The comment is noted. No further response is needed.

9-2 The comment is noted. No further response is needed.

9-3 The comment is noted. No further response is needed.

9-4 Please refer to Master Response 6, Adjacent Lots. No further responses is needed.

9-5 Refer to Response to Comment 7-20 as it relates to traffic impacts and to Master Response 9, Pedestrian Crossing. No further discussion is needed.

9-6 Refer to Master Response 9, Loading. No further discussion is needed.

9-7 Refer to Master Response 9, Loading and Delivery and Response to Comment 8A-26. No further discussion is needed.

9-8 Refer to Master Response 7, Parking. No further response is needed.

9-9 Refer to Master Response 4, Noise. No further response is needed.

9-10 The proposed project is not an office space. No further response is needed.

9-11 Refer to Master Response 3, Recreational Trail. No further responses is needed.

9-12 The proposed project building height and site coverage is consistent with the P-A zoning district and consistent with the standards laid out in Municipal Code Article 15-46.010, Design Review: Multi-Family Dwelling and Commercial structures of the City of Saratoga Municipal Code. The proposed project includes construction of two-story buildings (not a three-story building). Also refer to Master Response 3, Recreational Trail and Master Response 5, Aesthetics.

9-13 Alternatives to the proposed project, including alternatives considered but rejected, were provided in the Draft EIR in Chapter 5, *Alternatives*. As described therein, it is not feasible for the applicant to reasonably acquire another vacant parcel ideal for development as a RCFE; therefore, an alternate site alternative (such as one located “in a better area for this type of development with more land”) was not evaluated further in the Draft EIR.

9-14 The comment is noted. No further response is needed.

9-15 The comment is noted. No further response is needed.

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Comment Letter 10

COMMENTS CONCERNING THE DRAFT EIR – PALM VILLAS

Doug Robertson
19172 De Havilland Dr
March 2, 2020

I have not had time, given the length of the EIR documents which took months to prepare, to sufficiently review all details of the EIR. It seems, given the months to prepare the document, that the citizens of Saratoga and neighbors should have more time for review. However, given the schedule provided, I have attempted to outline a number of significant issues that the draft EIR either fails to address or addresses inadequately. 10-1

Based on all of the issues that I am aware of, the developer and the city are putting the urgency to expedite planning and approval of this particular project way ahead of the public discourse and public interest. In an effort to get the project to an approval point it appears that the Draft EIR glosses over important issues with either insufficient inclusion and/or references to supposed studies or otherwise appears to make false statements, with no expert analysis to support the findings. Following are a few of the issues that I believe are inadequately addressed in the draft EIR after only a brief review. 10-2

- Excessively Aggressive Development/Use
  - As a former city planning commissioner and a local building design professional for 37 years, I am surprised by the apparent complete buy-in and push by the city to move this project forward without adequate public out-reach and vetting, contrary to previous planning department practices in Saratoga. While I am in favor of a facility to support our aging Saratoga population and applaud the attempt to move all projects along more quickly in the planning process in order to invite well-conceived thoughtful development projects that can benefit the community and citizens of Saratoga. However, I believe that the rush to push this specific development in the only remaining large undeveloped piece of property in Saratoga by placing a 78 bed in-patient advance Alzheimer's and dementia care facility on two "separate" small lots bisected by a "public road" is ill-conceived and inappropriate for the proposed "two" small parcels. Based on my own experience with moving my elderly mother (with dementia) between multiple facilities over the course of 12 years, the two separate facilities are in my opinion suited for only about half the number of beds proposed. This may not pencil out as well for the developers of this project, but it set a better standard and precedent for future development of similar facilities on the rest of the remaining 10 acre parcel. 10-3
- PA Zoning – The site is zoned PA which means professional, Administrative, and medical offices in the zoning ordinance. To date all development on adjacent or other city PA zones include only office and medical out-patient uses. To my knowledge nowhere is the zoning ordinance does PA support in-patient functions as proposed for this project. In-patient 10-4

facilities, by their very nature have a more intensive use, including emergency response vehicles, delivery of food, linens, and medical supplies that is completely out of character and compliance with the intend of the PA zoning.

- If this use is to be considered than in my view the project would require a conditional use permit.
- This type of use sets a dangerous precedent for Saratoga and potential development for the remaining adjacent 10 acres. Does this mean that the next developer is Stanford medical group that wants to put in a 500-bed facility? Is that type of facility appropriate for the bedroom community of Saratoga? If this facility goes in as planned, I would be surprised if that is not the next proposed project and the Abramson family, who owns the remaining vacant land, would have every right to propose such as facility.

10-4 Cont.

- ADJACENT LOTS: The project does not consist of two "adjacent lots." Since they do not share a common property line but are separated by Saratoga Creek Drive, which to my knowledge is a public road.
  - By any definition in any city or county that am aware of, as a former planning commissioner and in my 37 years as a design professional, the term "adjacent lots" does not include lots on either side of a public road. The idea that the EIR and/or the planning department are attempting to create this new definition of "adjacent Lots" is not only wrong but I find it disturbing that city staff and EIR consultants would presume to amend the zoning ordinance and/or general plan without legal authority to do so. This is not a mere interpretation of existing code but is a reimagining of the definition or intent of the definition without the authority to do so.
  - Does this mean that in residential neighborhoods that a party can purchase two lots on the opposite side of any public street can call them "adjacent lots"? Does that then mean that the owner can then submit a lot line adjustment or use the area of both lots to justify their development plans for one or both lots? The ramification for other city projects is not clear to me but again this seems to set a very dangerous and ill-conceived precedent for the city of Saratoga.

10-5

- LOADING: The applicant is also proposing to share one loading area (located on Palm Villas lot 2) and one drive loop (Palm Villas Lot 1). This mean that loading of food, linens, medical supplies, etc. will only occur at lot 2 and patient drop off and pick up will only occur at the drive loop of lot 1. Not only is in direct conflict with section 15-35.050(g). "Off-street loading spaces shall be located on the same site as the use for which the loading spaces are required or on an adjacent site." But it also creates several other problems.

10-6

  - Public and Patient Safety: The EIR must address the safety issues posed by operating a single-campus residential care facility for the elderly, which is separated on two sides of a public road. Patients are expected to be dropped off and pickup up by visiting family and friends at the drive loop at Lot 1 which means that those living in Lot 2 must be transported across the Saratoga Creek Drive. There will also be traffic conflicts caused by pedestrian flow between the two buildings across the public road, in addition to vehicular traffic exiting the five driveways that serve the project.

10-7

  - Business Use of a Public Road: The EIR must address the functional limitations of operating a single campus facility that is separated by a public road. While the stated plan

10-8

is to have all administrative, medical, housekeeping, maintenance, and food services in each building to assure that patients and passing cars are not endangered by goods and people moving between buildings, the size and scale of the plans I have seen do not appear to include all services or have room provide for all functions independently in both buildings. Are drawings that show all these functions now available on-line for neighbors to review? 10-8 Cont.

- Noise from Delivery Vehicles: delivery vehicles must by law include back up warning signal for public safety. That means that with each delivery the surrounding businesses and residential neighborhood must listen to and tolerate consistent beeping of vehicles that will certainly occur multiple times each day. As best I can determine this noise (in addition to sirens) appears to have been ignored in the draft EIR. 10-9
- Saratoga Creek Drive Extension: This public road will eventually be extended to serve a a portion or potentially all remaining 10 acres to the South, which will likely be developed in the future. If the road is used to move materials or people between buildings, and this crossing is in the first 100 feet of Cox Avenue for a road that might extend the full length of the now empty parcel. The EIR should study and describe either (1) how each building has the means and facilities to independently provide all service independent of the other buildings without movement of goods, services and personnel between the two buildings or (2) how goods services and personnel will move safety between buildings without impeding traffic flow or causing a public nuisance or safety concern. 10-10

- INSUFFICIENT PARKING
  - The applicant proposes shared parking between the two lots with most of the parking located on Lot 2. This scheme is in direct conflict with Section 15-35.020(h) of the City's Zoning Ordinance which states: "In all districts except a C-H district, the off-street parking spaces prescribed in Section 15-35.030 shall be located on the same site as the use for which the spaces are required, or on an adjacent site *or a site separated only by an alley* from the use for which the spaces are required." In the words "or only by an alley" the word "or" makes it very clear that parcels separated by even an alley are not consider "adjacent" which makes it even more clear that lots separated by public road cannot be considered adjacent. 10-11
  - The two lots are separate legal parcels, which can be sold separately in the future, which would leave two separate projects divided by a public street, with each having illegal parking facilities under the City's municipal code. Can the city include a CUP to make sure the two parcels be bought and sold together by a single owner? Is that legal? This EIR should address how this might or could work. 10-12
- TRAFFIC, NOISE AND PUBLIC SAFETY:
  - I agree with comments by Daryl Abramson and offers related to traffic and parking. Below are a few additional comments.
  - Traffic: The EIR failed to discuss the traffic impacts on cox avenue and the existing developments in the Professional Village, Village Drive and Saratoga Creek Drive both in its current use and future use as additional parcels of land are developed. The traffic study focused on the incremental and cumulative increase in traffic on larger arteries, 10-13

including Saratoga Avenue and Highway 85. Parking and traffic within the Professional Village but also on Cox Avenue, with recent traffic backed up for blocks, is a valid concern that was addressed by many during the scoping meeting. The EIR ignored this issue entirely. 10-13 Cont.

- The proposed Palm Villas is severely under-parked. The false assumption that the two Palm Villas Lots are "adjacent" is one major problem that is addressed by Daryl Abramson. The idea that using a parking attendant and car lifts is used as a rational for allowing the deficient parking but offers no guarantees to the other business owners or the community that either of these service will continue in perpetuity. If parking is share with other business are the owners of Palm Villas offering to provide a parking attendant for all businesses? If either the parking attendant or the lift are proposed as a remedy for the deficient parking that both of these conditions must be contained in a CUP to make sure that they are a permanent condition of approval. The EIR should address this issue. 10-14
- Emergency vehicle ingress and egress: Access for emergency vehicles from Cox Avenue which is a residential two-lane street is inappropriate and should not be allowed for traffic, noise and safety reasons. If access for ongoing emergency vehicle is even a permitted type of use for the PA zone, which to my knowledge it is not, should come from Saratoga and not from a residential street. Once could argue that this road is used for fire trucks but that use is far less frequent than it would be for this care facility with 78 beds. The EIR should address this issue. 10-15

- SARATOGA CREEK, BIOLOGICAL AND GEOLOGICAL ISSUES: I agree with comment by Daryl Abramson. I offer the following additional comments. 10-16
  - To allow this development without inclusion of the creek trail, which is in the general plan is completely inappropriate and oversteps the authority of the planning department by assuming it acceptable to amend the General Plan without a vote of the city Council, Planning Commission or citizens of Saratoga. Additionally, even neglecting the trail issue, based on the plans I reviewed prior to the EIR scoping meeting and subsequently walking the site, I believe the creek set-backs are not met. 10-17
- Recreation: I agree with comment by Daryl Abramson. 10-18

Response to Comment Letter 10

Individual
Doug Robertson
March 2, 2020

10-1 In accordance with Section 15087 of the CEQA Guidelines, the Draft EIR was available for public comment by responsible agencies and interested parties for a period of 30 days, from January 31, 2020 until March 2, 2020. The public comment review period satisfies statutory requirements. Outlined issues that the comment indicates that the Draft EIR fails to address or addresses inadequately are discussed in subsequent comments. No further response is needed.

10-2 The comment is noted. No further response is needed.

10-3 Refer to Master Response 6, Adjacent Lots. No further response is needed.

10-4 The proposed project site is zoned Professional and Administrative Office District (P-A) under Article 15-18 of the City of Saratoga Municipal Code. As described under Article 15.18-030(f), *Conditional Uses*, nursing home facilities are allowed in a P-A district upon the granting of a conditional use permit by the Planning Commission and (Planning) Director, subject to review by the City Council on appeal. As described in the Draft EIR in Section 2.7, *Required Approvals and Permits*, and Section 3.10, *Land Use and Planning*, the proposed project would require various land use approvals from the City including a conditional use permit. Therefore, the proposed project, upon granting of a conditional use permit, would be in compliance with the P-A zoning district.

10-5 Refer to Master Response 6, Adjacent Lots. No further response is needed.

10-6 Refer to Master Response 8, Loading and Delivery. No further response is needed.

10-7 Refer to Master Response 9, Pedestrian Crossing. No further response is needed.

10-8 Refer to Master Response 6, Adjacent Lots and Master Response 9, Pedestrian Crossing. A written description of the proposed project's services and functions, by lot/building, are provided in Section 2.3 *Project Characteristics*, and updated project site plans for Lot 1 and Lot 2 have been provided in Appendix L. No further response is needed.

10-9 Refer to Master Response 4, Noise. No further response is needed.

10-10 Refer to Master Response 9 Pedestrian Crossing, Master Response 10 Extension of Saratoga Creek, and Response to Comment 7-8 as it relates to the extension of Saratoga Creek Drive. No further response is needed.

10-11 Refer to Master Response 6 Adjacent Lots and Master Response 7, Parking. No further response is needed.

10-12 The commenter correctly states that the two lots comprising the proposed project are separate legal parcels, which could be sold separately in the future. Refer to Response to Comment 7-4. The Draft EIR evaluates the proposed project, which is comprised of a project on two adjacent lots, designed to function as one campus (refer to Master Response 6, Adjacent Lots). Also refer to Master Response 7, Parking.

The request for the City to include a conditional use permit to ensure that the two parcels could be bought and sold to a single owner is noted.

10-13 The commenter references Daryl Abramson. As there were no comment letters received from a Daryl Abramson, this assumes the comment means statements made by and on behalf of “the Abrams family”. Response to Comment Letter Number 8 from Price, Postel & Parma, LLP states that it represents the Abrams family. As such, refer to Response to Comments 8-19 through 8-30 for discussion of traffic, noise, and public safety. Also refer to Response to Comment 7-20 as it relates to traffic impacts.

In terms of the traffic impacts on Cox Avenue and the existing developments in the Professional Village, on Village Drive, and on Saratoga Creek Drive in its current and future use as additional parcels of land are developed, assigning all of the proposed project trips to the Cox Avenue / Saratoga Creek Drive intersection (360 daily trips) would result in a more conservative analysis of intersection operations. Even with this conservative approach, the intersection of Cox Avenue / Saratoga Creek Drive intersection would operate at an acceptable LOS as described in Section 3.14, *Transportation and Circulation*, in the Draft EIR.

10-14 Refer to Master Response 6, Adjacent Lots, and Master Response 7, Parking. The request for the City to include a conditional use permit as it relates to the parking attendant and lifts is noted.

10-15 Refer to Master Response 4 Noise and Master Response 9 Pedestrian Crossing.

Emergency vehicles are allowed to travel on most streets for emergency access. In addition, Cox Avenue is currently used for emergency vehicle access, including for the fire station located on Cox Avenue to the west of the SR 85 overcrossing.

10-16 Similar to Response to Comment 10-13, the commenter references Daryl Abramson. This is assumed to refer to “the Abrams family” and comments from Comment Letter Number 8. As such, refer to Response to Comments 8-14 through 8-16 for discussion of Saratoga Creek, biological resources, and geological issues. No further response is needed.

10-17 Refer to Master Response 1, Development Setbacks and Master Response 3, Recreational Trail as it relates to development without inclusion of the trail and creek setbacks. No further response is needed.

10-18 Similar to Response to Comment 10-13, the commenter references Daryl Abramson. This is assumed to refer to “the Abrams family” and comments from Comment Letter Number 8. As such, refer to Response to Comments 8-31 through 8-35 for discussion of recreation. No further response is needed.

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Comment Letter 11

March 3, 2020

RECEIVED
MAR 04 2020
CITY OF SARATOGA

Nichole Johnson, Planner
City of Saratoga
Community Development Dept.
Saratoga, CA 95070

Re: Proposed Palm Villas Memory Care Saratoga Project – Saratoga Creek Dr.

Dear Ms. Johnson:

Many of you in the Saratoga Building and Planning Department and City Hall know me personally as I am one of the original developers for this immediate area. I practiced Dentistry in Saratoga and called Saratoga my home for over 39 years.

Over 30 years ago, I build a roughly 5,000 sq. ft. professional office building located at 19100 Cox Ave., Saratoga that I still own and actively manage.

In 2015, I sold a parcel of land adjacent to the Cox Ave. building to Michael and Garry Sneper. When I put this land up for sale, I received several offers from a variety of potential businesses, some of whom offered me more money for the land than the Snepers. I chose Michael and Garry because I believe their Memory Care facility will provide a much needed service in our area and will welcome local business for the seniors, and the families of seniors, in Saratoga; I also felt that it would fit amongst the other businesses in the area. As a building owner next door to the Palm Villas Memory Care project, it was also crucially important to me to find a buyer whose business would have low parking and traffic requirement, and not contribute to the existing parking problem. [Conclusion supported by the City independent parking report]. 11-1

I would like the Saratoga Planning Commission to know that I wholeheartedly support this proposed project. Alzheimer's and Dementia care is a much-needed service everywhere and especially for our local senior community. Advanced age seems to increase awareness. I know that they have a fine reputation in the management of their properties as well as their patient care.

Thank you all for your time and consideration.

Sincerely,

Warren Sturla

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Response to Comment Letter 11

Individual
Warren Sturla
March 3, 2020

11-1 The comment letter expresses support of the proposed project. The comment is noted and no further response is needed.

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References

Caltrans. 2013a. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. Prepared by R. Hendriks, B. Rymer, D. Buehler, and J. Andrews. Sacramento: Caltrans. September 2013. http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf.

City of Saratoga. 1991. Parks and Trails Master Plan. Adopted in 1991.

City of Saratoga. 2007. *Open Space and Conservation Element 2007*. Adopted June 6, 2007. Accessed May 2019. https://www.saratoga.ca.us/DocumentCenter/View/49/Open-Space-and-Conservation-Element-Dated-June-6-2007-PDF.

Personal Communication, D. Dorcich, P.E., QSP/D, City of Saratoga, Associate Civil Engineer, Community Development Department and Nicole Johnson, Senior Planner, June 10, 2020.

Personal Communication, J. Cherbone, City of Saratoga, Director of Public Works and C. Borg, consulting planner, March 19, 2020.

Personal communication between K. Borel, City of Saratoga, Public Works Analyst and J. Stallman, member of PEBTAC, April 15, 2019.

SCCFD. 2018b. “Developmental Review Comments for Palm Villas Saratoga.” November 4, 2018.

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VOLUME III
CLARIFICATIONS AND REVISIONS AS PART OF THE FINAL EIR

Purpose of This Volume

This volume provides clarifications and revisions to affected chapters and sections of the January 2020 Draft EIR based on the input received from commenters during the public review period and City-identified changes to reflect the updated project plans (site plans).

Project plans were updated in August 2020 (refer to Appendix L), to reflect a 25-foot minimum setback from the top of creek bank, associated design adjustments (e.g., minor reduction in building square footage, roof design, and interior and exterior spaces), to provide clarifications on proposed project details (e.g., details on trash enclosures, on-site signage, and bicycle/parking spaces), and to refine the plan legend and symbols. Project plan updates did not result in changes to the number of resident beds or rooms, proximity to existing adjacent buildings, nor did it alter building heights. None of the clarifications or revisions to the Draft EIR represent a substantial change to the proposed project, nor do they result in a new or previously unidentified impact or intensification of an impact already identified in the Draft EIR. Therefore, the clarifications and revisions do not trigger re-circulation of the EIR under CEQA.

All substantive text additions to the Draft EIR are shown in underlined text (underlined text) and substantive deletions are shown in strikethrough text (~~strikethrough text~~). If figures and tables have been revised, it is marked in the table of contents with an asterisk (*).

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EXECUTIVE SUMMARY

Introduction

The City of Saratoga (City) has prepared this environmental impact report (EIR) to provide the public and responsible agencies information about the potential adverse effects on the local and regional environment associated with the proposed Saratoga Palm Villas Project (proposed project). This Draft EIR has been prepared pursuant to the California Environmental Quality Act (CEQA) of 1970 (as amended), codified at California Public Resources Code Section 21000 et seq., and the CEQA Guidelines in the California Code of Regulations, Title 14, Section 15000 et seq.

Publication of the Draft EIR on January 31, 2020, marked ~~marks~~ the beginning of ~~the~~ a 30-day public review period (ending on March 2, 2020), during which written comments regarding the adequacy of this EIR ~~may be~~were submitted to the City's project planner:

Nicole Johnson, Planner II
City of Saratoga Community Development
Natural Resources Section
13777 Fruitvale Avenue
Saratoga, California 95070
njohnson@saratoga.ca.us

Following the public review period, the City ~~will~~ prepared ~~a~~the Final EIR, which ~~will~~ includes responses to all substantive comments received during the Draft EIR public review period and any necessary changes ~~or~~ and adjustments to the EIR text and analysis ~~in the Draft EIR~~. The City may use this Final EIR (that incorporates the Draft EIR by reference) to approve or modify the proposed project, make findings regarding identified impacts, and if necessary, adopt a Statement of Overriding Considerations regarding these impacts.

Project Overview

The Saratoga Palm Villas Project (proposed project or project) is a proposed senior living facility located in the City of Saratoga (City or Saratoga) in the westerly portion of Santa Clara County. Saratoga is southwest of the major metropolitan City of San Jose and approximately 35 miles south of the City of San Francisco. The north, south, and easterly portion of the community is sited on an historic alluvial plain shared with the adjacent communities of Cupertino, San Jose, Los Gatos, and Monte Sereno.

The project site is located south of the intersection of Saratoga Creek Drive and Cox Ave. The 1.3-acre project site currently consists of vacant, undeveloped land. The project would provide 24-hour non-medical care for seniors and operate from two buildings on either side of the ~~150~~140-

foot Saratoga Creek Drive extension. There would be a total of 78 resident beds and ~~47~~ 48 parking spaces. Key project amenities would include an employee administration room, kitchen, exercise room, activity room, living room, and other miscellaneous amenity spaces.

Project Objectives

Section 15124(b) of the CEQA Guidelines requires a project description to contain a statement of a project's objectives and Section 15124(b) requires that the statement of objectives includes the underlying purpose of the project. The applicant's objectives for the proposed project include:

1. Provide a licensed Residential Care Facility for the Elderly[1] with a special designation for Alzheimer's/Dementia Memory Care (Memory Care facility) to assist in meeting the needs of the growing local aging population living with dementia in the City.
2. Fulfill the City's "Age-Friendly" goals for its significant aging population by adding to the diversity of local services for seniors in the community so that local residents can remain in their community as they age.[2,3]
3. Implement the project sponsor's vision to build a new state-of-the-art Memory Care facility and operational model based on industry experience.
4. Establish a Memory Care facility with sufficient occupancy capacity to support operational functionality and economic viability.
5. Provide non-seasonal assistance service employment in a high-quality environment, adding to the number and diversity of local jobs.

Environmental Impacts and Mitigation Measures

Table ES-1 presents a summary of potential environmental impacts that could result from the project. Only impacts identified as potentially significant or significant requiring mitigation are listed. For each significant impact, the table indicates the level of significance after mitigation. Please refer to Chapter 3, Environmental Analysis, ~~in this~~of the ~~-~~EIR for a complete discussion of each impact. A reporting and monitoring program for all mitigation measures identified in ~~this~~ the EIR ~~would~~ has been prepared in accordance with the requirements of Public Resources Code Section 21081.

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1 Residential Care Facility for the Elderly (RCFE) are also sometimes referred to as "Assisted Living" or "Board and Care" facilities.

2 The City of Saratoga 2015-2023 General Plan Housing Element indicates growth in the population of "retired and senior residents." Retired (55–64 years) and senior citizen (65+ years) were 35% of the City's population in 2012. (City of Saratoga. 2014. 2015–2023 Housing Element. Adopted November 19, 2014.https://www.saratoga.ca.us/DocumentCenter/View/45/Housing-Element-2015---2023-Dated-November-2014-PDF.

3 Furthermore, the City is one of 10 cities that have been designated as age-friendly cities by the World Health Organization's Global Network of Age-Friendly Cities and Communities. Accessed November 8, 2019. https://www.agefriendlysiliconvalley.org/.

~~The proposed project, if implemented, could result in significant adverse environmental impacts. Mitigation measures proposed as part of the project, as well as measures identified by this EIR, would avoid or reduce all impacts to a less-than-significant level.~~

As discussed in Chapter 3, *Environmental Analysis of the EIR*, and shown in Table ES-1 below, the proposed project would result in potentially significant impacts. All of the impacts identified would be mitigated to a less-than-significant level with implementation of the recommended mitigation measures. Table ES-1 provides information on the potential impacts and mitigation measures for the analyses completed in ~~this~~ the~~Draft~~ EIR. This includes the environmental topics of Air Quality, Biological Resources, Cultural Resources, Geology and Soils, and Tribal Cultural Resources. If impacts have been found to be less than significant, mitigation measures are not required and they are not included in this table. Topics analyzed but found to have less-than-significant impacts or no impacts, include Aesthetics, Energy, Greenhouse Gas Emissions, Hazards & Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services and Safety, Recreation, Transportation and Circulation, Utilities and Service Systems, and Wildfire.

Definitions of significance levels included in Table ES-1 are as follows:

- Significant and Unavoidable. An adverse and substantial effect on the environment that cannot be reduced to a level that is less than significant.
- Significant. An adverse and potentially substantial impact prior to implementation of mitigation measures. Implementation of mitigation measures may or may not reduce the impact to a level that is less than significant.
- Less than Significant. An adverse effect that is not considered substantial.

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Table ES-1
Summary of Potential Environmental Impacts

Impact	Mitigation Measures	Level of Significance After Mitigation
	Air Quality	
3.2-4 Implementation of the proposed project could expose sensitive receptors to substantial pollutant concentrations.	**MM-AQ-1: Construction Exhaust Emissions Minimization Plan** Prior to the issuance of a construction permit, the project applicant, or its designee, shall submit a Construction Exhaust Emissions Minimization Plan (Plan) to the City of Saratoga (City) or its designated representative for review and approval. The Plan shall detail project compliance with the following requirements: **1.** Where access to alternative sources of power and alternative-fueled equipment are available, portable diesel engines shall be prohibited. **2.** All diesel-powered equipment with engines equal or greater to 85 horsepower shall be powered by Tier 4 Final engines certified by the California Air Resources Board (CARB). If 85-horsepower or greater engines that comply with Tier 4 Final emissions standards are not commercially available, then the project applicant shall ensure that all diesel-powered equipment equal to or greater than 50 horsepower will have at least CARB-certified Tier 3 engines with the most effective Verified Diesel Emission Control Strategies available for the engine type, such as Level 3 Diesel Particulate Filters (Tier 4 engines automatically meet this requirement). **a.** For purposes of this mitigation measure, "commercially available" shall mean the availability of the Tier 4 Final equipment taking into consideration factors such as (1) critical path timing of construction, and (2) geographic proximity of the equipment location to the project site. b. The project applicant shall maintain and submit records to the City concerning its efforts to comply with this requirement.	LTS
	Biological Resources	
3.3-1 The project could have a substantial adverse effect on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	**BIO-1 Worker Environmental Awareness Training** All construction workers shall receive a worker environmental awareness training (WEAT) to be conducted by a qualified biologist. The WEAT may also be conducted through a video or PowerPoint presentation created by a qualified biologist specifically for this project. The WEAT shall instruct workers on how to recognize all special-status plant/wildlife species and their preferred habitat potentially present in the project site, applicable laws and regulations regarding each species, actions to take if a special-status species is observed during construction activities including the name/contact information of the monitoring biologist, and the nature and purpose of protective	LTS

Table ES-1
Summary of Potential Environmental Impacts

Impact	Mitigation Measures	Level of Significance After Mitigation
	measures including best management practices (BMPs) and other required mitigation measures. They shall also be instructed as to sensitive resource areas, including wetlands and waters of the U.S., to avoid within the project site other than where impacts have been authorized, and relevant laws and regulations for each resource. **BIO-2 Preconstruction Survey for Western Pond Turtle** Forty-eight hours prior to the initiation of construction activities, a preconstruction survey for western pond turtle shall be performed by a biologist knowledgeable of western pond turtle biology. If a turtle is observed in the active construction zone, construction will cease and a qualified biologist will be notified. Construction may resume when, through coordination with the California Department of Fish and Wildlife, the biologist has either relocated the turtle to nearby suitable habitat outside the construction zone, or, after thorough inspection, determined that the turtle has moved away from the construction zone. **BIO-3 Preconstruction Survey for Bats** Within 2 weeks prior to construction, a qualified biologist shall conduct a habitat assessment for bats within the project site. The habitat assessment shall include a visual inspection of potential roosting features (bats need not be present) and for presence of guano within the project site and accessible areas within 50 feet. Potential roosting features found during the survey shall be flagged or marked. If bats (individuals or colonies) are detected, the California Department of Fish and Wildlife (CDFW) shall be notified immediately. If a bat roosting or maternity colony cannot be completely avoided, permittee and qualified biologist shall prepare a bat mitigation and monitoring plan for CDFW review and approval. **BIO-4 Preconstruction Survey for Woodrat Nests** Within two (2) weeks prior to construction, a qualified biologist shall conduct a survey for potential woodrat nests at the project site, including a 10-foot buffer surrounding the site. If any woodrat nests are discovered during the survey, the nests will be avoided to the extent feasible. An exclusion buffer of at least 10 feet from nests shall be established to avoid moving or bumping the nests or the logs or branches on which the nests rest.	

Table ES-1
Summary of Potential Environmental Impacts

Impact	Mitigation Measures	Level of Significance After Mitigation
	If establishing a buffer and avoiding the nests is not feasible, the nests shall be dismantled and the nesting material moved to a new location outside the project's impact area so that it can be used by woodrats to construct new nests. Prior to nest deconstruction, each active nest shall be disturbed by a qualified biologist to the degree that all woodrats leave the nest and seek cover out of the impact area. Whether the nest is on the ground or in a tree, the nest shall be slightly disturbed (nudged) to cause the woodrats to flee. For tree nests, a tarp shall be placed below the nest and the nest dismantled using hand tools (either from the ground or from a lift). The nest material shall then be piled at the base of a nearby tree or large shrub outside of the impact area. **BIO-5 Preconstruction Survey for Nesting Birds** If project construction is conducted during the nesting season (February 1 through August 30), a nesting bird survey shall be completed by a qualified biologist within 2 weeks prior to the initiation of construction activities to determine if any native birds are nesting within 250 feet of the proposed disturbance area (500 feet for raptors). If any active nests are observed during surveys, a suitable avoidance buffer from the nests shall be determined by the qualified biologist. The avoidance buffer distance shall consider such factors as the species of bird, topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule. Limits of construction to avoid active nests shall be established in the field with flagging, fencing, or other appropriate barriers and shall be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist. If ground-disturbing activities are delayed, then additional predisturbance surveys shall be conducted such that no more than 7 days elapse between the survey and ground-disturbing activities. If possible, remove any habitat (i.e., trees and vegetation) outside of the breeding bird season (September 1 through January 31) to avoid impacts to nesting birds.	
3.3-2 The project could have a substantial adverse effect on riparian habitat and other sensitive natural communities identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	MM-BIO-1. **BIO-6 Riparian Vegetation** The proposed project shall avoid all mapped riparian vegetation along Saratoga Creek. Prior to the initiation of ground-disturbance activities, the area between the limits of disturbance and avoided	LTS

Table ES-1
Summary of Potential Environmental Impacts

Impact	Mitigation Measures	Level of Significance After Mitigation
	habitat shall be fenced and sediment and erosion control measures shall be utilized, which could include, but not be limited to, biodegradable straw wattles free of weed seeds, silt fencing, or biodegradable erosion control mats/blankets. No construction, staging areas, or other ground-disturbance activities are permitted beyond the fencing. If removal of riparian vegetation (pruning) is necessary, for project implementation, a qualified botanist shall conduct a preconstruction survey to identify and quantify the number of plants that could be potentially removed (pruned). The botanist shall prepare a propagation and planting plan to offset the loss of any vegetation/plants to be removed or disturbed. The plan shall contain, at a minimum, the following components: goals and objectives; a description of the extent of plants/vegetation to be removed or disturbed; plant collection, propagation, and planting methods; locations on the project site in which the plants will be transplanted; monitoring methods, timing, and performance criteria; measures to be taken in the event that the propagation and planting is not successful; and reporting requirements. The plan shall be approved by the City. Propagation and planting shall occur on a 1:1 basis to ensure no net loss of the California sycamore woodland community. Furthermore, the qualified biologist is required to consult with CDFW over any impacts to the stream zone, which include the riparian trees adjacent to Saratoga Creek.	
3.3-3 The project could have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.	MM-BIO-1, MM-BIO-6.	LTS
3.3-4 The project could interfere with the movement of 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.	MM-BIO-1, MM-BIO-6.	LTS

Table ES-1
Summary of Potential Environmental Impacts

Impact	Mitigation Measures	Level of Significance After Mitigation
3.3-5 The project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	MM-BIO-1 through MM-BIO-8. **BIO-7 Saratoga Creek** The proposed project shall be implemented in accordance with the Conditions of Approval listed in Attachment 3 of the Arborist Report (dated December 4, 2017) prepared by the City of Saratoga and the Arborist Report (dated April 14, 2020) that are applicable to the proposed project. **BIO-8 Land Use Near Streams** The proposed project shall be conducted in accordance with the Santa Clara Valley Water Resources Protection Collaborative's Guidelines & Standards for Land Use Near Streams. This includes, but is not limited to, the policies outlined in Chapter 3 Proposed Guidelines and Standards, Chapter 4 Design Guides, Chapter 4 Bank Protection/Erosion Repair Guides, and Chapter 6 Guidance for Developers.	LTS
Cultural Resources		
3.4-2 Implementation of the proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.	**CUL-1 Archaeological Resources** In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the proposed project, all earth-disturbing work occurring in the vicinity (generally within 100 feet of the find) shall immediately stop, and a qualified professional archaeologist, meeting the Secretary of Interior's Professional Qualification Standards, shall be notified regarding the discovery. The archaeologist shall evaluate the significance of the find and determine whether or not additional study is warranted. If the discovery proves significant under the California Environmental Quality Act (14 CCR 15064.5[f]; California Public Resources Code, Section 21082) or Section 106 of the National Historic Preservation Act (36 CFR 60.4), additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.	LTS
3.3-3 The project could disturb human remains, including those interred outside of formal cemeteries.	**CUL-2 Unanticipated Discovery of Human Remains** In accordance with Section 7050.5 of the California Health and Safety Code, if potential human remains are found, earth-disturbing work in the vicinity of the find (generally 100 feet is sufficient) should immediately halt, and the county coroner shall be notified of the discovery. The coroner will provide a determination within 48 hours of notification. No further excavation or disturbance of the	LTS

Table ES-1
Summary of Potential Environmental Impacts

Impact	Mitigation Measures	Level of Significance After Mitigation
	identified material, or any area reasonably suspected to overlie additional remains, shall occur until a determination has been made. If the county coroner determines that the remains are, or are believed to be, Native American, they shall notify the Native American Heritage Commission (NAHC) within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify the person(s) believed to be the most likely descendant (MLDs) from the deceased Native American. The MLDs may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The MLDs shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site.	
Geology and Soils		
3.6-4 The proposed project could directly or indirectly destroy a unique paleontological resource or site.	**MM-GEO-1: Paleontological Monitor** Prior to commencement of any grading activity on site, the applicant shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (2010) guidelines. The qualified paleontologist shall attend the preconstruction meeting and a paleontological monitor shall be on site during all rough grading and other significant ground-disturbing activities in previously undisturbed, fine-grained Pliocene and Pleistocene alluvial deposits. These deposits may be encountered at depths as shallow as 5–10 feet below ground surface. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed, the monitor will remove the rope and allow grading to recommence in the area of the find. Documentation of the appropriate salvage and recovery of fossil specimens and their transfer to an appropriate repository (e.g., University of California at Berkeley Museum of Paleontology) shall be submitted to the City of Saratoga as evidence of compliance with this mitigation measure.	LTS

Table ES-1
Summary of Potential Environmental Impacts

Impact	Mitigation Measures	Level of Significance After Mitigation
Tribal Cultural Resources		
3.15-3 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: i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k) or ii. 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 PRC Code 5024.1. In applying the criteria set forth in subdivision (c) of PRC Code 50241.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	**MM-TCR-1: Discovery of Human Remains** If potential archaeological resources, tribal cultural resources, or human remains are discovered during project activities, then work shall cease in the immediate vicinity of the find. If the unanticipated resource is archaeological in nature, appropriate management requirements shall be implemented as outlined in **MM-CUL-1** (see Section 3.4, Cultural Resources) in conjunction with the following provisions specific to the management of TCRs. A qualified cultural resources specialist shall be contacted to inspect the find, and to assess if the resource is of Native American origin or otherwise has potential to be considered a tribal cultural resource. If the resource is a potential tribal cultural resource, the lead agency shall be immediately contacted. Depending on the nature of the find, if the lead agency determines, pursuant to Public Resources Code Section 21074 (a)(2), that the find appears to be a tribal cultural resource in its discretion and supported by substantial evidence, the NAHC-listed tribes shall be contacted and provided a reasonable period of time to make recommendations. These representatives shall be provided the opportunity to inspect the find on site. The lead agency shall review recommendations, enlisting the aid of a qualified archaeologist or other specialists if needed, and move forward with management options determined to be reasonable and feasible. The project may recommence ground disturbance activities in the vicinity of the find after it has complied with agency-approved recommendations. If human remains are found, then the procedures outlined in **MM-CUL-2** (see Section 3.4) shall be implemented.	LTS

LTS=Less than significant

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Analysis of Alternatives

Alternatives Analyzed

Three (3) alternatives to the proposed project, including the No Project Alternative, were analyzed in Chapter 5, Alternatives. The No Project Alternative is a required element of an EIR pursuant to Section 15126.6(e) of the CEQA Guidelines that examines the environmental effects that would occur if the project were not to proceed. The other alternatives are discussed as part of the "range of reasonable alternatives" selected by the City. The alternatives addressed in Chapter 5 are described below.

No Project Alternative (Alternative 1)

The No Project Alternative assumes that the project site would remain in its current condition and the proposed project is not developed. Under the No Project Alternative the project site would remain vacant and vegetated. This alternative would not create visual changes to the project area. No new structures would be developed, and no noise, air pollutant, or greenhouse gas emissions from construction would occur. As no new uses would be introduced, there would not be an increase in traffic at the intersection of Saratoga Avenue and Cox Avenue attributed to the alternative. The No Project Alternative would not result in any of the other less-than-significant impacts identified for the proposed project. However, the No Project Alternative would also not achieve any of the key project objectives.

Reduced Project Alternative (Alternative 2)

The Reduced Project Alternative assumes the project site would be developed with a reduced number of ~~patient~~ resident beds in Building 2. This alternative would include eight (8) ~~patient~~ resident rooms with single occupancy and seven (7) ~~patient~~resident rooms with double occupancy, decreasing the number of total beds available by 8, for -of 22 beds in Building 2. Thus, a reduced number of parking spaces would be required and parking lifts would not be required in Building 2. The development footprint for Building 2 would not change. This alternative would require construction of similar improvements as the proposed project, including grading, construction of the building foundation, and extension of Saratoga Creek Drive. Implementation of this alternative would result in impacts similar to the project for all environmental topics found to be less-than-significant in the EIR, although the effects would be incrementally less.

Traffic trips expected to be generated by this alternative would be less than the proposed project because it involves fewer beds (and likely fewer staff although the same number are conservatively assumed). Even though the trips would be reduced, similar to the project, this alternative would result in the same level of service at the affected intersections as the project and no significant impacts would result.

The Reduced Project Alternative would achieve all of the key objectives of the project, but to a lesser extent than the proposed project.

Landscaping Alternative (Alternative 3)

The Landscaping Alternative would revise the proposed project site plan with additional landscaping and vegetation along the northern boundary of Lots 1 and 2 and eastern boundary of Lot 2, as shown in Figure 2-3. Vegetation would be planted in the approximately 20-foot setback separating Lot 1 from the adjacent parking lot. To the extent possible, vegetation would also be added to the northern landscaping area and within the southern boundary of the aboveground parking lot. Introduced landscaping/vegetation would screen truck deliveries and project activities from public views from Saratoga Creek Drive and Village Drive.

The Landscaping Alternative would reduce the already less-than-significant impacts pertaining to aesthetics by minimizing the prominence of new buildings and vehicle activity related to the project. For all other environmental topics, implementation of this alternative would result in identical less-than-significant impacts as the project.

The Landscaping Alternative would achieve all of the key objectives of the project. It would perform slightly better than the proposed project for the objective of creating an aesthetically pleasing facility that takes into account the topography of the site, since it would reduce the visibility of trucks that would occasionally make deliveries to the site.

General Plan and Zoning Change Alternative (Alternative 4)

The General Plan and Zoning Change Alternative would add an additional story to Building 1 and require approval of a general plan amendment and zoning variance. This alternative would reduce the overall building footprint, but maintain [or increase] the overall square footage. The number of ~~patient~~ resident beds would remain the same.

The General Plan and Zoning Change Alternative would be situated further from Saratoga Creek compared to the proposed project. However, under this alternative, there would be greater impacts related to aesthetics due to the increase in height of Building 1 compared to the surrounding commercial/retail buildings and change in longer-range views.

However, the General Plan and Zoning Change Alternative would reduce already less-than-significant impacts pertaining to biological resources by increasing the setback from Saratoga Creek. For all other environmental topics, implementation of this alternative would result in identical less-than-significant impacts as the project.

The General Plan and Zoning Change Alternative would achieve all of the key objectives of the project but would require a General Plan amendment and a zoning variance.

Environmentally Superior Alternative

The No Project Alternative would result in the least environmental impacts and would be the environmentally superior alternative. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. In this case, the environmentally superior alternative is the Reduced Project Alternative, since it would reduce traffic impacts when compared to the proposed project. Although it should be noted that the proposed project would not result in any significant impacts after implementation of the required mitigation measures.

The Reduced Project Alternative would meet most of the project objectives. However, because of the reduced number of beds proposed, this alternative would:

1) Not contribute senior services (to the same extent as the proposed project); and,
2) Not meet the objective of providing sufficient occupancy capacity to support operational functionality and economic viability (as compared to the proposed project).

Issues to Be Resolved By Lead Agency

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain a discussion of issues to be resolved. With respect to the proposed project, the key issues to be resolved include decisions by the City, as lead agency, as to:

- Whether this environmental document adequately describes the environmental impacts of the proposed project.
- Whether the recommended mitigation measures should be modified and/or adopted.
- Whether there are other mitigation measures or alternatives that should be considered for the proposed project besides those identified in the Draft EIR.

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CHAPTER 1
INTRODUCTION

Purpose of This Environmental Impact Report

This Environmental Impact Report (EIR) assesses the potentially significant environmental effects of the proposed Palm Villas Saratoga project (proposed project). The California Environmental Quality Act (CEQA) requires that before a decision can be made to approve a project with potentially significant environmental effects, an EIR must be prepared that fully describes the environmental effects of the project. This EIR is a public information document for use by governmental agencies and the public to identify and evaluate potential environmental consequences of a proposed project, to recommend mitigation measures to lessen or eliminate adverse impacts, and to examine feasible alternatives to the project. The information contained in the EIR is reviewed and considered by the governing agency prior to the ultimate decision to approve, disapprove, or modify the proposed project.

CEQA requires that the Lead Agency, the City of Saratoga (City) shall not approve a project as proposed if it finds that any feasible alternatives or mitigation measures within its power would eliminate, avoid, or substantially lessen or avoid any significant environmental effects. If the Lead Agency approves the project despite residual significant adverse impacts that cannot be mitigated to less-than-significant levels, the Lead Agency must state the reasons for its action in writing. This “Statement of Overriding Considerations” must be included in the record of project approval.

An EIR is intended to implement the basic purposes of CEQA and provide decision makers and the public with the information required by the CEQA statutes and Guidelines to fulfill these objectives. According to Section 15002(a) of the CEQA Guidelines, the purposes of CEQA are to:

1. Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities;
2. Identify the ways that environmental damage can be avoided or significantly reduced;
3. Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
4. Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Environmental Review Process

Notice of Preparation and Responses

On February 7, 2019, the City sent a Notice of Preparation (NOP) to governmental agencies, environmental groups, organizations, and other individuals and groups interested in the project. The NOP requested those agencies with regulatory authority over any aspect of the project to describe that authority and to identify the relevant environmental issues that should be addressed in the EIR. The 30-day public review period ended on March 11, 2019. A copy of the NOP is included as Appendix A.

A public scoping meeting was held by the City on Tuesday, February 26, 2019. The purpose of this meeting was to provide the public and governmental agencies with information on the proposed project and the CEQA process and to give attendees an opportunity to identify environmental issues that should be considered in the EIR. Attendees were invited to mail or email their comment letters to the City during the 30-day NOP public review period by no later than 5:00 p.m. on March 11, 2019.

A total of 13 letters and emails were received during the public review period. Copies of the NOP and the NOP comment letters received by the City are included in Appendix A. The following is a list of those respondents who submitted written comments:

- Native American Heritage Commission
- Santa Clara Valley Water District
- Todd Amspoker[1]
- June Cao
- Henry Chang
- Kelly Green
- Behzad Nejat
- Rosette Nguyen
- Doug Robertson
- Sarah (no last name provided)
- M. Lee Stone
- Rosa Wynn

Comments received in response to the NOP were considered when determining the scope of this Draft EIR. The following issues were raised in the written responses to the NOP:

- Proximity of Saratoga Creek and potential impacts to riparian vegetation and habitat
- Compliance with required setbacks from Saratoga Creek
- Increase in noise from 24-hour operation of the facility, emergency vehicles, delivery trucks, and visitors to the facility
- Proximity to professional offices and residential neighborhood

[1] Todd Amspoker also submitted a project-related comment letter in 2015, that has been included with the NOP comments.

- The design of an emergency vehicle turnaround within Saratoga Creek Drive, inadequate egress for delivery vehicles, and lack of off-street loading spaces for Building 2
- Insufficient parking spaces to serve the facility
- The lack of pedestrian crossing between Building 1 and Building 2
- Line of sight difficulty for the ramps to basement level garages
- Additional traffic congestion within the project vicinity

Public Review of the Draft EIR

The Draft EIR was subject to a minimum 30-day public review period by responsible agencies and interested parties from January 31, 2020 until March 2, 2020. In accordance with Section 15087 of the CEQA Guidelines, the City published a notice of availability of the Draft EIR at the same time it sent out a notice of completion to the California Office of Planning and Research (OPR). Agency and public comments on the adequacy of the Draft EIR and the lead agency's compliance with CEQA may be submitted to the City as Lead Agency, in writing, prior to the end of the public review period, or given at a public hearing on the Draft EIR.

Final EIR

Following the close of the public review and comment period, written responses will be prepared that address all substantive comments on the Draft EIR. The Final EIR will consist of the Draft EIR, the comments received during the public review period, responses to the comments, and any revisions to the Draft EIR as a result of public agency and public comments. The Final EIR must be certified by the City before it can be used as the basis for decision-making.

EIR Adequacy

The level of detail contained throughout this EIR is consistent with Section 15151 of the CEQA Guidelines, which states the following:

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

Intended Uses of the EIR

This EIR has been prepared by the City ~~of Saratoga~~ as Lead Agency in accordance with CEQA and applicable state environmental regulations, policies, and laws. This EIR provides the CEQA compliance documentation upon which the City's consideration of, and action on, all applicable land use permits and other approvals (collectively, "approvals") shall be based. These include without limitation all those approvals set forth in this EIR, as well as any additional approvals necessary to such planning, construction, operation, and maintenance (e.g., any use permits, grading permits, and other development-related approvals).

Scope of the EIR

This EIR has been prepared in compliance with CEQA (California Public Resources Code Section 21000 et seq.) and the procedures for implementation of CEQA set forth in the CEQA Guidelines (14 CCR 15000 et seq.).

According to CEQA Guidelines Section 15161, an EIR should focus primarily on the changes in the environment that would result from implementation of the proposed project. This EIR evaluates the potential environmental impacts that may occur from construction and operation of the proposed project, including direct, indirect, cumulative, and growth-inducing impacts. Based on a review of the proposed project and comments received during the NOP public review period, the City determined that an EIR should be prepared, and that the EIR that addresses the following environmental issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services and Safety
- Recreation
- Transportation and Circulation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

This EIR evaluates the direct impacts, reasonably foreseeable indirect impacts, and cumulative impacts resulting from planning, construction, and operation of the proposed project using the most current information available and in accordance with the provisions set forth in CEQA and the CEQA Guidelines. In addition, the EIR recommends potentially feasible mitigation measures, where possible, and project alternatives that would reduce or eliminate significant adverse environmental effects, if any.

The alternatives chapter of the EIR (Chapter 5, Project Alternatives) was prepared in accordance with Section 15126.6 of the CEQA Guidelines. CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Project modification or alternatives are not required, however, where significant environmental impacts will not occur.

The EIR evaluates the following alternatives to the proposed project:

Alternative 1: No Project/No Build Alternative. This alternative assumes no development would occur and the project site would remain in its current condition.

Alternative 2: Reduced Project Alternative. This alternative assumes the project site would be developed with a reduced number of ~~patient~~ resident beds in Building 2, from 30 to 22 beds (a total of 8 fewer beds). This would be accomplished by reducing the number of double-occupancy rooms from 15 to 7, with 8 rooms remaining single-occupancy. Under this alternative, the square footage of Building 2 would remain the same, but no parking lifts would be included in the basement, reducing parking from ~~10~~ 11 to ~~6~~ 7 spaces. No changes to Building 1 are proposed.

Alternative 3: Landscaping Alternative. This alternative would revise the proposed project's site plan with additional landscaping and vegetation along the northern boundary of Lots 1 and 2 and eastern boundary of Lot 2. Introduced landscaping/vegetation would screen truck deliveries and project activities from public views from Saratoga Creek Drive and Village Drive. In all other aspects, this alternative would be identical to the proposed project.

Alternative 4: General Plan and Zoning Change Alternative. This alternative would add an additional story (for a total of three [3] stories) to Building 1 and require approval of a General Plan Amendment and a zoning variance. This alternative would reduce the overall building footprint of Building 1. The number of total ~~patient~~ resident beds and ~~total number of~~ parking spaces would remain the same (the parking configuration on Lot 1 ~~would~~ could be altered).

Document Organization

This EIR is organized to provide a comprehensive analysis of the significant potential environmental impacts, mitigation measures, and alternatives for the proposed project as follows:

- **Executive Summary.** Summarizes the proposed project, environmental impacts that would result from implementation of the proposed project, recommended mitigation measures that would avoid or reduce impacts, and the level of significance of impacts both before and after mitigation.
- **Chapter 1, Introduction.** Provides an introduction and overview describing the purpose and intended use of the EIR, the EIR's compliance with CEQA, and the scope and organizational format of the EIR.
- **Chapter 2, Project Description.** Provides a detailed description of the proposed project, including its geographical setting, project objectives, project components, and construction. This section also provides background on the proposed project. The environmental setting is also included in this chapter and provides a description of the physical environmental conditions in the vicinity of the proposed project, as they existed at the time the NOP was published, which constitute the baseline physical conditions by which the significance of potential impacts would be assessed. This section also includes a list of discretionary actions that would be required by the Lead Agency and responsible agencies for the proposed project.
- **Chapter 3, Environmental Analysis.** Describes the baseline environmental setting and provides an assessment of potential project impacts for each technical issue area presented. Each section is divided into four sub-sections: Introduction, Environmental Setting, Regulatory Setting, and Impacts and Mitigation Measures.
- **Chapter 4, Other CEQA Considerations.** Provides discussions required by Sections 15126 and 15128 of the CEQA Guidelines, including effects found not to be significant during the EIR process, growth-inducing impacts of the proposed project, significant environmental effects that cannot be avoided if the proposed project is implemented, significant irreversible environmental changes that would result from implementation of the proposed project, and cumulative impacts.
- **Chapter 5, Alternatives.** Describes alternatives to the proposed project that would avoid or substantially lessen significant effects and evaluates their environmental effects in comparison to the proposed project.
- **Chapter 6, List of Preparers.** Provides a list of the EIR preparers.

CHAPTER 2
PROJECT DESCRIPTION

2.1 INTRODUCTION

The purpose of the project description is to provide information about the proposed Palm Villas Saratoga Project (project or proposed project) to the public, reviewing agencies, and the decision makers. Additionally, the project description serves as the basis for the environmental analysis contained in this environmental impact report (EIR). The section below contains the project description information required under the California Environmental Quality Act (CEQA) Guidelines Section 15124: (1) the precise location and boundaries of the proposed project, including a regional map of the proposed project; (2) a statement of objectives sought by the proposed project; (3) a general description of the project's technical and environmental characteristics; and (4) a statement briefly describing the intended uses of the EIR.

The proposed project would consist of the construction and operation of a Residential Care Facility for the Elderly[1] consisting of two buildings (herein referred to as Building 1 and Building 2) on two adjacent lots (herein referred to as Lot 1 and Lot 2).[2] The two buildings have been designed to function as a single complex. One building would be for individuals with mild stage Alzheimer's/dementia and the second for individuals with advanced stage Alzheimer's and dementia. The proposed project (including both buildings) would include a combined total of 78 beds, related support functions (such as food service, pharmacy, laundry, administration, etc.), ~~47~~ 48 parking spaces, landscaping (including removal of some trees), utility connections, and an extension of Saratoga Creek Drive to the south by approximately 140~~150~~ feet (including a bifurcated portion at the end for fire truck turnaround).

2.2 PROJECT LOCATION AND EXISTING SITE CONDITIONS

2.2.1 Location

The proposed project site is located in the City of Saratoga (City) in the western~~ly~~ portion of Santa Clara County, southwest of the major metropolitan City of San Jose and approximately 35 miles south of the City of San Francisco. The City is found at the southern~~ly~~ end of the San Francisco peninsula. The northern, southern, and eastern~~ly~~ portions of the community are sited on a historic alluvial plain shared with the adjacent communities of Cupertino, San Jose, Los Gatos, and Monte Sereno.

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1 Residential Care Facilities for the Elderly are also sometimes referred to as "Senior Living Facility," "Assisted Living," or "Board and Care" facilities.

2 "Lot" means a parcel of land consisting of a single lot of record. City Code Section 15-06.420.

The project site is located south of the intersection of Saratoga Creek Drive and Cox Avenue. The project site is northeast of California State Route (SR) 85 and west of Saratoga Avenue. Figure~~s~~ 2-1~~(~~, Project Location,~~)~~ and Figure 2-2~~(~~, Project Vicinity~~)~~, show the location of the project site within the City and greater Bay Area. The Santa Clara County Assessor's Office identifies the project site as two adjacent parcels with Assessor's Parcel Numbers 389-06-020 (Lot 1) and 389-06-021 (Lot 2).

2.2.2 Existing Site Conditions

The rectangular undeveloped project site is comprised of 1.3 acres of land made up of two adjacent lots (refer to Figure 2-3, Site Plan Overview~~)~~. Lot 1 is 31,757 square feet, and Lot 2 is 24,357 square feet. The project site is generally level, ~~slopes~~ sloping slightly to the northwest, with proposed building corner elevations ranging from ~~approximately 298~~ 296.08 feet above mean sea level (amsl) ~~at the southeastern corner of the site~~ to ~~281~~ 300.07 feet ~~above mean sea level~~amsl. ~~at the northwestern corner at Saratoga Creek.~~ Saratoga Creek runs along the northwestern side of Lot 1. The undeveloped project site is currently vegetated with annual grassland, ornamental landscaping (shrubs and trees), and sycamore woodland.

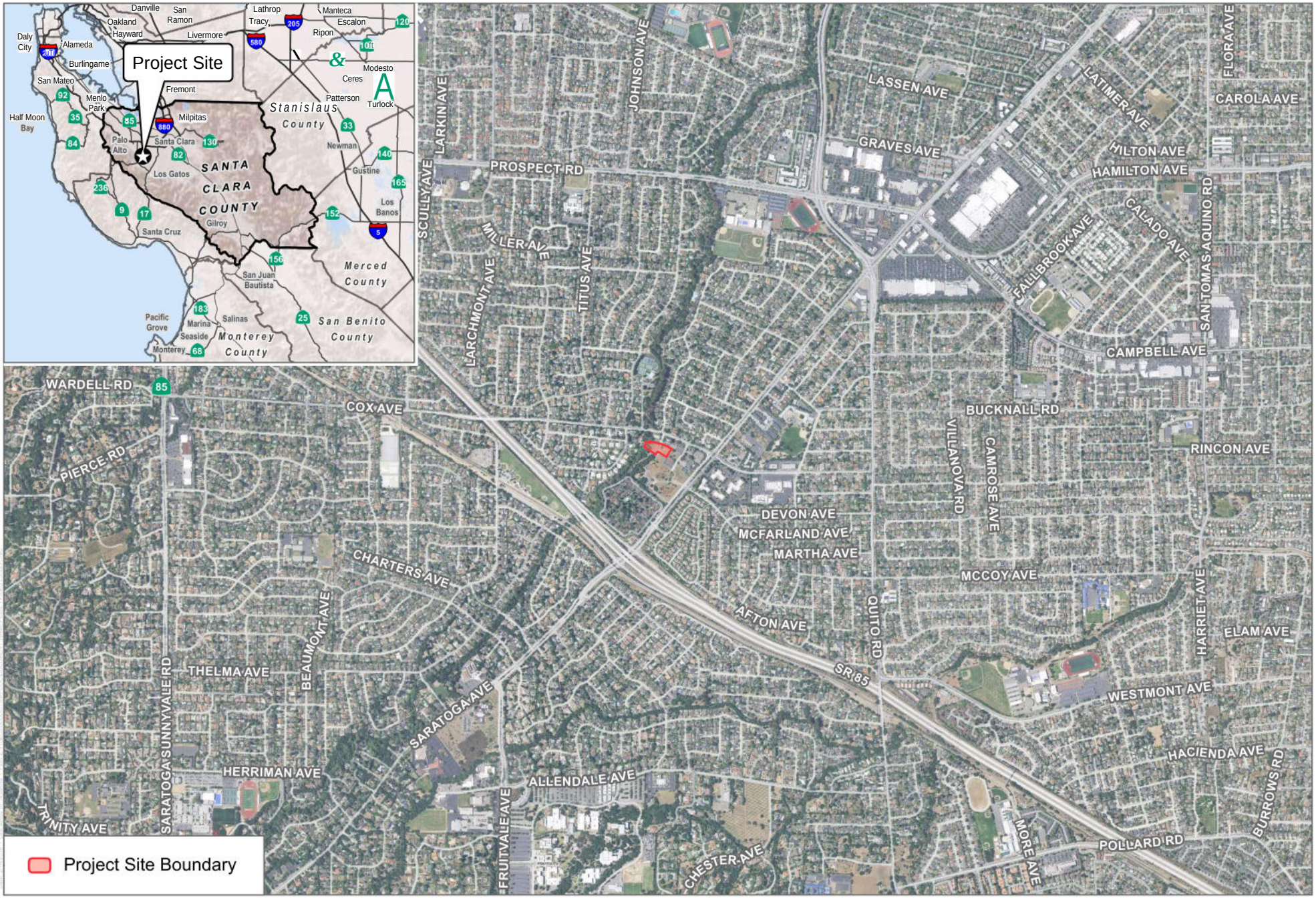
2.2.3 Existing Land Use Designation and Zoning

The City's General Plan land use designation for the project site is Professional Administrative (P-A); the City's zoning map designates the site "Professional and Administrative Office District (P-A)." The Professional and Administrative Office District zoning district (referenced in Section 15-18.020 of the Saratoga Municipal Code) permits uses such as professional, administrative, and medical offices; financial institutions; accessory structures; temporary sectional Christmas tree and pumpkin sales; antenna facilities; and parking lots. Conditional uses allowable in this district extend to community facilities, institutional facilities, police and fire stations, nursing homes, and day care facilities, among similar uses. This zoning district limits structures to 30 feet in height and two stories.

2.2.4 Project Site Access

Major regional access to the City is provided by SR-85, a six-lane freeway linking to Interstate (I) 280 to north Cupertino, I-101 north to Mountain View, I-101 south to San Jose, and SR-17 north to San Jose and southwest to Santa Cruz County.

The project site is accessible from SR-85, located approximately 0.3 miles south of the project site. Saratoga Avenue, Cox Avenue, and Saratoga Creek Drive provide local access to the project site. Saratoga Creek Drive extends southward from Cox Avenue for approximately 140~~150~~ feet, presently terminating at the project site's northern boundary. The street serves two existing professional office buildings on either side of the roadway and provides access to the rear parking lots for both buildings.



SOURCE: NAIP 2016

DUDEK

0 1,000 2,000 Feet

FIGURE 2-1

Project Location

Palm Villas Saratoga Project

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SOURCE: NAIP 2016

DUDEK

0 200 400 Feet

FIGURE 2-2

Project Vicinity

Palm Villas Project

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2.2.5 Surrounding Land Uses

The predominant land use in the City is residential, most of which is low-density, single-family homes on individual parcels. Professional, administrative, and medical office buildings (referenced in Section 1-06.480 of the Saratoga Municipal Code) are located immediately to the north and east of the project site, and south of Cox Avenue (refer to Figure 2-3, Site Plan Overview). The area north of Cox Avenue and west across Saratoga Creek consists of single-family residences. Vacant parcels to the south are zoned for P-A ~~Office D~~district uses.

2.3 PROJECT CHARACTERISTICS

2.3.1 Proposed Project

As noted above, the proposed project (refer to Appendix L) would develop the vacant sites with two buildings situated on either side of the extension of Saratoga Creek Drive. The buildings are designed to operate as independent entities within a single complex; they serve two distinct types of residents with different needs and levels of care. Each lot contains sufficient parking to serve the building, and there would be limited movement between the two buildings.

Lot 1 would be developed with a two-story, 15,066~~214~~-square-foot building (Building 1) and an 8,419~~516~~-square-foot underground basement level. The building footprint would cover 29.51~~89~~ percent of Lot 1. The basement level would contain 19 parking spaces (including lifts), storage space, electrical rooms~~, pantry~~, maintenance room, break room, and a laundry area. There would be 22 total parking spaces serving Lot 1; two (2) would be accessible and conform to the Americans with Disabilities Act (ADA) standards. A full-time on-site parking attendant stationed at Building 1 would also coordinate parking and traffic for both buildings. Lot 1 would also have four bicycle parking spaces. Building 1 would include 48 ~~patient~~ resident beds in 26 rooms; each room would contain restrooms, bathing facilities, and living space. In addition to ~~patient~~ resident living facilities, Building 1 would contain central administrative offices that oversee the function of both buildings. This includes all staffing for general management and resident care operations. An Alzheimer's/Dementia Resource Center open for public use would also be included in the building. The Resource Center would provide family support, consultation services to seniors and their families, community outreach, and group meetings/seminars. Figure 2-4 ~~(~~, Lot 1 Site Plan~~)~~, displays the ~~floor plan~~building footprint for Building 1.

Lot 2, on the eastern side of the project site, would develop a two-story, 9,141~~318~~-square-foot building (Building 2) and a 5,254~~415~~-square-foot underground basement level. The building footprint would cover 29.15~~94~~ percent of Lot 2. The basement level would contain ~~10~~ 11 parking spaces (including lifts), electrical rooms, laundry area, an activities office, ~~and~~ a break room, and a~~/~~ storage room. There would be ~~25~~ 26 total parking spaces serving Lot 2, two (2) would be accessible and conform to ADA standards and one (1) would be a van-accessible parking space.

Building 2 would include 30 resident~~patient~~ beds in 15 ~~patient~~resident rooms; each room would contain restrooms, bathing facilities, and living space. Figure 2-5~~(~~, Lot 2 Site Plan~~)~~, displays the ~~floor plan~~building footprint for Building 2.

Both buildings would include office space, control stations, dining/activity rooms, lounges, covered porches, kitchens~~/pantry~~, storage rooms, and housekeeping areas. In addition, there would be pharmacy and ~~hairdresser~~ salon areas to serve the residents.

2.3.2 Setbacks

The proposed project provides for the construction of new facilities adjacent to Saratoga Creek, a protected creek. Pursuant to the City Code, a protected creek is defined as any creek identified in the most recently available "Maps of Flood Control Facilities and Limits of One Percent Flooding" prepared by the Santa Clara Valley Water District (SCVWD). Where a protected creek passes through or along a building site or is otherwise located on the site, and in order to provide for the future protection of creeks, including creek banks and riparian habitat, building setbacks for any new construction shall be measured from the top of the creek bank(s) rather than from the property lines of the site. The project includes a minimum 25-foot setback with some areas set back up to 35 feet on Lot 1 from the top of bank to Saratoga Creek, which, in addition to being in compliance with City and SCVWD ~~anta Clara Valley Water District~~ requirements, is also designed to accommodate protective measures to riparian habitat that is under the jurisdiction of California Department of Fish and Wildlife (CDFW). However, there is no proposed alteration to Saratoga Creek or vegetation that is within the jurisdiction of CDFW. The project would also include a 25-foot (east) setback on both Lot 1 and Lot 2 from Saratoga Creek Drive. Lot 1 would include a 19.05-foot setback ~~on~~from the northern boundary, a 21.56-foot setback ~~on~~from the southern boundary, and a 25-foot setback (west). Lot 2 would include a 22.32-foot setback from the northern boundary, a 54.25-foot setback from the southern boundary, and 35.68-foot rear setback (east).

2.3.3 Parking, Circulation, and Loading

The parking in each building would be accessed from driveway ramps from the Saratoga Creek Drive extension. A circular driveway in front of Building 1 would provide vehicle access to the building for deliveries and ~~to~~ would accommodate ambulance and emergency vehicle access (turnaround access for emergency vehicles would be provided). On-site parking signage shall provide wayfinding information to visitors on where to park. To facilitate parking at the proposed project site, including the efficient use of the lift parking spaces in the building basement garages, an on-site parking attendant (valet-style) would be available. This attendant would be able to direct visitors and employees to appropriate parking spaces and ensure that employees use the lift-spaces if available.

The basement level of Building 1 would have 19 parking ~~spots~~spaces, including eight (8) standard parking spaces, one (1) ADA-accessible parking space, and a parking lift system that would

accommodate ~~five (5) two-car parking lifts (for~~ a total of 10 parking lift spaces). In addition, the surface level of Building 1 would have three (3) parking spaces, including two (2) standard parking spaces and one (1) designated van-accessible parking space, for a total of 22 parking spaces ~~on~~ serving Lot 1. Lot 1 would also include four bicycle parking spaces at street level, which would serve both Lot 1 and Lot 2.

The basement level of Building 2 would have ~~10~~ 11 parking ~~spots~~spaces, including one (1) standard parking space, one (1) ADA-accessible parking space, and a parking lift system that would accommodate ~~four (4) two-car parking lifts (for~~ a total of ~~eight [8]~~nine [9] parking lift spaces). In addition, the surface level of Building 2 would have 15 parking spaces, including 14 standard parking spaces and one (1) ADA accessible parking space, for a total of ~~25~~ 26 parking spaces ~~on~~ serving Lot 2.

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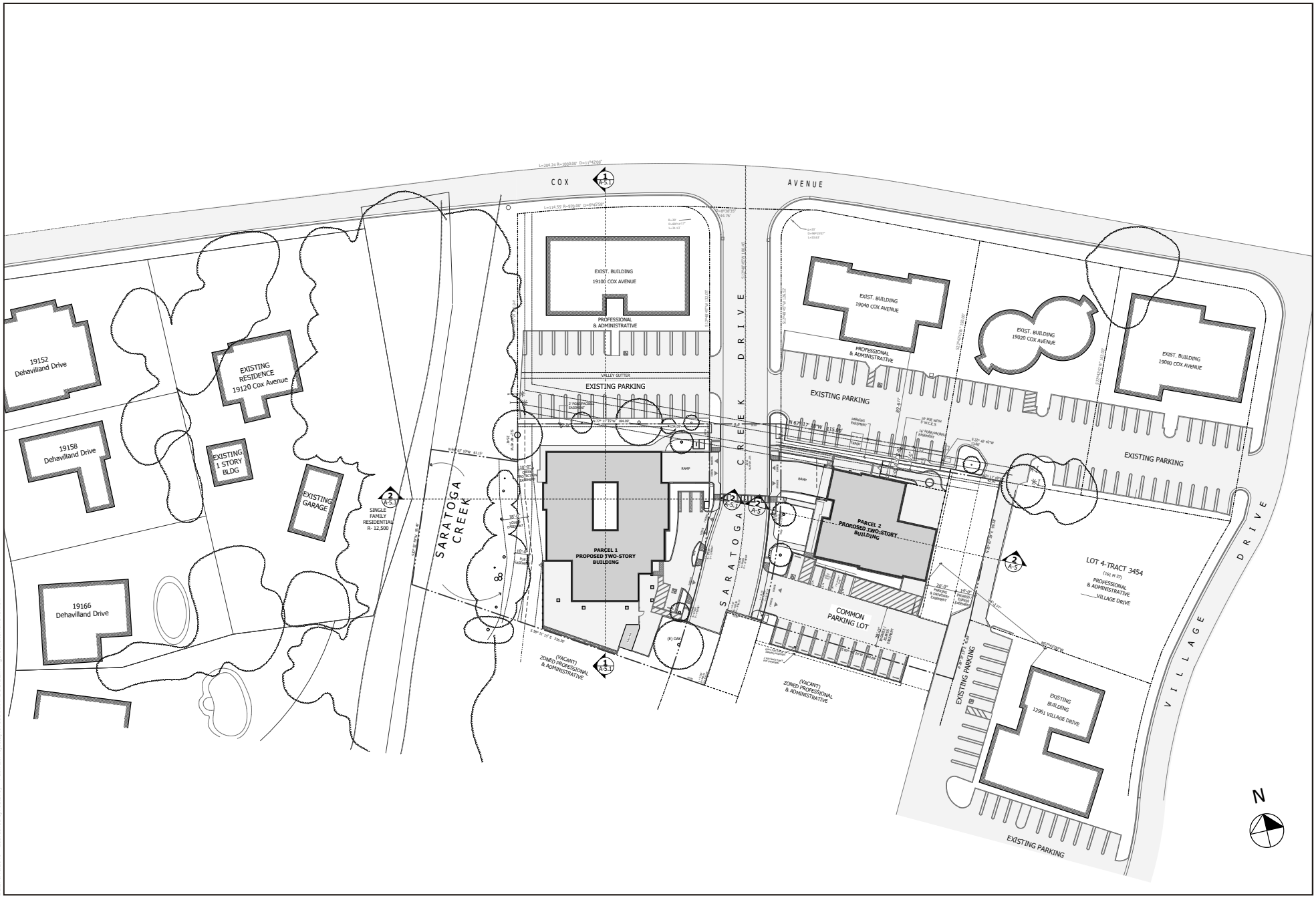

SOURCE: METRO DESIGN GROUP 2020

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FIGURE 2-3

Site Plan Overview

Palm Villas Saratoga Project

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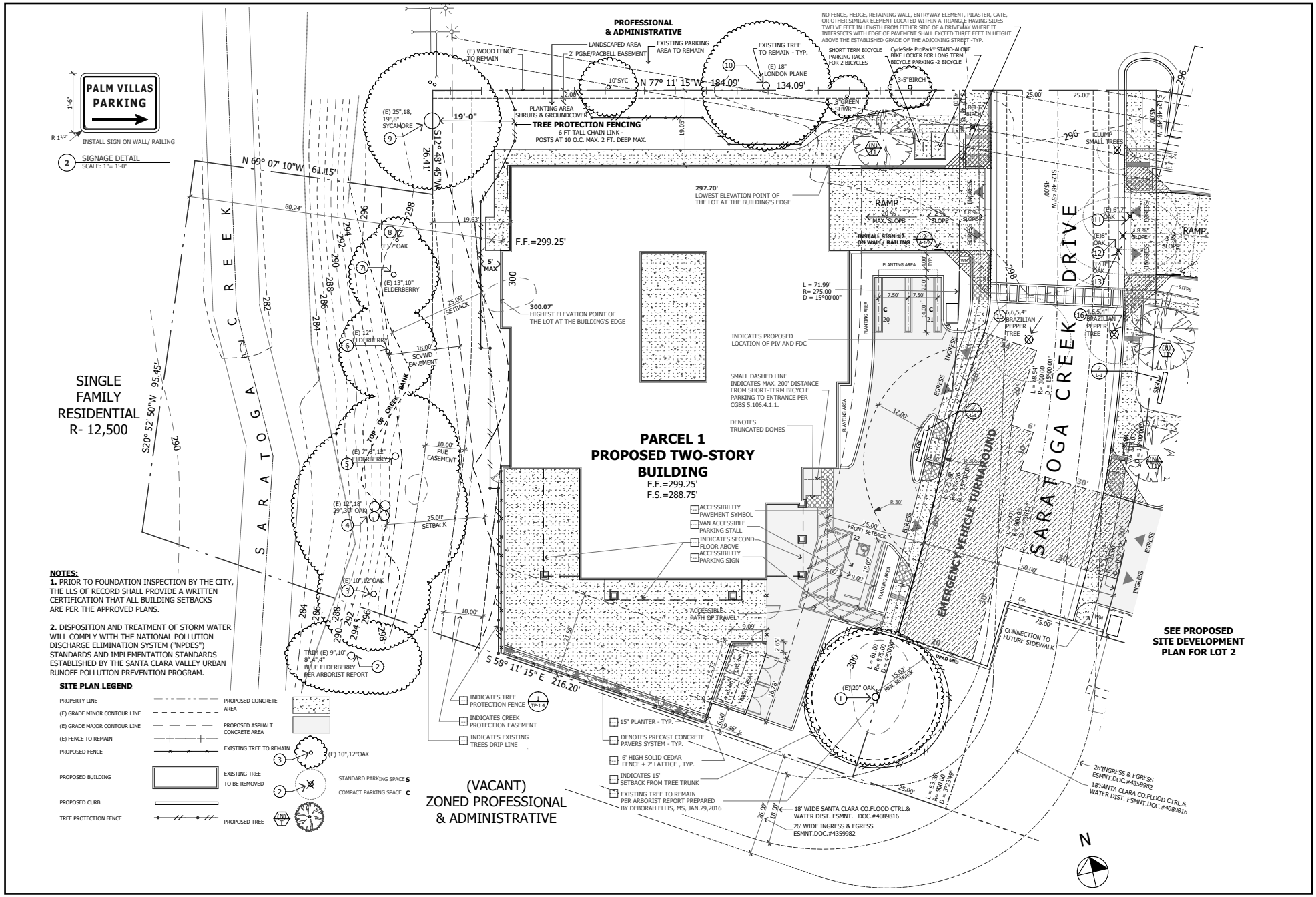

SOURCE: METRO DESIGN GROUP 2020

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FIGURE 2-4

Lot 1 Site Plan

Palm Villas Saratoga Project

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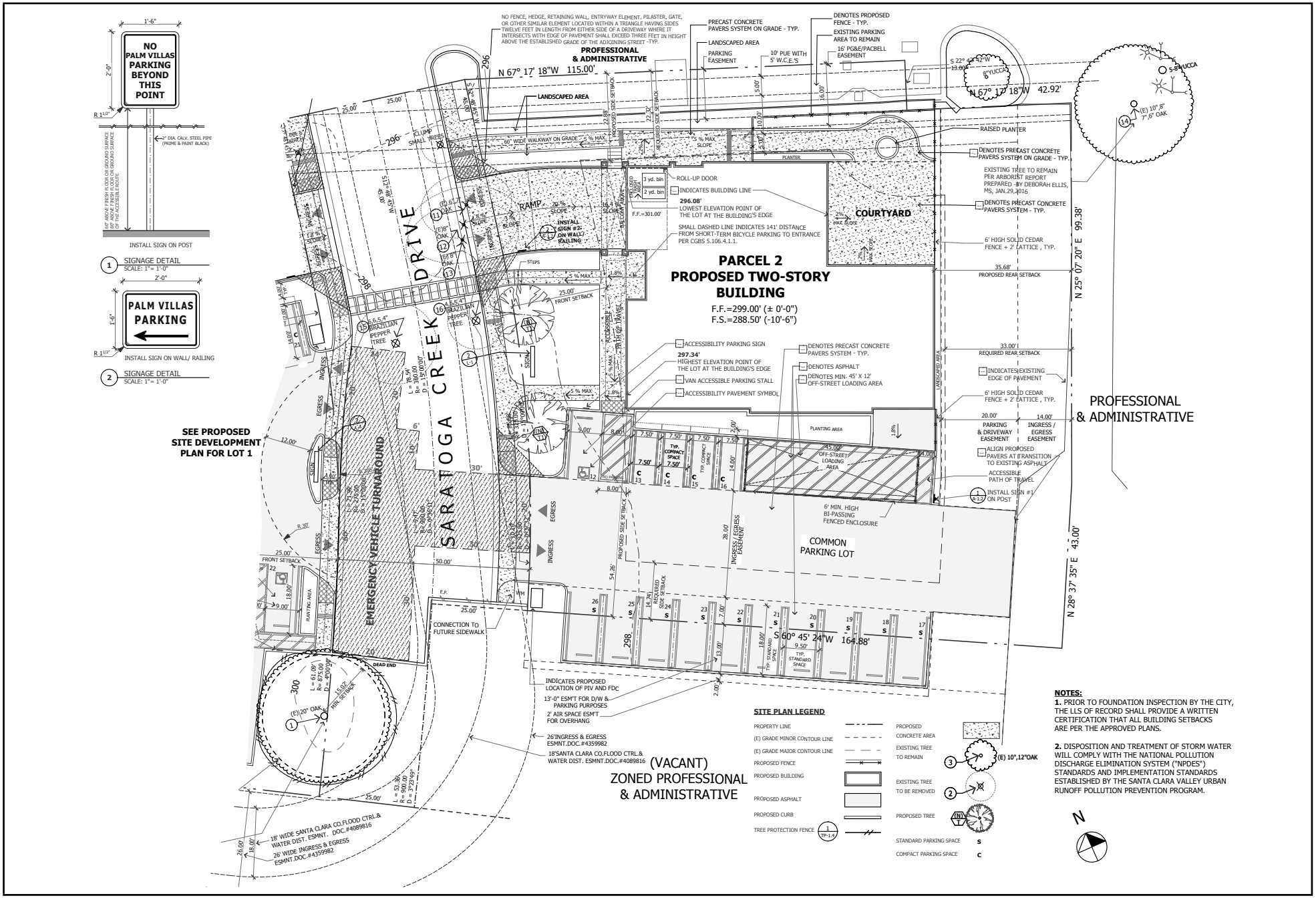

SOURCE: METRO DESIGN GROUP 2020

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FIGURE 2-5

Lot 2 Site Plan

Palm Villas Saratoga Project

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The proposed project also would include a 6-foot-wide, high-visibility mid-block pedestrian crosswalk that would be built between Lot 1 and Lot 2, across Saratoga Creek Drive. Standard required crosswalk signage would be provided to enhance the visibility of the crosswalk. A continuous sidewalk would be constructed along the frontages of Building 1 and Building 2 connecting to the surface parking areas and building entrances, and would not preclude future connection to sidewalks to the north and south.

The proposed project would also include ~~s roadway improvements and~~ an extension of Saratoga Creek Drive to provide access to the project site. ~~perty.~~ As shown in Figure 2-6, Saratoga Creek Drive Proposed Extension, from its present terminus, Saratoga Creek Drive would be extended by approximately ~~150~~ 140 feet (including the bifurcated portion at the end for fire truck turnaround) and run down the center of the project site. ~~The roadway extension would provide secondary access to the vacant lots immediately south of the project site, which are currently accessible from Village Drive and Saratoga Drive.~~ The roadway improvements would include utility mains from Cox Avenue to the proposed project. The roadway extension was previously approved under the original Tentative Subdivision Map ~~Approval~~ approved in 2000 and recorded in 2005.

~~2.3.6 Hydrology and Drainage~~

~~The project design includes the installation of vegetated swales and underground storage and infiltration systems on each lot to facilitate on-site treatment and percolation of stormwater volumes generated by the impervious surfaces proposed by the project.~~

2.3.4 Utilities and Public Services

The roadway improvements associated with the approximately 140~~150~~-foot Saratoga Creek Drive extension would include utility mains from Cox Avenue extended to the project site. Electrical service would be provided by Pacific Gas & Electric. Water, sewer, and solid waste disposal would be provided by San Jose Water Company, West Valley Sanitation District, and West Valley Collection and Recycling, respectively. Each building would have separate trash enclosures. Trash and recycling collection services would be contracted as a single facility with collection ~~and clean-up~~ scheduled for the same day. Also refer to Section 2.3.6~~5~~ *Hydrology and Drainage*, for more description of storm drain, sanitary sewer, and water lines proposed for the site.

2.3.5 Landscaping/Lighting/Signage

The proposed project would remove five (5) trees ~~protected by~~subject to the City's Tree Regulations in the City Code ~~Code~~: three (3) native coast live oak trees (*Quercus agrifolia*) and two (2) non-native Brazilian pepper trees (*Schinus terebinthifolius*). These trees are situated within the right-of-way for the proposed extension of Saratoga Creek Drive on the site (Bear 2017).

The proposed project would provide landscaping throughout the project site, as shown in Figure 2-7, Lot 1 Landscaping Plan and Figure 2-8, Lot 2 Landscaping Plan. In particular, a Tree Preservation, Removal, and Replacement Plan includes extensive planting of water-efficient materials including ground cover, shrubs, and trees in open areas and along the frontages of Saratoga Creek Drive. Four (4) new trees are proposed as part of the project to be planted alongside the extension of Saratoga Creek Drive.

Building exteriors would be designed with wall-mounted sconce lighting in keeping with building styles. Outdoor surface parking spaces would not be illuminated. An approximately 4-foot-tall sign would be placed outside of each building surrounded by landscaping.

2.3.6 Hydrology and Drainage

The project design includes the installation of vegetated swales and underground storage and infiltration systems on each lot to facilitate on-site treatment and percolation of stormwater volumes generated by the impervious surfaces proposed by the project. Surface stormwater would flow into the vegetated swales and infiltration system, which contain a biotreatment soil mix, drain rock, and an underdrain. The water flows through the soil mix and filters out suspended solids. After passing through the soil mix, the water flows through the drain rock section and is allowed to infiltrate into the exposed native soil at the base of the vault. If stormwater flows into the vault at a higher rate than the water can infiltrate into the native soil, the vault fills with water, and the stormwater will flow into an overflow pipe and the City's storm drain system. Refer to Figure 2-9, Lot 1 Stormwater Management Plan and Figure 2-10, Lot 2 Stormwater Management Plan, which show the location of drainage areas on Lot 1 and Lot 2. These figures show the pervious and impervious surfaces, self-treating areas, and the direction of flow to the planned infiltration system.

In addition, Figure 2-11, Lot 1 Utility Plan and Figure 2-12, Lot 2 Utility Plan provide additional information on the location and operation of proposed storm drains, sanitary sewer, and water lines for Lot 1 and Lot 2. Utility and hydrology/drainage infrastructure proposed at the site are subject to applicable City requirements.

2.4 OPERATIONAL CHARACTERISTICS

2.4.1 Employment

Both buildings of the proposed project would operate 24 hours every day, with the following shift hours and employee counts:

- 6:00 a.m. to 2:00 p.m. – 21 employees
- 2:00 p.m. to 10:00 p.m. – 14 employees
- 10:00 p.m. to 6:00 a.m. – 5 employees

Staff work shifts would start and end during off-peak travel times. There would also be one (1) community parking attendant at the project site (counted in Lot 2, but providing support to both lots) between 8:00 a.m. and 6:00 p.m.

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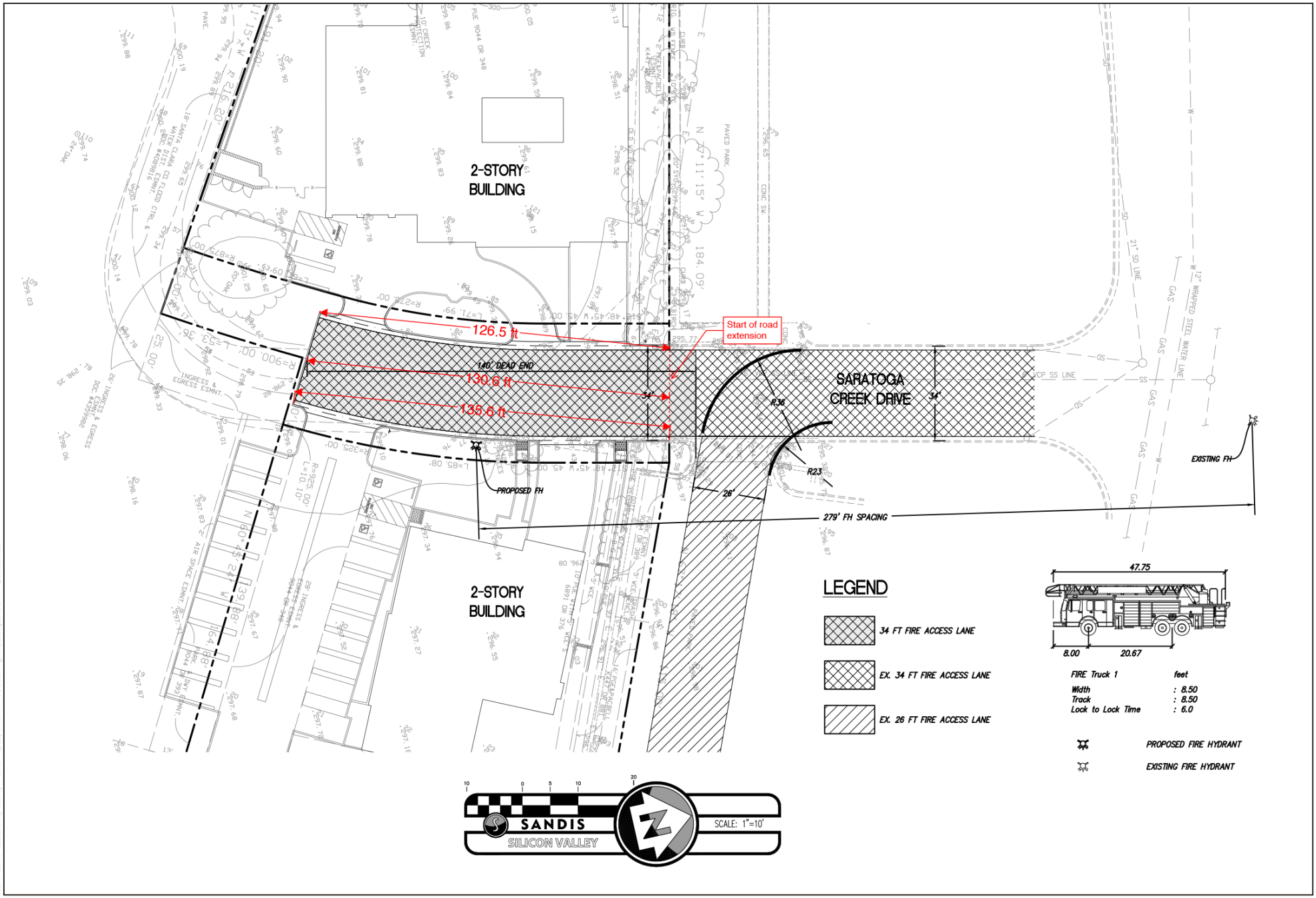

SOURCE: METRO DESIGN GROUP

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FIGURE 2-6

Saratoga Creek Drive Proposed Extension

Palm Villas Saratoga Project

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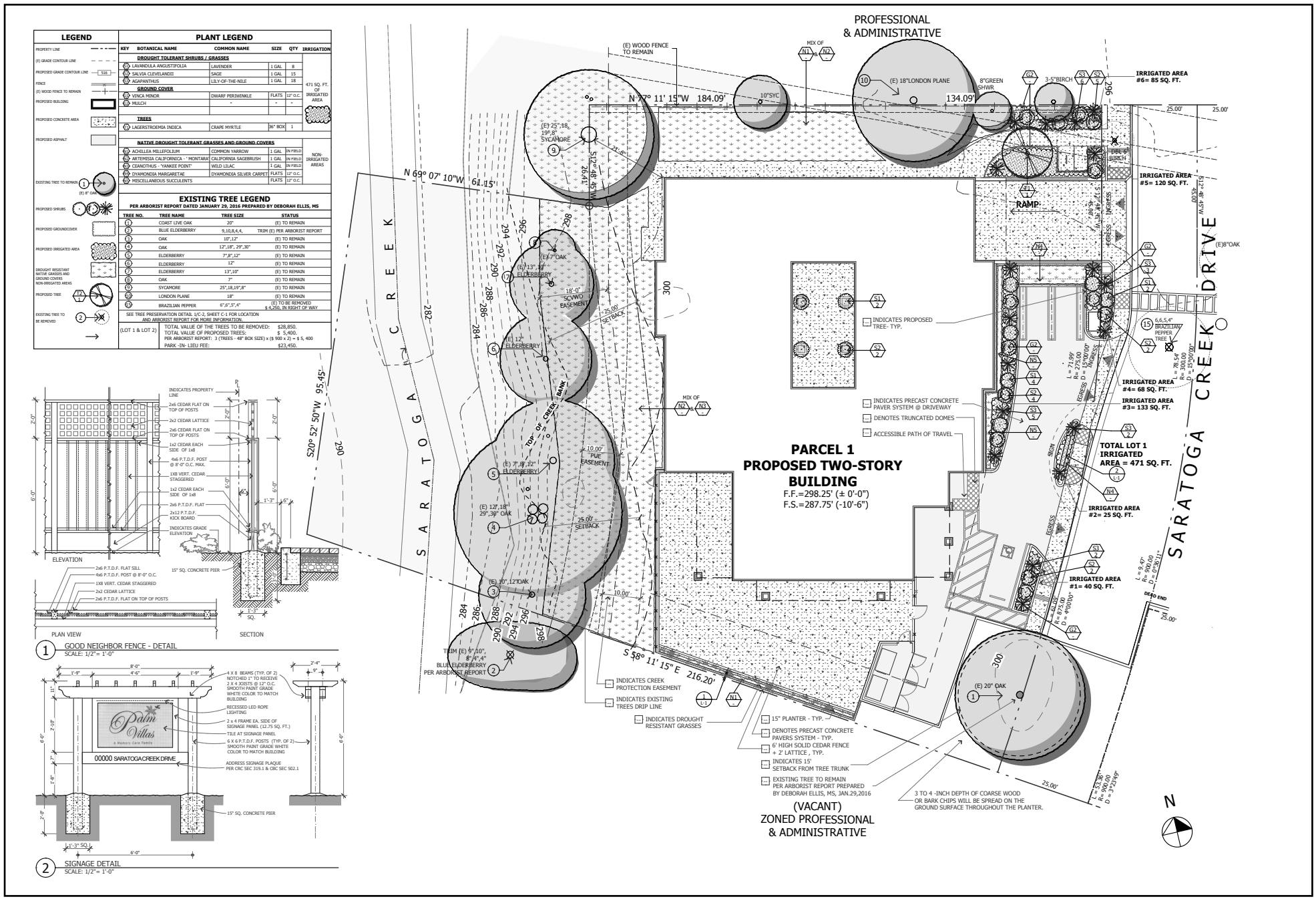

SOURCE: METRO DESIGN GROUP 2020

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FIGURE 2-7

Lot 1 Landscaping Plan

Palm Villas Saratoga Project

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LEGEND

PROPERTY LINE
(E) GRADE CONTOUR LINE
PROPOSED GRADE CONTOUR LINE — 516
FENCE
PROPOSED BUILDING
PROPOSED CONCRETE AREA
PROPOSED ASPHALT
EXISTING TREE TO REMAIN — 1 — (E) 8" OAK
PROPOSED SHRUBS
PROPOSED GROUNDCOVER
PROPOSED IRRIGATED AREA
DROUGHT RESISTANT NATIVE GRASSES AND GROUND COVERS NON-IRRIGATED AREAS
PROPOSED TREE — T2 / 1
EXISTING TREE TO BE REMOVED — 2
PROPOSED SCREENING PLANT IN CONTAINERS — B

PLANT LEGEND

KEY	BOTANICAL NAME	COMMON NAME	SIZE	QTY	IRRIGATION
	DROUGHT TOLERANT SHRUBS / GRASSES				
S1	LAVANDULA ANGUSTIFOLIA	LAVENDER	1 GAL	4	483 SQ. FT. OF IRRIGATED AREA
S2	SALVIA CLEVELANDII	SAGE	1 GAL	6	
S3	AGAPANTHUS	LILY-OF-THE-NILE	1 GAL	3	
	GROUND COVER				
G1	VINCA MINOR	DWARF PERIWINKLE	FLATS	12" O.C.	
G2	MULCH	-	-	-	
	SCREENING PLANT				
B	BAMBUSA MALINGENSIS	SEABREEZE BAMBOO	6 CONTAINERS		
	TREES				
T1	FRAXINUS ANGUSTIFOLIA 'RAYWOOD'	RAYWOOD ASH	36" BOX	2	
	NATIVE DROUGHT TOLERANT GRASSES AND GROUND COVERS				
N1	ACHILLEA MILLEFOLIUM	COMMON YARROW	1 GAL	IN FIELD	NON-IRRIGATED AREAS
N2	ARTEMISIA CALIFORNICA - ' MONTARA'	CALIFORNIA SAGEBRUSH	1 GAL	IN FIELD	
N3	CEANOTHUS - 'YANKEE POINT'	WILD LILAC	1 GAL	IN FIELD	
N4	DYAMONDIA MARGARETAE	DYAMONDIA SILVER CARPET	FLATS	12" O.C.	
N5	MISCELLANEOUS SUCCULENTS		FLATS	12" O.C.	

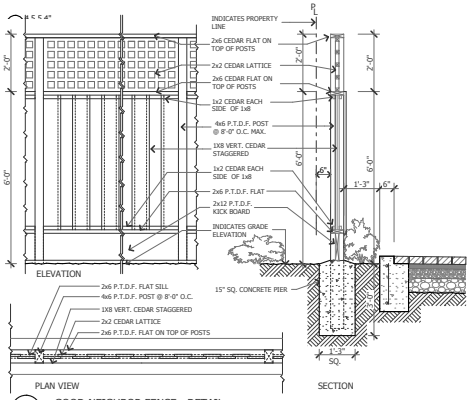
EXISTING TREE LEGEND

PER ARBORIST REPORT DATED JANUARY 29, 2016 PREPARED BY DEBORAH ELLIS, MS

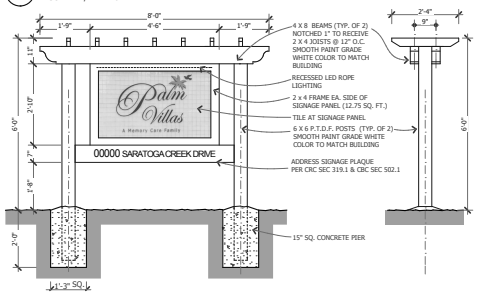
TREE NO.	TREE NAME	TREE SIZE	STATUS
11	COAST LIVE OAK	6", 7"	(E) TO BE REMOVED
12	COAST LIVE OAK	8"	(E) TO BE REMOVED
13	COAST LIVE OAK	8"	(E) TO BE REMOVED
14	COAST LIVE OAK	10", 8", 7",6"	(E) TO REMAIN
16	BRAZILIAN PEPPER	4",5",5",4"	(E) TO BE REMOVED $ 3,400, IN RIGHT OF WAY

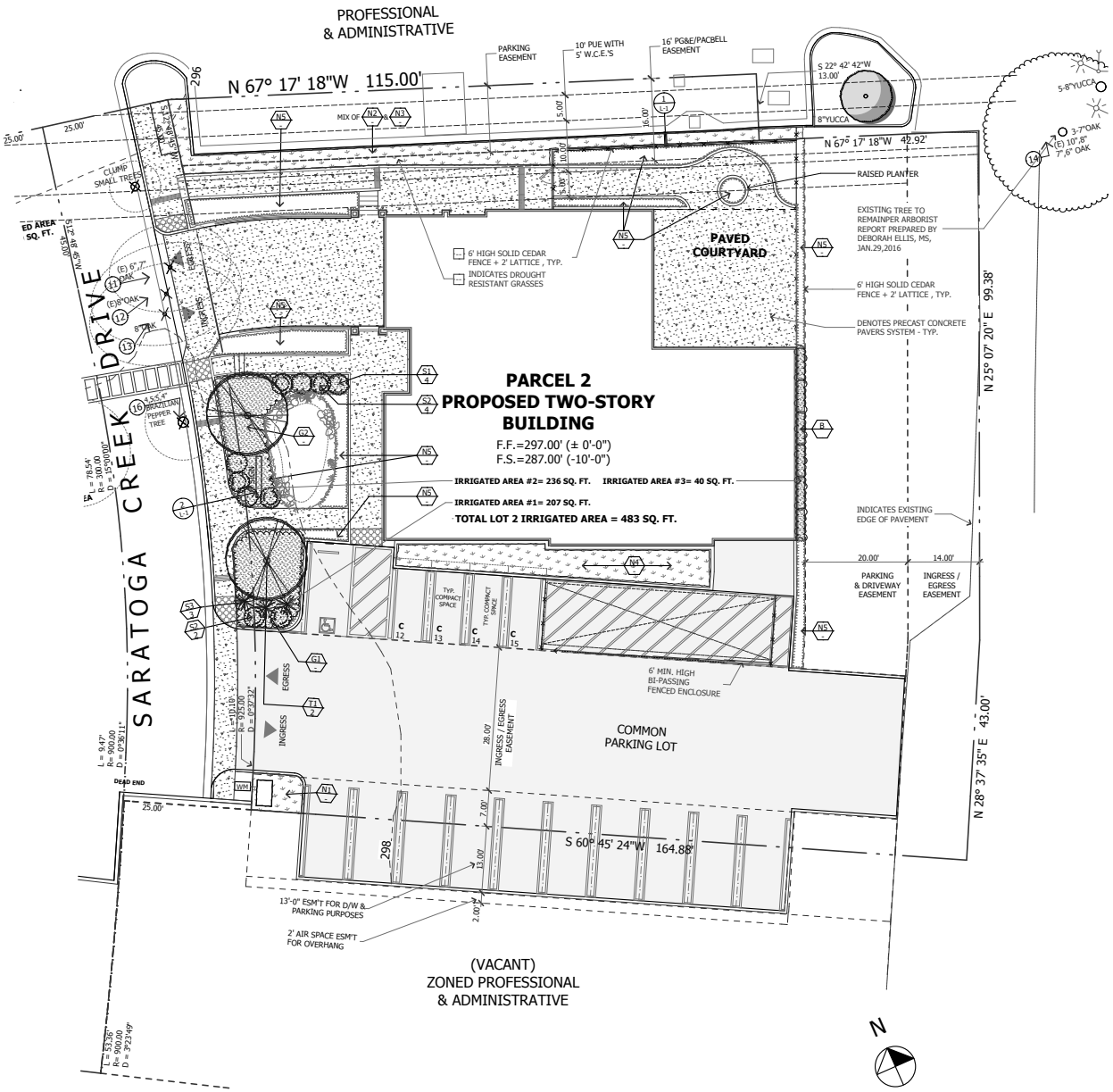
SEE TREE PRESERVATION DETAIL 1/C-2, SHEET C-1 FOR LOCATION AND ARBORIST REPORT FOR MORE INFORMATION.

(LOT 1 & LOT 2)
TOTAL VALUE OF THE TREES TO BE REMOVED: $28,850.
TOTAL VALUE OF PROPOSED TREES: $ 5,400.
PER ARBORIST REPORT: 3 (TREES - 48" BOX SIZE) x ($ 900 x 2) = $ 5, 400
PARK -IN- LIEU FEE: $23,450.



1 GOOD NEIGHBOR FENCE - DETAIL
SCALE: 1/2"= 1'-0"





SOURCE: METRO DESIGN GROUP 2020

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FIGURE 2-8

Lot 2 Landscaping Plan

Palm Villas Saratoga Project

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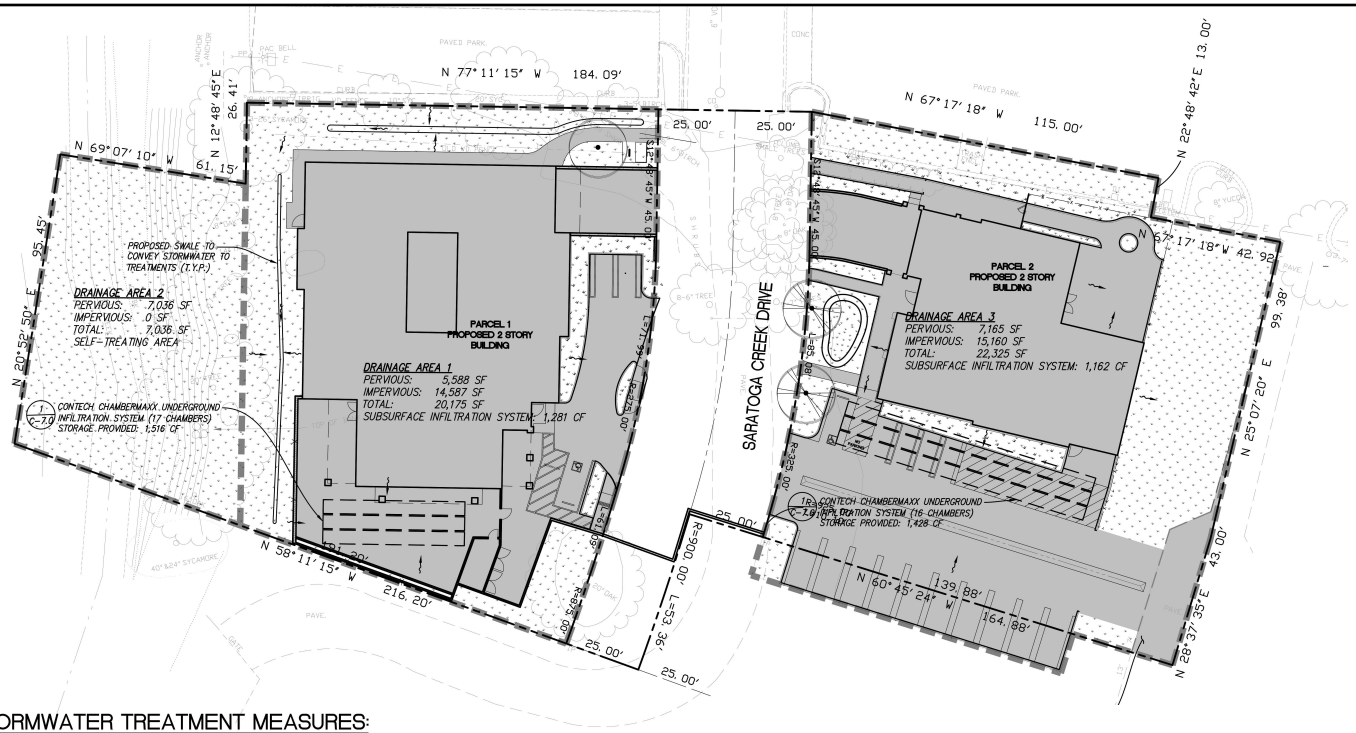

C.3 STORMWATER TREATMENT MEASURES:

PARCEL 1

Volume Based Treatment Measures
using the URQM Approach

Step 1. Drainage Area for BMP: 0.46 acres

Step 2. a. Impervious Area: 0.35 acres
b. Impervious ratio: (i) 74.9%

Step 3. Watershed runoff Coefficient Cw = 0.543
($Cw = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$)

Step 4. Mean Annual Precipitation 20 inches

Step 5. Closest Rain Gage Palo Alto

Gage	MAP_{gage}	$(P_6)_{gage}$ (in)
San Jose Airport	13.9	0.512
Palo Alto	13.7	0.522
Morgan Hill	19.5	0.76

MAP_{gage} 13.7
$(P_6)_{gage}$ 0.522

Step 6. Mean Storm Event Precipitation Depth $(P_6)_{site}$
$(P_6)_{site} = (P_6)_{gage} \times (MAP_{site})/(MAP_{gage})$ 0.762 inches

Step 7. "a" regression constant

a=	48 hour	1.963
a=	24 hour	1.582
a=	12 hour	1.312

48 hour
a= 1.963

Step 8. Maximized Storage Area
$P_o = (a \times Cw) \times P_6$ 0.812 inches

Step 9. Volume of Runoff to be Treated
Design Volume = Po X A X 1ft/12in 0.031 acre-ft
1,366 cuft

Step 10. Infiltration within 72 hrs Check
Estimated Infiltration Rate 0.5 in/hr
Volume Provided V 1516 cuft
System Footprint 778.901 sqft
V / (System Footprint X infiltration rate) 47 hrs

Drainage Area	TOTAL AREA sq. ft.	TOTAL AREA Ac.	IMPERVIOUS AREA sq. ft.	IMPERVIOUS AREA Ac.	PERVIOUS AREA sq. ft.	PERVIOUS AREA Ac.	Percent Impervious	Net Impervious	Runoff Coefficient, c	Q (cfs) Required	Treatment Area	C.3 LID Method	Treatment Provided (sf)
Self-Treating Area (2:1 Calculation)	7,036.0	0.16	0.0	0.00	7,036	0.16	0.0%	0.0	0.300	0.010	0	STA	7,036

SOURCE: METRO DESIGN GROUP 2020

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FIGURE 2-9
Lot 1 Stormwater Management Plan
Palm Villas Saratoga Project

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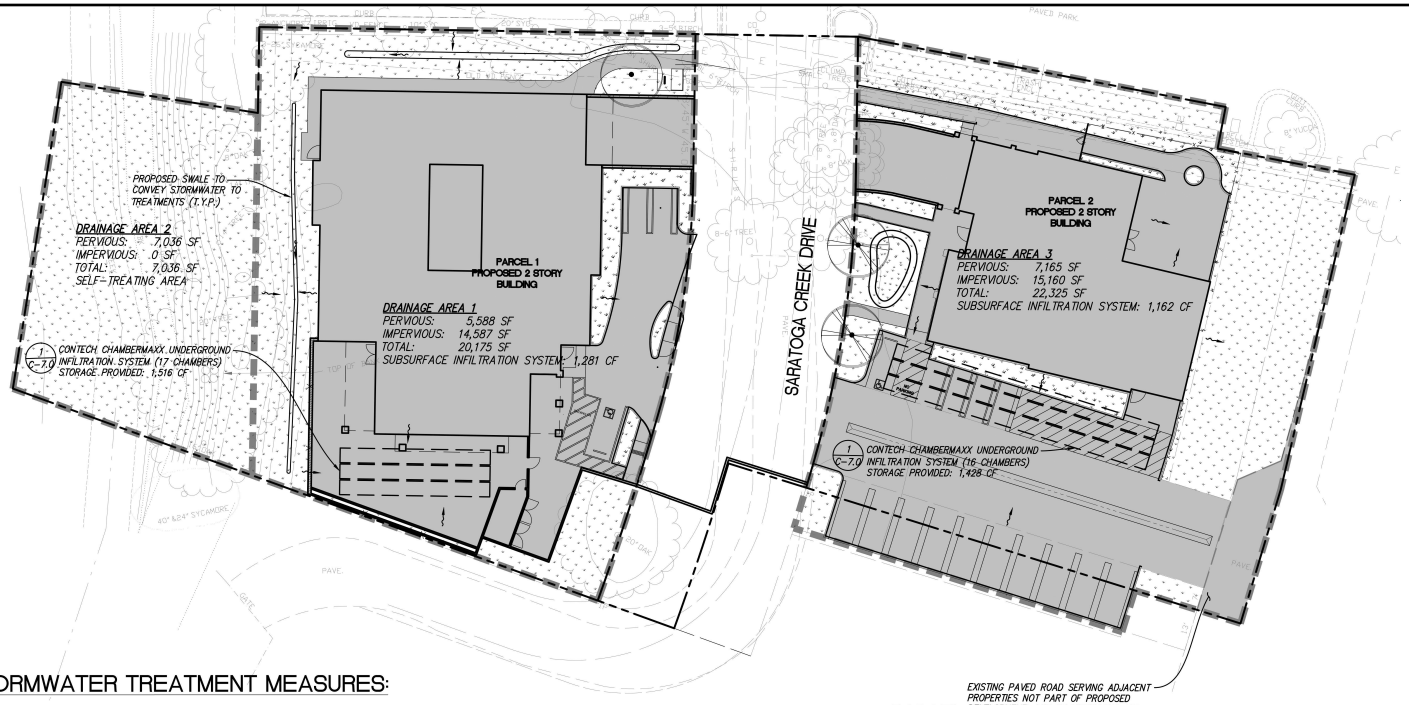

C.3 STORMWATER TREATMENT MEASURES:

PARCEL 1

Volume Based Treatment Measures
using the URQM Approach

Step 1. Drainage Area for BMP: 0.51 acres

Step 2. a. Impervious Area: 0.35 acres
b. Impervious ratio: (i) 67.9%

Step 3. Watershed runoff Coefficient Cw = 0.475
($Cw = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$)

Step 4. Mean Annual Precipitation 20 inches

Step 5. Closest Rain Gage Palo Alto

Gage	MAP_{gage}	$(P_6)_{gage}$ (in)
San Jose Airport	13.9	0.512
Palo Alto	13.7	0.522
Morgan Hill	19.5	0.76

MAP_{gage} 13.7
$(P_6)_{gage}$ 0.522

Step 6. Mean Storm Event Precipitation Depth $(P_6)_{site}$
$(P_6)_{site} = (P_6)_{gage} \times (MAP_{site})/(MAP_{gage})$ 0.762 inches

Step 7. "a" regression constant

a=	48 hour	1.963
a=	24 hour	1.582
a=	12 hour	1.312

48 hour
a= 1.963

Step 8. Maximized Storage Area
$P_c = (a \times Cw) \times P_6$ 0.710 inches

Step 9. Volume of Runoff to be Treated
Design Volume = Po X A X 1ft/12in 0.030 acre-ft
1,321 cuft

Step 10. Infiltration within 72 hrs Check
Estimated Infiltration Rate 0.5 in/hr
Volume Provided V 1428 cuft
System Footprint 701.398 sqft
V / (System Footprint X infiltration rate) 49 hrs

SOURCE: METRO DESIGN GROUP 2020

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FIGURE 2-10
Lot 2 Stormwater Management Plan
Palm Villas Saratoga Project

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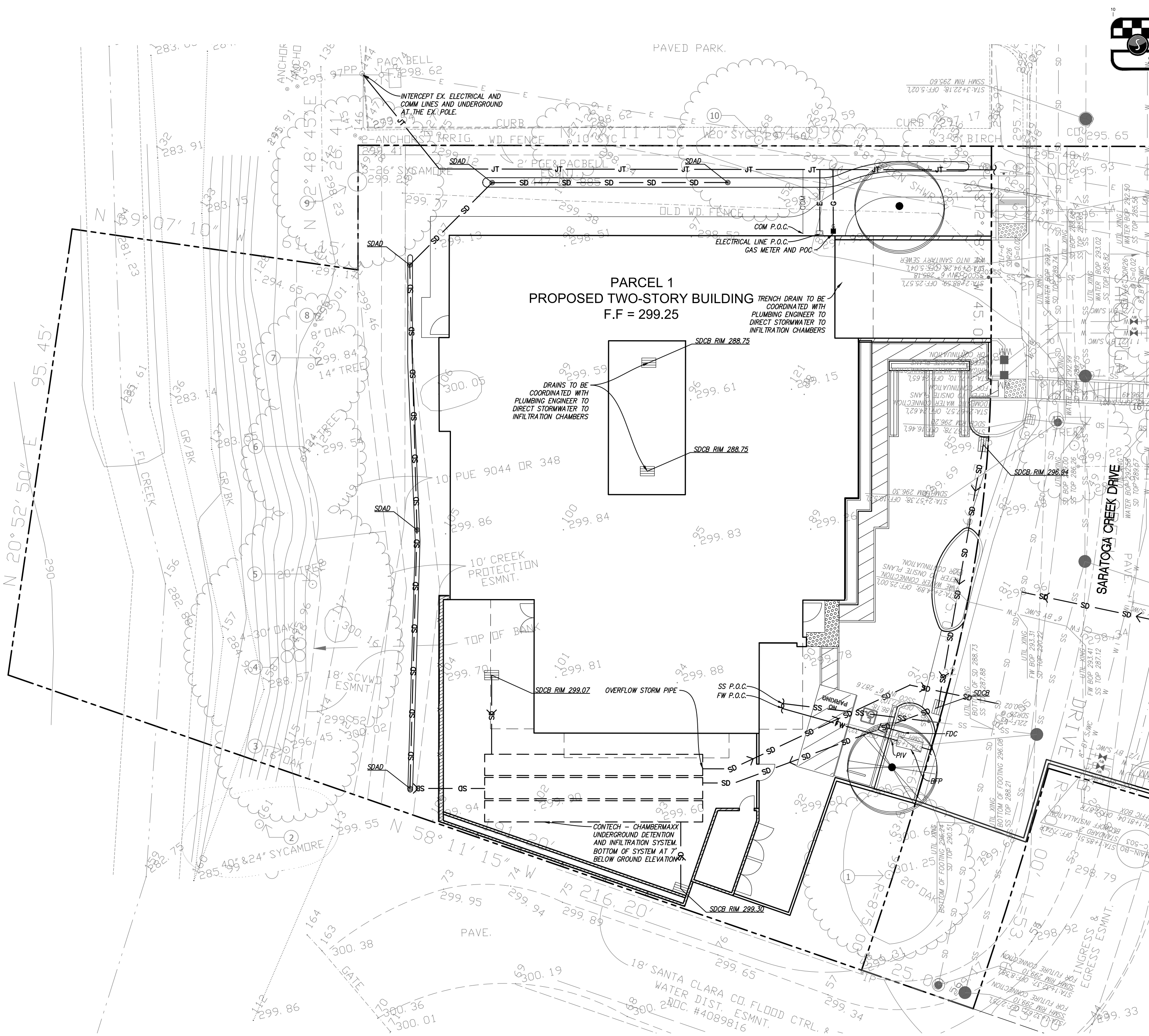

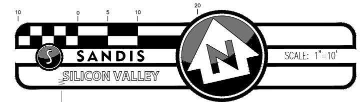

UTILITY PLAN LEGEND

PROPERTY LINE

BIO–TREATMENT AREA XX/XXXX

STORM DRAIN NOTES

1. ALL AREA DRAINS AND CATCH BASINS GRATES WITHIN PEDESTRIAN ACCESSIBLE AREAS SHALL MEET ADA REQUIREMENTS.
2. ALL TRENCHES SHALL BE BACK FILLED PER THE SPECIFICATIONS WITH APPROPRIATE TESTS BY THE GEOTECHNICAL ENGINEER TO VERIFY COMPACTION VALUES.
3. FOR GRAVITY FLOW SYSTEMS CONTRACTOR SHALL VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF ANY GRAVITY FLOW SYSTEM.
4. DRAINS SHOWN ON CIVIL PLANS ARE NOT INTENDED TO BE THE FINAL NUMBER AND LOCATION OF ALL DRAINS. PLACEMENT AND NUMBER OF LANDSCAPING DRAINS ARE HIGHLY DEPENDENT ON GROUND COVER TYPE AND PLANT MATERIAL. CONTRACTOR SHALL ADD ADDITIONAL AREA DRAINS AS NEEDED AND AS DIRECTED BY THE LANDSCAPE ARCHITECT.
5. INSTALL SEPARATE SUB–DRAIN SYSTEM BEHIND RETAINING WALLS PER GEOTECHNICAL REPORT AND CONNECT TO STORM DRAIN SYSTEM AS SHOWN ON PLANS.
6. ALL DOWN SPOUTS SHALL DISCHARGE DIRECTLY ON TO ADJACENT PERVIOUS SURFACES OR SPLASH BLOCKS UNLESS OTHERWISE NOTED ON PLANS. SEE ARCHITECTURE PLANS FOR EXACT LOCATION OF THE DOWN SPOUTS.

SANITARY SEWER NOTES

1. ALL SEWER WORK SHALL BE IN CONFORMANCE WITH THE COUNTY ENVIRONMENTAL HEALTH DEPARTMENT STANDARDS.
2. ALL LATERALS SHALL HAVE A TWO WAY CLEANOUT AT FACE OF BUILDING AND AS SHOWN ON PLANS.
3. IF (E) SEWER LATERAL IS TO BE USED, CONTRACTOR SHALL VIDEO INSPECT, PERFORM PRESSURE TEST ON (E) SEWER LATERAL, AND SHALL PERFORM ANY NEEDED REPAIRS.

WATER SYSTEM NOTES

1. MAINTAIN WATER MAIN LINES 10' AWAY FROM SANITARY SEWER MAIN LINES. LATERALS SHALL BE SEPARATED PER PLAN DIMENSIONS.
2. WHERE WATER LINES HAVE TO CROSS SANITARY SEWER LINES, DO SO AT A 90 DEGREE ANGLE AND WATER LINES SHALL BE MINIMUM OF 12" ABOVE TOP OF SANITARY SEWER LINES.
3. ALL WATER SERVICE CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE WATER DISTRICT STANDARDS.
4. ALL WATER LINES SHALL BE INSTALLED WITH 36" MINIMUM COVER.
5. THRUST RESTRAINTS SHALL BE DESIGNED AND INSTALLED AT ALL TEES, CROSSES, BENDS (HORIZONTAL AND VERTICAL), AT SIZE CHANGES AND AT FIRE HYDRANTS.

SOURCE: METRO DESIGN GROUP 2020

FIGURE 2-11

Lot 1 Utility Plan

Palm Villas Saratoga Project

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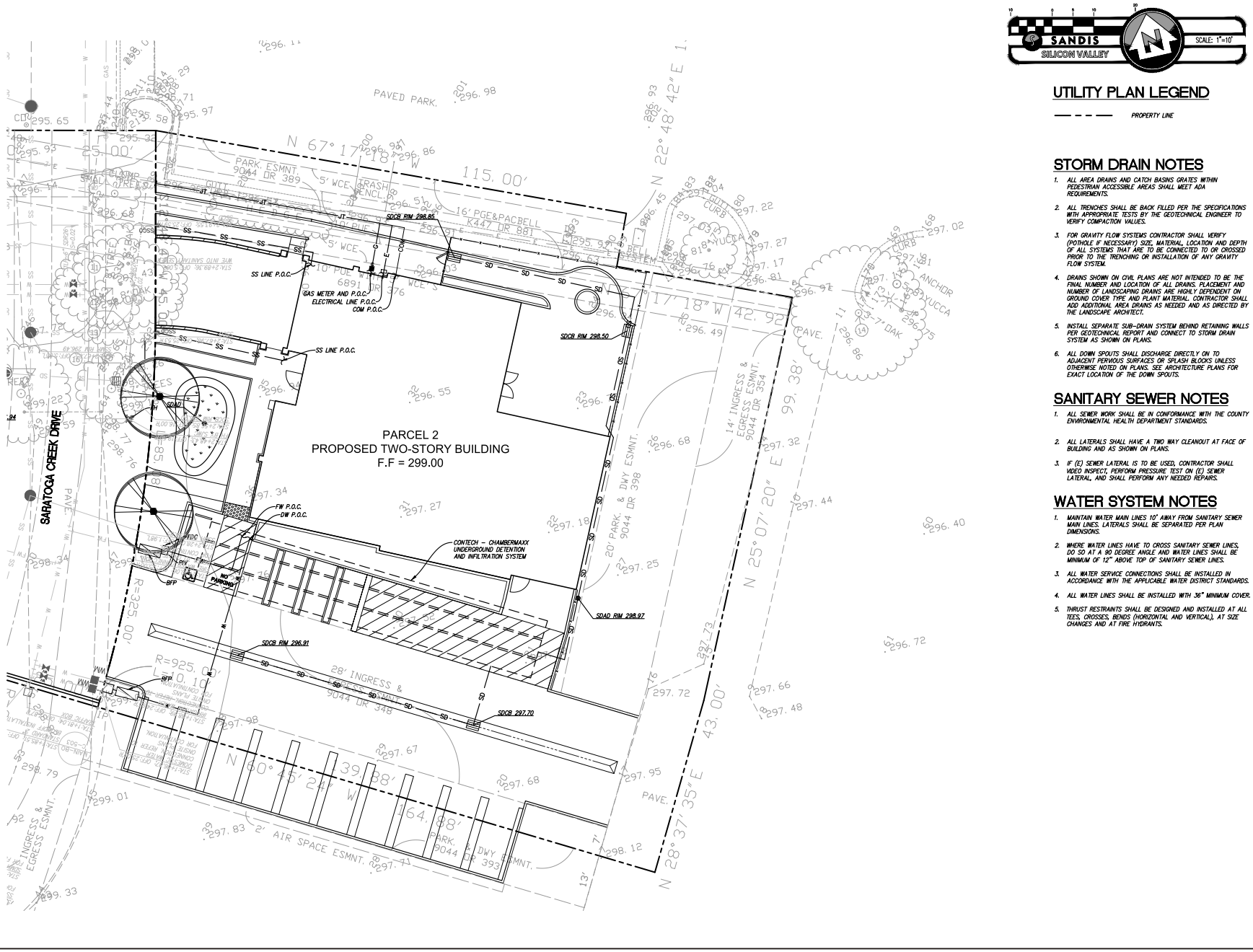

SOURCE: METRO DESIGN GROUP 2020

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FIGURE 2-12

Lot 2 Utility Plan

Palm Villas Saratoga Project

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2.4.2 Visitors

Visitors are anticipated to include: (1) visits from family members, generally on weekends, holidays, and special occasions; (2) visits from health care providers (e.g., nurses and doctors); and (3) visits from volunteers, entertainers, and marketing professionals.

2.4.3 Security

Both buildings would have fire alarms, electronic exterior doors, and locking security gate systems as required per state codes for an Alzheimer's/dementia care facility.

2.5 CONSTRUCTION GRADING AND SCHEDULE

2.5.1 Building Construction

Construction of the proposed project ~~is anticipated to~~would be conducted in a single phase. The estimated duration ~~for~~ of construction ~~is~~ would be 15 months and ~~it is expected to~~would commence in 2021~~0~~. Project construction would include 3 months for grading, 9 months for construction of the buildings and interior work, and 3 months for the extension of Saratoga Creek Drive.

Up to 20 construction workers are estimated to be on site at any given time. Parking for workers would be accommodated on the proposed project site. All required equipment and material staging would be provided on the southwestern portion of Lot 2~~ through valid permits~~. All construction work would be subject to a Construction Mitigation Plan to be approved by the City. The Construction Mitigation Plan would include a traffic control plan with traffic control measures and required measures specifying hours for delivery and haul truck operations that avoid peak commute hours to the extent practicable.

~~Construction of the proposed new buildings would be conducted over approximately 15 months.~~ Construction activities may require the use of the following types of equipment:

- Diesel-powered excavators
- Loaders
- Drill rigs
- Ram hoes
- Excavators
- Crane
- Concrete trucks
- Concrete pumpers

- Auger drilling
- Truck with trailers carrying rebar and other materials
- Forklift and material handling equipment
- Light truck vehicles
- Trucks with material deliveries ~~may be daily~~ to the site
- Miscellaneous small tools, compressors, mixers, and generators

The proposed project would involve excavation to a depth of up to 16.5 feet below existing grade. An estimated 6,140 cubic yards of soil would be excavated between both lots, and balancing would occur on site. Pile driving would not be required during construction. Excavation and grading would occur over a period of approximately 3 months.

The construction haul route would be proposed and formalized in a Haul Route Program as part of the City's permitting process. The anticipated project haul route to Lot 1 and Lot 2 would ~~use~~ be via Saratoga Avenue (which has direct access to SR 85 approximately 0.5 miles to the southwest and I-280 to the northeast), to Cox Avenue, to ~~Cox Avenue and~~ Saratoga Creek Drive ~~to access the project site~~.

2.6 PROJECT OBJECTIVES

Section 15124(b) of the CEQA Guidelines requires a project description to contain a statement of a project's objectives and Section 15124(b) requires that the statement of objectives includes the underlying purpose of the project.

The applicant's objectives for the proposed project include the following:

1. Provide a licensed Residential Care Facility for the Elderly[3] with a special designation for Alzheimer's/Dementia Memory Care (Memory Care facility) to assist in meeting the needs of the growing local aging population living with dementia in the City.
2. Fulfill the City's "Age-Friendly" goals for its significant aging population by adding to the diversity of local services for seniors, as a significant and growing population, so that local residents can remain in the community as they age.[4,5]
3. Implement the project sponsor's vision to build a new state-of-the-art Memory Care facility and operational model based on industry experience.
4. Establish a Memory Care facility with sufficient occupancy capacity to support operational functionality and economic viability.
5. Provide non-seasonal, assistance service employment in a high-quality environment, adding to the number and diversity of local jobs.

2.7 REQUIRED APPROVALS AND PERMITS

Consistent with CEQA Guidelines Section 15065(b), the City is the lead agency for the proposed project. As such, this EIR would be used by the City to both evaluate the environmental impacts created by implementation of the proposed project and develop conditions of approval, which would address those impacts for which mitigation measures are proposed in the EIR. The City Planning Commission would consider approval of the project as part of the City's development review process and would certify the project's final EIR concurrently with project approval.

The proposed project requires various land use approvals from the City including a conditional use permit, design review approvals, a tree removal permit, sign permit, and other construction-related permits.

Other agencies whose approval may be required (e.g., permits, financing approval, or participation agreements) include CDFW~~alifornia Department of Fish and Wildlife~~, San Jose Water Company, SCVWD~~anta Clara Valley Water District~~, West Valley Sanitation District, and the Saratoga Fire Protection District.

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3 Residential Care Facility for the Elderly (RCFE) are also sometimes referred to as "Assisted Living" or "Board and Care" facilities.

4 The City of Saratoga 2015-2023 General Plan Housing Element indicates growth in the population of "retired and senior residents." Retired (55–64 years) and senior citizen (65+ years) were 35% of the City's population in 2012~~.~~ (City of Saratoga. 2014. *2015–2023 Housing Element.* Adopted November 19, 2014.https://www.saratoga.ca.us/DocumentCenter/View/45/ Housing-Element-2015---2023-Dated-November-2014-PDF).

5 Furthermore, the City is one of 10 cities that have been designated as age-friendly cities by the World Health Organization's Global Network of Age-Friendly Cities and Communities. Accessed November 8, 2019. https://www.agefriendlysiliconvalley.org/.

2.8 INTENDED USES OF THE EIR

The proposed project would require the discretionary approval of the City Planning Commission. This document evaluates potential environmental impacts associated with implementation of the proposed project and provides information regarding environmental effects of the proposed project. The EIR shall also serve to inform the public, decision makers, elected officials, and other stakeholders regarding the proposed project, and to solicit input on the nature and scope of potential environmental effects. The EIR provides City decision makers with a technically and legally adequate source of information to be used in the decision-making process in considering the proposed project.

CHAPTER 3
ENVIRONMENTAL ANALYSIS

Scope and Format of the EIR

This chapter of the Environmental Impact Report (EIR) discusses the environmental and regulatory setting, impacts, and mitigation measures for each of the sections of this chapter (Sections 3.1 through 3.17):

3.1 Aesthetics

3.2 Air Quality

3.3 Biological Resources

3.4 Cultural Resources

3.5 Energy

3.6 Geology and Soils

3.7 Greenhouse Gas Emissions

3.8 Hazards and Hazardous Materials

3.9 Hydrology and Water Quality

3.10 Land Use and Planning

3.11 Noise

3.12 Public Services and Safety

3.13 Recreation

3.14 Transportation and Circulation

3.15 Tribal Cultural Resources

3.16 Utilities and Service Systems

3.17 Wildfire

Technical Overview

A number of technical surveys and studies were prepared as part of this EIR effort, including the following:

- A biological reconnaissance survey was conducted to assess on-site habitats and their potential to support various special-status plant and wildlife species and to characterize and map on-site vegetation communities.
- A cultural resources reconnaissance survey was conducted to evaluate the potential for prehistoric or historic resources to be present on the site and within the area of potential effect or disturbance.
- A noise assessment technical report was conducted to evaluate the potential for noise effects of the project.

In addition to the above surveys, the traffic consultant Fehr & Peers, prepared a stand-alone transportation impact analysis (TIA) report for the project. Section 3.14, *Transportation and Circulation*, relies on the information included in that traffic report (refer to Appendix K).

Environmental Setting

According to subdivision (a) of Section 15125 of the California Environmental Quality Act (CEQA) Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the project as they exist at the time when the Notice of Preparation (NOP) is published. This "environmental setting" will normally constitute the "baseline condition" against which project-related impacts are compared. Therefore, the baseline conditions for this EIR, unless noted otherwise, are based on conditions that existed in February 2019, when the NOP was published.

In determining the level of significance of environmental impacts associated with the Palm Villas Saratoga Project (proposed project), the analysis in this EIR assumes that the proposed project would comply with relevant federal and state laws and regulations, City of Saratoga (City) General Plan policies, ordinances, and other relevant adopted City documents, unless otherwise noted. Therefore, such mandatory policies, ordinances, and standards are not identified as mitigation measures, but rather are discussed as part of the "Regulatory Setting" governing the proposed project.

Section Format

Each technical section in Chapter 3 begins with an introduction that explains the issues to be evaluated, and identifies the primary sources reviewed to prepare the analysis. The introduction is followed by a description of the project's environmental setting and regulatory setting as it pertains to a particular issue.

The regulatory setting provides a summary of applicable federal, state, and local regulations, plans, policies, and laws that are relevant to each issue area. The regulatory setting description in each section is followed by a discussion of project-specific impacts. The project-specific impacts discussion is followed by an analysis of the cumulative impacts of the project. This section addresses what the project's incremental contribution to any current cumulatively significant impact would be and identifies mitigation measures, if required. The impact statement is prefaced by a number for ease of identification. An explanation of each impact and an analysis of its significance follow each impact statement. All mitigation measures are identified immediately following the impact analysis. The degree to which the identified mitigation measure(s) would reduce the impact is also described. Compliance with applicable laws, policies, and City regulations is assumed and will be identified in the impact analysis. In many cases, compliance with applicable laws, policies, or regulations would reduce the significance of a potential impact; and thus will not be identified as a separate mitigation measure.

An example of an impact statement is shown below.

Impact 3.1-1: Would implementation of the proposed project expose sensitive receptors to substantial pollution concentrations? Based on the analysis below and with implementation of mitigation the impact is less than significant. (The significance finding is included in each impact statement).

A discussion of potential impacts of the proposed project is presented in paragraph form. The project-specific impacts associated with construction and operation of the project are evaluated and compared to the threshold of significance for the particular impact. The analysis discusses the applicable local, state, and federal laws and regulations that would reduce impacts, and assumes that the project would comply with applicable laws, ordinances, and regulations, and that the project applicant would obtain all necessary permits and comply with all required conditions of those permits. In many instances, the actions that are necessary to reduce a project impact are already required by existing laws or requirements. The impact analysis concludes with a determination of the impact's significance in **bold type** (e.g., **significant impact, significant and unavoidable impact, potentially significant impact, less-than-significant impact, or no impact)**.

Mitigation Measures

A discussion of the applicable mitigation measures identified to reduce the significance of an impact will immediately follow the impact analysis.

This section includes a statement indicating whether the mitigation measure will reduce the impact to a **less-than-significant level** or if the impact remains **significant and unavoidable** due to the absence of any available mitigation that could reduce the impact below the applicable threshold. A discussion of how the mitigation would reduce the impact is included before the mitigation measure.

Mitigation measures, if applicable, are numbered and presented in the following format.

MM-TOPIC-1: Statement of what, if any, mitigation measures are required.

Note that CEQA Guidelines, Section 15370, defines mitigation as:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree of magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

Cumulative Impacts

An analysis of cumulative impacts is included in Chapter 4, Other CEQA Considerations. As defined in CEQA Guidelines, Section 15355, cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project together with other past, present, and reasonably foreseeable projects causing related impacts.

An introductory statement that defines the cumulative analysis methodology and the cumulative context being analyzed for respective sections (e.g., buildout of the City's General Plan, development within the Air Basin) is included under the "Cumulative Analysis" discussion. In some instances, a project-specific impact may be considered less than significant, but would be considered potentially cumulatively significant in combination with other development within the surrounding area. Or, in some instances, a potentially significant impact could result on a project level, but would not result in a cumulatively considerable impact. The cumulative impacts analysis is presented in the same format as the impacts section, shown above.

Terminology Use in This EIR

This EIR uses the following terminology to describe environmental effects of the proposed project:

- **Thresholds of Significance:** A set of criteria used by the lead agency to determine at what level or "threshold" an impact would be considered significant. Standards of significance used in this EIR include those set forth in CEQA Guidelines Section 15065 (Mandatory Findings of Significance) and those derived from questions set forth in Appendix G to the CEQA Guidelines; criteria based on regulatory standards of local, state, and federal

agencies; and criteria based on goals and policies identified in the City's General Plan. In fashioning criteria based on these sources, City staff has also relied on its own professional judgment and experience in some instances. In determining the level of significance, the analysis assumes that the proposed project would comply with relevant federal, state, and local regulations and ordinances.

- **Less-than-Significant Impact:** A project impact is considered less than significant when it does not reach the standard of significance, indicating that there would be no substantial change in the environment. No mitigation is required for less-than-significant impacts.
- **Potentially Significant Impact:** A potentially significant impact is an environmental effect that could cause a substantial adverse change in the environment; however, additional information is needed regarding the extent of the impact to make the determination of significance. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.
- **Significant Impact:** A project impact is considered significant if it results in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects in the context of specified significance criteria. When available, potentially feasible mitigation measures and/or project alternatives are identified to avoid or reduce these effects to the environment.
- **Cumulative Impact:** According to CEQA, "cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines, Section 15355). CEQA requires that cumulative impacts be discussed when the "project's incremental effect is cumulatively considerable" (CEQA Guidelines, Section 15130 (a)).

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3.1 AESTHETICS

3.1.1 Introduction

This section of the EIR evaluates the potential impacts to the existing visual characteristics of the project site and vicinity that could result from the proposed project. The analysis focuses on the change in visual character, effects on views, and visual compatibility with surrounding uses and presents the environmental setting, regulatory framework, and proposes measures to mitigate any identified significant aesthetic impacts.

3.1.2 Environmental Setting

This section describes the existing conditions in the project area and identifies the resources that could be affected by the proposed project.

3.1.2.1 Regional Setting

The City of Saratoga (City) is located in the westerly portion of Santa Clara County just southwest of the major metropolitan City of San Jose and approximately 35 miles south of the City of San Francisco. The City is found at the southerly end of the San Francisco peninsula. The north, south, and easterly portions of the City are sited on a historic alluvial plain shared with the adjacent communities of Cupertino, San Jose, Los Gatos, and Monte Sereno. The topography of the City includes the low-lying relatively flat valley floor. The westerly portion occupies foothills of the Santa Cruz Mountains and is adjacent to unincorporated properties within Santa Clara County (County). The Castle Rock portions of the Santa Cruz Mountains are outside the City limits but within the City's Sphere of Influence. These mountains are very rugged, comprised of steep canyons and sharp to rounded ridge tops.

Major regional access to the City is provided by State Route (SR) 85, a six-lane freeway linking to US 280 to Cupertino, US 101 north to Mountain View, US 101 south to San Jose, and SR 17 to north San Jose and southwest to Santa Cruz County. Local roadways linking the City to surrounding communities include Saratoga-Los Gatos Road, Saratoga Avenue, Highway 9, and Saratoga-Sunnyvale Road.

3.1.2.2 Existing Project Site

The project site is composed of two vacant, undeveloped lots, composed of non-native grassland and ruderal vegetation; it is tall and green in the wet season and brown in the dry season (Figures 3.1-1 and 3.1-2). The project site is surrounded by professional offices, parking lots, and roadways on the northern and eastern boundaries. Beyond the professional offices, parking lots, and internal roadways is Saratoga Avenue. Riparian habitat and scattered native coast live oak trees (*Quercus agrifolia*) are located along the Saratoga Creek corridor to the west. The closest single-

family residential development is located on the opposite bank of Saratoga Creek to the west, and north of Cox Avenue to the north. To the south are undeveloped lots, beyond which are two-story multifamily (condominium) units.

3.1.2.3 Light and Glare

Nighttime lighting is necessary to provide and maintain safety and security. Light that falls beyond the intended area of illumination is referred to as “light trespass.” Types of light trespass include spillover light and glare. Spillover light, which is light that illuminates surfaces beyond the intended area, is typically caused by artificial lighting sources, such as from building security lighting, signs, parking lot lights, roadway lights, and stadium lights on playing fields. Spillover light can adversely affect light-sensitive uses, such as residential neighborhoods at nighttime. Because light dissipates as it moves farther from its source, the intensity of the lighting source is often increased to compensate for dissipating light, which can increase the amount of light that illuminates adjacent uses. The type of light fixture determines the extent to which light will spill over onto adjacent properties and/or be visible from far away. Modern, energy-efficient fixtures that face downward, such as cutoff-type fixtures and shielded light fixtures, are less obtrusive than light fixtures that have been used in the past.

The second type of light trespass is glare, which results when a light source in the field of vision is brighter than the eye can comfortably accept. Glare can result from sunlight or from artificial light reflecting off building exteriors, such as glass windows, metal roofs, or other highly reflective surface materials. Squinting or turning away from a light source is an indication of glare. Cutoff-type light fixtures minimize glare because they emit relatively low-intensity light at these angles. Glare resulting from sunlight reflecting off building exteriors can be reduced with design features that use low-reflective glass and exterior materials and colors that absorb, rather than reflect, light.

Existing Light and Glare Conditions

The project site is undeveloped and does not contain existing sources of light or glare. However, sources of light and glare are abundant in the surrounding urban environment of the project area (primarily to the north and east), including reflective building surfaces and windows, residential internal building lights, and security lights within adjacent commercial complexes and parking lots. Streetlights and vehicular headlights along Cox Avenue, Village Drive, and Saratoga Drive are also visible at night. The western boundary of the property is edged by Saratoga Creek and the southern boundary abuts undeveloped lots, and thus is not artificially lit.

View from Lot 1 - Facing Northeast

View from Lot 2 - Facing Northeast

View from Lot 1 and Existing Driveway (Saratoga Creek Drive) - Facing North

View from Lot 1 - Facing East (Lot 2 in middleground)

DUDEK

FIGURE 3.1-1
Site Aesthetics
Palm Villas Saratoga Project

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View from Lot 1 - Facing Southeast

View of Saratoga Creek

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FIGURE 3.1-2
Site Aesthetics
Palm Villas Saratoga Project

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3.1.3 Regulatory Setting

3.1.3.1 Federal Regulations

There are no federal regulations pertaining to visual resources that would apply to the proposed project.

3.1.3.2 State Regulations

California Scenic Highway Program

California's Scenic Highway Program was created by the legislature in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways (Caltrans 2018). The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. The State Scenic Highway System includes a list of highways that are either eligible for designation as Scenic Highways or have been so designated. County roads can also become part of the Scenic Highway System. To receive official designation, the county must follow the same process required for official designation of State Scenic Highways.

The California Department of Transportation designates State Scenic Highways. To be designated, highways must meet various criteria established in a visual assessment conducted and reviewed during the Scenic Highway's nomination process. Such a visual assessment includes an evaluation of the corridor's visual quality in terms of vividness, intactness, and unity. The four criteria used to determine whether a highway may be designated as scenic are as follows:

- The state or county highway consists of a scenic corridor composed of a memorable landscape that showcases the natural scenic beauty or agriculture of California.
- Its existing visual intrusions do not significantly impact the scenic corridor.
- It demonstrates strong local support for the proposed scenic highway designation.
- The length of the proposed scenic highway is not less than a mile and is not segmented.

Visual intrusions are evaluated in the following manner:

- The more pristine the natural landscape is and less affected by intrusions, the more likely the nominated highway will qualify as scenic.
- Where intrusions have occurred, the less impact they have on an area's natural beauty, the more likely the nominated highway will qualify as scenic.
- The extent to which intrusions dominate views from the highway will determine the significance of their impact on the scenic corridor.

Once the Scenic Highway designation is granted, a wide range of protections apply to the designated corridor.

3.1.3.3 Local Regulations

City of Saratoga General Plan

The Open Space and Conservation Element (City of Saratoga 2007a) and Land Use Element (City of Saratoga 2007b) of the City's 2040 General Plan provide objectives, policies, and programs regarding aesthetics. The City's General Plan does not identify any designated scenic vistas.

Relevant General Plan policies related to aesthetics are included below:

Open Space and Conservation Element

- **Policy OSC 2.1**: Ensure that all development proposals, public and private, are sensitive to the natural environment and the community's open space resources.
  - **OSC 2.a**: The City shall continue to use the design review process to ensure that all development proposals are sensitive to the natural environment and consistent with the existing character of the community which includes small town residential, rural/semi-rural areas and open spaces.
- **Policy OSC 5.7**: The City shall regulate developments along designated trails in order to provide sufficient trail right-of-way and ensure that development adjacent to the corridors does not detract from the scenic and aesthetic qualities of the corridor.

Goal OSC 7: Preserve and protect existing view sheds, view corridors, and scenic open spaces.

Goal OSC 11: Protect and enhance sensitive vegetative and wildlife habitat in the Saratoga Planning area.

- **Policy OSC 11.3**: The design of parking lots shall be evaluated for opportunities to reduce large continuous expanses of asphalt and to promote the establishment of visually interesting and aesthetically pleasing parking lots.
  - **OSC.11.a**: The City shall continue to utilize the design review and environmental review process for all development applications to ensure that projects are designed in a manner that minimizes disruption to important wildlife, riparian and plant habitats.

Land Use Element

Goal LU 1: Maintain the predominantly small-town residential character of Saratoga which includes semi-rural and open space areas.

- **LU.2.a**: When considering applications for nonresidential developments, the City shall continue to utilize the design review process to ensure consistency with Commercial and Office Land Use Goals and Policies.

Goal LU 5: Relate development proposals to existing and planned street capacities to avoid excessive noise, traffic, and other public safety hazards so as to protect neighborhoods. If it is determined that existing streets need to be improved to accommodate a project, such improvements shall be in place or bonded for prior to issuance of building permits.

- **Policy LU 5.2**: Development proposals shall be evaluated against City standards and guidelines to assure that the related traffic, noise, light, appearance, and intensity of the proposed use have limited adverse impact on the area and can be fully mitigated.
- **Policy LU 5.4**: Through the development review process, ensure that adjoining neighborhoods are protected from noise, light, glare and other impacts resulting from new or expanded non-residential developments

Goal LU 13: The City shall use the design review process to assure that new construction and major additions thereto are compatible with the site and the adjacent surroundings.

- **Policy LU 13.1**: Utilize the design review process and the California Environmental Quality Act in the review of proposed residential and non-residential projects to promote high quality design, to ensure compliance with applicable regulations, to ensure compatibility with surrounding properties and use, and to minimize environmental impacts. Special attention shall be given to ensuring compatibility between residential and non-residential uses (e.g., land use buffering).
- **Policy OSC 13.2**: When considering development proposals, including new construction, remodeling and/or additions to existing buildings, the city shall adhere to applicable adopted design guidelines, such as, but not limited to, the Residential Design Handbook, the Village Plan Design Guidelines and the Saratoga-Sunnyvale Road Gateway Guidelines, as may be adopted and revised by City Council from time to time.

City of Saratoga Municipal Code

Article 15-46 – Design Review: Multi-Family Dwellings and Commercial Structures

The Planning Commission shall not grant design review approval unless it is able to make the following findings:

a) Where more than one building or structure will be constructed, the architectural features and landscaping thereof shall be harmonious. Such features include height, elevations, roofs, material, color and appurtenances.

b) Where more than one sign will be erected or displayed on the site, the signs shall have a common or compatible design and locational positions and shall be harmonious in appearance.

c) Landscaping shall integrate and accommodate existing trees and vegetation to be preserved; it shall make use of water-conserving plants, materials and irrigation systems to the maximum extent feasible; and, to the maximum extent feasible, it shall be clustered in natural appearing groups, as opposed to being placed in rows or regularly spaced.

d) Colors of wall and roofing materials shall blend with the natural landscape and be nonreflective.

e) Roofing materials shall be wood shingles, wood shakes, tile, or other materials such as composition as approved by the Planning Commission. No mechanical equipment shall be located upon a roof unless it is appropriately screened.

f) The proposed development shall be compatible in terms of height, bulk and design with other structures in the immediate area.

3.1.4 Impacts

3.1.4.1 Methods of Analysis

The value attached to changes in visual character is largely subjective. This analysis does not assign a judgment of “good” or “bad” to a proposed change; rather, it identifies any “substantial adverse effect,” as defined below, as a significant environmental impact.

A description of the project site and the surrounding area was derived from desktop review, site visits, and photographs (see Figures 3.1-1 through 3.1-2 and Figures 2.1-1 through 2.1-6). In addition, the City’s General Plan (City of Saratoga 2007a, 2007b) and Residential Design Review Handbook (City of Saratoga 2014) were reviewed to determine what visual elements have been deemed valuable by the community.

3.1.4.2 Thresholds of Significance

The significance criteria used to evaluate the proposed project’s impacts to aesthetics are based on the recommendations provided in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. In accordance with Appendix G of the CEQA Guidelines, the project would have a significant impact on aesthetics if it would do any of the following (14 CCR 15000 et seq.):

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.
- Substantially degrade the existing visual character or quality of public views of the site and its surroundings.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.1.4.3 Impacts and Mitigation Measures

Impact 3.1-1: Would the project have a substantial adverse effect on a scenic vista?

The City does not have any officially designed scenic vistas. However, the General Plan's Open Space and Conservation Element does include goals and policies that emphasize the importance of preserving and protecting existing viewsheds, view corridors, and scenic open spaces.

The project site consists of approximately 1.3 acres of relatively level land at the end of Saratoga Creek Drive (a local roadway), approximately 150 feet south of the intersection of Saratoga Creek Drive and Cox Avenue. Other roadways in the vicinity include Village Drive, which is another local roadway to the east, Cox Avenue, which intersects Saratoga Creek Drive and is a two-lane collector road to the north, and Saratoga Avenue, which intersects Cox Avenue and is a five-lane arterial roadway to the east.

Figure 3.1-3A-D shows several viewpoints from intersections in the project area (Figures 3.1-3A and Figure 3.1-3B also show the approximate location of the proposed project).

The proposed project site slopes slightly to the northwest, with elevations ranging from approximately ~~298~~ 296.08 above mean sea level (msl) to 300.07 ~~at the southeastern corner of the site to 281~~ feet above ~~bove~~ msl ~~at the northwestern corner at Saratoga Creek~~. A portion of Saratoga Creek enters the subject property on its southwestern perimeter and crosses the site to the north along its western perimeter. Mature trees comprising a riparian zone line both sides of the creek on the project site. With the exception of Saratoga Creek, the areas surrounding the project site are similar in elevation.

The proposed project is not on a prominent ridgeline and has no significant natural vegetation of aesthetic value to the surrounding community.

Due to the proposed project site vicinity's distance from the Santa Cruz Mountains to the south and west, potential scenic views are limited to low ridgelines that occur on the distant horizon. These ridgelines constitute a small component of views that are available to motorists and visitors in the project area. Motorists and visitors travelling southwest on Village Drive have faraway views of the Santa Cruz Mountain ridgeline to the south. However, as noted above, landscaping and street trees restrict these distant views and present them as a low ridgeline background to the dominant views of office buildings and vacant open space.

The proposed project would replace the existing views of landscaping and native trees on the site with a view of the two proposed facility buildings and extensive landscaping throughout the subject property, similar to office development surrounding the project site.

A distant view of the Santa Cruz Mountains ridgeline is also available to the southwest from Saratoga Creek Drive. This street is a cul-de-sac that provides access to professional office buildings on this street and Cox Avenue, as well as access to the project site. Views to the southwest from Saratoga Creek Drive include office buildings and associated landscaping along the perimeter of parking lots adjacent to and serving these buildings. The existing view of the

project site from Saratoga Creek Drive would be replaced with a view of two buildings and associated landscaping.

Proposed street landscaping for the extension of Saratoga Creek Drive would result in future views of the site that are similar to existing views.

Thus, i~~I~~mpacts related to substantial adverse effects on a scenic vista would be **less than significant**.

DUDEK

SOURCE: Google Earth

FIGURE 3.1-3

Surrounding Area Key Map

Palm Villas Saratoga Project

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A - East View from De Havilland Dr. (Views of Lot 1 and 2 are screened by existing buildings, trees, vegetation, and separated by Saratoga Creek).

DUDEK

SOURCE: Dudek

FIGURE 3.1-3A

Surrounding Area Key Map: View A

Palm Villas Saratoga Project

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B - Southeast View from Cox Ave. down Saratoga Creek Dr. (Views of Lot 1 and Lot 2 are screened by existing trees, vegetation, and buildings.

DUDEK

SOURCE: Dudek

FIGURE 3.1-3B

Surrounding Area Key Map: View B

Palm Villas Saratoga Project

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C - Southeast View of Cox Ave. (no views of Lot 1 and Lot 2 from this location).

DUDEK

SOURCE: Dudek

FIGURE 3.1-3C

Surrounding Area Key Map: View C

Palm Villas Saratoga Project

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D - South View of Saratoga Ave. (no views of Lot 1 and Lot 2 from this location).

DUDEK

SOURCE: Dudek

FIGURE 3.1-3D

Surrounding Area Key Map: View D

Palm Villas Saratoga Project

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Mitigation Measures

None required.

Impact 3.1-2: Would the project substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

The project is approximately a half mile southwest of SR 85. A portion of Saratoga-Los Gatos Road, known as SR 9, is designated as a State Scenic Highway Corridor. SR 9 runs through the southern portion of the City and is approximately 3 miles from the project site. Skyline Boulevard, known as SR 35, is the only other highway in the region considered eligible for State Scenic Highway designation. It lies outside of the City limits. All of the roadway segments designated as Santa Clara County Scenic Highways are not visible from the project site, nor would they be adversely affected by the proposed project. Therefore, there are no state-designated Scenic Highways in the project vicinity and the project would not affect scenic resources within a State Scenic Highway. Furthermore, there are no rock outcroppings or historic buildings on the project site. The project would remove five trees in the center of the project site as they are situated within the right-of-way for the proposed extension of Saratoga Creek Drive (see Chapter 3.3 *Biological Resources* for more information on tree removal). The project would plant four trees along the new Saratoga Creek Drive and additional landscaping throughout the site. These replacement trees and additional vegetation would offset any potential visual impacts related to tree loss. Thus, impacts related to substantial damage to scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic would be **less than significant**.

Mitigation Measures

None required.

Impact 3.1-3: Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings?

During ~~demolition and~~ construction activities at the project site, viewers (primarily including motorists, visitors, and neighboring business owners and residents) would see construction equipment, ongoing ~~demolition and~~ construction activities, short-term stockpiles of building materials and debris, and haul trucks delivering building materials and removing debris. This visual change would be typical of construction sites in an urban environment and would be temporary in nature. Additionally, it should be noted that the site is well-buffered from outside views by existing landscaping and intervening development, which would help screen the views of the construction activity.

The existing visual character of the project site is of an undeveloped grassland surrounded by single story, low density, urban development. Implementation of the project would alter views of the project site by adding two (2) two-story buildings, on either side of the Saratoga Creek Avenue extension. Building 1 would be a 15,066~~214~~ square foot (sf), two-story building and an 8,419~~516~~ sf underground basement level, with a total floor area of 23,485~~730~~ sf. Building 2 would be a 9,141~~318~~ sf, two-story building and a 5,254~~415~~ sf underground basement level, with a total floor area of 14,395~~733~~ sf. Commercial buildings to the north and east are all one story; the proposed buildings would represent an increase in height and massing compared to the development in the immediate surroundings. However, both buildings would include sizable front, side, and rear setbacks to create a buffer from nearby development. Furthermore, the height and square footage are consistent with the Professional and Administrative zoning designation.

The two proposed buildings would be constructed of natural materials (horizontal wood siding, cedar shingles with grey paint, and stone wainscot) reflecting a craftsman architectural style. The rustic architecture and color palette are designed to integrate with the wooded backdrop of Saratoga Creek. Consistent with ~~Saratoga~~ City Municipal Code 15-18.100, the project would include a 6-foot-high cedar fence topped with latticing between Building 2 and adjacent parking lot and landscaping to ensure privacy and noise insulation. The proposed lines, color, texture, and night lighting included in the project design are compatible with development in the project vicinity.

The project would have a circular driveway in front of Building 1 to allow for drop-off, emergency vehicles, and off-street loading. Associated trucks and cars would be visible from Saratoga Creek Drive and Village Drive. The intermittent presence of large trucks in the driveway would not have a substantial adverse effect on the existing visual character, as trucks and other vehicles are already constantly present on Cox Avenue, Saratoga Creek Drive, and Village Drive.

Although the project would change the visual character in the immediate vicinity of the project site, this change is in keeping with surrounding land uses and would not degrade the visual character or quality of the site and its surroundings. Impacts related to substantial degradation of the existing visual character or quality of public views of the site and its surroundings would be **less than significant**.

Mitigation Measures

None required.

Impact 3.1-4: Would the project potentially create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project site is undeveloped and does not contain sources of existing light or glare. However, the project is located in an area that is already subject to ambient lighting from existing adjacent uses. Consistent with existing conditions, the extension of Saratoga Creek Drive and construction of the proposed project buildings would introduce new sources of exterior light sufficient to provide visibility and safety to occupants and visitors. Proposed landscaping and fencing would provide additional screening from potential light spillover. Proposed exterior lighting for new buildings would conform to the design standards stipulated during the City's design review process, which would ensure that project lighting would be consistent with existing conditions and not significantly adversely affect adjacent properties. At a minimum, all light fixtures would be shielded to direct light downwards and minimize light spillover onto surrounding properties (refer to Appendix L, Sheet A-1.3, Lighting Plan). Therefore, impacts related to the project creating new sources of substantial light or glare affecting day or nighttime views, would be **less than significant**.

Mitigation Measures

None required.

3.1.5 References

Caltrans. 2018. "The California Scenic Highway Program." http://www.dot.ca.gov/dist3/departments/mtce/scenic.htm.

City of Saratoga. 2007a. *Open Space and Conservation Element 2007*. Adopted June 6, 2007. https://www.saratoga.ca.us/DocumentCenter/View/49/Open-Space-and-Conservation-Element-Dated-June-6-2007-PDF.

City of Saratoga. 2007b. *City of Saratoga General Plan: Land Use Element*. Adopted June 6, 2007.

City of Saratoga. 2014. *Single-Family Residential Design Review Handbook.* Adopted February 19, 2014. https://www.saratoga.ca.us/DocumentCenter/View/88/Residential-Design-Review-Handbook-PDF?bidId=.

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3.2 AIR QUALITY

3.2.1 Introduction

This section of the EIR describes the potential impacts on air quality and contribution to regional air quality conditions, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The analysis is based on the Air Quality and Greenhouse Gas Emissions Analysis Technical Report for the Palm Villas Saratoga Project prepared by Dudek, which is included as Appendix B.

3.2.2 Environmental Setting

3.2.2.1 Meteorological and Topographical Conditions

The project site is located within the boundaries of the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB encompasses all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, as well as the southern portions of Solano and Sonoma Counties.

Air pollutants are emitted by a variety of sources, including mobile sources (vehicles), area sources (hearths, consumer product use, architectural coatings, and landscape maintenance equipment), energy sources (natural gas), and stationary sources (generators or other stationary equipment). Some air pollutants need to be examined at the local level, and others are predominantly an issue at the regional level. For instance, ozone (O_3) is formed in the atmosphere in the presence of sunlight by a series of chemical reactions involving oxides of nitrogen (NO_x) and reactive organic gas (ROG) (also termed volatile organic compounds). Because these reactions are broad-scale in effects, O_3 is typically analyzed at the regional level (i.e., in the SFBAAB) rather than the local level. On the other hand, air pollutants such as coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), carbon monoxide (CO), and toxic air contaminants (TACs) are a potential concern in the immediate vicinity of the pollutant source because the pollutants are emitted directly by or are formed close to the source. Therefore, the study area for emissions of PM_{10}, $PM_{2.5}$, CO, and TACs would be the local area near the source, such as in the vicinity of the project site, and the study area for regional pollutants such as NO_x and ROGs would be the entire SFBAAB.

Regional Climatology

Air quality is a function of the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features that influence pollutant movement and dispersal. Atmospheric conditions such as wind speed, wind direction, atmospheric stability, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, and consequently affect air quality.

The climate of the SFBAAB is determined largely by a high-pressure system that is usually present over the eastern Pacific Ocean off the west coast of North America. During winter, the Pacific high-pressure system shifts southward, allowing more storms to pass through the region. During summer and early fall, when few storms pass through the region, emissions generated within the San Francisco Bay Area can combine with abundant sunshine under the restraining influences of topography and subsidence inversions to create conditions that are conducive to the formation of photochemical pollutants, such as O_3, and secondary particulates, such as nitrates and sulfates.

In the SFBAAB, temperature inversions can often occur during the summer and winter months. An inversion is a layer of warmer air over a layer of cooler air that traps and concentrates pollutants near the ground. As such, the highest air pollutant concentrations in the SFBAAB generally occur during inversions (BAAQMD 2017a). The project site is located in the Santa Clara Valley climatological subregion. Specific conditions for the subregion are described in the Bay Area Air Quality Management District's (BAAQMD) California Environmental Quality Act Air Quality Guidelines (BAAQMD 2017a). The air pollution potential of the Santa Clara Valley is high. Warm summer temperatures, stable air, and mountains surrounding the valley combine to promote O_3 formation. In addition to the many local sources of pollution, O_3 precursors from San Francisco, San Mateo, and Alameda Counties are carried by prevailing winds into the Santa Clara Valley. The valley tends to channel pollutants to the southeast. In addition, on summer days with low level inversions, O_3 can be recirculated by southerly drainage flows in the late evening and early morning and by the prevailing northwesterly winds in the afternoon. A similar recirculation pattern occurs in the winter, affecting levels of CO and particulate matter. This movement of the air up and down the valley significantly increases the impact of the pollutants (BAAQMD 2017a).

3.2.2.2 Pollutants and Effects

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, nitrogen dioxide (NO_2), CO, sulfur dioxide (SO_2), PM_{10}, $PM_{2.5}$, and lead. These pollutants, as well as TACs, are discussed in the following paragraphs.[1] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

[1] The descriptions of the criteria air pollutants and associated health effects are based on the U.S. Environmental Protection Agency's "Criteria Air Pollutants" (EPA 2018a), as well as the California Air Resources Board's "Glossary" (CARB 2019a) and "Fact Sheet: Air Pollution Sources, Effects and Control" (CARB 2009).

Ozone

O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors. These precursors are mainly NO_x and ROG. The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere O_3 layer (stratospheric O_3) and at Earth's surface in the lower atmosphere (tropospheric O_3).[2] The O_3 that the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

O_3 in the troposphere (i.e., ground-level) causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013).

Inhalation of O_3 causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms. Exposure to O_3 can reduce the volume of air that the lungs breathe in, thereby causing shortness of breath. O_3 in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. The occurrence and severity of health effects from O_3 exposure vary widely among individuals, even when the dose and the duration of exposure are the same. Research shows adults and children who spend more time outdoors participating in vigorous physical activities are at greater risk from the harmful health effects of O_3 exposure.

Nitrogen Dioxide and Oxides of Nitrogen

NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide, which is a colorless, odorless gas. NO_x, which includes NO_2 and nitric oxide, plays a major role, together with ROG, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion

[2] The troposphere is the layer of Earth's atmosphere nearest to the surface of Earth, extending outward approximately 5 miles at the poles and approximately 10 miles at the equator.

under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources of NO_x are transportation and stationary fuel combustion sources (such as electric utility and industrial boilers).

A large body of health science literature indicates that exposure to NO_2 can induce adverse health effects. The strongest health evidence, and the health basis for the ambient air quality standards (AAQS) for NO_2, results from controlled human exposure studies that show that NO_2 exposure can intensify responses to allergens in allergic asthmatics. In addition, a number of epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration.

Carbon Monoxide

CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

CO is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion and reduced mental alertness, light-headedness, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB 2019d).

Sulfur Dioxide

SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels.

Controlled human exposure and epidemiological studies show that children and adults with asthma are more likely to experience adverse responses with SO_2 exposure, compared with the non-asthmatic population. Effects at levels near the 1-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath, and chest tightness, especially during exercise or physical activity. Also, exposure at elevated levels of SO_2 (above 1 parts per million [ppm]) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality. The elderly and people with cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most likely to experience these adverse effects (CARB 2019e).

Particulate Matter

Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Coarse particulate matter (PM_{10}) is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter ($PM_{2.5}$) is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides, NO_x, and ROG.

A number of adverse health effects have been associated with exposure to both $PM_{2.5}$ and PM_{10}. For $PM_{2.5}$, short-term exposures (up to 24-hour duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. In addition, of all of the common air pollutants, $PM_{2.5}$ is associated with the greatest proportion of adverse health effects related to air pollution, both in

the United States and worldwide based on the World Health Organization's Global Burden of Disease Project. Short-term exposures to PM_{10} have been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits (CARB 2017).

Long-term exposure (months to years) to $PM_{2.5}$ has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children. The effects of long-term exposure to PM_{10} are less clear, although several studies suggest a link between long-term PM_{10} exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer (CARB 2017).

Lead

Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phase out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and, in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood, because children are highly susceptible to the effects of lead. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth.

Sulfates

Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO_2 in the atmosphere. Sulfates can result in respiratory impairment, as well as reduced visibility.

Vinyl Chloride

Vinyl chloride is a colorless gas with a mild, sweet odor, which has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air can cause nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

Hydrogen Sulfide

Hydrogen sulfide is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of hydrogen sulfide include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to hydrogen sulfide can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

Visibility-Reducing Particles

Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism. Sources of visibility-reducing particles are the same as for $PM_{2.5}$ described above.

Reactive Organic Gases

Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as ROGs. Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the main sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of ROGs result from the formation of O_3 and its related health effects. High levels of ROGs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for ROGs as a group.

Non-Criteria Air Pollutants

Toxic Air Contaminants

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the state of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics “Hot Spots” Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an

assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter

Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70 the diameter of a human hair), and thus is a subset of $PM_{2.5}$ (CARB 2019f). DPM is typically composed of carbon particles (soot, also called black carbon) and numerous organic compounds, including over 40 known carcinogenic organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2019f). In August 1998, CARB classified “particulate emissions from diesel-fueled engines” (i.e., DPM) (17 CCR 93000) as a TAC. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars and off-road diesel engines including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same noncancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2019f). Those most vulnerable to noncancer health effects are children, whose lungs are still developing, and the elderly, who often have chronic health problems.

Odorous Compounds

Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person’s reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may

have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

3.2.2.3 Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Children, pregnant women, older adults, and people with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, sensitive-receptor population groups are likely to be located at land uses such as hospitals, medical clinics, schools, playgrounds, childcare centers, residences, and retirement homes (BAAQMD 2017a). There are existing residences in all directions of the project site, with the nearest at approximately 100 feet to the west of the project boundary, across Saratoga Creek.

3.2.3 Regulatory Setting

3.2.3.1 Federal Regulations

Criteria Air Pollutants

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the Clean Air Act, including setting National Ambient Air Quality Standards (NAAQS) for major air pollutants; setting hazardous air pollutant (HAP) standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric O_3 protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the public. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants

The 1977 federal Clean Air Act amendments required the EPA to identify national emission standards for hazardous air pollutants to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

3.2.3.2 State Regulations

Criteria Air Pollutants

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before an air basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, and $PM_{2.5}$ and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 3.2-1.

Table 3.2-1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary*[c,d]	*Secondary*[c,e]
O_3	1 hour	0.09 ppm (180 μg/m³)	—	Same as primary standard[f]
	8 hours	0.070 ppm (137 μg/m³)	0.070 ppm (137 μg/m³)[f]	
NO_2[g]	1 hour	0.18 ppm (339 μg/m³)	0.100 ppm (188 μg/m³)	Same as primary standard
	Annual arithmetic mean	0.030 ppm (57 μg/m³)	0.053 ppm (100 μg/m³)	
CO	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	None
	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
SO_2[h]	1 hour	0.25 ppm (655 μg/m³)	0.075 ppm (196 μg/m³)	—
	3 hours	—	—	0.5 ppm (1,300 μg/m³)
	24 hours	0.04 ppm (105 μg/m³)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—

Table 3.2-1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary*[c,d]	*Secondary*[c,e]
PM_{10}[i]	24 hours	50 μg/m³	150 μg/m³	Same as primary standard
	Annual arithmetic mean	20 μg/m³	—	
$PM_{2.5}$[i]	24 hours	—	35 μg/m³	Same as primary standard
	Annual arithmetic mean	12 μg/m³	12.0 μg/m³	15.0 μg/m³
Lead[j,k]	30-day average	1.5 μg/m³	—	—
	Calendar quarter	—	1.5 μg/m³ (for certain areas)[k]	Same as primary standard
	Rolling 3-month average	—	0.15 μg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 μg/m³)	—	—
Vinyl chloride[j]	24 hours	0.01 ppm (26 μg/m³)	—	—
Sulfates	24- hours	25 μg/m³	—	—
Visibility reducing particles	8 hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70%	—	—

Source: CARB 2016.

Notes: O_3 = ozone; ppm = parts per million by volume; μg/m³ = micrograms per cubic meter; NO_2 = nitrogen dioxide; CO = carbon monoxide; mg/m³= milligrams per cubic meter; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; PST = Pacific Standard Time.

a California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, suspended particulate matter (PM_{10}, $PM_{2.5}$), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m³ is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

c Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

d National primary standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

e National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

f On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

g To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

h On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated

for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

i On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM_{10} standards (primary and secondary) of 150 $\mu g/m^3$ were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.

j CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

k The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807 (Tanner). The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. In 1987, the Legislature enacted the Air Toxics “Hot Spots” Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years. TAC emissions from individual facilities are quantified and prioritized. “High-priority” facilities are required to perform a health risk assessment (HRA), and if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

California Health and Safety Code Section 41700

Section 41700 of the Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

3.2.3.3 Local Regulations

Bay Area Air Quality Management District

The BAAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the SFBAAB, where the project site is located. The clean air strategy of the BAAQMD includes the preparation of plans for the attainment of

ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the federal and California Clean Air Acts.

On April 19, 2017, the BAAQMD adopted the Spare the Air – Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area Final 2017 Clean Air Plan (2017 Clean Air Plan) (BAAQMD 2017b). The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the 2017 Clean Air Plan includes all feasible measures to reduce emissions of O_3 precursors (ROG and NO_x) and reduce O_3 transport to neighboring air basins. In addition, the 2017 Clean Air Plan builds on BAAQMD efforts to reduce $PM_{2.5}$ and TACs. To protect the climate, the 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas (GHG) reduction targets for 2030 and 2050, and provides a regional climate protection strategy that will put the San Francisco Bay Area on a pathway to achieve those GHG reduction targets.

BAAQMD establishes and administers a program of rules and regulations to attain and maintain state and national air quality standards and regulations related to TACs. The following BAAQMD rules and regulations may apply to the project:

- **Regulation 2, Rule 1 – Permits.** This rule specifies the requirements for authorities to construct and permits to operate.
- **Regulation 6, Rule 1 – General Requirements.** This rule limits the quantity of particulate matter in the atmosphere through the establishment of limitations on emission rates, concentration, visible emissions, and opacity.
- **Regulation 6, Rule 3 – Wood-Burning Devices.** This rule limits the emissions of particulate matter and visible emissions from wood-burning devices used for primary heat, supplemental heat, or ambiance.
- **Regulation 6, Rule 6 – Prohibition of Trackout.** This rule addresses fugitive road dust emissions associated with trackout of solid materials onto paved public roads outside the boundaries of large bulk material sites, large construction sites and large disturbed surface sites (sites of 1 acre or more), and large disturbed surface sites.
- **Regulation 8, Rule 1 – General Provisions.** This rule limits the emission of organic compounds into the atmosphere.
- **Regulation 8, Rule 3 – Architectural Coatings.** This rule limits the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the BAAQMD.

- **Regulation 8, Rule 15 – Emulsified and Liquid Asphalts.** This rule limits the emissions of volatile organic compounds caused by the use of emulsified and liquid asphalt in paving materials and paving and maintenance operations.

City of Saratoga General Plan

Policies pertaining to improving air quality are addressed in multiple chapters of the City's General Plan. The Open Space and Conservation Element (City of Saratoga 2007a) and Land Use Element (City of Saratoga 2007b) of the City's General Plan provides objectives, policies, and programs regarding air quality. Trip reduction strategies are addressed in the Circulation and Scenic Highway Element (City of Saratoga 2010). To reduce vehicle traffic and congestion within Saratoga, the Circulation Element and Scenic Highway Element includes policies to encourage the use of alternative forms of transportation and strategies including promoting bicycling, walking, and transit use.

Relevant General Plan policies related to air quality are included below:

Open Space and Conservation Element

Goal OSC 15: Improve local and regional air quality by ensuring that all development projects incorporate all feasible measures to reduce air pollutants.

- **Policy OSC 15.1:** Require development projects to comply with BAAQMD measures to reduce dust emissions due to grading and construction activities.
- **Policy OSC 15.2:** Encourage use of trip demand measures as part of major commercial and office development projects to reduce dependence on automobile use.

Land Use Element

The following goals and policies from the Land Use Element of the City's General Plan are relevant to the proposed project (City of Saratoga 2007b):

Goal LU 15: Improve local and regional air quality by ensuring all development projects incorporate all feasible measures to reduce air pollutants.

- **Policy LU 15.3:** Discourage the use of wood burning fireplaces by limiting to one per residence, including outdoor/patio fireplaces.

San Francisco Bay Area Air Basin Attainment Designation

Pursuant to the 1990 federal Clean Air Act amendments, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard,

the area is classified as "nonattainment" for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to be meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are re-designated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, called for the designation of areas as "attainment" or "nonattainment," but based on CAAQS rather than the NAAQS. Table 3.2-2 depicts the current attainment status of the project site with respect to the NAAQS and CAAQS.

Table 3.2-2
State and Federal Ambient Air Quality Standards and Attainment Status

Pollutant	Averaging Time	California Standards[a]		National Standards[b]	
		Standard	*Attainment Status*	*Standard*	*Attainment Status*
Ozone (O_3)	1 hour	0.09 ppm	N	NA	NA
	8 hour	0.07 ppm	N	0.070 ppm	N/Marginal[c]
Carbon Monoxide (CO)	1 hour	20 ppm	A	35 ppm	A
	8 hour	9 ppm	A	9 ppm	A
Nitrogen Dioxide (NO_2)	1 hour	0.18 ppm	A	0.100 ppm	U
	Annual	0.030 ppm	NA	0.053 ppm	A
Sulfur Dioxide (SO_2)	1 hour	0.25 ppm	A	0.075 ppm	A
	24 hour	0.04 ppm	A	0.14 ppm	A
	Annual	NA	NA	0.03 ppm	A
Course Particulate Matter (PM_{10})	24 hour	50 µg/m^3	N	150 µg/m^3	U
	Annual	20 µg/m^3	N	NA	NA
Fine Particulate Matter ($PM_{2.5}$)	24 hour	NA	NA	35 µg/m^3	N[d]
	Annual	12 µg/m^3	N	12 µg/m^3	U/A[e]
Sulfates	24 hour	25 µg/m^3	A	NA	NA
Lead	30 day	1.5 µg/m^3	NA	NA	A
	Cal. Quarter	NA	NA	1.5 µg/m^3	A
	Rolling 3-Month Average	NA	NA	0.15 µg/m^3	U/A
Hydrogen Sulfide	1 hour	0.03 ppm	U	NA	NA
Visibility-Reducing Particles	8 hour	See Note "f"	U	NA	NA

Source: BAAQMD 2017c; CARB 2018 (state); EPA 2018b (federal).
Notes: ppm = parts per million by volume; N = Nonattainment; NA = Not Applicable (no applicable standard); A = Attainment; µg/m^3 = micrograms per cubic meter; U = Unclassified.

a California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, suspended particulate matter (PM_{10}, $PM_{2.5}$), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour, or 24-hour average (i.e., all standards except for lead and the PM_{10} annual standard), then some measurements can be excluded. In particular, measurements are excluded that the California Air Resources Board determines would occur less than once per year on the average.

b National standards shown are the "primary standards" designed to protect public health. National Ambient Air Quality Standards (NAAQS) (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged

over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over 3 years, is equal to or less than 0.070 ppm. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the O_3 level in the area.

[d] On January 9, 2013, the EPA issued a final rule to determine that the San Francisco Bay Area attains the 24-hour $PM_{2.5}$ national standard. This EPA rule suspends key State Implementation Plan requirements as long as monitoring data continues to show that the San Francisco Bay Area attains the standard. Despite this EPA action, the San Francisco Bay Area will continue to be designated as "nonattainment" for the national 24-hour $PM_{2.5}$ standard until such time as the BAAQMD submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation.

[e] In December 2012, the EPA strengthened the annual $PM_{2.5}$ NAAQS from 15.0 to 12.0 µg/m^3. In December 2014, EPA issued final area designations for the 2012 primary annual $PM_{2.5}$ NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

[f] Statewide visibility-reducing particle standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70%. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

In summary, the SFBAAB is designated as a nonattainment area for federal and state O_3 and $PM_{2.5}$ standards. The SFBAAB is also designated as a nonattainment area for the state PM_{10} standards. The SFBAAB is designated as "unclassified" or "attainment" for all other criteria air pollutants.

Local Ambient Air Quality

BAAQMD monitors local ambient air quality. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Table 3.2-3 presents the most recent background ambient air quality data from 2015 to 2017. The nearest air quality monitoring station to the project site is the Los Gatos monitoring station, located at 306 University Avenue, Los Gatos, California 95030, approximately 4.1 miles to the southeast of the project site. However, because the Los Gatos station only monitors O_3, additional measurements were taken from the San Jose Jackson Street monitoring station (158 E Jackson Street, San Jose, California, 95112, approximately 7.5 miles to the northeast of the project site). The data collected at these stations are considered generally representative of the air quality experienced in the project vicinity. Table 3.2-3 also shows the number of days exceeding the ambient air quality standards.

Table 3.2-3
Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2015	*2016*	*2017*	*2015*	*2016*	*2017*
Ozone (O_3)										
Los Gatos	ppm	Maximum 1-hour concentration	State	0.09	0.100	0.091	0.093	1	0	0
	ppm	Maximum 8-hour concentration	State	0.070	0.084	0.066	0.076	5	0	3
			Federal	0.070	0.084	0.065	0.075	4	0	3
San Jose Jackson Street	ppm	Maximum 1-hour concentration	State	0.09	0.094	0.087	0.121	0	0	3
	ppm	Maximum 8-hour concentration	State	0.070	0.081	0.067	0.099	2	0	4
			Federal	0.070	0.081	0.066	0.098	2	0	4
Nitrogen Dioxide (NO_2)										
San Jose Jackson Street	ppm	Maximum 1-hour concentration	State	0.18	0.049	0.051	0.067	0	0	0
			Federal	0.100	0.0493	0.0511	0.0675	0	0	0
	ppm	Annual concentration	State	0.030	0.012	0.011	ND	—	—	—
			Federal	0.053	—	—	—	—	—	—
Carbon Monoxide (CO)										
San Jose Jackson Street	ppm	Maximum 1-hour concentration	State	20	—	—	—	—	—	—
			Federal	35	2.4	1.9	2.1	0	0	0
	ppm	Maximum 8-hour concentration	State	9.0	—	—	—	—	—	—
			Federal	9	1.8	1.4	1.8	0	0	0
Sulfur Dioxide (SO_2)										
San Jose Jackson Street	ppm	Maximum 1-hour concentration	Federal	0.075	0.0031	0.0018	0.0036	0	0	0
	ppm	Maximum 24-hour concentration	Federal	0.14	0.0011	0.0008	0.0011	0	0	0
	ppm	Annual concentration	Federal	0.030	0.0003	0.00019	0.0002[a]	0	0	0
Coarse Particulate Matter (PM_{10})[b]										
San Jose Jackson Street	μg/m³	Maximum 24-hour concentration	State	50	58.0	41.0	69.8	3.0 (1)	0.0 (0)	19.2 (6)
			Federal	150	58.8	40.0	69.4	0.0 (0)	0.0 (0)	0.0 (0)
	μg/m³	Annual concentration	State	20	21.9	18.3	21.3	—	—	—

Table 3.2-3
Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2015	*2016*	*2017*	*2015*	*2016*	*2017*
Fine Particulate Matter ($PM_{2.5}$)[b]										
San Jose Jackson Street	μg/m³	Maximum 24-hour concentration	Federal	35	49.4	22.6	49.7	2.1 (2)	0.0 (0)	6.0 (6)
	μg/m³	Annual concentration	State	12	10.6	8.4	ND	—	—	—
			Federal	12.0	9.9	8.3	9.5	—	—	—

Sources: CARB 2019g; EPA 2018c.
Notes: ppm = parts per million by volume; ND = insufficient data available to determine the value; — = not available; μg/m³ = micrograms per cubic meter. Data taken from CARB iADAM (http://www.arb.ca.gov/adam) and EPA AirData (http://www.epa.gov/ airdata/) represent the highest concentrations experienced over a given year.
Exceedances of federal and state standards are only shown for O_3 and particulate matter. Daily exceedances for particulate matter are estimated days because PM_{10} and $PM_{2.5}$ are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour O_3, annual PM_{10}, or 24-hour SO_2. There is no state 24-hour standard for $PM_{2.5}$.
Los Gatos Monitoring Station is located at 306 University Avenue, Los Gatos, California 95030.
San Jose Jackson Street Monitoring Station is located at 158 E Jackson Street, San Jose, California, 95112.
[a] Mean does not satisfy minimum data completeness criteria.
[b] Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

3.2.4 Impacts and Mitigation Measures

3.2.4.1 Methods of Analysis

Construction Emissions

Emissions from the construction phase of the proposed project were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. Construction scenario assumptions - including phasing, equipment mix, and vehicle trips - were based on information provided by the project applicant and CalEEMod default values when project specifics were not known.

For purposes of estimating project emissions, and based on information provided by the project applicant, proposed construction would begin in April 2020 and last 15 months. The analysis contained herein is based on the following assumptions (duration of phases is approximate):

- Site Preparation: 11 days
- Grading: 2 months
- Paving: 1 month
- Building Construction: 1 year
- Application of Architectural Coatings: 1 year

Construction worker estimates and vendor truck trips by construction phase were based on CalEEMod default values. Haul truck trips during the grading phase were based on project applicant-provided earthwork quantities. Grading is estimated to involve 6,240 cubic yards of cut and 100 cubic yards of fill, resulting in 6,140 net cubic yards of soil for export. Assuming a haul truck capacity of 16 cubic yards per truck, earth-moving activities would result in approximately 384 round trips (768 one-way truck trips) during the grading phase. CalEEMod default trip length values were used for the distances for worker and vendor trips, but were increased to 30 miles per one-way trip for haul trucks per applicant input. Fugitive dust generated during truck loading is included in CalEEMod as an on-site source of fugitive dust emissions and is calculated based on estimated throughput of loaded and unloaded material.

Table 3.2-4 shows the construction equipment mix and vehicle trips used for estimating the project-generated construction emissions. For the analysis, it was generally assumed that heavy construction equipment would be operating at the site 5 days per week (22 days per month) during project construction.

Table 3.2-4
Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Usage Hours*
Site Preparation	5	0	0	Graders	1	8
				Tractors/loaders/backhoes	1	8
Grading	13	0	768	Concrete/industrial saws	1	8
				Rubber-tired dozers	1	1
				Tractors/loaders/backhoes	2	6
				Trencher	1	4
Paving	18	0	0	Cement and mortar mixers	4	6
				Pavers	1	7
				Rollers	1	7
				Tractors/loaders/backhoes	1	7
Building Construction	44	10	0	Cranes	1	4
				Forklifts	2	6
				Tractors/loaders/backhoes	2	8
Architectural Coating	9	0	0	Air compressors	1	6

Notes: See Appendix B-2 for details.

Operational Emissions

Emissions from the operational phase of the proposed project were estimated using CalEEMod Version 2016.3.2. Year 2022 was assumed as the first full year of operations after completion of construction.

Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating, water heating, and stoves are calculated in the building energy use module of CalEEMod, as described in the following text. For hearths, it was assumed that there would be one natural gas fireplace in each of the two building living spaces. An expanded description of area sources is available in the Air Quality and Greenhouse Gas Emission Analysis Technical Report, included in Appendix B.

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage (non-hearth). Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for GHGs in CalEEMod, since criteria pollutant emissions occur at the site of the power plant, which is typically off site.

CalEEMod default values for energy consumption for each land use were applied for the project analysis.

Mobile Sources

Mobile sources for the proposed project would primarily be motor vehicles (automobiles and light-duty trucks) traveling to and from the project site. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. The anticipated trip generation, including the trip rates and total trips, are based on the Palm Villas Saratoga Draft Transportation Impact Analysis prepared by Fehr and Peers (2019). Specifically, the project would generate 362 daily trips, with an average trip length of 8 miles, for a total of approximately 2,900 vehicle-miles traveled per day (Fehr and Peers 2019). CalEEMod default data—including temperature, trip characteristics, variable start information, and emissions factors—were conservatively used for the model inputs to estimate daily emissions from proposed vehicular sources. Project-related traffic was assumed to include a mixture of vehicles in accordance with the model outputs for traffic. Emission factors representing the vehicle mix and emissions for 2022 were used to estimate emissions associated with full buildout of the project.

Stationary Sources

The proposed project would include a natural gas emergency generator on the rooftop of each building. The two generators would be a GENERAC Protector Series RG045 (45 kilowatt) or similar and a GENERAC Protector Series RG030 (30 kilowatt) or similar, respectively. Emissions associated with operations of the generators were estimated for the routine testing and maintenance of the natural gas emergency generators, assuming up to 1 hour of operation per day and up to 50 hours of operation per year. The CalEEMod default load factor 0.73 was applied to each emergency generator.

Health Risk Assessment

An HRA was performed to evaluate potential health risk associated with construction and operations of the proposed project. The following discussion summarizes the dispersion modeling and HRA methodology; supporting documentation, including detailed assumptions, is presented in Appendix B-3.

For short-term construction, a dispersion modeling analysis was conducted of DPM emitted from diesel vehicles and construction equipment on the proposed project site for the HRA to assess the health risk impacts of the project's construction on proximate off-site sensitive receptors. Additionally, a separate dispersion modeling analysis was conducted of TACs emitted by the natural gas emergency generators to be located at the proposed project. The dispersion modeling was performed using the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) Version 18081, which is the EPA-approved and BAAQMD-recommended model for atmospheric dispersion of emissions. Refer to Appendix B for an expanded description on dispersion modeling.

3.2.4.2 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts to air quality is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this air quality analysis, a significant impact would occur if the project would do any of the following (14 CCR 15000 et seq.):

- Conflict with or obstruct implementation of the applicable air quality plan.
- 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.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the project would have a significant impact on air quality. In June 2010, the BAAQMD adopted its updated CEQA Air Quality Guidelines, including new thresholds of significance (BAAQMD 2010), and revised them in May 2011 (BAAQMD n.d.). The guidelines advise lead agencies on how to evaluate potential air quality impacts, including establishing quantitative and qualitative thresholds of significance. The BAAQMD resolutions adopting and revising the significance thresholds in 2011 were set aside by a judicial writ of mandate on March 5, 2012. In May 2012, the BAAQMD updated its CEQA Air Quality Guidelines to continue to provide direction on recommended analysis methodologies, but without recommended quantitative significance thresholds (BAAQMD 2012). On August 13, 2013, the First District Court of Appeal ordered the trial court to reverse the judgment and upheld the BAAQMD's CEQA thresholds. In May 2017, the BAAQMD CEQA Air Quality Guidelines were re-released, and include the same thresholds as in the 2010 and 2011 guidelines for criteria air pollutants, TACs, and GHGs (BAAQMD 2017a). These thresholds are based on substantial evidence identified in BAAQMD's Revised Draft Options and Justification Report (BAAQMD 2009) and are summarized in Table 3.2-5.

In general, the BAAQMD significance thresholds for criteria pollutants (ROG, NO_x, PM_{10}, $PM_{2.5}$, and CO) address the first two air quality significance criteria of Appendix G of the CEQA Guidelines (listed above). The BAAQMD maintains that these criteria pollutant thresholds are intended to maintain ambient air quality concentrations below state and federal standards and to prevent a cumulatively considerable contribution to regional nonattainment with ambient air quality standards. The TAC thresholds (cancer and noncancer risks) and local CO thresholds address the third Appendix G significance criterion, and the BAAQMD odors threshold addresses the fourth Appendix G significance criterion.

Table 3.2-5
Thresholds of Significance

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs/day)	*Average Daily Emissions (lbs/day)*	*Maximum Annual Emissions (tons/year)*
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
PM_{10}/$PM_{2.5}$ (fugitive dust)	Best Management Practices	None	
Local CO	None	9.0 ppm (8-hour average), 20.0 ppm (1-hour average)	
Risks and Hazards (Individual Project)	Compliance with Qualified Community Risk Reduction Plan or Increased cancer risk of >10.0 in 1 million		

Table 3.2-5
Thresholds of Significance

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs/day)	*Average Daily Emissions (lbs/day)*	*Maximum Annual Emissions (tons/year)*
	Increased noncancer risk of >1.0 Hazard Index (Chronic or Acute) Ambient $PM_{2.5}$ increase >0.3 µg/m^3 annual average Zone of Influence: 1,000-foot radius from property line of source or receptor		
Risks and Hazards (Cumulative)	Compliance with Qualified Community Risk Reduction Plan or Cancer risk of >100 in 1 million (from all local sources) Noncancer risk of >10.0 Hazard Index (chronic, from all local sources) Ambient $PM_{2.5}$ >0.8 µg/m^3 annual average (from all local sources) Zone of Influence: 1,000-foot radius from property line of source or receptor		
Accidental Release of Acutely Hazardous Air Pollutants	None	Storage or use of acutely hazardous material located near receptors or new receptors located near stored or used acutely hazardous materials considered significant	
Odors	None	Five confirmed complaints to BAAQMD per year averaged over 3 years	

Source: BAAQMD 2017a.
Notes: lbs/day = pounds per day; tons/year = tons per year; ROG = reactive organic gases; NO_x = oxides of nitrogen; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; CO = carbon monoxide; ppm = parts per million; µg/m^3 = micrograms per cubic meter; BAAQMD = Bay Area Air Quality Management District.

The BAAQMD established their thresholds of significance for CEQA purposes based on the regional goal to attain the NAAQS and CAAQS. Since an AAQS is based on maximum pollutant levels in outdoor air that would not harm the public's health, and air district thresholds pertain to attainment of the AAQS, this means that the thresholds established by air districts are also protective of human health.

3.2.4.3 Impacts and Mitigation Measures

Impact 3.2-1: Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

An area is designated as “in attainment” when it is in compliance with the federal and/or state standards. The project site is located within the SFBAAB, which is designated non-attainment for the federal 8-hour O_3 and 24-hour $PM_{2.5}$ standards. The area is in attainment or unclassified for all other federal standards. The area is designated non-attainment for state standards for 1-hour and 8-hour O_3, 24-hour PM_{10}, annual PM_{10}, and annual $PM_{2.5}$.

On April 19, 2017, the BAAQMD adopted the Final 2017 Clean Air Plan (BAAQMD 2017b). The BAAQMD CEQA Air Quality Guidelines identify a three-step methodology for determining a project’s consistency with the current clean air plan. If the responses to these three questions can

be concluded in the affirmative and those conclusions are supported by substantial evidence, then the BAAQMD considers the project to be consistent with air quality plans prepared for the San Francisco Bay Area. The three questions are as follows:

1. Does the project support the goals of the Air Quality Plan?
2. Does the project include applicable control measures from the Clean Air Plan?
3. Does the project disrupt or hinder implementation of any control measures from the Clean Air Plan?

If a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation measures, the project would be consistent with the goals of the 2017 Clean Air Plan. As indicated in the following discussion with regard to Impact 3.2-2, the project would result in less-than-significant construction and operational emissions impacts and would not result in long-term adverse air quality impacts. Therefore, the project would be considered to support the primary goals and be consistent with the goals established in BAAQMD's 2017 Clean Air Plan.

The 2017 Clean Air Plan contains 85 control measures aimed at reducing air pollution in the San Francisco Bay Area. Projects that incorporate all feasible air quality plan control measures are considered consistent with the plan. The proposed project would result in the development of uses and growth that are consistent with the City General Plan and zoning designations. Furthermore, the project is required to comply with all applicable BAAQMD rules and adhere to state standards and/or local building codes. Based on these considerations, the project would not conflict with any applicable control measures from the 2017 Clean Air Plan.

The proposed project would not create any barriers or impediments to planned or future improvements to transit or bicycle facilities in the area, nor would it include excessive parking. Therefore, the project would not hinder implementation of 2017 Clean Air Plan control measures.

In summary, the responses to all three of the questions with regard to the proposed project's consistency with the 2017 Clean Air Plan are affirmative, and the project would therefore not conflict with or obstruct implementation of the Clean Air Plan. **This is a less-than-significant impact.**

Mitigation Measures

None required.

Impact 3.2-2: Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the proposed project region is non-attainment under an applicable federal or state ambient air quality standard?

Past, present, and future development projects may contribute to the SFBAAB adverse air quality impacts on a cumulative basis. Per BAAQMD's CEQA Air Quality Guidelines, by its nature air pollution is largely a cumulative impact; no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. 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 exceeds the identified significance thresholds, its emissions would be considered cumulatively considerable, resulting in a significant adverse air quality impact to the region's existing air quality conditions. Therefore, if the project's emissions are below the BAAQMD thresholds or screening criteria, then the project would not result in a cumulatively considerable net increase of any criteria air pollutant.

Construction

Sources of emissions during proposed project construction would include off-road construction equipment exhaust, on-road vehicle exhaust and entrained road dust (i.e., material delivery trucks, haul trucks, and worker vehicles), paving, and architectural coating activities. Detailed assumptions associated with project construction are included in Appendix B-2.

Average daily emissions were computed by dividing the total construction emissions by the number of active construction days, which were then compared to the BAAQMD construction thresholds of significance. Table 3.2-6 shows average daily construction emissions of O_3 precursors (ROG and NO_x), PM_{10} exhaust, and $PM_{2.5}$ exhaust during project construction.[3]

Table 3.2-6
Average Daily Unmitigated Construction Criteria Air Pollutant Emissions

Year	ROG	NO_x	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
	Pounds per Day			
2020–2021 Construction	2.4	12.0	0.6	0.6
BAAQMD Construction Thresholds	54	54	82	54
Exceed Threshold?	No	No	No	No

Source: Appendix B-2.

[3] Fuel combustion during construction and operations would also result in the generation of SO2 and CO. These values are included in Appendix B-2. However, since the SFBAAB is in attainment of these pollutants, the BAAQMD has not established a quantitative mass-significance threshold for comparison, and these pollutants are not included in the project-generated emissions tables in this document. Notably, the BAAQMD does have screening criteria for operational localized CO, which are discussed in more detail below.

Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; BAAQMD = Bay Area Air Quality Management District; BMP = best management practice.
The values shown are average daily emissions based on total overall tons of construction emissions, converted to pounds, and divided by 327 active work days. No BAAQMD BMPs were included in the quantitative analysis.

As shown in Table 3.2-6, construction of the proposed project would not exceed BAAQMD significance thresholds for criteria air pollutants. Although the BAAQMD does not have a quantitative significance threshold for fugitive dust, the BAAQMD's CEQA Air Quality Guidelines recommend that projects determine the significance for fugitive dust through application of best management practices. The project contractor would be required~~, as conditions of approval,~~ to implement the following best management practices that are required of all construction projects:

1. All exposed surfaces (e.g., parking/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 trackout onto local 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 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 5 minutes (as required by the California Airborne Toxics Control Measure [13 CCR 2485]). 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. A publicly visible sign shall be posted with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours of contact. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Implementation of the required fugitive dust control measures would ensure air quality and fugitive dust-related impacts associated with construction would remain less than significant.

Operations

Operation of the proposed project would generate criteria pollutant (including ROG, NO_x, PM_{10}, and $PM_{2.5}$) emissions from mobile sources (vehicular traffic), area sources (consumer products, natural gas hearths, architectural coatings, and landscaping equipment), energy sources (natural gas consumption), and stationary sources (routine testing and maintenance of the two emergency natural gas generators). CalEEMod was used to estimate daily emissions from project-related operational sources. Table 3.2-7 summarizes the operational emissions criteria pollutants that would be generated from the project. Operational emissions were then compared to the BAAQMD operational thresholds.

Table 3.2-7
Daily Unmitigated Operational Criteria Air Pollutant Emissions

Source	ROG	NO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day			
Area	0.74	0.08	0.02	0.02
Energy	0.01	0.09	0.01	0.01
Mobile	0.57	2.28	2.25	0.61
Stationary	0.88	0.08	0.01	0.01
Total	**2.20**	**2.53**	**2.29**	**0.65**
BAAQMD Operational Thresholds	*54*	*54*	*82*	*54*
Exceed Threshold?	**No**	**No**	**No**	**No**

Source: Appendix B-2.
Note: ROG = reactive organic gases; NO_x = oxides of nitrogen; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; BAAQMD = Bay Area Air Quality Management District; CalEEMod = California Emissions Estimator Model.
The values shown are the maximum summer or winter daily emissions results from CalEEMod. Totals may not sum due to rounding.

As indicated in Table 3.2-7, the increase in operational emissions of ROG, NO_x, PM_{10}, and $PM_{2.5}$ resulting from development of the proposed project would not exceed the BAAQMD significance thresholds. Therefore, the project would have a less-than-significant impact in relation to regional operational emissions.

Health Effects of Criteria Air Pollutants

Construction and operation of the proposed project would not result in emissions that exceed the BAAQMD emission thresholds for any criteria air pollutant, including ROG, NO_x, PM_{10}, or $PM_{2.5}$. ROG emissions would be associated with motor vehicles, construction equipment, asphalt off-gassing, and architectural coatings; however, project-generated ROG emissions would not result in the exceedances of the BAAQMD thresholds, as shown in Table 3.2-6 and Table 3.2-7. Generally, the ROG in architectural coatings are of relatively low toxicity. Additionally, the

proposed project would be required to adhere to Regulation 8, Rule 3 – Architectural Coatings, which restricts the content of volatiles in coatings.

ROG and NO_x are precursors to O_3, for which the SFBAAB is designated as nonattainment with respect to the NAAQS and CAAQS. Nonetheless, Because ROG and NO_x emissions associated with proposed project construction and/or operation would not exceed the BAAQMD daily thresholds, it is not anticipated the project would contribute substantially to regional O_3 concentrations and the associated health effects.

Construction and operation of the project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Project construction would be relatively short-term, and off-road construction equipment would be operating at various portions of the site and would not be concentrated in one portion of the site at any one time. In addition, existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards. Construction and operation of the proposed project would result in a minimal increase in localized NO_x emissions. Therefore, the project is not anticipated to result in substantial NO_2 emissions or the potential health effects associated with NO_2.

CO tends to be a localized impact associated with congested intersections. As described next under Impact 3.2-3, the proposed project would result in minimal new traffic trips and would not exceed the BAAQMD CO screening criteria resulting in the formation of potential CO hotspots. Thus, the project's CO emissions would not contribute to significant health effects associated with this pollutant.

Construction and operation of the proposed project would also not exceed thresholds for PM_{10} or $PM_{2.5}$, and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or obstruct the SFBAAB from coming into attainment for these pollutants. Additionally, the project would implement dust control strategies and be required to comply with Regulation 6, Rule 6 – Prohibition of Trackout and the BAAQMD fugitive dust best management practices, which limit the amount of fugitive dust generated during construction. Due to the minimal contribution of PM_{10} and $PM_{2.5}$ during construction and operation, it is not anticipated that the project would result in potential health effects related to particulate matter.

In summary, because construction and/or operation of the proposed project would not exceed the BAAQMD significance thresholds for ROG, NO_x, PM_{10}, and $PM_{2.5}$, and because the BAAQMD thresholds are based on levels that the SFBAAB can accommodate without affecting the attainment date for the AAQS, which are established to protect public health and welfare, it is anticipated that the project would result in less-than-significant health effects associated with criteria air pollutants. This is a **less-than-significant impact**.

Mitigation Measures

None required.

Impact 3.2-3: Would the proposed project expose sensitive receptors to substantial pollutant concentrations?

Health Impacts of Toxic Air Contaminants

Construction Health Risk

Proposed project construction activities would produce DPM (with PM_{10} exhaust modeled as surrogate) and $PM_{2.5}$ emissions due to equipment (e.g., loaders and backhoes) and haul truck trips. These emissions could result in elevated concentrations of DPM and $PM_{2.5}$ at nearby receptors, which could lead to an increase in the risk of cancer or other health impacts. Consequently, an HRA was performed to determine the extent of increased cancer risks and hazard indices at the maximally exposed receptors. The detailed HRA is included as Appendix B-3, with results summarized below.

The maximally exposed receptor would be the nearest existing residence to the west of the project site. Table 3.2-8 shows the potential health risk at the maximally exposed individual residence (MEIR) as a result of proposed project construction.

Table 3.2-8
Construction-Related Health Risk Results

Receptor	Cancer Risk (persons per million)	Chronic Impact	$PM_{2.5}$ Concentration ($\mu g/m^3$)
Unmitigated Construction			
Maximally Exposed Individual Resident (MEIR)[1]	34.10	0.031	0.16
BAAQMD Significance Criteria	10	1.0	0.3
Exceed Threshold?	**Yes**	**No**	**No**
Mitigated Construction[2]			
Maximally Exposed Individual Resident (MEIR)[1]	9.06	0.0083	0.041
BAAQMD Significance Criteria	10	1.0	0.3
Exceed Threshold?	**No**	**No**	**No**

Source: Appendix B-3.
Note: $PM_{2.5}$ = fine particulate matter; $\mu g/m^3$ = micrograms per cubic meter; MEIR = maximally exposed individual resident; BAAQMD = Bay Area Air Quality Management District; AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; HARP2 = Hotspots Analysis and Reporting Program Version 2; UTM = Universal Transverse Mercator.
Diesel exhaust exposure at receptors modeled with AERMOD, and then input into HARP2 to generate health risk estimates. Construction diesel particulate exposure was assumed to begin in the third trimester of pregnancy for a duration of 1.25 years of active construction.
1 The MEIR for annual cancer and chronic health risk impacts is located to the west of the project at UTM coordinates 588052.5 meters Easting (m E)/4126595 meters Northing (m N).
2 Mitigated emissions include implementation of MM-AQ-1.

As shown in Table 3.2-8, the incremental cancer risk at the MEIR of 34.10 in 1 million (assuming exposure starts in third trimester of pregnancy) from project construction would exceed the BAAQMD threshold of 10 in 1 million without mitigation. With incorporation of higher tier engines as included in MM-AQ-1, the proposed project would result in incremental cancer risk of 9.06 in

1 million.[4] The unmitigated and mitigated chronic hazard index would be 0.031 and 0.0083 at the MEIR, respectively, which would be below the BAAQMD threshold of 1.0. The maximum annual unmitigated and mitigated $PM_{2.5}$ concentrations would be 0.16 micrograms per cubic meter and 0.041 micrograms per cubic meter at the MEIR, which would be below the BAAQMD threshold of 0.3 micrograms per cubic meter. Project health risk impacts associated with construction would thus be less than significant with incorporation of MM-AQ-1.

Operational Health Risk

For the HRA, TAC emissions associated with operations of the proposed project were estimated for the routine testing and maintenance of the two natural gas emergency generators, assuming up to 50 hours of operation per year. The CalEEMod default load factor 0.73 was applied to each emergency generator. Emission factors from the South Coast Air Quality Management District Risk Tool, version 1.1 (SCAQMD 2017) were used for natural gas combustion, which are included in Appendix B.

The Office of Environmental Health Hazard Assessment recommends that an exposure duration (residency time) of 30 years be used to estimate an individual cancer risk for the MEIR starting in the third trimester of pregnancy to accommodate the increased susceptibility of exposures in early life (OEHHA 2015). The “Mandatory Minimum Pathways” option was also selected in HARP2, which includes exposure through inhalation, soil, dermis, and mother’s milk, where applicable for each TAC. Cancer and noncancer health risk results and MEIR coordinates are presented in Table 3.2-9, based on the 30-year exposure scenario.

Table 3.2-9
Natural Gas Generators – Operational Health Risk Results

Receptor	Cancer Risk (persons per million)[1]	Chronic Hazard Index[1]	Acute Hazard Index[2]
Maximally Exposed Individual Resident (MEIR)	0.044	0.00053	0.29
BAAQMD Significance Criteria	10	1.0	1.0
Exceed Threshold?	No	No	No

Source: Appendix B-3.
Note: MEIR = Maximally Exposed Individual Resident; BAAQMD = Bay Area Air Quality Management District; AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; HARP2 = Hotspots Analysis and Reporting Program Version 2; UTM = Universal Transverse Mercator.
TAC exposure plots at receptors from the natural gas emergency generators was modeled with AERMOD, which were then input into HARP2 to generate health risk estimates. Exposure was assumed to begin in the third trimester of pregnancy for a duration of 30 years.
1 The MEIR for annual cancer and chronic health risk impacts is located to the northwest of the project, at UTM coordinates 588052.5 meters Easting (m E)/4126635 meters Northing (m N).
2 The MEIR for the 1-hour acute health risk impact is located northwest of the project area, at UTM coordinates 588052.5 m E/4126615 m N.

4 MM-AQ-1 would also result in reduced criteria air pollutants, including NO_x, from construction equipment. These mitigated values are included in Appendix B-2.

As depicted in Table 3.2-9, the proposed project's stationary source potential cancer health risk of 0.044 in 1 million would not exceed the BAAQMD threshold of 10 in 1 million. The noncancer chronic and acute hazard indices of 0.00053 and 0.29, respectively, would not exceed the BAAQMD thresholds of 1.0. Thus, the natural gas emergency generators at the project would result in less-than-significant cancer, chronic, and acute health risk impacts at proximate sensitive residential receptors. These stationary sources would not emit PM2.5.

Local Carbon Monoxide Concentrations

The BAAQMD thresholds of significance for local CO emissions is the 1-hour and 8-hour CAAQS of 20 ppm and 9 ppm, respectively. By definition, these represent levels that are protective of public health. According to the BAAQMD, a project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met (BAAQMD 2017a):

1. The Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
2. The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The proposed project would generate minimal new traffic trips, estimated to be approximately 21 trips during the AM peak-hour and 28 trips during the PM peak-hour (Fehr and Peers 2019), and would comply with the BAAQMD screening criteria. Accordingly, project-related traffic would not exceed CO standards and therefore, no further analysis was conducted for CO impacts.

Project health risk impacts associated with construction, operations, and carbon monoxide would be **less than significant with mitigation incorporated**.

Mitigation Measures

MM-AQ-1: Prior to the issuance of a construction permit, the project applicant, or its designee, shall submit a Construction Exhaust Emissions Minimization Plan (Plan) to the City of Saratoga (City) or its designated representative for review and approval. The Plan shall detail project compliance with the following requirements:

1. Where access to alternative sources of power and alternative-fueled equipment are available, portable diesel engines shall be prohibited.

2. All diesel-powered equipment with engines equal or greater to 85 horsepower shall be powered by Tier 4 Final engines certified by the California Air Resources Board (CARB). If 85-horsepower or greater engines that comply with Tier 4 Final emissions standards are not commercially available, then the project applicant shall ensure that all diesel-powered equipment equal to or greater than 50 horsepower will have at least CARB-certified Tier 3 engines with the most effective Verified Diesel Emission Control Strategies available for the engine type, such as Level 3 Diesel Particulate Filters (Tier 4 engines automatically meet this requirement).
    a. For purposes of this mitigation measure, “commercially available” shall mean the availability of the Tier 4 Final equipment taking into consideration factors such as (1) critical path timing of construction, and (2) geographic proximity of the equipment location to the project site.
    b. The project applicant shall maintain and submit records to the City concerning its efforts to comply with this requirement.

Impact 3.2-4: Would the proposed project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the proposed project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Common sources of odors include manufacturing plants, rendering plants, coffee roasters, wastewater treatment plants, sanitary landfills, and solid waste transfer stations (BAAQMD 2017a). The proposed project would not result in the creation of a land use that is commonly associated with odors. Therefore, project operations would result in an odor impact that is **less than significant**.

Mitigation Measures

None required.

3.2.5 References

BAAQMD (Bay Area Air Quality Management District). 2009. *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*. October 2009. Accessed May 2019. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/revised-draft-ceqa-thresholds-justification-report-oct-2009.pdf?la=en.

BAAQMD. 2010. *California Environmental Quality Act Air Quality Guidelines*. May 2010. Accessed May 2019. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/draft_baaqmd_ceqa_guidelines_may_2010_final.pdf?la=en.

BAAQMD. 2012. *California Environmental Quality Act Air Quality Guidelines*. Updated May 2012. Accessed May 2019. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_Final_May%202012.ashx?la=en.

BAAQMD. 2017a. *California Environmental Quality Act Air Quality Guidelines.* Updated May 2017. Accessed May 2019. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

BAAQMD. 2017b. *Spare the Air – Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area. Final 2017 Clean Air Plan.* April 19, 2017. Accessed May 2019. http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en.

BAAQMD. 2017c. "Air Quality Standards and Attainment Status." Last updated January 5, 2017. Accessed March 2019. http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status.

BAAQMD. 2019. Public Records Request for Pre-Processed Meteorological Data from San Jose International Airport. April 2019.

BAAQMD. n.d. "CEQA Guidelines Update Underway." Accessed May 2019. http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

CAPCOA (California Air Pollution Control Officers Association). 2017. *California Emissions Estimator Model (CalEEMod) User's Guide Version 2016.3.2*. Prepared by BREEZE Software, A Division of Trinity Consultants in collaboration with South Coast Air Quality Management District and the California Air Districts. Accessed May 2019. http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

CARB (California Air Resources Board). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October 2000. Accessed May 2019. http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf.

CARB. 2009. "ARB Fact Sheet: Air Pollution Sources, Effects and Control." Page last reviewed December 2, 2009. Accessed May 2019. https://www.arb.ca.gov/research/health/fs/fs2/fs2.htm.

CARB. 2016. "Ambient Air Quality Standards." May 4, 2016. Accessed May 2019. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

CARB. 2017. Inhalable Particulate Matter and Health ($PM_{2.5}$ and PM_{10}). Page last reviewed August 10, 2017. Accessed May 2019. https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm.

CARB. 2018. "Area Designation Maps/State and National." Last reviewed December 28, 2018. Accessed March 2019. http://www.arb.ca.gov/desig/adm/adm.htm.

CARB. 2019a. "Glossary." Accessed January 2019. https://ww2.arb.ca.gov/about/glossary.

CARB. 2019b. "Ozone & Health." Accessed May 2019. https://ww2.arb.ca.gov/resources/ozone-and-health.

CARB. 2019c. "Nitrogen Dioxide & Health." Accessed May 2019. https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health.

CARB. 2019d. "Carbon Monoxide & Health." Accessed May 2019. https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health.

CARB. 2019e. "Sulfur Dioxide & Health." Accessed May 2019. https://ww2.arb.ca.gov/resources/sulfur-dioxide-and-health.

CARB. 2019f. "Overview: Diesel Exhaust and Health." Accessed May 2019. https://www.arb.ca.gov/research/diesel/diesel-health.htm.

CARB. 2019g. "Ambient air quality data." [digital CARB data]. iADAM: Air Quality Data Statistics. Accessed March 2019. http://www.arb.ca.gov/adam/topfour/topfour1.php.

City of Saratoga. 2007a. *Open Space and Conservation Element 2007*. Final Report. June 6, 2007. Accessed May 2019. https://www.saratoga.ca.us/DocumentCenter/View/49/Open-Space-and-Conservation-Element-Dated-June-6-2007-PDF.

City of Saratoga. 2007b. *Land Use Element*. Final Report. June 6, 2007. Accessed May 2019. https://www.saratoga.ca.us/DocumentCenter/View/48/ Land-Use-Element-Dated-June-6-2007-PDF.

City of Saratoga. 2010. *Circulation and Scenic Highway Element Update.* November 17, 2010. Accessed May 2019. https://www.saratoga.ca.us/DocumentCenter/View/46/ Circulation-and-Scenic-Highway-Element-Dated-November-17-2010-PDF.

EPA (U.S. Environmental Protection Agency). 2013. *Integrated Science Assessment for Ozone and Related Photochemical Oxidants*. EPA/600/R-10/076F. February 2013. Accessed May 2019. https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=247492.

EPA. 2018a. "Criteria Air Pollutants." March 8, 2018. Accessed May 2019. https://www.epa.gov/ criteria-air-pollutants.

EPA. 2018b. "Air Quality Analysis: EPA Region 9 Air Quality Maps and Geographic Information." Maps, Air Quality Analysis – Pacific Southwest. Last updated September 28, 2018. Accessed March 2019. http://www.epa.gov/region9/air/maps/.

EPA. 2018c. "Monitor Values Report." AirData: Air Quality Data Collected at Outdoor Monitors Across the U.S. Last updated July 31, 2018. Accessed March 2019. http://www.epa.gov/ airdata/ad_rep_mon.html.

Fehr and Peers. 2019. *Palm Villas Saratoga Draft Transportation Impact Analysis.* Prepared for the City of Saratoga. April 2019.

NRC (National Research Council of the National Academies). 2005. *Interim Report of the Committee on Changes in New Source Review Programs for Stationary Sources of Air Pollutants*. Washington, DC: The National Academies Press. Accessed May 2019. https://doi.org/10.17226/11208.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. *Air Toxics Hot Spots Program. Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments*. February 2015. Accessed April 2019. http://oehha.ca.gov/ air/hot_spots/2015/2015GuidanceManual.pdf.

SJVAPCD (San Joaquin Valley Air Pollution Control District). 2006. *Guidance for Air Dispersion Modeling.* Draft. August 2006. Accessed April 2019. http://www.valleyair.org/busind/ pto/Tox_Resources/Modeling%20Guidance.pdf.

SCAQMD (South Coast Air Quality Management District). 2017. Risk Tool, Version 1.1. September 2017. http://www.aqmd.gov/home/permits/risk-assessment.

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3.3 BIOLOGICAL RESOURCES

3.3.1 Introduction

This section of the EIR presents a description of biological resources that occur, or have the potential to occur, within or adjacent to the proposed project site, including special-status plant and wildlife species, vegetation communities, and sensitive natural habitats/communities. This section also includes a discussion of state, local, and federal laws, regulations, and policies that are applicable to these biological resources; an analysis of potential impacts to these resources due to implementation of the proposed project; and measures to minimize and mitigate for potential impacts to these resources.

Public comments received in response to the NOP included concerns associated with potential impacts to Saratoga Creek and its riparian corridor, potential impacts to wildlife that utilize these habitats, and preserving access for potential expansion of a trail through the project site.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the CEQA, and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this EIR. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

3.3.2 Summary of Previous Studies

The description of biological resources in Section 3.3.3, *Environmental Setting*, is based on the latest project plans, a review of previously conducted biological resource studies on the property, a review of available agency databases on documented occurrences of special-status species in the project region, and field assessments conducted by Dudek in 2018 and 2019 in preparation for this EIR and associated impact analysis. Previous studies reviewed and the field assessments conducted in 2018 and 2019 are described below. An overview of the databases queried is included in Section 3.3.5.1, *Methods of Analysis*.

Arborist Reports

A City of Saratoga (City) arborist prepared an ~~final~~ arborist report (Bear 2017) for the proposed project (dated March 31, 2017) (refer to Appendix C-3). The City's 2017 report is based on three arborist surveys conducted by a consulting arborist and horticulturist (Deborah Ellis) in July 2015, January 2016, and November 2016 (refer to Appendix C-1 and C-2). The City's arborist report, identifies five (5) trees protected by ~~Saratoga~~ City Municipal Code that are proposed for removal by the proposed project: three (3) native coast live oak (*Quercus agrifolia*) trees and two (2) non-native Brazilian pepper (*Schinus terebinthifolius*) trees. On April 14, 2020, a fourth arborist report was prepared (Young 2020). This report included review of Design Guide 1 of the Guidelines and

Standards for Land Use Near Streams for the SCVWD, as it related to potential impacts on Tree 9 (refer to Appendix C-4).

Biological Resource Assessment

Environmental Collaborative conducted a field reconnaissance survey of the project site on March 11, 2016, ~~and produced~~that was included in the Biological Resource Assessment (refer to ~~Environmental Collaborative 2016~~Appendix C-5). No special-status species were observed during the survey. The results of the survey were summarized in a biological technical report, which identified Saratoga Creek and its riparian corridor as sensitive natural communities within the project site. The report also includes an evaluation of special-status plants and wildlife, including expanded discussions of the central California coast steelhead (*Oncorhynchus mykiss*) evolutionary significant unit, California red-legged frog (*Rana draytonii*), and western pond turtle (*Actinemys marmorata*). The 2016 Biological Resource Assessment concluded that central California coast steelhead are unlikely to occur in Saratoga Creek at the project site due to in-stream barriers, and California red-legged frog are unlikely to occur because the creek lacks suitable breeding habitat and refugia. Although Saratoga Creek was determined to lack permanent habitat for western pond turtle, it was identified as a potential movement corridor for this species. The site was determined to lack suitable habitat for special-status plants. The impact analysis presented in the 2016 Biological Resource Assessment~~report~~ was prepared with the assumption that no project development would occur within 25 feet of Saratoga Creek (refer to Appendix C-5). ~~The biological technical report is included in Attachment C.~~

3.3.2.1 Technical Studies and Related Fieldwork Conducted as Part of This Project

Biological Resource Assessments

On March 5, 2018, two (2) Dudek biologists conducted a biological field survey of the project site to assess on-site habitats and their potential to support various special-status plant and wildlife species and to characterize and map on-site vegetation communities. The assessment consisted of pedestrian transects throughout the project site to collect data related to biological resources present or potentially present within the site. A recent aerial photograph and Trimble Geo 7X GPS unit were used to map the vegetation communities and record any anecdotally observed special-status or sensitive biological resources while in the field. Incidental observations of wildlife (common and/or special-status) or wildlife sign (e.g., tracks, scat) were also recorded. No special-status plant or wildlife species were observed during the survey.

On April 1, 2019, a Dudek biologist conducted a follow-up biological survey of the project site to determine if existing environmental conditions remain valid since the 2018 field survey. The assessment followed the same methodology as the 2018 field survey described above. No special-

status plant or wildlife species were observed during the survey. The results of the field assessment are incorporated into the appropriate topic areas within Section 3.3.3, *Environmental Setting*.

3.3.3 Environmental Setting

This section describes the existing biological setting within the project site, which consists of two adjacent parcels (Assessor's Parcel Numbers 389-06-020 and 389-06-021)~~ located at 12775 Saratoga Creek Drive~~. While an analysis of the entire project site was conducted, the focus of the analysis was based on the areas potentially directly or indirectly affected by construction of the proposed project.

3.3.3.1 Regional Setting

The project site is located within the San Francisco Bay Area subregion of the California Floristic Province (Jepson Flora Project 2019). This region encompasses a variety of vegetation types, from very wet redwood forest to dry oak/pine woodland and chaparral (Jepson Flora Project 2019). Average annual temperatures in San Jose, California, range from 48.9°F to 70.8°F, and the average annual precipitation is 14.58 inches (WRCC 2019). On average, the months with the highest rainfall are January and February, and July has the least precipitation.

Saratoga Creek flows south to north, just outside of the western edge of the project site. Saratoga Creek is a sensitive natural community that provides foraging, breeding, and cover resources for a variety of wildlife species, specifically avian and aquatic species. Saratoga Creek drains into San Tomas Aquinas Creek, which drains into the San Francisco Bay via Guadalupe Slough. Many different habitat types are found in the San Francisco Bay including mudflats, marshes, salt-water wetlands, coastal scrub, and grasslands. Within these habitats, the San Francisco Bay supports many species of plants, invertebrates, fish, birds, and mammals. These habitats also provide essential feeding and resting areas for migrating shorebirds and seabirds.

3.3.3.2 Existing Project Site

The project site is a rectangular-shaped property encompassing two parcels, approximately 1.3 acres in total. The site is mostly undeveloped and is dominated by non-native annual grassland habitat, with some landscaping along the northern perimeter of the site. Approximately 135 feet of a paved access road runs north–south through the center of the project site, which is bounded by Saratoga Creek to the west, development to the north and east, and undeveloped parcels to the south. The SCVWD has an 18-foot access easement on the proposed project site. This SCVWD access easement runs parallel to the top of bank and on the western side of the 25-foot development setback as shown in the revised Figure 2-4, *Lot 1 Site Plan* (also refer to updated project site plans of Lot 1, included in Appendix L, Sheet A-1.2, in the Final EIR). Saratoga Creek

supports a narrow riparian corridor with an overstory dominated by coast live oaks and sycamores (*Platanus racemosa*). There are no other drainages or wetlands within the project site.

The project site is generally level, sloping slightly to the northwest, with proposed building corner elevations ranging from 296.08 ~~approximately 298~~ feet above mean sea level (amsl) ~~at the southeastern corner of the site to 281 feet above msl at the northwestern corner~~to 300.07 feet amsl. The site is situated in Section 32 of Township 7 South, and Range 1 West on the U.S. Geological Survey Cupertino 7.5-minute quadrangle. The approximate center of the site corresponds to 37°16′54″ north latitude and 122°0′20.71″ west longitude.

The project site and adjacent areas experience regular human disturbance in the form of vegetation management and routine channel maintenance activities in Saratoga Creek. Based on a review of past and present aerial photos (Google Earth 2019), the grassland on site is mowed regularly. In addition, there is a paved access road that runs north–south through the center of the project site that serves as an easement for the Santa Clara Valley Water District (SCVWD), which ~~regularly maintains~~ performs creek maintenance as needed along Saratoga Creek ~~adjacent to~~in the ~~project site~~area. The SCVWD's main activities in Saratoga Creek have been the routine maintenance of channels, including silt removal, clearing of underbrush and other debris, and erosion control. Tree stumps and downed logs were observed along the eastern banks of the creek during the 2019 field assessment.

Adjacent land uses west, north, and east of the project site consist of commercial development, including professional and administrative office buildings. South of the project site is an undeveloped parcel.

3.3.3.3 Soils

According to the Natural Resources Conservation Service (USDA 2019), one soil type is mapped within the project site. Urban land-Still complex, 0–2 percent slopes, is a well-drained, slightly acidic to moderately alkaline soil derived from sedimentary rock and mixed rock sources. See Section 3.6, *Geology and Soils*, for an in-depth discussion of soils, geology, and topography at the proposed project site.

3.3.3.4 Vegetation Communities and Land Cover Types

The land cover within the project site consists of a combination of non-vegetative land cover types as well as terrestrial natural vegetation communities. The nomenclature used herein for vegetation communities and non-vegetative land covers have been adapted from the Manual of California Vegetation, Online Edition (CNPS 2019) and the California Wildlife Habitat Relationship System (originally published by Mayer and Laudenslayer in 1988). Table 3.3-1 provides a breakdown of the various vegetation communities or land cover types on the project site and Figure

3.3-1 graphically depicts this information. Those vegetation communities considered to be sensitive by the California Department of Fish and Wildlife (CDFW) are indicated as such (CDFW 2018a). A total of 49 species of native or naturalized plants, 13 native (27 percent) and 36 non-native (73 percent), was recorded on the project site during the 2018 and 2019 site assessments.

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SOURCE: Bing Maps 2019

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FIGURE 3.3-1

Vegetation Communities and Land Cover Types

Palm Villas Saratoga Project

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Table 3.3-1
Vegetation Communities and Land Cover Types on the Project Site

Vegetation Community or Land Cover Type	Acres
Vegetation Communities	
California Annual Grassland	0.84
California Sycamore Woodland	0.21
Anthropogenic Land Cover Types	
Horticultural Landscaping	0.15
Disturbed/Developed	0.13
Total	**1.33**

Source: Dudek 2019.

California Annual Grassland

The dominant vegetation community within the project site, California annual grassland, is largely comprised of non-native grasses such as wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), perennial rye grass (*Festuca perennis*), Mediterranean barley (*Hordeum marianum* ssp. *gussoneanum*), annual bluegrass (*Poa annua*), and Harding grass (*Phalaris aquatica*). Also present in this community are non-native forbs such as burclover (*Medicago polymorpha*), longbeak stork's bill (*Erodium botrys*), cheeseweed mallow (*Malva parviflora*), blessed milkthistle (*Silybum marianum*), and several geranium species (*Erodium botrys*, *E. cicutarium*, *E. moschatum*, *Geranium dissectum*).

California Sycamore Woodland (Sycamore Woodland Semi-Natural Alliance)

California sycamore woodland, a sensitive natural community, occurs along Saratoga Creek adjacent to the project site (CDFW 2018a). A portion of the tree canopy overhangs the project site. The overstory is dominated by sycamores and coast live oaks, and the understory consists of moderately dense shrubs, such as blue elderberry (*Sambucus nigra ssp. caerulea*), poison oak (*Toxicodendron diversilobum*), and California blackberry (*Rubus ursinus*). Non-native grasses typical of the California annual grassland community, and native forbs, such as miner's lettuce (*Claytonia perfoliata*), California man-root (*Marah fabacea*), and American speedwell (*Veronica americana*) are common in the herbaceous layer.

Horticultural Landscaping

This land cover type is limited to the northern extent of the project site and includes horticultural trees, such as Brazilian pepper trees, planted for landscaping purposes. Below the tree canopy, the herbaceous layer contains a similar assemblage of plant species as is found in the California annual grassland community.

Disturbed/Developed

This land cover type includes an existing paved access road that runs through the center of the project site (Saratoga Creek Drive).

3.3.3.5 Common Wildlife Species

Nine common bird species were detected during the April 1, 2019, survey; these species are included in Table 3.3-2.

Table 3.3-2
Common Wildlife Species Observed on the Project Site

Common Name	Scientific Name
Birds	
American crow	*Corvus brachyrhynchos*
Anna's hummingbird	*Calypte anna*
Bushtit	*Psaltriparus minimus*
California scrub-jay	*Aphelocoma californica*
Nuttall's woodpecker	*Dryobates nuttallii*
red-shouldered hawk	*Buteo lineatus*
spotted towhee	*Pipilo maculatus*
Steller's jay	*Cyanocitta stelleri*
yellow-rumped warbler	*Setophaga coronata*

Source: Dudek 2019.

3.3.3.6 Special-Status Resources

For the purposes of this analysis, special-status plant species are those plants listed, proposed for listing, or candidates for listing as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) under the Endangered Species Act (ESA) (16 USC 1531 et seq.); those listed or proposed for listing as rare, threatened, or endangered by the CDFW under the California Endangered Species Act (CESA) (California Fish and Game Code, Section 2050 et seq.); and plants that have a California Rare Plant Rank (CRPR) of 1 or 2 in the California Native Plant Society (CNPS) online Inventory of Rare and Endangered Plants (CNPS 2019). Special-status wildlife species are those that are designated as either rare, threatened, or endangered (or candidates for designation) by CDFW or the USFWS; are protected under either the CESA or the ESA; meet the CEQA definition for endangered, rare, or threatened (14 CCR 15380[b],[d]); are considered fully protected under the California Fish and Game Code, Sections 3511, 4700, 5050, and 5515; or that are on the CDFW Special Animals List (CDFW 2018a) and determined by CDFW to be a Species of Special Concern.

As noted in Section 3.3.5.1, various agency databases were queried and reviewed to identify special-status species known to occur on the project site or in the project site region (Figure 3.3-2). For those species identified through this search, the potential for each species to occur on the project site was based on a review of vegetation communities and available land cover types, habitat types, soils, and elevation preferences, as well as the known geographic range of each species. Species were not expected to occur when the site was clearly outside the known geographic range of the species or if there was no suitable habitat for the species on or adjacent to the site.

Special-Status Plants

Results of the California Natural Diversity Database (CNDDB) and CNPS searches revealed 65 special-status plant species as occurring in the project site region or having potential to occur in the vicinity of the project site (Table 3.3-3). Of these, 61 were removed from consideration due to a lack of suitable habitat within or immediately adjacent to the project site or because the project site is outside of the species' known range; these 61 are therefore not addressed further in this EIR. The four remaining special-status plant species have a low potential to occur on the project site. These plant species are discussed in more detail below.

Plant Species Potentially Occurring on the Project Site

Bent-flowered fiddleneck (*Amsinckia lunaris*; CRPR 1B.2) is an annual herb found in coastal bluff scrub, cismontane woodland, and valley and foothill grassland habitats. It has a low potential to occur because grassland at the project site is dominated by non-natives, which may be a threat to this species (CNPS 2019). There are no documented occurrences of this species within 5 miles of the project site. Additionally, this species was not identified at the project site during the 2016, 2018, and 2019 biological surveys, which were conducted during the evident and identifiable period for this species. This species is not anticipated to occur within the project development footprint.

Western leatherwood (*Dirca occidentalis,* CRPR 1B.2) is a perennial deciduous shrub found broadleaved upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, and riparian woodland habitats (CNPS 2019). It has a low potential to occur on the project site due to the limited availability of suitable habitat. Adjacent to the project site, the riparian corridor along Saratoga Creek is narrow and confined to the edge of a steep bank. The nearest documented occurrence of western leatherwood is for plantings growing on serpentine soils outside of the Saratoga Creek watershed (CDFW 2019a). Western leatherwood, a perennial woody shrub that is evident and identifiable year-round, was not identified during the 2016, 2018, and 2019 biological surveys at the project site. This species is not anticipated to occur within the project development footprint.

Fragrant fritillary (*Fritillaria liliacea,* CRPR 1B.2) is perennial bulbiferous herb often found in serpentine soils in cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland habitats (CNPS 2019). It has a low potential to occur in the grassland habitat at the project site due to a lack of suitable serpentine soils and an abundance of non-native plants. The nearest documented occurrence is located outside of the Saratoga Creek watershed (CDFW 2019a). This species was not identified at the project site during the 2016, 2018, and 2019 biological surveys, which were conducted during the evident and identifiable period for this species. This species is not anticipated to occur within the project development footprint.

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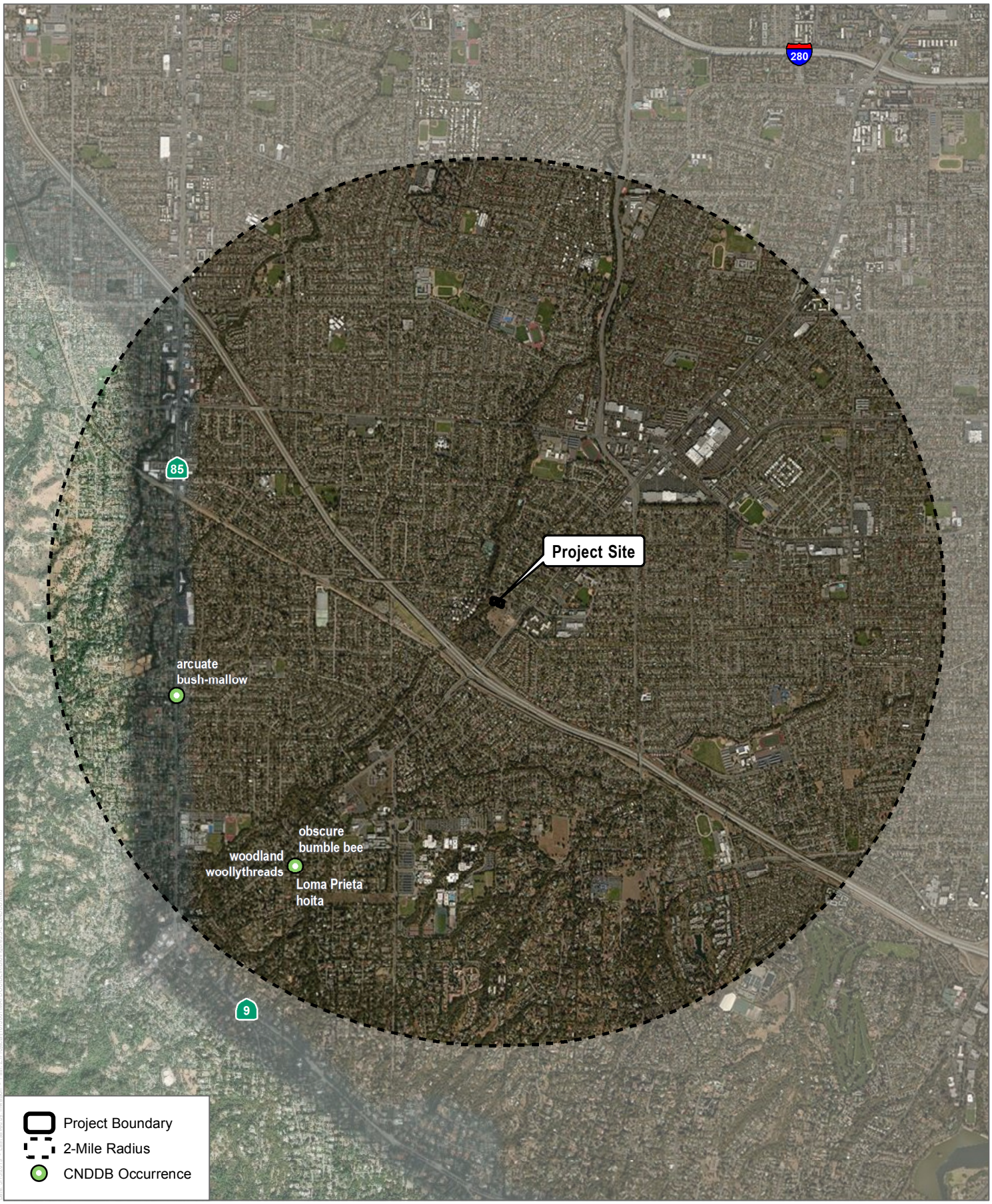

SOURCE: Bing Maps 2019; CDFW 2019

DUDEK

0 1,500 3,000 Feet

FIGURE 3.3-2

CNDDB Occurrences Within Two Miles of the Project Site

Palm Villas Saratoga Project

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Table 3.3-3
Special-Status Plant Species Occurrence Potential on the Project Site

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)[1]	Potential to Occur
Acanthomintha duttonii	San Mateo thornmint	FE/SE/1B.1	Chaparral, valley, and foothill grassland; serpentinite/annual herb/Apr–June/160–985	**Not expected to occur.** Grassland at the site is disturbed and does not provide suitable serpentinite soils. There are no documented occurrences within 15 miles of the project site (CDFW 2019a). This species is only known to occur in San Mateo County (CNPS 2019).
Allium peninsulare var. *franciscanum*	Franciscan onion	None/None/1B.2	Cismontane woodland, valley and foothill grassland; clay, volcanic, often serpentinite/perennial bulbiferous herb/(Apr) May–June/170–1000	**Not expected to occur.** Grassland at the site is disturbed and does not provide suitable clay, volcanic, or serpentinite soils. There are no documented occurrences within 10 miles of the project site (CDFW 2019a).
Amsinckia lunaris	bent-flowered fiddleneck	None/None/1B.2	Coastal bluff scrub, cismontane woodland, valley and foothill grassland/ annual herb/ Mar–June/5–1640	**Low potential to occur.** Grassland at the site provides marginal habitat because it is dominated by non-natives, which may be a threat to this species (CNPS 2019). There is one documented occurrence for plants growing on serpentine soils adjacent to oak woodland approximately 6 miles south of the project site (CDFW 2019a).
Arctostaphylos andersonii	Anderson's manzanita	None/None/1B.2	Broadleafed upland forest, chaparral, north coast coniferous forest; openings, edges/perennial evergreen shrub/Nov–May/ 195–2495	**Not expected to occur.** No suitable habitat present. The closest documented occurrence is approximately 8 miles southwest of the project site. (CDFW 2019a).
Arctostaphylos glutinosa	Schreiber's manzanita	None/None/1B.2	Closed-cone coniferous forest, chaparral; diatomaceous shale/ perennial evergreen shrub/(Nov)Mar–Apr/ 555–2245	**Not expected to occur.** No closed-cone coniferous forest or chaparral present. There are no documented occurrences within 10 miles of the project site (CDFW 2019a). This species is known only from Santa Cruz County (CNPS 2019).
Arctostaphylos ohloneana	Ohlone manzanita	None/None/1B.1	Closed-cone coniferous forest, coastal scrub; siliceous shale/evergreen shrub/Feb–Mar/1475–1740	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable habitat present. There are no documented occurrences within 15 miles of the project site (CDFW 2019a). This species is known only from Santa Cruz County (CNPS 2019).

Table 3.3-3
Special-Status Plant Species Occurrence Potential on the Project Site

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)[1]	Potential to Occur
Arctostaphylos regismontana	Kings Mountain manzanita	None/None/1B.2	Broadleafed upland forest, chaparral, north coast coniferous forest; granitic or sandstone/perennial evergreen shrub/ Dec–Apr/1000–2395	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable habitat present. There are no documented occurrences within 5 miles of the project site (CDFW 2019a).
Arctostaphylos silvicola	Bonny Doon manzanita	None/None/1B.2	Closed-cone coniferous forest, chaparral, lower montane coniferous forest; inland marine sands/perennial evergreen shrub/Jan–Mar/390–1970	**Not expected to occur.** No coniferous forest, chaparral, or inland marine habitat present. There are no documented occurrences within 10 miles of the project site (CDFW 2019a). This species is known only from Santa Cruz County (CNPS 2019).
Astragalus tener var. *tener*	alkali milk-vetch	None/None/1B.2	Playas, valley and foothill grassland (adobe clay), vernal pools; alkaline/ annual herb/Mar–June/ 0–195	**Not expected to occur.** The site is disturbed and does not provide suitable clay or alkaline soils. There are no documented occurrences within 8 miles of the project site (CDFW 2019a). This species is presumed extirpated from Santa Clara County (CNPS 2019).
Atriplex depressa	brittlescale	None/None/1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools; alkaline, clay/annual herb/Apr–Oct/0–1050	**Not expected to occur.** Grassland at the site is disturbed and does not provide suitable alkaline or clay soils preferred by this species. There are no documented occurrences within 10 miles of the project site (CDFW 2019a). This species is not known to occur in Santa Clara County (CNPS 2019).
Atriplex minuscula	lesser saltscale	None/None/1B.1	Chenopod scrub, playas, valley and foothill grassland; alkaline, sandy/annual herb/ May–Oct/45–655	**Not expected to occur.** The grassland on site provides potential habitat; however, the grassland is disturbed and does not provide suitable alkaline or sandy soils. There are no documented occurrences within 10 miles of the project site (CDFW 2019a). This species is not known to occur in Santa Clara County (CNPS 2019).
Calyptridium parryi var. *hesseae*	Santa Cruz Mountains pussypaws	None/None/1B.1	Chaparral, cismontane woodland; sandy or gravelly, openings/annual herb/May–Aug/1000–5020	**Not expected to occur.** The site is outside of the species' known elevation range and there is no chaparral or cismontane woodland present. There are no documented occurrences within 10 miles of the project site (CDFW 2019a).

Table 3.3-3
Special-Status Plant Species Occurrence Potential on the Project Site

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)[1]	Potential to Occur
Centromadia parryi ssp. *congdonii*	Congdon's tarplant	None/None/1B.1	Valley and foothill grassland (alkaline)/annual herb/May–Oct(Nov)/0–755	**Not expected to occur.** Grassland at the site is disturbed and does not provide alkaline soils preferred by this species. The closest documented occurrence, now considered extirpated, is approximately 3 miles east of the project site. The next closest occurrence, approximately 9 miles north of the site, is for plants growing in a restored, native grassland (CDFW 2019a).
Chloropyron maritimum ssp. *palustre*	Point Reyes bird's-beak	None/None/1B.2	Marshes and swamps (coastal salt)/annual herb (hemiparasitic)/June–Oct/ 0–35	**Not expected to occur.** No coastal salt marshes or swamps present. There are no documented occurrences within 8 miles of the project site (CDFW 2019a). This species is presumed extirpated from Santa Clara County (CNPS 2019).
Chorizanthe pungens var. *hartwegiana*	Ben Lomond spineflower	FE/None/1B.1	Lower montane coniferous forest (maritime ponderosa pine sandhills)/annual herb/Apr–July/295–2000	**Not expected to occur.** No lower montane coniferous forest present. There are no documented occurrences within 10 miles of the project site (CDFW 2019a). This species is known only from Santa Cruz County (CNPS 2019).
Chorizanthe robusta var. *robusta*	robust spineflower	FE/None/1B.1	Chaparral (maritime), Cismontane woodland (openings), Coastal dunes, Coastal scrub; sandy or gravelly/annual herb/Apr–Sep/5–985	**Not expected to occur.** No chaparral, cismontane woodland, or coastal dunes or scrub habitat present. There are no sandy or gravelly soils at the project site. This species is presumed extirpated from Santa Clara County (CNPS 2019).
Cirsium fontinale var. *campylon*	Mt. Hamilton fountain thistle	None/None/1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland; serpentinite seeps/ perennial herb/(Feb) Apr–Oct/ 325–2920	**Not expected to occur.** Grassland at the site lacks serpentinite seeps preferred by this species. The closest documented occurrence is approximately 8.5 miles southeast of the site within the Sierra Azul Open Space Preserve; plants were observed growing at a serpentine drainage and seep (CDFW 2019a).
Cirsium fontinale var. *fontinale*	Crystal Springs fountain thistle	FE/SE/1B.1	Chaparral (openings), Cismontane woodland, Meadows and seeps, Valley and foothill grassland; Serpentinite seeps/perennial herb/ (Apr)May–Oct/145–575	**Not expected to occur.** Grassland at the site lacks serpentinite seeps. The closest documented occurrence is approximately 17 miles northwest of the project site; plants were observed growing in wetland and serpentine seep habitat (CDFW 2019a). This species is known only from San Mateo County (CNPS 2019).

Table 3.3-3
Special-Status Plant Species Occurrence Potential on the Project Site

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)[1]	Potential to Occur
Cirsium praeteriens	lost thistle	None/None/1A	unknown/perennial herb/June–July/0–330	**Not expected to occur.** Little information is available for this species, which is considered extinct and has not be documented in California since the 20th century (CNPS 2019; CCH 2018).
Collinsia corymbosa	round-headed Chinese-houses	None/None/1B.2	Coastal dunes/annual herb/Apr–June/0–65	**Not expected to occur.** No coastal dunes present.
Collinsia multicolor	San Francisco collinsia	None/None/1B.2	Closed-cone coniferous forest, Coastal scrub; sometimes serpentinite/ annual herb/(Feb)Mar–May/ 95–820	**Not expected to occur.** No closed-cone coniferous forest or coastal scrub present.
Dirca occidentalis	western leatherwood	None/None/1B.2	Broadleafed upland forest, Closed-cone coniferous forest, Chaparral, Cismontane woodland, North Coast coniferous forest, Riparian forest, Riparian woodland; mesic/perennial deciduous shrub/Jan–Mar(Apr)/80–1395	**Low potential to occur.** The riparian woodland may provide potential habitat. The closest documented occurrence is approximately 3.8 miles west of the site on the east side of Stevens Creek Reservoir (CDFW 2019a).
Dudleya abramsii ssp. *setchellii*	Santa Clara Valley dudleya	FE/None/1B.1	Cismontane woodland, Valley and foothill grassland; serpentinite, rocky/perennial herb/Apr–Oct/195–1495	**Not expected to occur.** Grassland at the site is disturbed and lacks serpentinite substrates preferred by this species. The closest documented occurrence is for plants growing on serpentinite outcrops, approximately 7.5 miles east of the project site (CDFW 2019a).
Eriogonum nudum var. *decurrens*	Ben Lomond buckwheat	None/None/1B.1	Chaparral, Cismontane woodland, Lower montane coniferous forest (maritime ponderosa pine sandhills); sandy/perennial herb/ June–Oct/160–2625	**Not expected to occur.** No suitable habitat present. There are no documented occurrences within 10 miles of the project site (CDFW 2019a). The distribution or identify of this species in Santa Clara County is uncertain (CNPS 2019).
Eriophyllum latilobum	San Mateo woolly sunflower	FE/SE/1B.1	Cismontane woodland (often serpentinite, on roadcuts), Coastal scrub, Lower montane coniferous forest/perennial herb/ May–June/145–1085	**Not expected to occur.** No cismontane woodland, coastal scrub, or lower montane coniferous forest present. This species is known only from San Mateo County (CNPS 2019).

Table 3.3-3
Special-Status Plant Species Occurrence Potential on the Project Site

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)[1]	Potential to Occur
Eryngium aristulatum var. *hooveri*	Hoover's button-celery	None/None/1B.1	Vernal pools/annual/perennial herb/(June)July(Aug)/5–150	**Not expected to occur.** No vernal pools present. The distribution in Santa Clara County is uncertain, but if once present, this species is now presumed extirpated (CNPS 2019).
Eryngium jepsonii	Jepson's coyote thistle	None/None/1B.2	Valley and foothill grassland, vernal pools; clay/perennial herb/Apr–Aug/5–985	**Not expected to occur.** Grassland at the site is disturbed and does not provide suitable clay soils. This species is not known to occur in Santa Clara County (CNPS 2019).
Extriplex joaquinana	San Joaquin spearscale	None/None/1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland; alkaline/annual herb/Apr–Oct/0–2740	**Not expected to occur.** Grassland at the site is disturbed and does not provide suitable alkaline soils. This species is presumed extirpated from Santa Clara County (CNPS 2019).
Fissidens pauperculus	minute pocket moss	None/None/1B.2	North coast coniferous forest (damp coastal soil)/moss/N.A./30–3360	**Not expected to occur.** No north coast coniferous forest present.
Fritillaria liliacea	fragrant fritillary	None/None/1B.2	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland; often serpentinite/perennial bulbiferous herb/Feb–Apr/5–1345	**Low potential to occur.** Grassland at the site provides marginal habitat because it is dominated by non-natives and lacks serpentinite soils. The closest documented occurrence is approximately 8 miles southeast of the project site in New Almaden Quicksilver County Park (CDFW 2019a). Non-native plants are considered a threat to this species (CNPS 2019).
Grimmia torenii	Toren's grimmia	None/None/1B.3	Chaparral, cismontane woodland, lower montane coniferous forest; openings, rocky, boulder and rock walls, carbonate, volcanic/moss/N.A./1065–3805	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable habitat present. This species is not known to occur in Santa Clara County (CNPS 2019).
Grimmia vaginulata	vaginulate grimmia	None/None/1B.1	Chaparral (openings); rocky, boulder and rock walls, carbonate/ moss/N.A./2245–2245	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable habitat present. This species is known only from San Bernardino and Santa Cruz Counties (CNPS 2019).
Hesperevax sparsiflora var. *brevifolia*	short-leaved evax	None/None/1B.2	Coastal bluff scrub (sandy), coastal dunes, coastal prairie/annual herb/Mar–June/0–705	**Not expected to occur.** No coastal bluff scrub, dunes, or prairie present. This species is not known to occur in Santa Clara County (CNPS 2019).

Table 3.3-3
Special-Status Plant Species Occurrence Potential on the Project Site

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)[1]	Potential to Occur
Hesperocyparis abramsiana var. *abramsiana*	Santa Cruz cypress	FT/SE/1B.2	Closed-cone coniferous forest, chaparral, lower montane coniferous forest; sandstone or granitic/ perennial evergreen tree/N.A./915–2625	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable habitat present. This species is known only from Santa Cruz County (CNPS 2019).
Hesperocyparis abramsiana var. *butanoensis*	Butano Ridge cypress	FT/SE/1B.2	Closed-cone coniferous forest, chaparral, lower montane coniferous forest; Sandstone/ perennial evergreen tree/Oct/1310–1610	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable habitat present. This species is known only from San Mateo County (CNPS 2019).
Hesperolinon congestum	Marin western flax	FT/ST/1B.1	Chaparral, valley and foothill grassland; serpentinite/annual herb/Apr–July/15–1215	**Not expected to occur.** Grassland at the site is disturbed and lacks serpentinite soils. The closest documented occurrence is for plants growing on serpentine soils approximately 17 miles northwest of the project site (CDFW 2019a). This species is not known to occur in Santa Clara County (CNPS 2019).
Hoita strobilina	Loma Prieta hoita	None/None/1B.1	Chaparral, cismontane woodland, riparian woodland; usually serpentinite, mesic/ perennial herb/May–July(Aug–Oct)/95–2820	**Low potential to occur.** Riparian woodland at the site provides marginal habitat as it lacks serpentinite soils preferred by this species. The closest record is based on a 1913 collection in the vicinity of Saratoga, approximately 0.5 miles southwest of the project site (CDFW 2019a).
Lasthenia conjugens	Contra Costa goldfields	FE/None/1B.1	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools; mesic/ annual herb/Mar–June/ 0–1540	**Not expected to occur.** No cismontane woodland, mesic grasslands, playas, or vernal pools present. This species is considered extirpated from Santa Clara County (CNPS 2019).
Legenere limosa	Legenere	None/None/1B.1	Vernal pools/annual herb/Apr–June/0–2885	**Not expected to occur.** No vernal pools present.
Lessingia micradenia var. *glabrata*	smooth lessingia	None/None/1B.2	Chaparral, cismontane woodland, valley and foothill grassland; serpentinite, often roadsides/annual herb/ (Apr–June)July–Nov/ 390–1380	**Not expected to occur.** Grassland at the site is disturbed and lacks suitable serpentinite soils. The closest documented occurrence is for plants growing on a serpentine hillside approximately 8 miles southeast of the project site (CDFW 2019a).
Malacothamnus arcuatus	arcuate bush-mallow	None/None/1B.2	Chaparral, cismontane woodland/perennial evergreen shrub/ Apr–Sep/ 45–1165	**Not expected to occur.** No chaparral or cismontane woodland present. The closest documented occurrence is based on a 1906 collection approximately 1.4 miles southwest of the project site (CDFW 2019a).

Table 3.3-3
Special-Status Plant Species Occurrence Potential on the Project Site

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)[1]	Potential to Occur
Malacothamnus davidsonii	Davidson's bush-mallow	None/None/1B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland/ perennial deciduous shrub/June–Jan/ 605–3740	**Not expected to occur.** The site is outside of the species' known elevation range. The closest documented occurrence is approximately 75 miles south of the project site in Monterey County (CDFW 2019a).
Malacothamnus hallii	Hall's bush-mallow	None/None/1B.2	Chaparral, coastal scrub/perennial evergreen shrub/ (Apr)May–Sep(Oct)/ 30–2495	**Not expected to occur.** No chaparral or coastal scrub present.
Monolopia gracilens	woodland woolythreads	None/None/1B.2	Broadleafed upland forest (openings), chaparral (openings), cismontane woodland, north coast coniferous forest (openings), valley and foothill grassland; Serpentine/annual herb/ (Feb)Mar–July/325–3935	**Not expected to occur.** Grassland at the site is disturbed and lacks suitable serpentine soils. The closest documented occurrence is approximately 0.5 miles from the project site. The occurrence is based on 1893 and 1915 collections and the exact location of the occurrence is unknown (CDFW 2019a).
Navarretia prostrata	prostrate vernal pool navarretia	None/None/1B.1	Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools; mesic/annual herb/ Apr–July/5–3970	**Not expected to occur.** Grassland at the site is disturbed and lacks suitable alkaline soils. The closest documented occurrence is for plants growing in seasonal wetlands and created vernal pools, approximately 14 miles north of the project site (CDFW 2019a).
Orthotrichum kellmanii	Kellman's bristle moss	None/None/1B.2	Chaparral, Cismontane woodland; sandstone, carbonate/moss/Jan–Feb/1125–2245	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable habitat present. There are no documented occurrences within 10 miles of the project site (CDFW 2019a). This species is not known to occur in Santa Clara County (CNPS 2019).
Pedicularis dudleyi	Dudley's lousewort	None/SR/1B.2	Chaparral (maritime), cismontane woodland, north coast coniferous forest, valley and foothill grassland, coastal chaparral and forest/perennial herb/ Apr–June/195–2955	**Not expected to occur.** No suitable habitat present. The closest documented occurrence is for plants growing on sandstone outcrops or in chaparral openings, approximately 12 miles southwest of the project site (CDFW 2019a). This species is not known to occur in Santa Clara County (CNPS 2019).
Penstemon rattanii var. *kleei*	Santa Cruz Mountains beardtongue	None/None/1B.2	Chaparral, lower montane coniferous forest, north coast coniferous forest/perennial herb/ May–June/1310–3610	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable habitat present. The closest documented occurrence, based on 1920 and 1955 collections, is located

Table 3.3-3
Special-Status Plant Species Occurrence Potential on the Project Site

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)[1]	Potential to Occur
				approximately 12.5 miles southwest of the project site; habitat at the site is described as burned chaparral (CDFW 2019a).
Pentachaeta bellidiflora	white-rayed pentachaeta	FE/SE/1B.1	Cismontane woodland, valley and foothill grassland (often serpentinite)/annual herb/Mar–May/110–2035	**Not expected to occur.** Grassland at the site is disturbed and lacks serpentine soils. The closest documented occurrence is approximately 11.5 miles southwest of the project site; the occurrence is based on an 1893 collection from the hillsides north of Boulder Creek (CDFW 2019a). This species is not known to occur in Santa Clara County (CNPS 2019; CCH 2018).
Piperia candida	white-flowered rein orchid	None/None/1B.2	Broadleafed upland forest, lower montane coniferous forest, north coast coniferous forest; sometimes serpentinite/ perennial herb/(Mar) May–Sep/95–4300	**Not expected to occur.** No broadleafed upland forest, lower montane coniferous forest, north coast coniferous forest, or serpentinite soils present.
Plagiobothrys chorisianus var. *chorisianus*	Choris' popcornflower	None/None/1B.2	Chaparral, coastal prairie, coastal scrub; mesic/annual herb/ Mar–June/5–525	**Not expected to occur.** No chaparral, coastal prairie, or coastal scrub habitat present.
Plagiobothrys glaber	hairless popcornflower	None/None/1A	Meadows and seeps (alkaline), marshes and swamps (coastal salt)/ annual herb/Mar–May/ 45–590	**Not expected to occur.** No meadows, seeps, marshes, or swamps present.
Puccinellia simplex	California alkali grass	None/None/1B.2	Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools; alkaline, vernally mesic; sinks, flats, and lake margins/annual herb/ Mar–May/5–3050	**Not expected to occur.** Grassland at the site is not vernally mesic and there are no alkaline soils present. The closest documented occurrence is for plants growing in a grassy, alkali area of a vernal pool complex, approximately 14 miles north of the project site (CDFW 2019a).
Senecio aphanactis	chaparral ragwort	None/None/2B.2	Chaparral, cismontane woodland, coastal scrub; sometimes alkaline/ annual herb/Jan–Apr (May)/45–2625	**Not expected to occur.** No chaparral, cismontane woodland, or coastal scrub habitat present.
Silene verecunda ssp. *verecunda*	San Francisco campion	None/None/1B.2	Coastal bluff scrub, chaparral, coastal prairie, coastal scrub, valley and foothill grassland; sandy/perennial herb/(Feb)Mar–June (Aug)/ 95–2115	**Not expected to occur.** Grassland at the site is disturbed and lacks sandy soils. This species is not known to occur in Santa Clara County (CNPS 2019).

Table 3.3-3
Special-Status Plant Species Occurrence Potential on the Project Site

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)[1]	Potential to Occur
Stebbinsoseris decipiens	Santa Cruz microseris	None/None/1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland; open areas, sandy, shaly, or serpentine sites/annual herb/Apr–May/30–1640	**Not expected to occur.** The site is disturbed and lacks sandy, shaly, or serpentinite substrates. Additionally, this species is not known to occur in Santa Clara County (CNPS 2019). The closest documented occurrence is approximately 16 miles southwest of the project site (CDFW 2019a).
Streptanthus albidus ssp. *albidus*	Metcalf Canyon jewelflower	FE/None/1B.1	Valley and foothill grassland (serpentinite)/ annual herb/Apr–July/ 145–2625	**Not expected to occur.** Grassland at the site is disturbed and lacks suitable serpentinite substrates. The closest documented occurrence is for plants growing on a serpentine slope approximately 9 miles east of the project site (CDFW 2019a).
Streptanthus albidus ssp. *peramoenus*	most beautiful jewelflower	None/None/1B.2	Chaparral, cismontane woodland, valley and foothill grassland; serpentinite/annual herb/ (Mar)Apr–Sep(Oct)/ 310–3280	**Not expected to occur.** Grassland at the site is disturbed and lacks suitable serpentinite substrates. The closest documented occurrence is for plants growing on serpentine-Franciscan soils approximately 5.5 miles south of the project site (CDFW 2019a).
Stuckenia filiformis ssp. *alpina*	slender-leaved pondweed	None/None/2B.2	Marshes and swamps (assorted shallow freshwater)/perennial rhizomatous herb (aquatic)/May–July/ 980–7055	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable habitat present. This species is presumed extirpated from Santa Clara County (CNPS 2019).
Suaeda californica	California seablite	FE/None/1B.1	Marshes and swamps (coastal salt)/perennial evergreen shrub/ July–Oct/0–50	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable habitat present. This species is presumed extirpated from Santa Clara County (CNPS 2019).
Trifolium amoenum	two-fork clover	FE/None/1B.1	Coastal bluff scrub, valley and foothill grassland (sometimes serpentinite)/annual herb/ Apr–June/15–1360	**Not expected to occur.** This species is presumed extirpated from Santa Clara County (CNPS 2019). The closest documented occurrence is for a 1950 collection approximately 15 miles northwest of the project site (CDFW 2019a).
Trifolium buckwestiorum	Santa Cruz clover	None/None/1B.1	Broadleafed upland forest, cismontane woodland, coastal prairie; gravelly, margins/annual herb/ Apr–Oct/340–2000	**Not expected to occur.** No broadleafed upland forest, cismontane woodland, or coastal prairie habitat present.

Table 3.3-3
Special-Status Plant Species Occurrence Potential on the Project Site

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)[1]	Potential to Occur
Trifolium hydrophilum	saline clover	None/None/1B.2	Marshes and swamps, Valley and foothill grassland (mesic, alkaline), vernal pools/ annual herb/Apr–June/ 0–985	**Not expected to occur.** Grassland at the site is disturbed and lacks suitable mesic conditions and alkaline soils. The closest documented occurrence is approximately 6 miles northeast of the project site. The occurrence is based on a 1903 collection with vague locational data (CDFW 2019a).
Trifolium polyodon	Pacific Grove clover	None/SR/1B.1	Closed-cone coniferous forest, coastal prairie, meadows and seeps, valley and foothill grassland; mesic, sometimes granitic/ annual herb/Apr–June (July)/15–1395	**Not expected to occur.** Grassland at the site is disturbed and lacks suitable mesic conditions preferred by this species. There are no granitic substrates at the project site. This species is not known to occur in Santa Clara County (CNPS 2019). The closest documented occurrence is approximately 12.5 miles southwest of the project site (CDFW 2019a).
Tropidocarpum capparideum	caper-fruited tropidocarpum	None/None/1B.1	Valley and foothill grassland (alkaline hills)/ annual herb/Mar–Apr/ 0–1495	**Not expected to occur.** Grassland at the site lacks alkaline soils preferred by this species. This species is presumed extirpated from Santa Clara County (CNPS 2019).

[1] **Sources:** CCH 2018, CDFW 2019a, CNPS 2019, Jepson Flora Project 2019.

Status Legend:
FE: Federally listed as endangered
FT: Federally listed as threatened
SE: State listed as endangered
ST: State listed as threatened
CRPR 1A: Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere
CRPR 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
CRPR 2A: Plants Presumed Extirpated in California, But More Common Elsewhere
CRPR 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
[1] Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
[2] Moderately threatened in California (20–80% occurrences threatened/moderate degree and immediacy of threat)
[3] Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

Loma Prieta hoita (*Hoita strobilina*, CRPR 1B.1) is a perennial herb found in usually moist, serpentine soils in chaparral, cismontane woodland, and riparian woodland habitats (CNPS 2019). It has a low potential to occur due to a lack of serpentine soils at the project site. The closest documented occurrence is from a historical 1913 collection in an area that is now fully developed. The next nearest documented occurrence is located approximately 4.5 miles south of the project site, outside of the Saratoga Creek watershed (CDFW 2019a). No evidence of this species was observed on the project site, nor were any species within the genus *Hoita* observed during the 2016, 2018, and 2019 biological surveys. This species is not anticipated to occur within the project development footprint.

Special-Status Wildlife

Results of the CNDDB and USFWS Information, Planning, and Conservation (IPaC) Trust Resource Report searches indicated 43 special-status wildlife species as occurring in the project site region or having potential to occur in the vicinity of the project site (Table 3.3-4) (USFWS 2019). Of these, 39 species are not expected to occur on the project site due to lack of suitable habitat or the site being outside of the species' known range. Three (3) of the remaining four (4) species have a low potential to occur on the site, and one has a moderate potential to occur. These species are discussed in more detail below.

Table 3.3-4
Special-Status Wildlife Species Occurrence Potential on the Project Site

Row Labels	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Amphibians				
Ambystoma californiense	California tiger salamander	FT/ST, WL	Annual grassland, valley–foothill hardwood, and valley–foothill riparian habitats; vernal pools, other ephemeral pools, and (uncommonly) along stream courses and human-made pools if predatory fishes are absent	**Not expected to occur**. No suitable aquatic breeding habitat or terrestrial refugia habitat present. The nearest documented occurrence is approximately 2.5 miles northeast of the project site. This occurrence is based on an 1895 collection and is considered extirpated due to urban development (CDFW 2019a).
Aneides ~~flavipunctatus~~ flavopunctatus niger	Santa Cruz black salamander	None/SSC	Restricted to mesic forests in the fog belt of the outer Coast Range of San Mateo, Santa Cruz, and Santa Clara counties. Mixed deciduous and coniferous woodlands and coastal grasslands. Occurs in moist streamside microhabitats and is found under rocks, talus, and damp woody debris.	**Not expected to occur.** The project site is surrounded by dense urban development and does not provide suitable habitat. Suitable mesic forest habitat is neither immediately up nor downstream of the site. The nearest documented occurrence, based on 1946, 1949, and 1967 collections, is approximately 0.5 miles southwest of the project site (CDFW 2019a).

Table 3.3-4
Special-Status Wildlife Species Occurrence Potential on the Project Site

Row Labels	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Dicamptodon ensatus	California giant salamander	None/SSC	Known from wet coastal forests and chaparral near streams and seeps from Mendocino County south to Monterey County and east to Napa County Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	**Not expected to occur.** The project site is surrounded by dense urban development and does not provide suitable habitat. Suitable forest or chaparral habitat is neither immediately up nor downstream of the site. The nearest documented occurrence, based on a historical 1913 collection, is approximately 1 mile southwest of the project site. There are many more occurrences documented in the mountains west of the site (CDFW 2019a).
Rana boylii	foothill yellow-legged frog	None/SSC, PST	Rocky streams and rivers with open banks in forest, chaparral, and woodland	**Not expected to occur.** No suitable habitat present. The project site is surrounded by dense urban development. The nearest documented occurrence, based on a 1913 collection, is approximately 1 mile southwest of the project site. There are many more occurrences documented in the rural mountains west of the site (CDFW 2019a).
Rana draytonii	California red-legged frog	FT/SSC	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	**Not expected to occur.** Although Saratoga Creek adjacent to the project site provides potential migratory habitat, there are no known breeding populations within dispersal distance (i.e., 2 miles) of the site (CDFW 2019a). Additionally, the project site is surrounded by dense urban development. The nearest occurrence was documented in 1997, approximately 2.6 miles southwest of the project site (CDFW 2019a).
Taricha rivularis	red-bellied newt	None/SSC	Redwood forests (and sometimes other forest types) along coastal drainages from Humboldt County south to Sonoma County, inland to Lake County. Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 1 kilometer to breed, typically in streams with moderate flow and clean rocky substrate.	**Not expected to occur.** No suitable habitat present and the site is outside of the species' known geographic range.

Table 3.3-4
Special-Status Wildlife Species Occurrence Potential on the Project Site

Row Labels	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Reptiles				
Actinemys marmorata	western pond turtle	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	**Low potential to occur.** Potential migratory habitat for this species occurs in Saratoga Creek adjacent to the project site, but not in the project site. No suitable upland nesting habitat present. The nearest documented occurrence is for turtles sighted in an artificial reservoir in 2002, approximately 3 miles southeast of the site (CDFW 2019a).
Anniella pulchra	Northern California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and sandy or loose, loamy soils	**Not expected to occur.** No suitable soils present. The nearest documented occurrence, based on historical collections, is approximately 4.3 miles northeast of the project site; the occurrence is considered possibly extirpated due to urban development (CDFW 2019a).
Thamnophis sirtalis tetrataenia	San Francisco garter snake	FE/FP, SE	Wide range of habitats including grasslands or wetlands adjacent to ponds, marshes, and sloughs	**Not expected to occur.** No suitable habitat present. The nearest documented occurrence is mapped as an entire quad approximately 6.5 miles west of the project site; the exact location of the occurrence is considered sensitive and not provided (CDFW 2019a).
Birds				
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, SE	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	**Not expected to occur.** No suitable nesting or nearby foraging habitat present. There are no documented occurrences within 8 miles of the project site (CDFW 2019a).
Aquila chrysaetos (nesting and wintering)	golden eagle	BCC/FP, WL	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	**Not expected to occur.** No suitable nesting or nearby foraging habitat present. There are no documented occurrences within 10 miles of the project site (CDFW 2019a).
Asio otus (nesting)	long-eared owl	None/SSC	Nests in riparian habitat, live oak thickets, other dense stands of trees, edges of coniferous forest; forages in nearby open habitats	**Not expected to occur**. No suitable edge habitat present. The nearest occurrence, documented in 1987, is located approximately 7.7 miles west-northwest of the project site, within the Monte Bello Open Space Preserve (CDFW 2019a).

Table 3.3-4
Special-Status Wildlife Species Occurrence Potential on the Project Site

Row Labels	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Athene cunicularia (burrow sites and some wintering sites)	burrowing owl	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	**Not expected to occur**. No suitable ground squirrel burrows present at the site. The undeveloped parcel south of the site is regularly disked and as a result, is unlikely to provide nesting habitat (Google Earth 2019). The nearest documented occurrence is located approximately 4.4 miles north of the project site (CDFW 2019a).
Brachyramphus marmoratus (nesting)	marbled murrelet	FT/SE	Nests in old-growth coastal forests, forages in subtidal and pelagic habitats	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable habitat present.
Buteo swainsoni (nesting)	Swainson's hawk	BCC/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable nesting or foraging habitat present.
Charadrius alexandrinus nivosus (nesting)	western snowy plover	FT, BCC/SSC	On coasts nests on sandy marine and estuarine shores; in the interior nests on sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable nesting habitat present.
Circus hudsonius (nesting)	northern harrier	None/SSC	Nests in open wetlands (marshy meadows, wet lightly grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable nesting habitat present.
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT, BCC/SE	Nests in dense, wide riparian woodlands and forest with well-developed understories	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable nesting habitat present.

Table 3.3-4
Special-Status Wildlife Species Occurrence Potential on the Project Site

Row Labels	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Coturnicops noveboracensis	yellow rail	BCC/SSC	Nesting requires wet marsh/sedge meadows or coastal marshes with wet soil and shallow, standing water	**Not expected to occur.** No suitable habitat present. The nearest documented occurrence is for a historical (1895) occurrence located in the vicinity of San Jose. The next nearest occurrence, also for a historical (1901) occurrence, is located 8.8 miles north of the project site, near the bay at Mountain View (CDFW 2019a).
Elanus leucurus (nesting)	white-tailed kite	None/FP	Nests in woodland, riparian, and individual trees near open lands; rarely occurs far from agricultural areas; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	**Not expected to occur.** No suitable nesting habitat present. The project site is surrounded by dense urban development, and there are no expansive agricultural areas or other foraging option in proximity of the project site. The nearest documented occurrence is located at the Blackberry Farm Golf Course, approximately 3.7 miles northwest of the project site (CDFW 2019a).
Falco peregrinus anatum (nesting)	American peregrine falcon	FDL, BCC/FP, SDL	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	**Not expected to occur.** No suitable nesting habitat present. The nearest documented occurrence is for a breeding pair using a nest box in the vicinity of Campbell and Santa Clara (CDFW 2019a).
Geothlypis trichas sinuosa	saltmarsh common yellowthroat	BCC/SSC	Nests and forages in emergent wetlands including woody swamp, brackish marsh, and freshwater marsh	**Not expected to occur.** No suitable habitat present. The nearest documented occurrence is located in tidal marsh habitat, approximately 9 miles north of the project site (CDFW 2019a).
Haliaeetus leucocephalus (nesting and wintering)	bald eagle	FDL, BCC/FP, SE	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	**Not expected to occur.** No suitable nesting habitat present. There are no documented occurrences within 10 miles of the project site (CDFW 2019a).
Laterallus jamaicensis coturniculus	California black rail	BCC/FP, ST	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable habitat present.

Table 3.3-4
Special-Status Wildlife Species Occurrence Potential on the Project Site

Row Labels	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Melospiza melodia pusillula	Alameda song sparrow	BCC/SSC	Nests and forages in tidal saltmarsh	**Not expected to occur.** The site is outside of the species' known geographic range (Shuford and Gardali 2008). There is no suitable habitat present.
Progne subis (nesting)	purple martin	None/SSC	Nests and forages in woodland habitats including riparian, coniferous, and valley foothill and montane woodlands; in the Sacramento region often nests in weep holes under elevated freeways	**Not expected to occur.** The site is outside of the species' known geographic range. The nearest documented occurrence is approximately 10 miles southeast of the project site (CDFW 2019a).
Rallus obsoletus obsoletus	Ridgway's rail	FE/SE, FP	Coastal salt or brackish marshes	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable habitat present.
Rynchops niger (nesting colony)	black skimmer	BCC/SSC	Nests on barrier beaches, shell banks, spoil islands, and saltmarsh; forages over open water; roosts on sandy beaches and gravel bars	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable nesting habitat present.
Sternula antillarum browni (nesting colony)	California least tern	FE/FP, SE	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable nesting habitat present.
Fishes				
Hypomesus transpacificus	Delta smelt	FT/SE	Sacramento–San Joaquin Delta; seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable habitat present.
Oncorhynchus kisutch pop. 4	coho salmon – central California coast evolutionary significant unit	FE/SE	Streams and small freshwater tributaries during first half of life cycle and estuarine and marine waters of the Pacific Ocean during the second half of life cycle. Spawns in small streams with stable gravel substrates.	**Not expected to occur.** The project site is located within the species' historical range, where this species is now considered to be likely extirpated due to downstream fish passage barriers (CDFW 2019a).
Oncorhynchus mykiss irideus pop. 8	steelhead – central California coast DPS	FT/None	Coastal basins from Redwood Creek south to the Gualala River, inclusive; does not include summer-run steelhead	**Not expected to occur.** Saratoga Creek adjacent to the site is upstream of the San Jose Water Company diversion site, which is considered total barrier to fish passage (CDFW 2019a).
Spirinchus thaleichthys	longfin smelt	FC/SSC, ST	Aquatic, estuary	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable habitat present.

Table 3.3-4
Special-Status Wildlife Species Occurrence Potential on the Project Site

Row Labels	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Mammals				
Antrozous pallidus	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in human-made structures and trees	**Low potential to occur.** Trees at the site are located in an area of regular human disturbance and as a result, only provide marginal roosting habitat. The nearest documented occurrence, based on 1942 and 1943 collections, is approximately 6.3 miles northeast of the project site (CDFW 2019a).
Corynorhinus townsendii	Townsend's big-eared bat	None/SSC	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, human-made structures, buildings, and tunnels	**Low potential to occur.** Buildings adjacent to the site are frequently occupied and as a result, only provides marginal roosting habitat. The nearest documented occurrence is in a rural mountainous area, approximately 4.6 miles west of the project site (CDFW 2019a).
Neotoma fuscipes annectens	San Francisco dusky-footed woodrat	None/SSC	Forest habitats with a moderate canopy and moderate to dense understory	**Moderate potential to occur.** Riparian woodland, adjacent to the site, provides potential habitat. No woodrat nests were observed at the project site during the 2016 and 2019 surveys. The nearest documented occurrence is approximately 2 miles northeast of the project site, along Saratoga Creek; the occurrence is for a large stick nest with fresh sign documented in 2016 (CDFW 2019a).
Reithrodontomys raviventris	salt-marsh harvest mouse	FE/FP, SE	Saline emergent wetlands, preference for pickleweed saline emergent wetlands; also uses adjacent grasslands	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable habitat present.
Sorex vagrans halicoetes	salt-marsh wandering shrew	None/SSC	Saltmarsh inundated daily by tidal waters	**Not expected to occur.** The site is outside of the species' known geographic range and there is no suitable habitat present.
Taxidea taxus	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	**Not expected to occur.** No suitable soils or burrows present. The nearest documented occurrence is located in the Skyline Ridge Open Space Preserve, approximately 9 miles west-northwest of the project site (CDFW 2019a).
Invertebrates				
Callophrys mossii bayensis	San Bruno elfin butterfly	FE/None	Coastal chaparral, on steep north-facing slopes, and in fog-belt of the mountains near San Francisco Bay	**Not expected to occur.** No suitable habitat present.

Table 3.3-4
Special-Status Wildlife Species Occurrence Potential on the Project Site

Row Labels	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Euphydryas editha bayensis	Bay checkerspot butterfly	FT/None	Serpentine or serpentine-like grasslands	**Not expected to occur.** No suitable habitat present.
Lepidurus packardi	vernal pool tadpole shrimp	FE/None	Ephemeral freshwater habitats including alkaline pools, clay flats, vernal lakes, vernal pools, and vernal swales	**Not expected to occur.** No suitable habitat present.
Trimerotropis infantilis	Zayante band-winged grasshopper	FE/None	Isolated sandstone deposits in the Santa Cruz Mountains (the Zayante Sand Hills ecosystem)	**Not expected to occur.** No suitable habitat present.

Status Legend:
FE: Federally listed as endangered
FT: Federally listed as threatened
PF: Proposed for federal listing
SE: State listed as endangered
ST: State listed as threatened
SSC: State Species of Special Concern

Wildlife Species Potentially Occurring on the Project Site

Western pond turtle (CDFW Species of Special Concern) utilizes rivers, lakes, streams, ponds, wetlands, ephemeral creeks, reservoirs, agricultural ditches, estuaries, and brackish waters, and upland habitats adjacent to these areas for nesting (CDFW 2019b). This species has a low potential to occur at the project site. Saratoga Creek adjacent to the project site provides a potential migratory corridor for western pond turtle. There is moderately dense cover above the creek, which reduces the availability of basking habitat for this species. As a result, it is unlikely that western pond turtle, if present in Saratoga Creek, would remain for extended periods. Additionally, the steep southern bank of Saratoga Creek likely precludes access to the project site from the creek. There are no suitable aquatic features for this species within the project site. This species is not likely to occur on the proposed project site.

Pallid bat (*Antrozous pallidus;* CDFW Species of Special Concern) occupies a variety of habitats including grassland, shrubland, woodland, and forests from sea level up through mixed conifer forest. They utilize crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live or dead trees for day roosting. Maternity roosts are usually located in rock crevices or buildings, and hibernation may occur in caves and mines (NatureServe 2019). They are very sensitive to disturbance of their roosting sites (CDFW 2019b). Pallid bat prefer foraging in open areas, such as grasslands, adjacent to suitable roosting sites (CDFW 2019b).

Pallid bat has a low potential to occur on the project site. There are no caves, mines, crevices, or hollow trees on the project site. In addition, the project site is generally surrounded by urban development, including residential dwellings, commercial buildings, and roadways. It is unlikely that this species would utilize trees or structures adjacent to the site for roosting as they are located in an area of regular human disturbance. Grassland on site provides marginal foraging habitat due to a general lack of suitable roosting habitat in the vicinity. No evidence of roosting (e.g., guano, urine stains, and insect prey remains) was noted during the 2016, 2018, and 2019 biological surveys. Given the disturbed nature of the site and surrounding area, this species is not likely to occur on the project site.

Townsend's big-eared bat (*Corynorhinus townsendii*; CDFW Species of Special Concern) occupies xeric areas, as well as mesic coniferous and deciduous forests and riparian habitat. In California, Townsend's big-eared bat typically roost in limestone caves, lava tubes, and human-made structures. Maternity and hibernation roosts are normally limited to caves and mine tunnels. This species appears to select relatively cold places for hibernation, often near entrances and in well-ventilated areas. They prefer foraging in riparian edge habitats and have been documented avoiding grasslands when travelling between roost and foraging sites (NatureServe 2019).

Townsend's big-eared bat has a low potential to occur in the project site. There are no limestone caves, lava tubes, or tunnels in the project site. It is unlikely that this species would utilize structures adjacent to the site for roosting, as they are located in an area of regular human disturbance. The riparian corridor adjacent to the site provides marginal foraging habitat due to a general lack of suitable roosting habitat in the vicinity. No evidence of roosting (e.g., guano, urine stains, and insect prey remains) was noted during the 2016, 2018, and 2019 biological surveys. Given the disturbed nature of the site and surrounding area, this species is not likely to occur on site during construction of the proposed project.

San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*; CDFW Species of Special Concern) occur in forest habitats with a moderate overstory canopy and moderate to dense understory. They are nocturnal and feed on a variety of woody plants, including elderberry and live oaks, and typically build their stick nests at the base of a tree or shrub surrounded by a well-developed understory. This species is frequently preyed upon by owls, hawks, and coyotes (CDFW 2019b).

San Francisco dusky-footed woodrat has a moderate potential to occur in the vicinity of the project site. The riparian corridor along Saratoga Creek ~~adjacent~~ through ~~to~~ the project site contains elderberries and live oaks, thereby providing potential foraging opportunities for this species. However, the riparian corridor is narrow and lacks the continuous, dense understory preferred by this species. No stick nests were observed in or adjacent to the project site during the 2016, 2018, and 2019 biological surveys. The nearest documented occurrence is for a stick nest below an

elderberry along Saratoga Creek, approximately 2.3 miles upstream of the project site. Given the proximity of the record and its similar habitat type, this species could forage adjacent to the project site, but it is unlikely they would travel through the grassland on site as it generally lacks protective cover for predator avoidance.

Sensitive Natural Communities

Sensitive natural communities (alliances and their associations) are defined by CDFW using Holland types (Sawyer et al. 2009). Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe's Heritage Methodology, in which all alliances are listed with a G (global) and S (state) rank. For alliances with state ranks of S1–S3 (S1: critically imperiled; S2: imperiled; S3: vulnerable) as identified in the List of Vegetation Alliances and Associations (CDFW 2018a) and subsequent updates, all associations within them are also considered to be highly imperiled. Impacts to sensitive habitats could be considered significant under CEQA.

Of the four (4) vegetation communities/land cover types that occur within the project site, only one (1) is considered a sensitive natural community by CDFW: California sycamore woodland (discussed in detail above). Any impacts to this habitat, including removal or trimming (pruning) of vegetation, would potentially require a streambed alteration agreement with CDFW under Section 1602 of the California Fish and Game Code.

Potentially Jurisdictional Waters

There are no potentially jurisdictional waters, including wetlands, within the areas of proposed development on the proposed project site. Saratoga Creek is a potentially jurisdictional water located adjacent to the project site.

Wildlife Corridors and Habitat Linkages

Wildlife corridors are landscape features, usually linear in shape, that facilitate the movement of animals (or plants) over time between two or more patches of otherwise disjunct habitat. Corridors can be small and even human made (e.g., highway underpasses, culverts, bridges), narrow linear habitat areas (e.g., riparian strips, hedgerows), or wider landscape-level extensions of habitat that ultimately connect even larger core habitat areas. Depending on the size and extent, wildlife corridors can be used during animal migration, foraging events, and juvenile dispersal, and ultimately serve to facilitate genetic exchange between core populations, provide avenues for plant seed dispersal, enable increased biodiversity and maintenance of ecosystem integrity within habitat patches, and help offset the negative impacts of habitat fragmentation. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as stepping stones for wildlife dispersal (Hilty et al. 2006).

The California Essential Habitat Connectivity Project, developed by CDFW and the California Department of Transportation, identifies large, relatively natural habitat blocks within California that support native biodiversity and depicts the relative permeability of areas to provide some level of ecological connectivity between these habitat blocks. The Essential Connectivity Map indicates that the project site is not located within an area that provides connectivity between similar habitat patches (Figure 3.3-3, *Wildlife Corridors and Habitat Linkages*). The project site is surrounded by dense urban development and therefore only provides marginal habitat connectivity potential. Saratoga Creek adjacent to the project site provides a potential migratory corridor for wildlife.

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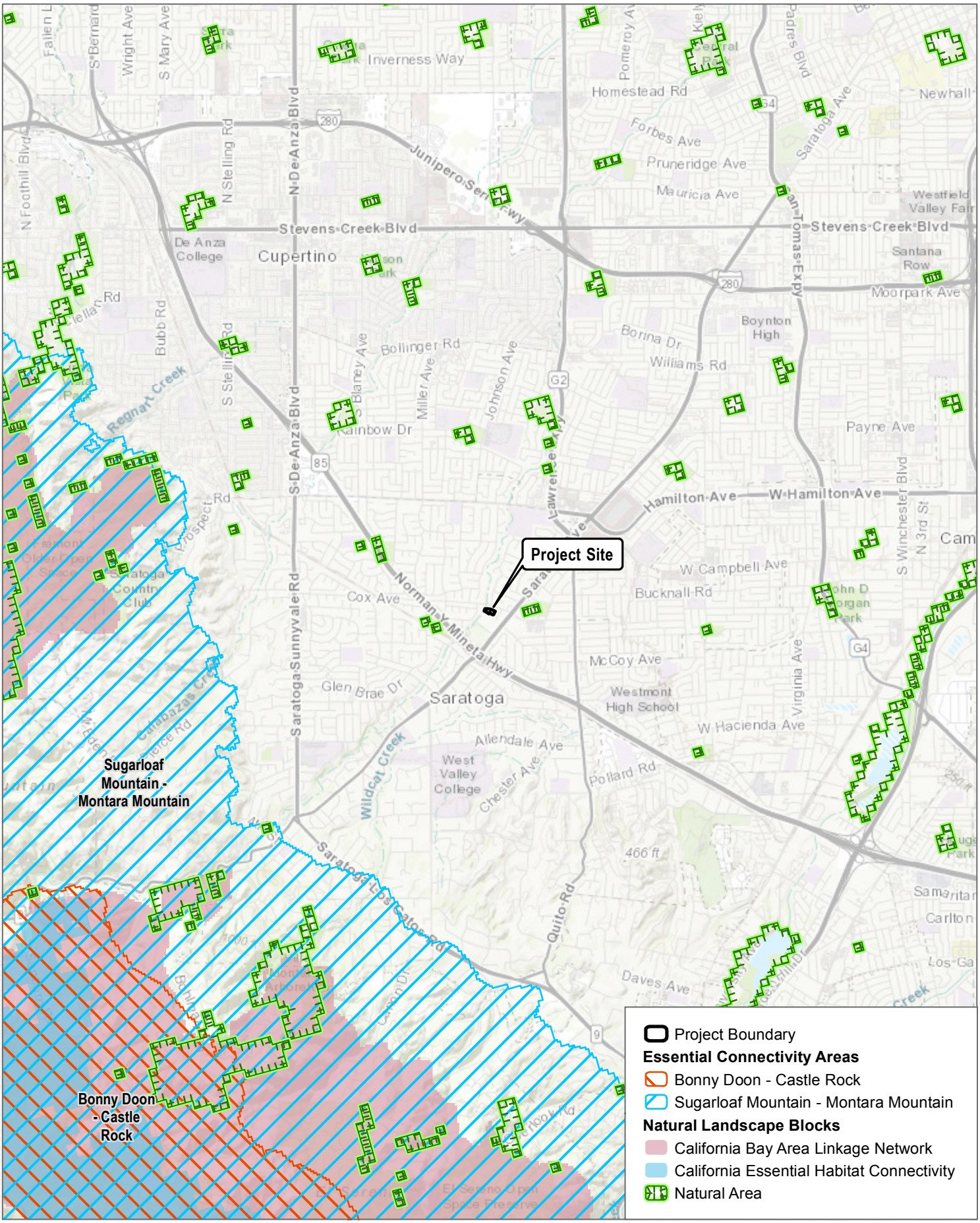

SOURCE: CDFW 2005/2006/2014, ESRI 2019

DUDEK

FIGURE 3.3-3

Wildlife Corridors and Habitat Linkages

Palm Villas Saratoga Project

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3.3.4 Regulatory Setting

3.3.4.1 Federal Regulations

Federal Endangered Species Act

Section 9 of the federal ESA protects federally listed endangered and threatened wildlife species from unlawful take (16 USC 1538[a][1]). “Take” is defined to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” (16 USC 1532[19]). In addition, federal agencies are required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under ESA or result in the destruction or adverse modification of critical habitat designated for such species (16 USC 1536[3]–[4]). Projects that would result in “take” of any federally listed threatened or endangered species are required to obtain authorization from the National Marine Fisheries Service and/or USFWS through either Section 7 (interagency consultation) or Section 10(a) (incidental take permit) of the ESA, depending on whether the federal government is involved in permitting or funding the project.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 Code of Federal Regulations Section 10.13. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country, and is enforced in the United States by the USFWS. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors).

Federal Clean Water Act (Section 404)

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Under Section 404 of the CWA, the U.S. Army Corps of Engineers (ACOE) has the authority to regulate activities that could discharge fill or dredge material or otherwise adversely modify wetlands or other waters of the United States. The ACOE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function.

Federal Clean Water Act (Section 401)

The State Water Resources Control Board has authority over wetlands through Section 401 of the CWA, as well as the Porter-Cologne Water Quality Control Act (Porter-Cologne Act), California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy. The CWA requires that an applicant for a Section 404 permit (to discharge dredged or fill material

into waters of the United States) first obtain certification from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the State Water Resources Control Board to the nine regional boards. The San Francisco Bay Regional Water Quality Control Board (RWQCB) has authority for Section 401 compliance for the project site. A request for certification is submitted to the regional board at the same time that an application is filed with the ACOE.

3.3.4.2 State Regulations

California Endangered Species Act

The CESA prohibits the take of state-listed threatened or endangered species unless an incidental take permit is issued by CDFW pursuant to Section 2081 of the CESA. The state definition of take is similar to the federal definition, except that the CESA does not prohibit indirect harm to listed species by way of habitat modification. Pursuant to the requirements of CESA, a state agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present and the extent to which the project could potentially result in take of such species. CDFW also maintains a Special Animals List that includes species considered of "Special Concern" in California. A Species of Special Concern is a species, subspecies, or distinct population of an animal native to California that typically meets the state definition of threatened or endangered but has not formally been listed; is experiencing serious (noncyclical) population declines or range retractions that, if continued or resumed, could qualify it as state threatened or endangered; or has naturally small populations exhibiting high susceptibility to risk from any factor(s) that, if realized, could lead to declines that would qualify it for state threatened or endangered status.

California Fish and Game Code Sections 1940, 3503, 3511, 3513 and 4150

California Fish and Game Code Section 1940 requires CDFW to develop and maintain a vegetation mapping standard for the state. Over half the vegetation communities in the state have been mapped through the Vegetation Classification and Mapping Program.

California Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 protects species considered fully protected. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA.

California Fish and Game Code Section 4150 states a mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a non-game

mammal. A non-game mammal may not be taken or possessed under this code. All bat species occurring naturally in California are considered non-game mammals and are therefore prohibited from take as stated in California Fish and Game Code Section 4150.

CDFW Lake and Streambed Alteration Agreement

Under Sections 1600–1616 of the California Fish and Game Code, the CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW's jurisdiction are defined in the code as the "bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit" (Section 1601). In practice, the CDFW usually marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

CDFW Wetlands Protection Regulations

CDFW derives its authority to oversee activities that affect wetlands from state legislation. This authority includes Sections 1600-1616 of the California Fish and Game Code (lake and streambed alteration agreements), CESA (protection of state listed species and their habitats - which could include wetlands), and the Keene-Nejedly California Wetlands Preservation Act of 1976 (states a need for an affirmative and sustained public policy program directed at wetlands preservation, restoration, and enhancement). In general, the CDFW asserts authority over wetlands within the state either through review and comment on ACOE Section 404 permits, review and comment on CEQA documents, preservation of state listed species, or through stream and lakebed alteration agreements.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act established the State Water Resources Control Board and the RWQCBs as the principal state agencies responsible for the protection of water quality in California. The Porter-Cologne Act provides that "All discharges of waste into the waters of the State are privileges, not rights." Waters of the state are defined in Section 13050(e) of the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." All discharges are subject to regulation under the Porter-Cologne Act, including both point and nonpoint source discharges. The San Francisco Bay RWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction. As noted above, the San Francisco Bay RWQCB is the appointed authority for Section 401 compliance in the project site.

California Environmental Quality Act

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. These criteria have been modeled after the definition in the federal ESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals, and allows a public agency to undertake a review to determine if a significant effect on a species that has not yet been listed by either the USFWS or CDFW (i.e., species of concern) would occur. Whether a species is rare, threatened, or endangered can be legally significant because, under CEQA Guidelines Section 15065, an agency must find an impact to be significant if a project would "substantially reduce the number or restrict the range of an endangered, rare, or threatened species." Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

3.3.4.3 Local Regulations

City of Saratoga General Plan

The Open Space and Conservation Element (City of Saratoga 2007) provides guidance for the protection of biological resources in Saratoga as set by its citizens and elected officials and includes objectives, goals, and policies regarding biological resources (City of Saratoga 2007).

Relevant General Plan policies related to biological resource are included below:

Open Space and Conservation Element

Goal OSC 11: Protect and enhance sensitive vegetative and wildlife habitat in the Saratoga Planning area.

- **Policy OSC 11.1**: Minimize development that would encroach into important wildlife habitats, limit or restrict normal range areas, or restrict access to water food or shelter. This includes limitations on the installation of barrier fencing in hillside areas.
- **Policy OSC 11.2**: Through the development and CEQA process, preserve, protect, and maintain riparian habitats and creek corridors. This includes requiring biological surveys of parcels of land that could contain sensitive species or their habitats prior to allowing development on these parcels.

- **Policy OSC 11.4**: The City should provide information and assistance to the public in the preservation and care of native trees whose existence can be threatened by environmental stress and development.
- **Policy OSC 11.5**: Mature vegetation shall be preserved wherever possible.
- **Policy OSC.11.a.** The City shall continue to utilize the design review and environmental review process for all development applications to ensure that projects are designed in a manner that minimizes disruption to important wildlife, riparian and plant habitats.
- **Policy OSC.11.b.** The City shall continue to require that all projects conform to the City's Tree Ordinance.

Goal OSC 12: Support appropriate management for sustaining the health and increasing the extent of arbor resources in the City. The specific vision is to increase overall tree cover, tree health and consequent tree benefits in an equitable, cost beneficial and sustainable manner.

- **Policy OSC 12.1**: Development projects should include the preservation of protected trees and other significant trees. Any adverse effect on the health and longevity of native oak trees, protected or other significant trees should be avoided through appropriate design measures and construction practices. When tree preservation is not feasible, individual development projects shall include appropriate tree replacement as approved by the City.
- **Policy OSC 12.2**: Trees used for new or replacement plantings should be selected primarily for low water use characteristics.
- **Policy OSC 12.3**: To further protect and enhance the City's arbor resources built on the City's Tree Regulations, the City should continue its support of tree protection programs.
- **Policy OSC 12.4**: It is the City's policy that forested lands in the City's Sphere of Influence shall be managed to maximize environmental protection and to discourage logging to the maximum extent possible, consistent with proper fire protection standards and practices.
- **Policy OSC.12:** The City shall continue to require that all development projects conform to the City's Tree Ordinance. The preservation of existing trees shall be ensured through the collection of security deposits.

Goal OSC 13: The preservation of native and other plant species indicative of Saratoga's cultural heritage shall be given priority over development and provide for the perpetuation of such species.

- **Policy OSC 13.1**: To further preserve the City's inventory of arbor resources, the City should encourage owners to consider formal designation of heritage trees.
- **Policy OSC 13.2**: The City shall encourage public knowledge, understanding and appreciation of the City's past and foster civic and neighborhood pride and sense of

identity based upon the recognition and use of the City's heritage resources, particularly as it relates to the designation and preservation of heritage trees. This can be done by publicizing information about heritage trees and the benefits of designation of heritage trees on the City's Website.

- **Policy OSC 13.3**: Fire safety shall be an important consideration when evaluating the preservation of native vegetation.
- **Policy OSC.13.a.** Continue to utilize the design review process, Historic Preservation Ordinance and Tree Ordinance to ensure preservation of significant arbor resources.

City of Saratoga Biological Resource Protection Ordinances

Creek Protection Setbacks (15-46.035): The City requires that new development conform to creek protection setbacks. Where a protected creek passes through or along a site, the building setbacks for any new construction shall be measured from the top of the creek bank(s) on the site rather than from the property lines of the site. Saratoga Creek is a protected creek located adjacent to the proposed project site.

Tree Removal Permit (15-50.050): The City requires that a tree permit be obtained prior to the removal of any protected trees, which are defined as meeting one or more of the following criteria listed below.

a) Any native tree having a DBH [diameter at breast height] of six inches or greater.

b) Any other tree having a DBH of ten inches or greater.

c) Any street tree, as defined in Section 15-50.020(v), regardless of size.

d) Any heritage tree, as defined in subsection 15-50.020(n), regardless of size.

e) Any tree required to be planted or retained as a condition of any approval granted under this Chapter or Chapter 14 of this Code.

f) Any tree required to be planted as a replacement, as provided in Section 15-50.170 of this Article.

According to the project's arborist report (dated December 4, 2017)**,** the proposed project would require the removal of five protected trees, including three coast live oaks and two Brazilian pepper trees (refer to Appendix C-3).

Tree Setbacks (15-50.120): The City requires that staging and new construction may not occur within the root zone of any protected tree without special design considerations approved by the Community Development Director and the City Arborist. According to City Code, the root zone is "a specifically defined area commencing at the trunk and moving outward to form an irregularly

shaped circle that follows the contour of the tree canopy and extending beyond the dripline of the tree by five feet or such greater distance determined by the City Arborist."

The project's arborist reports identifies the estimated location of tree protection fencing to be installed at the project site. The purpose of the fencing is to protect avoided trees from potential construction impacts, including impacts to the root zone of the avoided tree (refer to ~~Appendix~~ Appendices C-3 and C-4).

Tree Preservation Plan (15-50.140): The City requires the submittal of a tree preservation plan for project sites on which an arborist report is prepared. The plan must be approved by the Community Development director prior to the issuance of any grading or site improvement permits.

Tree Fund (15-50.150): The City requires mitigation for the removal of protected trees, which may be accomplished by tree replacement on or off site. If neither on- nor off-site replacement is feasible, monetary compensation for each removed tree may be directed into the City Tree Fund.

Santa Clara Valley Water District's Guidelines and Standards for Land Use Near Streams

Under Resolution 07-028, the City adopted the Santa Clara Valley Water Resources Protection Collaborative's *Guidelines & Standards for Land Use Near Streams: A Manual of Tools, Standards, and Procedures to Protect Streams and Streamside Resource in Santa Clara County* (hereafter referred to as Guidelines), which provides guidance to permitting agencies, homeowners, and developers on stream and riparian resource protection in Santa Clara County. Guidelines and standards applicable to the proposed project are discussed below.

Buffer Zones: Design Guides 1 and 7 of the Guidelines include recommended buffer zones between new developments or site improvements and stream resources, including stream channels and banks and surrounding riparian vegetation, if present.

Buffer zones play an important role in protecting the biological values of stream and riparian habitats, as well as providing long-term protection of property and structures from flooding and erosion. According to the Guidelines, setbacks for purposes of slope stability are typically measured from the top of bank and vary depending on geomorphic and hydrologic conditions of the stream, streambank characteristics such as composition and height, potential for instability or erosion, structure loading, and other environmental considerations. Buffer zones for streams, also identified as "slope stability protection areas," may range from 10 feet for ephemeral streams to 25 feet for unarmored streams. Buffer zones for riparian habitats may also vary; the buffer zone shall be consistent with on-site biotic conditions and may be determined by a qualified professional.

Riparian Restoration/Enhancement: The Guidelines recommend that any restoration or enhancement of riparian habitat be conducted in accordance with Design Guides 2 and 3. Design

Guide 2 requires that replacement plantings be maintained and monitored for a 3- to 5-year period to ensure healthy establishment and consist only of native watershed-specific plants or non-local California natives. Design Guide 3 provides guidance on the use of non-native plantings, including the use of drought-tolerant ornamental plants and drought-tolerant non-invasive plants.

Grading Near Streams: The Guidelines provide options for grading near streams that address potential impacts to stream and riparian habitats resulting from drainage and riparian vegetation disturbance. Specifically, the Guidelines recommend designing drainage and grading plans to minimize erosion and saturation of the streambank and maintain slope stability, riparian habitat, and water quality.

3.3.5 Impacts

3.3.5.1 Methods of Analysis

The analysis of impacts on biological resources is based on a review of special-status species and sensitive habitat occurrence records and relevant literature, multiple field assessments, and a review of comments provided in response to the NOP prepared for the project. In addition to the physical environmental impacts resulting from development of the project site, the analysis of impacts on biological resources also evaluates the proposed project's consistency with applicable prohibitions, policies, and goals of the above federal, state, and local regulations. An overview of the site assessment and literature review for the project is provided below.

Field Assessment

Dudek biologists and botanists performed biological surveys of the project site on March 5, 2018, and April 1, 2019. The surveys consisted of walking throughout the project site to collect data related to biological resources present or potentially present within the site. Vegetation communities, land cover types, and the top of bank of Saratoga Creek were mapped in the field using a combination of field notes and a Trimble Geo 7X GPS unit. Biologists mapped the riparian woodland to the edge of the tree canopy and the top of bank of Saratoga Creek according to industry standards. Biological resource mapping was conducted with a sub-meter accurate GPS unit to precisely demonstrate site conditions at the time of the 2019 survey. Biological resources mapped during the 2019 biological survey are depicted on Figures 3.3-4A and 3.3-4B. Incidental observations of wildlife (common and/or special-status) or wildlife signs (e.g., tracks, scat) were also recorded. The field assessments included the project site only; however, general characteristics of adjacent properties were also noted during the surveys by scanning with and without binoculars.

Literature Review

Special-status biological resources present or potentially present on the site were identified through a literature search using the following sources: USFWS IPaC Trust Resource Report (USFWS 2019); CDFW CNDDB; and the CNPS online Inventory of Rare and Endangered Vascular Plants. The database searches for the CNDDB and CNPS reports included the 7.5-minute U.S. Geological Survey Cupertino quadrangle and surrounding eight quadrangles, and the IPaC search included the project site. CRPR 1 and 2 plant species were included in the CNPS search (CNPS 2019). Following a review of these resources, Dudek determined the potential for each species to occur within the site based on a review of vegetation communities and available land cover types, habitat types, soils, and elevation preferences, as well as the known geographic range of each species. Species were not expected to occur when the site was clearly outside the known geographic range of the species or if there was no suitable habitat for the species on or adjacent to the site. Additionally, the Natural Resources Conservation Service (USDA 2019) Web Soil Survey was queried to determine soil types that exist within the boundary of the project site.

3.3.5.2 Thresholds of Significance

The significance criteria used to evaluate~~d~~ the proposed project's impacts to biological resources are based on the recommendations provided in Appendix G of the CEQA Guidelines. In accordance with Appendix G of the CEQA Guidelines and professional judgment, the project would have a significant impact on biological resources if it would do any of the following (14 CCR 15000 et seq.):

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- 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.
- 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

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

The significance of impacts to biological resources was assessed by comparing the potential changes resulting from the proposed project to the significance thresholds. An evaluation of whether or not an effect on biological resources would be substantial with respect to the significance thresholds generally considers the following:

- Amount and/or extent of the resource (numbers, acres, etc.) to be affected versus preserved
- The relative biological value (rarity, functions and values) and/or sensitivity status of the resource and its relevance within a specified geographical area
- The type and severity of impact, (i.e., would the project adversely affect wildlife through mortality, injury, displacement, or habitat loss or adversely impact vegetation through destruction of a sensitive plant population?)
- Timing of the impact, (i.e., would the impact occur at a critical time in the life cycle of a special-status plant or animal, such as breeding, nesting, or flowering periods?)
- Duration of the impact, (i.e., whether the impact is temporary or permanent)

The analysis of direct and indirect impacts covers construction, operation, and maintenance of the proposed development. Direct impacts include those that occur immediately as a result of the proposed project on a particular biological resource. Indirect impacts include those that are caused by the proposed project later in time, but that are still reasonably certain to occur.

3.3.5.3 Criteria not Applicable to the Proposed Project

Certain significance criteria are not applicable, and therefore, are not considered potential impacts. These criteria are addressed briefly below and are not discussed further in this document.

Habitat Conservation Plan/Natural Communities Conservation Plan

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. Because the project site is not located in an area subject to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other similar plan, there would be no impacts and this issue is not further addressed.

3.3.5.4 Impacts and Mitigation Measures

Impact 3.3-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

As discussed above and in Section 3.3.2, *Environmental Setting*, habitat for special-status species is generally limited in the project site. The site is seasonally mowed and the riparian corridor along Saratoga Creek is managed by the SCVWD, which implements various maintenance activities, such as silt removal, clearing of underbrush and other debris, and erosion control. Given the disturbed nature of the site, and its proximity to frequent human disturbance, the site has a low potential to support sensitive plant and wildlife species. The few resources that have potential to occur are discussed below, including any potential impacts to these resources as a result of the proposed project. The discussion below also addresses many comments received in response to the NOP including concerns associated with potential impacts to Saratoga Creek and its riparian corridor, including impacts to wildlife that use these habitats.

Special-Status Plant Species

As discussed above, there are four special-status plant species that have a low potential to occur at the project site: bent-flowered fiddleneck, western leatherwood, fragrant fritillary, and Loma Prieta hoita. None of these species, nor species of the same genus, were observed during the March 2016, March 2018, and April 2019 field assessments conducted at the project site. The project site is dominated by non-native species indicative of disturbed sites, which are less likely to support special-status plant species. Given the disturbed nature of the site and negative observations during the three recent site assessments, these species are not likely to occur at the site during project construction and no impacts to special-status plant species are anticipated.

Special-Status Wildlife Species

Western Pond Turtle

There is no suitable aquatic habitat for western pond turtle within the project site, which is dominated by annual grassland and other disturbed land cover types. The proposed project would avoid Saratoga Creek adjacent to the site, which provides poor habitat for western pond turtle due to a lack of suitable basking sites. Western pond turtle (similar to most turtles) are known to spend a large proportion of daylight hours basking on emergent rocks, logs, and matted plants in order to achieve higher body temperatures (Miller 1979). Western pond turtle use partially

submerged logs, rocks, and mats of floating vegetation as basking sites (CDFW 2019b), which are generally absent in Saratoga Creek adjacent to the project site.

Western pond turtle basking is similar to that of other freshwater turtles and has been documented to possess ecological and behavioral importance (Bury 1979; Reese and Welsh 1997). Aquatic emergent basking structures are important for thermoregulation, especially in the absence of warm water. Western pond turtle spend a large portion of the warmer months (April–September) in aquatic habitats that provide favorable environments for foraging, mating, basking, and predator avoidance. Access to quality, disturbance-free basking sites can be crucial in determining the overall health of a western pond turtle population because such sites allow the species to carry out activities necessary for survival and reproduction (Germano and Rathbun 2008).

Upland habitat for nesting or overwintering western pond turtle within the project site is poor as it lacks many microhabitat features preferred by this species, such as sparse to patchy vegetation and leaf litter. Nesting sites, which are usually located within a few hundred feet of water, tend to have sparse, low-growing vegetation consisting of patchy grass and forbs, although bare soil is preferable (Reese and Welsh 1997). Overwintering sites typically consist of woodland and shrubby habitats because these areas offer more terrestrial hiding cover (Holland 1994). The presence of a duff layer seems to be a common characteristic of overwintering habitat (Holland 1994). In addition to poor upland habitat for western pond turtle, the at least 3-foot-tall nearly vertical banks of Saratoga Creek likely preclude the possibility of western pond turtle accessing the uplands in the project site.

Direct impacts to western pond turtle are not likely given the lack of suitable aquatic and upland habitat within and adjacent to the project site, as well as poor site access. If western pond turtle were present in Saratoga Creek during construction, they could be indirectly impacted by the project should any fill, spills, or other project-related materials enter the creek. The proposed project would be constructed at least 25 feet from the top of bank of Saratoga Creek, and appropriate best management practices would be employed to minimize any potential indirect impacts to Saratoga Creek.

Bats (including Pallid Bat and Townsend's Big-eared Bat)

Structures and trees adjacent to the project site provide potential roosting habitat for many native bat species, including pallid bat and Townsend's big-eared bat. Native bats are protected by California Fish and Game Code, and Pallid bat and Townsend's big-eared bat are CDFW Species of Special Concern (CDFW 2018b).

As discussed in Section 3.3.2, *Environmental Setting*, it is unlikely that pallid bat and Townsend's big-eared bat would roost in or adjacent to the project site due to regular human disturbance and limited roosting opportunities in the area. As stated previously, pallid bat and Townsend's big-

eared bat are highly sensitive to disturbance of their roosting sites. Regular human foot traffic, noise, and lighting at the adjacent properties likely precludes the potential for these species to roost in the area. In addition, it is assumed that any other bats roosting or otherwise utilizing the area are fairly adapted to such activities and any additional human activity resulting from the proposed development is not expected to result in adverse impacts to these species.

The proposed project does not anticipate the removal of trees from the woodland along Saratoga Creek. However, because construction of the proposed project would occur in close proximity to potential roosting habitat for bats, construction-related noise could result in the disturbance of bat roosts if occupied during construction. This impact would be temporary, localized, and limited to daylight hours. No direct impacts to roosting bats are anticipated as no potential roosting sites, such as trees in the riparian corridor or adjacent constructed features, would be physically disturbed during construction of the proposed project.

San Francisco Dusky-Footed Woodrat

There is limited nesting habitat for San Francisco dusky-footed woodrat in the project site, which is largely dominated by open grassland. The proposed project would avoid Saratoga Creek and its riparian corridor, as well as the interior live oak trees south of the site. In addition, this species is nocturnal and unlikely to travel through the project site during daytime construction activities. No indirect effects, such as nest removal, are anticipated. However, since there is potential nesting habitat in the vicinity, San Francisco dusky-footed woodrat could be indirectly impacted by construction-related noise. This impact would be temporary and localized. In addition, noise levels associated with use of the project would be well within the City's noise thresholds and would be typical of noise from existing development surrounding the project site; refer to Section 3.11, Noise, for a full discussion.

Native Nesting Birds and Birds of Prey

Trees and other vegetation within the project site provide potential nesting habitat for native birds and birds of prey protected by the California Fish and Game Code and the federal MBTA. The proposed project would avoid higher-quality nesting habitat present along Saratoga Creek, and vegetation and tree removal in the project site would be minor. In addition, the project site is small compared to the surrounding area, which provides ample nesting opportunities for native birds and birds of prey.

Should native birds or birds of prey nest on or near the site prior to project construction, potential direct impacts could include harm or mortality by construction equipment and destruction of an active nest due to vegetation removal or grading activities. Potential indirect impacts could include abandonment of active nests by adults due to construction-related noise. These potential impacts would be avoided or minimized with implementation of Mitigation Measure (MM) BIO-5, which

requires that a qualified biologist survey for active nests prior to vegetation removal and employ no-disturbance buffers for any active nest identified on site.

The potential direct and indirect impacts associated with construction and operation of the project are considered substantial effects on a special-status species and, therefore, would be considered significant impacts pursuant to the CEQA significance thresholds identified above. With implementation of Mitigation Measure (MM) -BIO-1 through MM-BIO-5, potential direct and indirect impacts will be reduced to **less than significant with mitigation incorporated**.

Mitigation Measures

Measures to mitigate potentially significant impacts on special-status plant and wildlife species known to occur or potentially occurring on the project site are described below. The level of significance after mitigation is included following each mitigation measure.

MM-BIO-1: All construction workers shall receive a worker environmental awareness training (WEAT). The WEAT shall be prepared and conducted by a biologist familiar with potentially occurring special-status species and sensitive resources. The WEAT may also be conducted through a video or PowerPoint presentation created by a qualified biologist specifically for this project. The WEAT shall instruct workers on how to recognize all special-status plant/wildlife species and their preferred habitat potentially present in the project site, applicable laws and regulations regarding each species, actions to take if a special-status species is observed during construction activities including the name/contact information of the monitoring biologist, and the nature and purpose of protective measures including best management practices and other required mitigation measures. They shall also be instructed as to sensitive resource areas, including wetlands and waters of the United States, to avoid impacts within the project site other than where impacts have been authorized, and relevant laws and regulations for each resource.

Implementation of the actions and measures described in MM-BIO-1 would avoid/minimize potential impacts to special-status plants and wildlife with potential to occur on site (e.g., bent-flowered fiddleneck, western leatherwood, fragrant fritillary, Loma Prieta hoita, western pond turtle, San Francisco dusky-footed woodrat, native bats, and nesting birds) and sensitive natural communities near the project site (e.g., Saratoga Creek and sycamore woodland). Any potential impacts to these resources would be reduced to a less-than-significant level.

MM-BIO-2: Forty-eight (48) hours prior to the initiation of construction activities, a preconstruction survey for western pond turtle shall be performed by a biologist knowledgeable of western pond turtle biology. If a turtle is observed in the active construction zone, construction will be delayed and a qualified biologist will be

notified. Construction may resume when, through coordination with the California Department of Fish and Wildlife, the biologist has either relocated the turtle to nearby suitable habitat outside the construction zone, or, after thorough inspection, determined that the turtle has moved away from the construction zone.

Implementation of the actions and measures described in MM-BIO-1 and MM-BIO-2 would avoid/minimize potential impacts to western pond turtle such that any potential impacts to this species would be reduced to a less-than-significant level.

MM-BIO-3: Within two (2) weeks prior to construction, a qualified biologist shall conduct a habitat assessment for bats within the project site. The habitat assessment shall include a visual inspection of potential roosting features (bats need not be present) and for presence of guano within the project site and accessible areas within 50 feet. Potential roosting features found during the survey shall be flagged or marked. If bats (individuals or colonies) are detected, the California Department of Fish and Wildlife (CDFW) shall be notified immediately. If a bat roosting or maternity colony cannot be completely avoided, permittee and qualified biologist shall prepare a bat mitigation and monitoring plan for CDFW review and approval.

Implementation of the actions and measures described in MM-BIO-1 and MM-BIO-3 would avoid/minimize potential indirect impacts to native bats (including pallid bat and Townsend's big-eared bat) such that any potential impacts to these species would be reduced to a less-than-significant level.

MM-BIO-4: Within two (2) weeks prior to construction, a qualified biologist shall conduct a survey for potential woodrat nests at the project site, including a 10-foot buffer surrounding the site. If any woodrat nests are discovered during the survey, the nests will be avoided to the extent feasible. An exclusion buffer of at least 10 feet from nests shall be established to avoid moving or bumping the nests or the logs or branches on which the nests rest.

If establishing a buffer and avoiding the nests is not feasible, the nests shall be dismantled and the nesting material moved to a new location outside the project's impact area so that it can be used by woodrats to construct new nests. Prior to nest deconstruction, each active nest shall be disturbed by a qualified biologist to the degree that all woodrats leave the nest and seek cover out of the impact area. Whether the nest is on the ground or in a tree, the nest shall be slightly disturbed (nudged) to cause the woodrats to flee. For tree nests, a tarp shall be placed below the nest and the nest dismantled using hand tools (either from the ground or from a lift). The nest material shall then be piled at the base of a nearby tree or large shrub outside of the impact area.

Implementation of the actions and measures described in MM-BIO-1 and MM-BIO-4 would avoid/minimize potential indirect impacts to San Francisco dusky-footed woodrat such that any potential impacts to these species would be reduced to a less-than-significant level.

MM-BIO-5: If project construction is conducted during the nesting season (February 1 through August 30), a nesting bird survey shall be completed by a qualified biologist within 2 weeks prior to the initiation of construction activities to determine if any native birds are nesting within 250 feet of the proposed disturbance area (500 feet for raptors).

If any active nests are observed during surveys, a suitable avoidance buffer from the nests shall be determined by the qualified biologist. The avoidance buffer distance shall consider such factors as the species of bird, topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule. Limits of construction to avoid active nests shall be established in the field with flagging, fencing, or other appropriate barriers and shall be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.

If ground-disturbing activities are delayed, then additional predisturbance surveys shall be conducted such that no more than 7 days elapse between the survey and ground-disturbing activities. If possible, remove any habitat (i.e., trees and vegetation) outside of the breeding bird season (September 1 through January 31) to avoid impacts to nesting birds.

Implementation of the actions and measures described in MM-BIO-1 and MM-BIO-5 would avoid/minimize potential direct and indirect impacts to native bird species potentially nesting on the site by ensuring that any active bird nests are avoided until young have fledged. Any potential impacts to native bird nests would be reduced to a less-than-significant level.

Impact 3.3-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The following describes the direct and indirect impacts that could potentially occur as a result of the proposed project to sensitive natural communities identified as occurring within the project site. The discussion below also addresses comments received in response to the NOP, including concerns associated with potential impacts to riparian habitat and the species that utilize this community.

California sycamore woodland is a sensitive riparian community. A majority of the California sycamore woodland along Saratoga Creek is located outside of the project site, with the exception of some canopy overhanging the site (see Figure 3.3-4B, *Existing Biological Resources and*

Proposed Setbacks). The proposed project does not anticipate removal of trees from the California sycamore woodland. However, if riparian trees are trimmed and/or removed, the project could result in direct impacts to this sensitive community. Removal of riparian vegetation would require authorization from the CDFW in the form of a streambed alteration agreement pursuant to Section 1602 of the California Fish and Game Code. Any vegetation or tree removal in the project site would be minimized to the maximum extent feasible. Avoided riparian habitat would be fenced to ensure that no impacts would occur to this community. No construction, staging areas, or other ground-disturbance activities would be allowed beyond the fencing. As stated above, no direct removal or disturbance of riparian vegetation, or of the bed, bank, or channel of Saratoga Creek, is expected to occur as a result of the project.

Potential indirect impacts to the California sycamore woodland include potential runoff and siltation during and immediately after construction, which would be avoided and/or minimized with the implementation of best management practices prior to any ground disturbance at the project site. Vegetation removal, if any, from this community would be minimized to maintain the erosion control functions that these species provide. With implementation of MM-BIO-1 and MM-BIO-6, potential direct and indirect impacts would be reduced to **less than significant with mitigation incorporated**.

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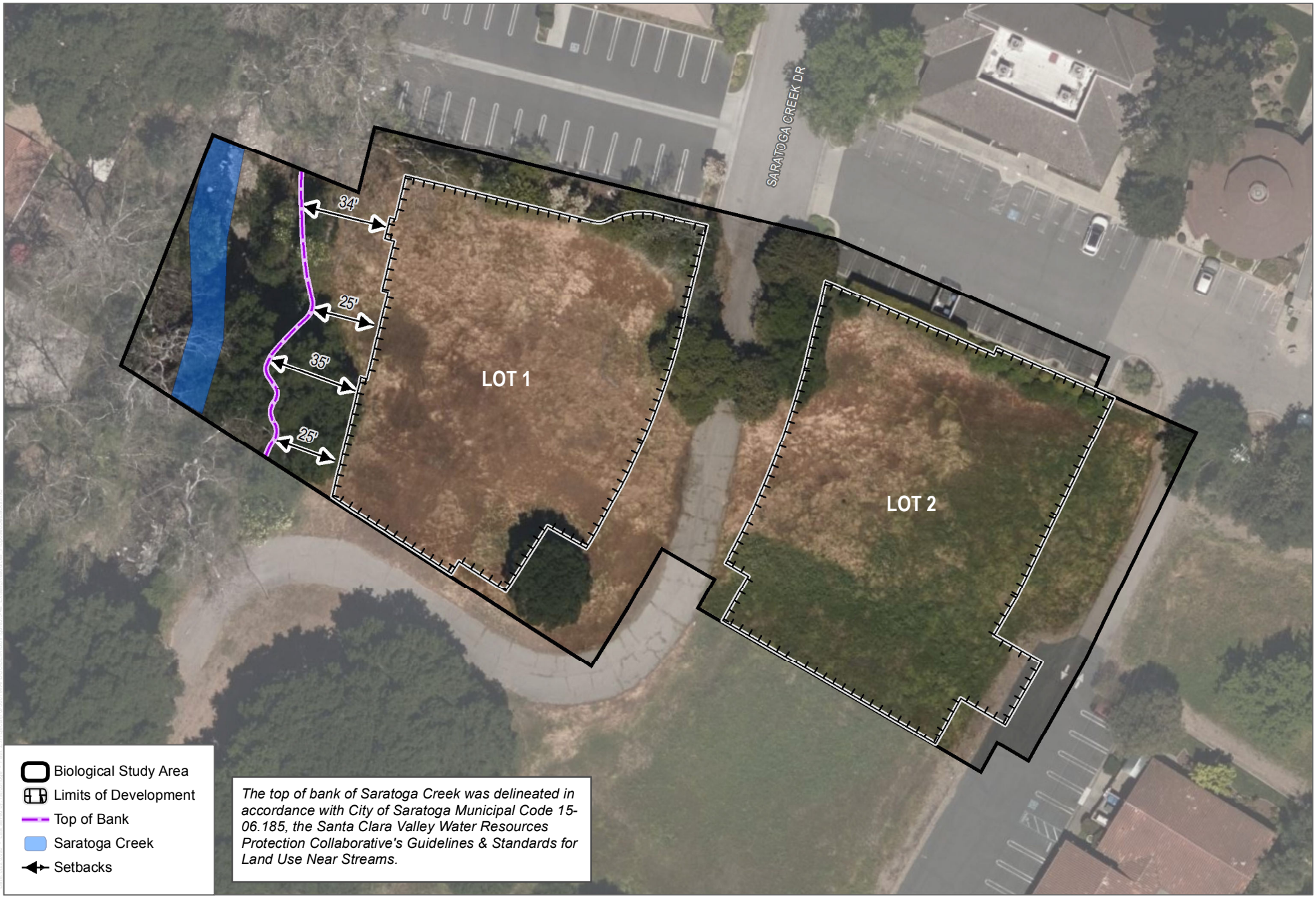

SOURCE: Bing Maps 2020

DUDEK

0 25 50 Feet

FIGURE 3.3-4A

Existing Biological Resources and Proposed Setbacks

Palm Villas EIR

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SOURCE: Bing Maps 2020

DUDEK

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FIGURE 3.3-4B

Existing Biological Resources and Proposed Setbacks

Palm Villas EIR

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Mitigation Measures

To avoid/minimize potential direct and indirect impacts to the California sycamore woodland adjacent to and overhanging the project site as a result of project implementation, the following measures shall be implemented:

MM-BIO-1: See above for description of measure.

MM-BIO-6: The proposed project shall avoid all mapped riparian vegetation along Saratoga Creek and shall avoid disturbance to the bed, bank and channel. Prior to the initiation of ground-disturbance activities, the area between the limits of disturbance and avoided habitat shall be fenced and sediment and erosion control measures shall be utilized, which could include, but not be limited to, biodegradable straw wattles free of weed seeds, silt fencing, or biodegradable erosion control mats/blankets. No construction, staging areas, or other ground-disturbance activities are permitted beyond the fencing.

If removal of riparian vegetation (pruning) is necessary, for project implementation, a qualified botanist shall conduct a preconstruction survey to identify and quantify the number of plants that could be potentially removed (pruned). The botanist shall prepare a propagation and planting plan to offset the loss of any vegetation/plants to be removed or disturbed. The plan shall contain, at a minimum, the following components: goals and objectives; a description of the extent of plants/vegetation to be removed or disturbed; plant collection, propagation, and planting methods; locations on the project site in which the plants will be transplanted; monitoring methods, timing, and performance criteria; measures to be taken in the event that the propagation and planting is not successful; and reporting requirements. The plan shall be approved by the City. Propagation and planting shall occur on a 1:1 basis to ensure no net loss of the California sycamore woodland community. Furthermore, the qualified biologist is required to consult with CDFW over any impacts to the stream zone, which include the riparian trees adjacent to Saratoga Creek.

Implementation of the actions and measures described in MM-BIO-1 and MM-BIO-6 would avoid/minimize potential direct and indirect impacts to the California sycamore woodland by informing construction workers of the importance of avoiding the woodland community on site, by installing fencing between the limits of disturbance and avoided habitat, and by mitigating for the trimming (pruning) of any riparian vegetation through the implementation of a compensatory mitigation plan that will result in no net loss of community functions and values, such that any potential impacts to this sensitive natural community would be reduced to a less-than-significant level.

Impact 3.3-3: Would the project 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?

There are no potential wetlands or other waters of the United States within the project site. Saratoga Creek is a potential water of the United States located adjacent to the project site. The proposed project would avoid direct impacts to Saratoga Creek by installing fencing between the limits of disturbance and avoided habitat. Potential indirect impacts to the creek, such as potential spills and incidental discharge of fill or project materials, could occur as a result of project construction. With implementation of MM-BIO-1 and MM-BIO-6, potential direct and indirect impacts would be reduced to **less than significant with mitigation incorporated**.

Mitigation Measures

To avoid/minimize potential direct and indirect impacts to Saratoga Creek as a result of project implementation, the following measures shall be implemented:

MM-BIO-1: See above for description of measure.

MM-BIO-6: See above for description of measure.

Implementation of the actions and measures described in MM-BIO-1 and MM-BIO-6 would avoid/minimize potential direct and indirect impacts to Saratoga Creek by informing construction workers of the importance of avoiding the creek, by installing fencing between the limits of disturbance and avoided habitat, and by mitigating for any potential direct or indirect impacts to Saratoga Creek, such that potential impacts to the creek would be reduced to a less-than-significant level.

Impact 3.4-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The proposed project would not impede the use of native wildlife nursery sites, as there are no known nursery sites present in the vicinity of the project.

As discussed in Section 3.3.3, the project site is generally surrounded by dense urban development, and as such, the potential is low for the project site to be used as a wildlife corridor. In addition, grassland on the project site does not provide adequate cover or nursery sites for mammal species, with the exception of small, fossorial mammals such as pocket gophers and field mice.

Saratoga Creek adjacent to the project site is likely used by wildlife species as a corridor for both local and regional movement events (see Figure 3.3-3). The limits of avoided riparian vegetation along the creek would be fenced such that wildlife movement up and down the creek would not

be inhibited. Therefore, no substantial direct impacts to local or regional wildlife movements is expected to occur as a result of project implementation.

Project construction would occur during daylight hours, and as a result, wildlife movement is not expected to be substantially affected. For those species that are also active, or more active, during daylight hours, fencing installed along the limits of disturbance adjacent to the creek would also minimize the potential for harassment or disturbance associated with construction that could potentially inhibit wildlife movement and activity during the daytime. Project construction would be temporary in nature and the creek would be avoided, such that disturbance associated with construction would not substantially affect daytime wildlife movements.

While human use of the proposed development may periodically inhibit daytime movement of some wildlife species on the site, most wildlife species in the region tend to be more active at night and, therefore, could be harassed or inhibited by visitors or residences of the proposed development. In addition, building lighting could potentially impact wildlife utilizing the creek as a nighttime migratory corridor. However, a majority of the riparian vegetation along Saratoga Creek, which currently acts as a visual barrier between the project site and creek, will be avoided by the project. Riparian vegetation, as well as the steep banks of Saratoga Creek and the 6-foot-tall lattice fence proposed along the western perimeter of Lot 1, would limit the amount of light exposure to the potential wildlife corridor following project construction.

Implementation of the actions and measures described in MM-BIO-1and MM-BIO-6 would avoid/minimize potential direct and indirect impacts to local or regional wildlife movements by informing construction workers of the importance of avoiding Saratoga Creek and its riparian corridor, by installing fencing between the limits of disturbance and avoided habitat, and by avoiding the creek to the extent possible, such that potential impacts to local or regional wildlife movements would be reduced to **less than significant with mitigation incorporated**.

Mitigation Measures

MM-BIO-1: See above for description of measure.

MM-BIO-6: See above for description of measure.

Impact 3.4-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The City's General Plan Open Space and Conservation Element encourages the protection of biological resources in the City (City of Saratoga 2007). The proposed project would not conflict with any of the goals or policies listed in the City's General Plan that protect biological resources.

Chapter 15, Article 50.050, of the City's Municipal Code prohibits the removal of protected trees prior to obtaining a tree permit from the City. There are five trees proposed for removal by the

project, including three identified as protected trees according to the tree ordinance. These five trees are located within the proposed extension of Saratoga Creek Drive. The proposed project does not conflict with this ordinance, as a tree permit would be obtained from the City for the lawful removal of any protected trees from the project site (Articles 15-50.080[a][6] and [9] provide criteria for removal that include consideration of alternatives for retaining or not encroaching on the protected tree and the necessity to remove the tree for economic or other enjoyment of the property when there is no other feasible alternative to the removal) In addition, Chapter 15, Articles 50.120, 50.140, and 50.150, require building setbacks from the root zones of protected trees, development of a tree preservation plan for project sites on which an arborist report is prepared, and mitigation for the removal of protected trees in the form of on- or off-site replacement plantings or compensatory mitigation.

As discussed in Section 3.3.4, *Regulatory Setting*, there are guidelines and standards in the Santa Clara Valley Water Resources Protection Collaborative's Guidelines & Standards for Land Use Near Streams that apply to the proposed project. These guidelines and standards, such as appropriate creek buffer zones, have been incorporated into project design and implementation. No project construction would occur within 25 feet of Saratoga Creek, and on-site surface runoff would be directed away from Saratoga Creek to minimize bank erosion and maintain slope stability. In addition, any landscaping and/or restoration would be designed to incorporate non-invasive, drought-tolerate plants appropriate to the watershed.

The proposed project site is dominated by vegetation indicative of disturbance. In general, the site does not provide high-quality habitat for biological resources. Given that the proposed project would avoid Saratoga Creek and the trees along the its banks, direct drainage away from the creek, and implement MM-BIO-1 through MM-BIO-8 to avoid and/or minimize the potential for direct and indirect impacts on sensitive biological resources, implementation of the project is expected to be consistent with local policies or ordinances protecting these resources, such that impacts to locally protected biological resources would be reduced to **less than significant with mitigation incorporated**.

Mitigation Measures

MM-BIO-1 through **MM-BIO-6**. See above for descriptions of measures.

MM-BIO-7: The proposed project shall be implemented in accordance with the Conditions of Approval listed in Attachment 3 of the Arborist Report (dated December 4, 2017 <u>and included as Appendix C-3</u>) prepared by the City of Saratoga <u>and the Arborist Report (dated April 14, 2020 and included as Appendix C-4)</u> that are applicable to the proposed project.

MM-BIO-8: The proposed project shall be conducted in accordance with the Santa Clara Valley Water Resources Protection Collaborative's Guidelines & Standards for Land Use Near Streams, as applicable. This includes, but is not limited to, the policies outlined in Chapter 3 Proposed Guidelines and Standards, Chapter 4 Design Guides, Chapter 4 Bank Protection/Erosion Repair Guides, and Chapter 6 Guidance for Developers.

3.3.6 References

Bear, K. 2017. *Arborist Final Report.* Corrected. City of Saratoga, California: Community Development Department. December 4, 2017.

Bury R. B. 1979. "Population Ecology of Freshwater Turtles." In M. Harless and H. Maorlock (Eds.), *Turtles: Perspectives and Research*, pp. 571–602. New York, NY: John Wiley and Sons.

Caltrans, CDFW (California Department of Fish and Wildlife), and FHWA (Federal Highway Administration). 2010. *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California*. Prepared by W.D. Spencer, P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler for Caltrans, CDFG, and FHWA. February 2010. http://www.scwildlands.org/.

CCH (Consortium of California Herbaria). 2018. Database. Last Updated November 2018. Accessed April 2019. http://ucjeps.berkeley.edu/consortium/.

CDFW (California Department of Fish and Wildlife). 2018a. List of Vegetation Alliances and Associations: Natural Communities List Arranged Alphabetically by Life Form. October 2018. https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List.

CDFW. 2018b. Natural Diversity Database. Special Animals List. Periodic publication. Last updated November 2018. Accessed March and April 2019. https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

CDFW. 2019a. RareFind 5. California Natural Diversity Database. CDFW, Biogeographic Data Branch. Accessed March and April 2019. https://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp.

CDFW. 2019b. California Wildlife Habitat Relationships. Accessed March and April 2019. https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

City of Saratoga. 2007. *Open Space and Conservation Element 2007*. Adopted June 6, 2007. https://www.saratoga.ca.us/DocumentCenter/View/49/Open-Space-and-Conservation-Element-Dated-June-6-2007-PDF.

CNPS (California Native Plant Society, Rare Plant Program). 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Accessed March and April 2019. http://www.rareplants.cnps.org.

Dudek. 2019. Field Survey. April 2019.

Dudek. 2018. Field Survey. March 2018.

Ellis, Deborah. 2015. *Arborist Report (#1)*. July 27, 2015.

Ellis, Deborah. 2016. *Arborist Report (#2)*. January 29, 2016.

Ellis, Deborah. 2016. *Arborist Report (#3)*. November 14, 2016.

Environmental Collaborative. 2016. *Biological Resources Assessment for Palm Villas Project*. May 9, 2016.

Germano, D.J., and G.B. Rathbun. 2008. "Growth, Population Structure, and Reproduction of Western Pond Turtles (*Actinemys marmorata*) on the Central Coast of California." *Chelonian Conservation and Biology*, *7*(2), 188–194.

Google Earth. 2019. "Project Site" 37°16′53.56″N and 122°0′21.61″W. Multiple dates between September 1948 and August 2018. Google Earth (Version 7). Saratoga, California: Google Earth Mapping Service. Accessed April and May 2019.

Hilty, J.A., W.Z. Lidicker, and A.M. Merenlender. 2006. *Corridor Ecology: The Science and Practice of Linking Landscapes for Biodiversity Conservation*. Washington, DC: Island Press.

Holland, D.C. 1994. *The Western Pond Turtle: Habitat and History*. Unpublished final report, U. S. Dept. of Energy, Portland, Oregon.

Jepson Flora Project. 2019. Jepson eFlora. Berkeley, California: University of California. http://ucjeps.berkeley.edu/IJM.html.

Miller, D.G.M. 1979. "Daily Basking Patterns of the Freshwater Turtle." *South African Journal of Zoology*, *14*(3), 139–142.

NatureServe. 2019. NatureServe Explorer: An Online Encyclopedia of Life. Last updated March 2018. Accessed April 2019. http://explorer.natureserve.org/index.htm.

Reese, D.A., and H.H. Welsh. 1997. "Use of Terrestrial Habitat by Western Pond Turtles, *Clemmys marmorata*: Implications For Management." pp 352–357 *in* J. Van Abbema, editor. Proceedings: Conservation, Restoration, and Management of Tortoises and Turtles--an International Conference. Purchase, New York: State University of New York.

Santa Clara County. 1999. *San Tomas Aquino/Saratoga Creek Trail Master Plan*. June 29, 1999.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation, Second Edition*. California Native Plant Society, Sacramento.

Shuford W.D., and T. Gardali. 2008. "California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California." *Studies of Western Birds 1*. Sacramento, California: Western Field Ornithologists and California Department of Fish and Game.

USDA (U.S. Department of Agriculture). 2019. Web Soil Survey. USDA, Natural Resources Conservation Service, Soil Survey Staff. http://websoilsurvey.nrcs.usda.gov/.

USFWS (U.S. Fish and Wildlife Service). 2019. IPaC (Information for Planning and Consultation) Search. Accessed March 2019. http://www.fws.gov/data.

WRCC (Western Regional Climate Center). 2019. San Jose, California (047821) Station Monthly Climate Summary. Accessed May 2019. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7821.

Young, Michael P. 2020. *Arborist Report. Proposed Palm Villas Project Saratoga Creek Drive: Sycamore #9.* Urban Tree Management, Inc. April 14, 2020.

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3.4 CULTURAL RESOURCES

3.4.1 Introduction

This section of the EIR presents potential cultural resource impacts of the proposed project. The analysis is based on the Cultural and Paleontological Resources Assessment for the Palm Villas Saratoga Project prepared by Dudek in April 2019, which is included as Appendix D. This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

3.4.2 Cultural Context

The project area lies within the territory prehistorically occupied by a group of people the early explorers called “Costaños,” or “Coastanoan,” meaning “coastal people.” Many modern-day descendants prefer the term “Ohlone.” Prehistoric Ohlone were speakers of eight separate Penutian-stock language tribelets situated roughly from modern-day Richmond in the north to Big Sur in the south. The Tamyen tribelet occupied the Saratoga area (Levy 1978).

Glimpses into the ways of life for prehistoric Californians continue to be pieced together through studies of ethnography and archaeology. Early European explorers from the 16th and 18th centuries provided the first written descriptions about the native Californians they encountered, although details are sparse. One common observation from these early explorers was the mobility of the native people in relation to the resources (Fages 1937). Attempts at systematic ethnographies did not occur until the early 20th century, generations after the effects of missionization and integration had altered Ohlone lifestyles drastically. Many of these studies focused on recording Native languages before they fell into disuse (Levy 1978).

Information from the archaeological record continues to fill in the gaps of what life was like in prehistoric California. Archaeologists not only locate and describe archaeological sites by way of site records, but also extrapolate trends in tool use, trade, diet, and migration from data acquired from excavations. The prehistoric cultural chronology outlined below follows the framework outlined in Byrd et al. (2017) and is divided into the terminal Pleistocene, Early Holocene, Middle Holocene, and Late Holocene.

The terminal Pleistocene (13,500 to 11,700 BP) is the time when humans initially began to migrate into the Americas. This likely occurred over multiple migrations both terrestrially and by sea (Erlandson et al. 2007; Goebel et al. 2008). The traditional interpretation of the terrestrial migration is that people of this time were highly mobile hunters who focused subsistence efforts on large mammals, as evidenced through isolated fluted points and sparse lithic scatters. Proponents of the kelp highway model argue that some of the earliest inhabitants of the region migrated by sea and focused on maritime and coastal resources (Erlandson et al. 2007). To date, no sites or artifacts representing terrestrial migrations or kelp highway migrations within the terminal Pleistocene have been located in the San Francisco Bay Area.

Early Holocene (11,700 to 8,200 BP) sites, characterized by highly mobile hunter-gatherers subsisting on a wide variety of plant, meat, and seafood resources, have sparse representation in the San Francisco Bay Area. Sites of this age have been found in buried terrestrial contexts and share characteristics similar to material found in the Great Basin and North Coast Ranges (crescents, stemmed points, etc.) indicating they were likely a result of an inland terrestrial migration rather than a maritime migration. Early Holocene sites representing maritime migrations have not been identified, but the quick rate of sea-level rise due to the rapidly melting glaciers would have likely inundated coastal sites of this time period if they existed (Jones and Jones 1992).

The Middle Holocene (8,200 to 4,200 BP) sees a growth in prehistoric occupation of the Bay Area; more than 60 archaeological sites within the Bay Area and Delta Area have produced radiocarbon dates within this time period. The sites are found in both buried and surface contexts and include both temporary and residential settlements (Byrd et al. 2017). The artifact assemblage of Middle Holocene sites is more diverse than that of older sites and includes various types of groundstone (both handstone/millingslab types and mortar/pestle types), side-notched projectile points, cobble tools, and Type N (grooved rectangular) Olivella beads. These assemblages indicate a wide range of utilized resources, including littoral food sources such as oysters, mussels, waterfowl, and fish, as well as plant resources such as acorn and other seeds and nuts (Byrd et al. 2017).

The Late Holocene (4,200 to 180 BP) exhibits an extensive growth in both population and complexity within the Bay Area. This period is well documented, with over 240 sites represented by radiocarbon dates (Byrd et al. 2017). The most up to date cultural sequence comes from a recalibrated bead sequencing called Scheme D (Groza et al. 2011) (Table 3.4-1).

Table 3.4-1
Late Holocene Chronological Framework Scheme D

Period	BP
Early	4200–2550
Early/Middle Transition	2550–2150
Middle 1-4	2150–930
Middle/Late Transition	930–685
Late 1-2	685–180
Historic/Mission	180–115

During the Early Period of the Late Holocene, many large shell mounds start to appear along the bay, representing an intensification of marine resources and a trend toward more sedentary lifestyles (Byrd et al. 2017). Inland sites show a different subsistence pattern, with more emphasis on freshwater fish and shellfish, terrestrial animals, and plant resources such as nuts, berries, and seeds (Byrd et al. 2017). Large cemeteries appear during this time period, with the majority of burials interred in a tightly flexed

position, although many burials in the watersheds connecting to the San Joaquin Valley exhibit an extended burial mortuary practice, which may indicate multiple cultural groups co-existing in the area at the same time (Byrd et al. 2017). Extensive trade networks show the exchange of obsidian from both Napa County to the north and the Sierra Nevada to the east as well as Olivella and Haliotis beads and pendants from the south (Byrd et al. 2017).

The Middle Period of the Late Holocene shows a stronger trend toward sedentism and a greater representation of shell mound sites (Nelson 1909). Changes in artifact assemblage include the emergence of barbed and barbless fishing spears, large mortars and pestles, ear spools, and a greater variety of bead types (Byrd et al. 2017).

The Late Period of the Late Holocene shows a growth in population, with even more sedentary villages. Artifact assemblages that represent this time period include clamshell disk beads, flanged steatite pipes, bone whistles with chevron shaped etchings, sharp awls, and bow and arrow technology with distinctive square serrations called the Stockton Serrate type (Byrd et al. 2017). Subsistence trends continue to rely on small seeds and acorns and meat from sea otter, deer, rabbit, clams, and horn snails. A decrease of obsidian trade from the Sierra Nevada and an increase of trade from the north is evident (Byrd et al. 2017). The early Spanish explorers noted large population densities within the Bay Area, rivaled only by the Chumash in Southern California in number (Byrd et al. 2017).

3.4.2.1 Historic Context

The earliest known European visitor to the central Californian coast was Juan Rodríquez Cabrillo, a Portuguese explorer who was sent by the Viceroy of New Spain in 1542 to explore the Pacific coast north of Mexico, although he did not land specifically in San Francisco Bay (Kelsey 1998). In 1769, in an effort to prevent the establishment of English and Russian colonies in northern Alta California, Don Gaspar de Portolá, the Governor of Baja, reached the San Francisco Bay when he mistakenly passed his desired destination of Monterey Bay (Priestly 1920). The following year and in 1772, Pedro Fagés, the successor to Portolá, explored the San Francisco Bay more extensively, and in 1775, the area was surveyed for Spanish colonization under Juan Manuel de Ayala (Scott 1985). In 1776, an overland party of settlers leaving from present day Tucson, Arizona, arrived at the San Francisco Bay under the guidance of Juan Bautista de Anza. At that time, Anza established the locations of the both the Presidio and the Mission Dolores in San Francisco (Scott 1985). Shortly after the Presidio and Mission Dolores were established, San Jose was founded as the first civic settlement in Alta California in 1777 by José Joaquin Moraga (Gilbert and Johnson 2004).

After more than a decade of intermittent rebellion and warfare, New Spain (Mexico and the California territory) won independence from Spain in 1821. In 1822, the Mexican legislative body in

California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants. In 1834, the Mexican government secularized the mission lands, releasing the Native Americans from the control of the mission-system, but the massive decline in the original Native American population as a result of disease and abandonment meant that by the time of this decree, few eligible recipients remained alive and in the area (Cleland 2005; Dallas 1955). Extensive land grants were established in the interior during the Mexican Period, in part to increase the population inland from the more settled coastal areas where the Spanish had first concentrated their colonization efforts.

The Mexican–American War ended with the Treaty of Guadalupe Hidalgo in 1848. San Jose became the first chartered city in California in 1850. The new state of California recognized the ownership of lands in the state distributed under the Mexican Land Grants of the previous several decades (Waugh 2003; Koch 1973). The Gold Rush saw a massive influx of people steadily flooding into California starting in 1849. With the creation of a railroad to San Francisco and the goldfields east, San Jose quickly became a hub of commerce and shipping. Facilitating shipping from the orchards in Santa Clara to San Francisco, San Jose became a center for food processing before, during, and after World War II (Gilbert and Johnson 2004). The city experienced a second massive boom in the 1990s as the anchor to Internet-related industries in Silicon Valley and remains a center to the technology industry (Gilbert and Johnson 2004).

3.4.3 Existing Site Conditions

The project site is located in the City of Saratoga (City), in the western portion of Santa Clara County. It is located in Section 31 of Township 7 South, Range 1 West, of the Cupertino, California, 7.5-minute U.S. Geological Survey Quadrangle map. Saratoga is a primarily residential community and is bounded by the jurisdictions of Cupertino, San Jose, Campbell, Los Gatos, and Monte Sereno.

The project site is located approximately 175 feet south of the intersection of Saratoga Creek Drive and Cox Avenue. The project site is northeast of California State Route 85 and west of Saratoga Avenue. The Santa Clara County Assessor's Office identifies the project site as two adjacent parcels with Assessor's Parcel Numbers 389-06-020 (Lot 1) and 389-06-021 (Lot 2).

The project site is an undeveloped, rectangular-shaped, 56,114-square-foot area of land made up of two adjacent lots. Lot 1 is 31,757 square feet and Lot 2 is 24,357 square feet. The project site is nearly level, with a slight slope to the northwest, with elevations ranging from approximately 298 feet above mean sea level (msl) at the southeastern corner of the site to 281 feet above msl level at the northwestern corner. Saratoga Creek runs along the northwestern side of Lot 1. The undeveloped project site is currently vegetated with annual grassland, ornamental landscaping (shrubs and trees), and sycamore woodland. The entire 56,114-square-foot project site composes the location of potential impacts for this assessment.

3.4.4 Records Search Results

The cultural resources inventory report (Appendix D) prepared for the proposed project included a California Historical Resources Information System (CHRIS) records search, which was conducted at the Northwest Information Center (NWIC) on March 26, 2019, for the proposed project site and surrounding 0.5-mile radius. The NWIC records indicate that 25 cultural resource investigations have been conducted within the 0.5-mile search radius of the proposed project site, of which one study entirely overlaps the project site (see Appendix D).

3.4.4.1 Archival and Building Development Research

Dudek consulted historic maps and aerial photographs to understand the development of the project site and surrounding properties. Historic aerial photographs were available for 1948 to 2014 (NETR 1946, 1958, 1999, 2005, 2009, 2010, 2012). All aerial images display only agricultural use of the project site. Historic maps from 1897 to 2015 were inspected to observe previous development in the project site. These maps indicated the project site has only been previously used for agriculture; no structures are displayed on the maps. Aerial images indicated that the two adjacent structures to the north of the project site were constructed after 1980. The building directly east of the project site was constructed between 1960 and 1968.

3.4.5 Pedestrian Survey

An intensive pedestrian survey was conducted by a Dudek archaeologist on March 29, 2019. During the survey, all areas of the project site were inspected using standard archaeological procedures and techniques that meet the Secretary of Interior's Standards and Guidelines for cultural resources inventory. The entire project site appears to have been graded or levelled from years of agricultural use. All areas of the project site were inspected for surface artifacts, undisturbed areas, archaeological deposits, or geological exposures. Subsurface exposures and rodent burrows were opportunistically inspected for indications of soils with the potential to contain deposits. Ground visibility was poor (0–20 percent) throughout the entire project site due to thick grass and asphalted surfaces. The entirety of the project site has been subject to substantial disturbances related to agricultural use. Exposed soil appeared to be a dark yellow brown sandy loam and gravel. No archaeological resources were identified within the project site during the field survey.

3.4.6 Regulatory Setting

The treatment of cultural resources is governed by state and local laws and guidelines. There are specific criteria for determining whether prehistoric and historic sites or objects are significant and/or protected by law. State significance criteria generally focus on a resource's integrity and uniqueness, its relationship to similar resources, and its potential to contribute important

information to scholarly research. The laws and regulations seek to mitigate impacts on significant prehistoric or historic resources. The federal, state, and local laws and guidelines for protecting historic resources are summarized below.

3.4.6.1 Federal Regulations

There are no federal regulations applicable to the proposed project.

3.4.6.2 State Regulations

The California Register of Historical Resources (California Public Resources Code, Section 5020 et seq.)

In California, the term "historical resource" includes but is not limited to "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California PRC, Section 5020.1[j]). In 1992, the California legislature established the California Register of Historical Resources (CRHR) "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (California PRC, Section 5024.1[a]). The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the National Register of Historic Places (NRHP) and are enumerated below. According to California PRC, Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

(2) Is associated with the lives of persons important in our past.

(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

(4) Has yielded, or may be likely to yield, information important in prehistory or history.

To understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see 14 CCR 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

As described further below, the following CEQA Statute and Guidelines are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- California PRC, Section 21083.2(g), defines "unique archaeological resource."
- California PRC, Section 21084.1, and CEQA Guidelines Section 15064.5(a) define "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource"; it also defines the circumstances when a project would materially impair the significance of an historical resource.
- California PRC, Section 21074(a), defines "tribal cultural resources."
- California PRC, Section 5097.98, and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated cemetery.
- California PRC, Sections 21083.2(b)–(c), and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures; preservation-in-place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context, and it may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

More specifically, under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource." (California PRC, Section 21084.1; 14 CCR 15064.5[b]). If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of California PRC, Section 5024.1[q]), it is a historical resource and is presumed to be historically or culturally significant for purposes of CEQA (California PRC, Section 21084.1; 14 CCR 15064.5[a]). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (California PRC, Section 21084.1; 14 CCR 15064.5[a]).

A “substantial adverse change in the significance of an historical resource,” reflecting a significant effect under CEQA, means “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired” (14 CCR 15064.5[b][1]; California PRC Section 5020.1[q]). In turn, the significance of an historical resource is materially impaired when a project (14 CCR 15064.5[b][2]):

(1) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or

(2) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(3) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA.

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any historical resources, then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (California PRC, Section 21083.2[a]–[c]).

California PRC, Section 21083.2(g), defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

(1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

(2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.

(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impacts to non-unique archaeological resources are generally not considered a significant environmental impact (California PRC, Section 21083.2[a]; 14 CCR 15064.5[c][4]). However, if a non-unique archaeological resource qualifies as tribal cultural resource (California PRC Sections 21074[c], 21083.2[h]), further consideration of significant impacts is required.

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in California PRC Section 5097.98.

California Health and Safety Code Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the county coroner has examined the remains (California Health and Safety Code Section 7050.5[b]). California PRC, Section 5097.98, also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the California NAHC within 24 hours (California Health and Safety Code Section 7050.5[c]). The NAHC will notify the most likely descendant. With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the most likely descendant by the NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

3.4.6.3 Local Regulations

City of Saratoga General Plan

The City's General Plan (City of Saratoga 2007) Land Use Element defines goals, objectives, and policies regarding development within the City. The General Plan provides the following goal and policies requiring actions aimed at preserving and protecting cultural resources (City of Saratoga 2007):

Land Use Element

GOAL LU 12: Recognize the heritage of the City by seeking to protect historic and cultural resources, where feasible.

- **Policy LU 12.1:** Enhance the visual character of the City by encouraging compatibility of architectural styles that reflect established architectural traditions.
- **Policy LU 12.2:** Develop zoning and other incentives for property owners to preserve historic resources and seek out historic designations for their respective properties.
- **Policy LU 12.3:** In order to create an incentive for the protection of historic structures, modify the Zoning Ordinance to allow the Planning Commission to have the authority to modify any of the development regulations in the Ordinance, if the subject of the application is a structure which has been designated as an historic landmark.
- **Policy LU 12.4:** The City shall continue to participate in the Mills Act program which allows property owners of historic residences a reduction of their property tax.
- **Policy LU 12.5:** Encourage public knowledge, understanding and appreciation of the City's past and foster civic and neighborhood pride and sense of identity based upon the recognition and use of the City's heritage resources.
- **Policy LU 12.6:** The Heritage Preservation Commission shall regularly update the City's Historic Resource Inventory.
- **Policy LU 12.7:** Development proposals impacting any of the City's heritage land and/or any historic resources listed on any local or state inventory shall be reviewed by Heritage Preservation Commission and Planning Commission, as required.
- **Policy LU 12.8:** For any project development affecting structures that are 50 years of age or older, conduct a historic review.
- **Policy LU 12.9:** Conduct reconnaissance level analyses of new development projects to ensure that no significant archaeological, prehistoric, paleontological, Native American resources would be disturbed. If such resources are found, appropriate steps shall be taken consistent with CEQA requirements to protect these resources.

Execution of these policies is outlined in the following implementations:

- **Implementation LU 12.a:** Continue to utilize the design review process and Historic Preservation Ordinance to ensure preservation of significant cultural resources.
- **Implementation LU 12.b:** Continue to allow owners of designated historic landmarks to participate in the Mills Act.
- **Implementation LU 12.c:** Update Historic Resources Inventory and Landmark List, and publish on the City Website information regarding incentives for preservation of heritage properties.

3.4.7 Impacts

3.4.7.1 Methods of Analysis

As described above, a cultural resources assessment was prepared for the project by Dudek in March 2019 (see Appendix D). The inventory included a review of the CHRIS records search provided by the NWIC, an NAHC sacred lands file search, Native American coordination, historic research, and an intensive pedestrian survey of the site. The study also reviewed historical aerials (available since 1948) and topographic maps (available since 1897). The CHRIS records search included a review of CHRIS's collection of mapped prehistoric, historical and built-environment resources, Department of Parks and Recreation Site Records, technical reports, archival resources, and ethnographic references. Additional consulted sources included the NRHP, California Inventory of Historical Resources/CRHR and listed California Office of Historic Preservation Archaeological Determinations of Eligibility, California Points of Historical Interest, California Historical Landmarks, and California Department of Transportation Bridge Survey information.

3.4.7.2 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts to cultural resources is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this cultural resources analysis, a significant impact would occur if development of the proposed project would do any of the following (14 CCR 15000 et seq.):

- Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.
- Disturb any human remains, including those interred outside of formal cemeteries.
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in California PRC, Section 21074, as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    - Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in California PRC, Section 5020.1(k), or
    - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of California PRC, Section 5024.1. In applying the criteria set forth in subdivision (c) of California PRC, Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.4.7.3 Impacts and Mitigation Measures

Impact 3.4-1: Would the project cause a substantial adverse change in the significance of an historical resource pursuant to CEQA Guidelines Section 15064.5?

The project site is currently undeveloped, with no buildings, structures, or utilities present. The CHRIS records search, archival and building development research, and pedestrian survey completed for the project site did not identify any historical resources within the project boundaries. Although the property east of the project site located at 12961 Village Drive is greater than 50 years in age, it is located outside of the proposed project site. No buildings, including the property at 12961 Village Drive, would be affected by the project. Therefore, **no impact** to historical resources would occur.

Mitigation Measures

None required.

Impact 3.4-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

The project site is currently undeveloped and has historically been used for agricultural purposes. Observation of the present conditions within the proposed project indicates that all areas have been subject to a substantial degree of past disturbances related to agricultural activities. No newly identified archaeological resources were recorded during the pedestrian survey of the project site. Further, an NWIC records search did not identify the presence of cultural resources within the proposed project site. An NAHC SLF search and subsequent information outreach with NAHC-listed tribal representatives also failed to indicate the presence cultural resources.

The project, as currently designed, appears to have a low potential for encountering intact cultural deposits during ground-disturbing activities, and would have no impact to known cultural resources. However, the potential still exists to encounter previously undiscovered significant archaeological resources during project construction activities. To ensure that impacts to cultural resources remain less than significant, should any such resources be encountered during project grading and construction, the project would be required to implement Mitigation Measure (MM) -CUL-1. With implementation of MM-CUL-1, impacts to archaeological resources would be **less than significant with mitigation.**

Mitigation Measure

MM-CUL-1: In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the proposed project, all earth-disturbing work occurring in the vicinity (generally within 100 feet of the find) shall immediately stop,

and a qualified professional archaeologist, meeting the Secretary of Interior's Professional Qualification Standards, shall be notified regarding the discovery. The archaeologist shall evaluate the significance of the find and determine whether or not additional study is warranted. If the discovery proves significant under the California Environmental Quality Act (14 CCR 15064.5[f]; California Public Resources Code, Section 21082) or Section 106 of the National Historic Preservation Act (36 CFR 60.4), additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.

Impact 3.4-3: Would the project disturb human remains, including those interred outside of formal cemeteries?

No known human remains or burial sites were discovered through the NWIC records search, pedestrian survey of the project site, or NAHC SLF search and subsequent tribal outreach. However, the potential to encounter human remains during project construction still exists. Per Section 7050.5 of the California Health and Safety Code, if human remains are discovered during project construction, no further work shall occur in the immediate vicinity of the discovered remains until the county coroner has made the necessary findings as to the origin of the remains. Furthermore, pursuant to California PRC, Section 5097.98(b), remains shall be left in place and free from disturbance until recommendations for treatment have been made. As such, MM-CUL-2 has been incorporated into the project to ensure that potential impacts would be **less than significant with mitigation** by providing standard procedures in the event that human remains are encountered during project construction.

Mitigation Measure

MM-CUL-2: In accordance with Section 7050.5 of the California Health and Safety Code, if potential human remains are found, earth-disturbing work in the vicinity of the find (generally 100 feet is sufficient) should immediately halt, and the county coroner shall be notified of the discovery. The coroner will provide a determination within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, shall occur until a determination has been made. If the county coroner determines that the remains are, or are believed to be, Native American, they shall notify the Native American Heritage Commission (NAHC) within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify the person(s) believed to be the most likely descendant (MLDs) from the deceased Native American. The MLDs may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with

appropriate dignity, of the human remains and any associated grave goods. The MLDs shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site.

3.4.8 References

Byrd, B., A.R. Whitaker, P.J. Mikkelsen, and J.S. Rosenthal. 2017. San Francisco Bay-Delta Regional Context and Research Design for Native American Archaeological Resources, Caltrans District 4. Oakland, California: California Department of Transportation.

City of Saratoga. 2007. *City of Saratoga General Plan: Land Use Element*. Adopted June 6, 2007.

Cleland, R.G. 2005. *The Cattle on a Thousand Hills: Southern California, 1850-80*. 2nd ed. San Marino, California: The Huntington Library.

Dallas, S.F. 1955. The Hide and Tallow Trade in Alta California 1822–1848. PhD dissertation, Bloomington: Indiana University.

Erlandson, J.M., M.H. Graham, B.J. Bourque, D. Corbett, J.A. Estes, and R.S. Steneck. 2007. "The Kelp Highway Hypothesis: Marine Ecology, the Coastal Migration Theory, and the Peopling of the Americas." *The Journal of Island and Coastal Archaeology* 2(2): 161–174.

Fages, P. 1937. *A Historical, Political and Natural Description of California, by Pedro Fages, Soldier of Spain* [1775]. H. I. Priestly, trans. Berkeley: University of California Press. (Reprinted: Ballena Press, Ramona, California, 1972).

Gilbert, L.M., and B. Johnson. 2004. *San Jose's Historic Downtown.* Images of America Series, Acadia Publishing SC.

Goebel, T., M.R. Waters, and D.H. O'Rourke. 2008. "The Late Pleistocene Dispersal of Modern Humans in the Americas." *Science* 319(5869): 1497–1502.

Groza, R., J. Rosenthal, J. Southon, and R. Milliken. 2011. A Refined Shell Bead Chronology for Late Holocene Central California. *Journal of California and Great Basin Anthropology* 31(2): 135-154.

Jones, T.L., and D. Jones. 1992. "Elkhorn Slough Revisited: Reassessing the Chronology of CA-MNT-229." *Journal of California and Great Basin Anthropology* 14:159–179.

Kelsey, H. 1998. Juan Rodríguez Cabrillo. San Marino, California: Huntington Library Press.

Koch, M. 1973. *Santa Cruz County: Parade of the Past*. Fresno, California: Valley Publishers.

Levy, R. 1978. Costanoan. *Handbook of North American Indians*. Vol. 8. Edited by Robert F. Heizer. Washington, DC: Smithsonian Institution.

Nelson, N.C. 1909. *Shellmounds of the San Francisco Bay Region*. University of California Publications in American Archaeology and Ethnology Vol. 7, No. 4. The University Press, Berkeley, California.

NETR (Nationwide Environmental Title Research). 1946, 1958, 1999, 2005, 2009, 2010, 2012. Historic Aerials. Accessed February 15, 2019. www.historicaerials.com.

Priestly, H.I. 1920. Franciscan Exploration of California. *The Catholic Historical Review*, Vol. 6, No. 2 (Jul 1920), pp 139-155. Catholic University of America Press. Accessed online 9/17/2018: https://www.jstor.org/stable/25011685.

Scott, M. 1985. *The San Francisco Bay Area: A Metropolis in Perspective.* 2nd ed. Berkeley: University of California Press.

Waugh, J.C. 2003. *On the Brink of Civil War: The Compromise of 1850 and How It Changed the Course of American History.* Wilmington, Delaware: Scholarly Resources Inc.

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3.5 ENERGY

3.5.1 Introduction

This section of this EIR describes the environmental setting of the project site related to energy, identifies associated regulatory requirements, evaluates potential impacts and identifies mitigation measures related to implementation of the proposed project.

3.5.2 Environmental Setting

3.5.2.1 Electricity

According to the U.S. Energy Information Administration, California used approximately 257,268 gigawatt hours of electricity in 2017 (EIA 2019a). Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita in the residential sector is lower than any other state except Hawaii (EIA 2018).

Pacific Gas & Electric (PG&E) is the utility provider for Santa Clara County. PG&E and other utilities in the state are regulated by the California Public Utilities Commission (CPUC). PG&E provides electric services to 5.4 million customers, including 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines over a 70,000-square-mile service area that includes Northern California and central California (PG&E 2019). As presented in Table 3.5-1, according to PG&E, customers consumed 82,224 million kilowatt hours (kWh) of electricity in 2017 (CEC 2017a).

Table 3.5-1
Pacific Gas & Electric 2017 Electricity Consumption

Sector	Total Electricity (Millions of kWh)
Agricultural and Water Pump	5,049.66
Commercial Buildings	30,446.89
Commercial Other	4,309.58
Industry	10,409.92
Mining and Construction	1,747.35
Residential	29,920.19
Streetlight	340.73
Total Consumption	**82,224.32**

Source: CEC 2017a.
Notes: kWh = kilowatt hour.

In Santa Clara County, PG&E reported an annual electrical consumption of approximately 17,190 million kWh in 2017, with 13,140 million kWh for non-residential use and 4,050 million kWh for residential use (CEC 2017b).

PG&E receives electric power from a variety of sources. According to CPUC's *2018 Renewable Portfolio Standard (RPS) Annual Report*, 33 percent of PG&E's power came from eligible renewable energy sources in 2017, including biomass/waste, geothermal, small hydroelectric, solar, and wind sources (CPUC 2018).

Silicon Valley Clean Energy (SVCE) is a community-owned agency that works in partnership with PG&E to provide carbon-free electricity to residential and commercial customers for a majority of Santa Clara County communities, including the City of Saratoga (City). This electricity is sourced from wind, solar, hydropower, and other renewable energy sources (SVCE 2019). PG&E delivers this electricity over existing power lines. SVCE serves the communities of Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Saratoga, Sunnyvale and unincorporated Santa Clara County. SVCE is governed by a board of directors comprised of one elected representative from each of its participating communities.

3.5.2.2 Natural Gas

According to the U.S. Energy Information Administration, California used approximately 2,110,829 million cubic feet of natural gas in 2017 (EIA 2019b). The majority of California's natural gas customers are residential and small commercial customers (core customers). These customers accounted for approximately 32 percent of the natural gas delivered by California utilities (CPUC 2019). Large consumers, such as electric generators and industrial customers (noncore customers), accounted for approximately 68 percent of the natural gas delivered by California utilities (CPUC 2019). CPUC regulates California natural gas rates and natural gas services, including in-state transportation over transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. California gas utilities may soon also begin receiving biogas into their pipeline systems (CPUC 2019).

PG&E provides natural gas service to most of Northern California. As provided in Table 3.5-2, PG&E customers consumed approximately 4,715 million therms[1] of natural gas in 2017 (CEC 2017c).

[1] One therm is equal to 100,000 British thermal units or 100 kilo-British thermal units.

Table 3.5-2
Pacific Gas & Electric Company 2017 Natural Gas Consumption

Sector	Total Natural Gas (in millions of therms)
Agricultural and Water Pump	36.40
Commercial Buildings	864.81
Commercial Other	67.96
Industry	1,701.34
Mining and Construction	170.82
Residential	1,873.36
Total Consumption	**4,714.69**

Source: CEC 2017c.

In 2017 (the most recent year for which data is available), PG&E delivered approximately 445 million therms to Santa Clara County, with 206 million therms for non-residential use and 239 million therms for residential use (CEC 2017d).

3.5.2.3 Petroleum

According to the U.S. Energy Information Administration, California used approximately 683 million barrels of petroleum in 2017, with the majority (585 million barrels) used for the transportation sector (EIA 2019c). This total annual consumption equates to a daily use of approximately 1.9 million barrels of petroleum. There are 42 U.S. gallons in a barrel, so California consumes approximately 78.6 million gallons of petroleum per day, adding up to an annual consumption of 28.7 billion gallons of petroleum. In California, petroleum fuels refined from crude oil are the dominant source of energy for transportation sources. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. California has implemented policies to improve vehicle efficiency and to support use of alternative transportation, which are described in Section 3.5.3, Regulatory Setting, below. As such, the California Energy Commission (CEC) anticipates an overall decrease of gasoline demand in the state over the next decade.

3.5.3 Regulatory Setting

3.5.3.1 Federal Regulations

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624–63200). Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased Corporate Average Fuel Economy standards for motor vehicles, the EISA includes the following other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standards (Sections 301–325)
- Building Energy Efficiency (Sections 411–441)

This federal legislation requires ever-increasing levels of renewable fuels (the RFS) to replace petroleum (EPA 2017). The U.S. Environmental Protection Agency is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that lay the foundation for achieving significant reductions in greenhouse gas (GHG) emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the U.S. Environmental Protection Agency to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green” jobs.

3.5.3.2 State Regulations

Warren-Alquist Act

The California legislature passed the Warren-Alquist Act in 1974. The Warren-Alquist Act created the CEC. The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for buildings constructed and appliances sold in California.
- The act removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high-demand projections, and transferred it to a more impartial CEC.
- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

State of California Energy Action Plan

The CEC and CPUC approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure that adequate, reliable, and reasonably priced electrical power and natural gas supplies are provided, and identified policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers. In 2005, a second Energy Action Plan was adopted by the CEC and CPUC to reflect various policy changes and actions of the prior 2 years.

At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based, in part, on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an update that examines the state's ongoing actions in the context of global climate change.

Senate Bills 1078 (2002), 107 (2006), X1-2 (2011), 350 (2015) and 100 (2018)

Senate Bill (SB) 1078 established the California Renewables Portfolio Standard (RPS) Program and required that a retail seller of electricity purchase a specified minimum percentage of electricity generated by eligible renewable energy resources as defined in any given year, culminating in a 20 percent standard by December 31, 2017. These retail sellers include electrical corporations, community choice aggregators, and electric service providers. The bill relatedly required the CEC to certify eligible renewable energy resources, design and implement an

accounting system to verify compliance with the RPS by retail sellers, and allocate and award supplemental energy payments to cover above-market costs of renewable energy.

SB 107 (2006) accelerated the RPS established by SB 1078 by requiring that 20 percent of electricity retail sales be served by renewable energy resources by 2010 (not 2017). Additionally, SB X1-2 (2011) requires all California utilities to generate 33 percent of their electricity from eligible renewable energy resources by 2020. Specifically, SB X1-2 sets a three-stage compliance period: by December 31, 2013, 20 percent had to come from renewables; by December 31, 2016, 25 percent had to come from renewables; and by December 31, 2020, 33 percent will come from renewables.

SB 350 (2015) expanded the RPS because it requires retail seller and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030, with interim goals of 40 percent by 2024 and 45 percent by 2027.

SB 100 (2018) accelerated and expanded the standards set forth in SB 350 by establishing that 44 percent of the total electricity sold to retail customers in California per year by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030 be secured from qualifying renewable energy sources. SB 100 also states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100 percent of the retail sales of electricity to California. This bill requires that the achievement of 100 percent zero-carbon electricity resources does not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Consequently, utility energy generation from non-renewable resources is expected to be reduced based on implementation of the 60 percent RPS in 2030. Therefore, any project's reliance on non-renewable energy sources would also be reduced.

Assembly Bill 1007 (2005)

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the California Air Resources Board (CARB) and in consultation with other state agencies, plus federal and local agencies. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Assembly Bill 32 (2006) and Senate Bill 32 (2016)

In 2006, the state legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted SB 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40 percent below 1990 levels by 2030. In accordance with AB 32 and SB 32, CARB prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focused on increasing energy efficiencies, using renewable resources, and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the state's GHG emissions reduction planning framework creates co-benefits for energy-related resources. Additional information on AB 32 and SB 32 is provided in Section 3.7, Greenhouse Gas Emissions, of this draft EIR.

California Building Standards

Part 6 of Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies. The 2016 Title 24 building energy efficiency standards, which became effective on January 1, 2017, and are currently applicable, reduce energy used in the state as compared to the previous standards. In general, single-family homes built to the 2016 standards are anticipated to use approximately 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards, and non-residential buildings built to the 2016 standards will use an estimated 5 percent less energy than those built to the 2013 standards (CEC 2015).

The 2019 Title 24 standards were approved and adopted by the California Building Standards Commission in December 2018. The 2019 standards became ~~will become~~ effective January 1, 2020. The standards would require that all low-rise residential buildings shall have a photovoltaic system meeting the minimum qualification requirements such that annual electrical output is equal to or greater than the dwelling's annual electrical usage. Notably, net energy metering rules limit residential rooftop solar generation to produce no more electricity than the home is expected to consume on an annual basis. Single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards, while new nonresidential buildings will use about 30 percent less energy (CEC 2018a).

Title 24 also includes Part 11, California's Green Building Standards (CALGreen). The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential,

and state-owned buildings, as well as schools and hospitals. The 2016 CALGreen standards became effective on January 1, 2017. The mandatory standards require the following:

- 20 percent mandatory reduction in indoor water use.
- 50 percent diversion of construction and demolition waste from landfills.
- Mandatory inspections of energy systems to ensure optimal working efficiency.

Integrated Energy Policy Report

The CEC is responsible for preparing integrated energy policy reports that identify emerging trends related to energy supply, demand, and conservation; public health and safety; and maintenance of a healthy economy. The CEC's 2018 Integrated Energy Policy Report discusses the state's policy goals of decarbonizing buildings, doubling energy efficiency savings, and increasing flexibility in the electricity grid system to integrate more renewable energy (CEC 2018b). Specifically for the decarbonizing of building energy, the goal would be achieved by designing future commercial and residential buildings to have their energy sourced almost entirely from electricity in place of natural gas. Regarding the increase in renewable energy flexibility, the goal would be achieved through increases in energy storage capacity within the state, increases in energy efficiency, and adjusting energy use to the time of day when the most amount of renewable energy is being generated. Over time these policies and trends would serve to beneficially reduce the project's GHG emissions profile and energy consumption as they are implemented.

State Vehicle Standards

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO_2) emissions, AB 1493 was enacted in 2002. AB 1493 required CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles whose primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emissions standards for motor vehicles manufactured in 2009 and all subsequent model years. The 2009–2012 standards resulted in a reduction in approximately 22 percent of GHG emissions compared to emissions from the 2002 fleet, and the 2013–2016 standards resulted in a reduction of approximately 30 percent .

In 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global-warming gases with requirements for greater numbers of zero-emissions vehicles into a single package of standards called Advanced Clean Cars. By 2025, when the rules would be fully implemented, new automobiles would emit 34 percent fewer global-warming gases and 75 percent fewer smog-forming emissions (CARB 2011).

Although the focus of the state's vehicle standards is on the reduction of air pollutants and GHG emissions, one co-benefit of implementation of these standards is a reduced demand for petroleum-based fuels.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions reduction mandates established in AB 32. As codified in California Government Code Section 65080, SB 375 requires Metropolitan Planning Organizations to include a sustainable communities strategy in their regional transportation plan. The main focus of the sustainable communities strategy is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also part of a bigger effort to address other development issues, including transit and vehicle miles traveled (VMT), which influence the consumption of petroleum-based fuels.

3.5.3.3 Local Regulations

Metropolitan Transportation Commission and Association of Bay Area Governments

The Metropolitan Transportation Commission, which is the Metropolitan Planning Organization for the Bay Area, and the Association of Bay Area Governments adopted the Plan Bay Area 2040 in July 2017 (MTC and ABAG 2017), which is the regional transportation plan/sustainable communities strategy for the Bay Area. The Plan Bay Area is a long-range plan for transportation projects within the planning area and focuses on cost-effective operational improvements to preserve the existing and expanded regional transportation system through 2040. The 2017 update to the Plan Bay Area focused on refining and addressing implementation challenges to the previous (2010) plan. The Plan Bay Area 2040 includes seven goals and 13 performance targets covering three broad areas: the environment, equity, and the economy. The performance targets are evaluated in several areas defined as key concerns, including climate protection, adequate housing, healthy and safe communities, open space and agricultural preservation, equitable access, economic vitality, and transportation system effectiveness.

Saratoga Municipal Code

16-51.010 - Adoption of the 2016 California Energy Code

The 2016 California Energy Code, Title 24, Part 6, hereinafter referred to as the "Energy Code," is referred to and such code is adopted and made a part hereof, the same as if fully set forth in this Article, and shall be the Energy Code of the City. At least one true copy of the Energy Code has been on file with the City Clerk for fifteen days prior to enactment of the ordinance codified in this Article. While the ordinance codified in this Article is in force, a true copy of the Energy Code

shall be kept for public inspection in the office of the Building Official. A reasonable supply of the Energy Code shall be available in the office of the City Clerk for public purchase.

Article 15-52 – Small Wind Energy Systems

In response to the state's electricity supply shortage, the State of California has adopted California Government Code Section 65892.13 to encourage local governmental agencies to adopt zoning standards which enable construction of small wind energy conversion systems for on-site home, farm and small commercial use. The purpose of this Article is to adopt such zoning standards.

16-75.070 - Expedited permit process for small residential rooftop solar systems

This section is intended to establish an expedited, streamlined solar permitting process that complies with the Solar Rights Act and AB 2188 (Chapter 521, Statutes 2014, California Government Code Section 65850.5) to achieve timely and cost-effective installations of small residential rooftop solar energy systems. This Section is further intended to encourage the use of solar systems by removing unreasonable barriers and minimizing costs to property owners and the City, and expanding the ability of property owners to install solar energy systems. This Section allows the City of Saratoga to achieve these goals while protecting the public health and safety.

City of Saratoga General Plan

Multiple chapters of the City's General Plan contain policies pertaining to improving air quality and transportation strategies, many of which would also result in co-benefits with reducing energy consumption. Specifically, the Open Space and Conservation Element (City of Saratoga 2007a) and Land Use Element (City of Saratoga 2007b) of the City's General Plan include goals and policies designed to help improve air quality within the City. Additionally, trip reduction strategies are addressed in the Circulation and Scenic Highway Element (City of Saratoga 2010). To reduce vehicle traffic and congestion within the City, the Circulation Element and Scenic Highway Element includes policies to encourage the use of alternative forms of transportation and strategies including promoting bicycling, walking, and transit use, which would reduce single-occupant vehicle VMT and associated petroleum consumption.

Land Use Element

Goal LU 6: Protect natural resources and amenities through appropriate land use and related programs.

- **Policy 6.5:** Encourage the use of renewable resources and energy conservation

3.5.4 Impacts

3.5.4.1 Methods of Analysis

Construction Emissions

The California Emission Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate potential project-generated GHG emissions during construction, which were then used to estimate energy consumption. Construction of the project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 3.2, Air Quality, and Appendices B-1 through B-3 of this draft EIR are also applicable for the estimation of construction-related GHG emissions. The estimated GHGs were back-calculated based on carbon content (i.e., kilograms of CO_2 per gallon) in order to estimate fuel usage during project construction. The conversion factor for gasoline is 8.38 kilograms per metric ton CO_2 per gallon, and the conversion factor for diesel is 10.35 kilograms per metric ton CO_2 per gallon (The Climate Registry 2018). Energy use calculations for construction are provided in Appendix E, Energy Report.

Operational Emissions

During project operations, activities that would consume energy would include electricity and natural gas use for building operations, electricity for water and wastewater conveyance, natural gas for emergency generator testing, and petroleum consumption from employee and visitor trips. Additional assumptions for these sources are described in Impact 3.5-1 and energy use calculations for operations are provided in Appendix E.

3.5.4.2 Thresholds of Significance

The significance criteria used to evaluate the proposed project impacts on energy are based on Appendix G of the CEQA Guidelines. For the purposes of this energy analysis, a significant impact would occur if the project would do any of the following (14 CCR 15000 et seq.):

- Result in wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.5.4.3 Impacts and Mitigation Measures

Impact 3.5-1: Would the project result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?

Implementation of the project would increase the demand for electricity and natural gas at the project site and petroleum consumption in the region during construction and operation.

Electricity

Construction Use

Temporary electric power for as-necessary lighting and electronic equipment (such as computers inside temporary construction trailers and heating, ventilation, and air conditioning) during construction would be provided by PG&E. The amount of electricity used during construction would be minimal; typical demand would stem from the use of electrically powered hand tools and several construction trailers by managerial staff during the hours of construction activities. The majority of the energy used during construction would be from petroleum. The electricity used for construction activities would be temporary and minimal; therefore, impacts would be less than significant.

Operational Use

The operational phase would require electricity for multiple purposes including building heating and cooling, lighting, appliances, electronics, and water and wastewater conveyance. CalEEMod provides default values for electricity consumption for the assisted living and parking land uses that were applied to the project (CAPCOA 2017). Table 3.5-3 presents the electricity demand for the project.

Table 3.5-3
Project Operations - Electricity Demand

Project Facility	kWh/Year
Building and Lighting Electricity Demand	
Congregate Care (Assisted Living)	169,262.00
Enclosed Parking with Elevator	81,635.70
Parking Lot	6,062.35
Water/Wastewater Electricity Demand	
Congregate Care (Assisted Living)	20,348.83
Total	**277,308.88**

Source: Appendix E.
Notes: kWh = kilowatt-hour.

As shown in Table 3.5-3, the project is estimated to have a total electrical demand of 277,309 kilowatt-hours per year (or 0.28 million kWh per year) for facility usage and water/wastewater

conveyance. In comparison, for Santa Clara County, electricity demand in 2017 was 17,190 million kWh (CEC 2017b). The project would also be built in accordance with the current Title 24 standards at the time of construction and CALGreen. Therefore, due to the limited amount of electricity use for the project compared to Santa Clara County consumption, and the inherent increase in efficiency of building code regulations, the project would not result in a wasteful use of energy. Impacts related to operational electricity use would be less than significant.

Natural Gas

Construction Use

Natural gas is not anticipated to be required during construction of the project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the subsection Petroleum, below. Any minor amounts of natural gas that may be consumed as a result of project construction would be temporary and negligible, and would not have an adverse effect; therefore, impacts would be less than significant.

Operational Use

Natural gas consumption during operation would be required for various purposes, including building heating and cooling and emergency generator testing. For building consumption, default natural gas generation rates in CalEEMod for the proposed land uses and climate zone were used. For emergency generator testing, the anticipated equipment specifications were used to estimate annual natural gas usage. Table 3.5-4 presents the natural gas demand for the project.

Table 3.5-4
Project Operations – Natural Gas Demand

Project Facility	kBTu/Year
Building Natural Gas Demand	
Congregate Care (Assisted Living)	354,217.00
Emergency Generator Testing	
Congregate Care (Assisted Living)	48,195.00
Total	**402,412.00**

Source: Appendix E.
Notes: kBtu = thousand British thermal units.

As shown in Table 3.5-4, the project would consume approximately 402,412 thousand British thermal units (kBtu) per year. For comparison, in 2017, PG&E delivered approximately 445 million therms (44.5 billion kBtu) to Santa Clara County (CEC 2017d). The project is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Title 24, Part 11, contains additional energy measures that are applicable to project under CALGreen. Prior to project

approval, the ~~applicant~~ City would ensure that the project would meet Title 24 requirements applicable at that time, as required by state regulations through their plan review process. Therefore, due to the limited amount of natural gas use for the project, and the inherent increase in efficiency of building code regulations, the project would not result in a wasteful use of energy. Impacts related to operational natural gas use would be less than significant.

Petroleum

Construction Use

Petroleum would be consumed throughout construction of the project. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, and VMT associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty construction equipment associated with construction activities, vendor trucks, and haul trucks would rely on diesel fuel. Construction workers would travel to and from the project site throughout the duration of construction. This analysis assumes that construction workers would travel in gasoline-powered vehicles.

Heavy-duty construction equipment of various types would be used during construction. CalEEMod was used to estimate construction equipment usage. Based on that analysis, diesel-fueled construction equipment would operate for an estimated 12,267 hours, as summarized in Table 3.5-5.

Table 3.5-5
Hours of Operation for Construction Equipment

Phase	Hours of Equipment Use
Site Preparation	176
Grading	1,100
Paving	1,035
Building Construction	8,384
Architectural Coating	1,572
Total	**12,267**

Source: Appendix E.

Fuel consumption from construction equipment was estimated by converting the total CO_2 emissions from each construction phase to gallons using conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO_2 per gallon (The Climate Registry 2018). The estimated diesel fuel use from construction equipment is shown in Table 3.5-6.

Table 3.5-6
Construction Equipment Diesel Demand

Phase	Pieces of Equipment	Equipment CO_2 (MT)	kg CO_2/Gallon	Gallons
Site Preparation	2	4.75	10.21	464.80
Grading	5	26.29	10.21	2,575.17
Paving	7	10.88	10.21	1,065.67
Building Construction	5	132.15	10.21	12,943.51
Architectural Coating	1	33.51	10.21	3,281.95
			Total	**20,331.10**

Source: Appendix E.
Notes: CO2 = carbon dioxide; MT = metric ton; kg = kilogram.

Fuel consumption from worker, vendor, and haul truck trips was estimated by converting the total CO_2 emissions from the construction phase to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Worker vehicles are assumed to be gasoline fueled, whereas vendor and haul trucks are assumed to be diesel fueled. The estimated fuel use for worker vehicles, vendor trucks, and haul trucks are presented in Table 3.5-7, Table 3.5-8, and Table 3.5-9, respectively.

Table 3.5-7
Construction Worker Vehicle Gasoline Demand

Phase	Trips	Vehicle CO_2 (MT)	kg CO_2/Gallon	Gallons
Site Preparation	55	0.19	8.78	21.32
Grading	572	1.95	8.78	221.69
Paving	414	1.41	8.78	160.46
Building Construction	11,528	38.55	8.78	4,390.83
Architectural Coating	2,358	7.89	8.78	898.13
			Total	**5,692.43**

Source: Appendix E.
Notes: CO2 = carbon dioxide; MT = metric ton; kg = kilogram.

Table 3.5-8
Construction Vendor Truck Diesel Demand

Phase	Trips	Vehicle CO_2 (MT)	kg CO_2/Gallon	Gallons
Site Preparation	0	0.00	10.21	0.00
Grading	0	0.00	10.21	0.00
Paving	0	0.00	10.21	0.00
Building Construction	2,620	34.13	10.21	3,342.83
Architectural Coating	0	0.00	10.21	0.00
			Total	**3,342.83**

Source: Appendix E.
Note: CO2 = carbon dioxide; MT = metric ton; kg = kilogram.

Table 3.5-9
Construction Haul Truck Diesel Demand

Phase	Trips	Vehicle CO_2 (MT)	kg CO_2/Gallon	Gallons
Site Preparation	0	0.00	10.21	0.00
Grading	768	42.12	10.21	4,125.55
Paving	0	0.00	10.21	0.00
Building Construction	0	0.00	10.21	0.00
Architectural Coating	0	0.00	10.21	0.00
			Total	**4,125.55**

Source: Appendix E.
Notes: CO2 = carbon dioxide; MT = metric ton; kg = kilogram.

As shown in Tables 3.5-6 through 3.5-9, the project is estimated to consume approximately 33,492 gallons of petroleum during the construction phase. By comparison, approximately 25.7 billion gallons of petroleum would be consumed in California over the course of the project's construction phase, based on the California daily petroleum consumption estimate of approximately 78.6 million gallons per day (EIA 2019c). Overall, because petroleum use during construction would be temporary and relatively minimal, and would not be wasteful or inefficient, impacts would be less than significant.

Operational Use

The fuel consumption resulting from the project's operational phase would be attributable to employees and visitors traveling to and from the project site. Petroleum fuel consumption associated with motor vehicles traveling to and from the project site during operation is a function of VMT. As shown in Appendix B, CalEEMod Outputs, the annual VMT attributable to the project is expected to be 1,055,681 VMT per year. Similar to construction worker and vendor trips, fuel consumption for operation was estimated by converting the total CO_2 emissions from the assisted living land use type to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Based on the countywide proportion of gasoline and diesel on-road vehicle-generated CO_2 in EMFAC2017, the vehicles associated with project operations were assumed to be approximately 83 percent gasoline powered and 17 percent diesel powered. The estimated fuel use from project operational mobile sources is shown in Table 3.5-10.

Table 3.5-10
Project Operations - Petroleum Consumption

Fuel	Vehicle MT CO_2	kg CO_2/Gallon[a]	Gallons
Gasoline	317.80	8.78	36,196.05
Diesel	66.30	10.21	6,493.77
		Total	**42,689.82**

Source: Appendix B.
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram.

As depicted in Table 3.5-10, mobile sources from the project would result in approximately 42,690 gallons of petroleum fuel usage per year. By comparison, California as a whole consumes approximately 28.7 billion gallons of petroleum per year (EIA 2019c).

Over the lifetime of the project, the fuel efficiency of the vehicles being used by the employees and visitors is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the project site during operation would decrease over time. As detailed in Section 3.5.3, there are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted an approach to passenger vehicles that combines the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the number of plug-in hybrids and zero-emissions vehicles in California (CARB 2011). As such, operation of the project is expected to use decreasing amounts of petroleum over time due to advances in fuel economy.

In summary, although the project would increase petroleum use during operation as a result of employees and visitors traveling to and from the project site, the use would be a small fraction of the statewide use and, due to efficiency increases, would diminish over time. Given these considerations, petroleum consumption associated with the project would not be considered inefficient or wasteful and would result in a less-than-significant impact.

Based on the analysis above, the consumption of energy resources (including electricity, natural gas, and petroleum) during project construction and operation would not be considered inefficient or wasteful and would result in a **less-than-significant impact**.

Mitigation Measures

None required.

Impact 3.5-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Title 24 of the California Code of Regulations contains energy efficiency standards for residential and non-residential buildings based on a state mandate to reduce California's energy demand. Specifically, Title 24 addresses a number of energy efficiency measures that impact energy used for lighting, water heating, heating, and air conditioning, including the energy impact of the building envelope such as windows, doors, wall/floor/ceiling assemblies, and roofs.

Part 6 of Title 24 specifically establishes energy efficiency standards for residential and non-residential buildings constructed in the State of California in order to reduce energy demand and consumption. Part 11 of Title 24 also includes the CALGreen standards, which established mandatory minimum environmental performance standards for new construction projects. The

project would comply with Title 24, Part 6 and Part 11, per state regulations. Based on the foregoing, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency; therefore, impacts during construction and operation of the proposed project would be **less than significant**.

Mitigation Measures

None required.

3.5.5 References Cited

CAPCOA (California Air Pollution Control Officers Association). 2017. *California Emissions Estimator Model (CalEEMod) User's Guide Version 2016.3.2.* Prepared by Trinity Consultants and the California Air Districts. November 2017. http://www.caleemod.com.

CARB (California Air Resources Board). 2011. "Facts About the Advanced Clean Cars Program." Revised November 9, 2011. Accessed May 2019. https://www.arb.ca.gov/msprog/zevprog/factsheets/advanced_clean_cars_eng.pdf.

CEC (California Energy Commission). 2015. "2016 Building Efficiency Standards Adoption Hearing Presentation." June 2015. Accessed May 2019. http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf#page=8.

CEC. 2017a. "Electricity Consumption by Entity." Accessed February 2019. http://www.ecdms.energy.ca.gov/elecbyutil.aspx.

CEC. 2017b. "Electricity Consumption by County." Accessed May 2019. http://ecdms.energy.ca.gov/elecbycounty.aspx.

CEC. 2017c. "Natural Gas Consumption by Entity." Accessed February 2019. http://ecdms.energy.ca.gov/gasbyutil.aspx.

CEC. 2017d. "Gas Consumption by County." Accessed May 2019. http://ecdms.energy.ca.gov/gasbycounty.aspx.

CEC. 2018a. *2019 Building Efficiency Standards Fact Sheet*. March 2018. Accessed May 2019. https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf.

CEC. 2018b. *Final 2017 Integrated Energy Policy Report.* CEC-100-2017-001-CMF. April 2018. Accessed May 2019. https://www.energy.ca.gov/2017_energypolicy/.

City of Saratoga. 2007a. *Open Space Element*. June 6, 2007. Accessed May 2019. https://www.saratoga.ca.us/DocumentCenter/View/49/Open-Space-and-Conservation-Element-Dated-June-6-2007-PDF.

City of Saratoga. 2007b. *Land Use Element*. June 6, 2007. Accessed May 2019. https://www.saratoga.ca.us/DocumentCenter/View/48/Land-Use-Element-Dated-June-6-2007-PDF.

City of Saratoga. 2010. *Circulation and Scenic Highway Element Update.* November 17, 2010. Accessed May 2019. https://www.saratoga.ca.us/DocumentCenter/View/46/Circulation-and-Scenic-Highway-Element-Dated-November-17-2010-PDF.

CPUC (California Public Utilities Commission). 2018. *2018 Renewable Portfolio Standard Annual Report*. November 2018. Accessed May 2019. http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/Renewables%20Portfolio%20Standard%20Annual%20Report%202018.pdf.

CPUC. 2019. "Natural Gas and California." Accessed May 2019. http://www.cpuc.ca.gov/natural_gas/.

EIA (U.S. Energy Information Administration). 2018. "California State Energy Profile." Last updated November 15, 2018. Accessed May 2019. https://www.eia.gov/state/print.php?sid=CA.

EIA. 2019a. "State Electricity Profiles – California Electricity Profile 2017." January 8, 2019. Accessed May 2019. https://www.eia.gov/electricity/state/california/index.php.

EIA. 2019b. "Natural Gas Consumption by End Use." April 2019. Accessed May 2019. https://www.eia.gov/dnav/ng/ng_cons_sum_a_EPG0_VC0_mmcf_a.htm.

EIA. 2019c. "California State Profile and Energy Estimates – Table F16: Total Petroleum Consumption Estimates, 2017." Accessed May 2019. https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US&sid=CA.

EPA (U.S. Environmental Protection Agency). 2017. "Overview for Renewable Fuel Standard." Last updated June 7, 2017. Accessed May 2019. https://www.epa.gov/renewable-fuel-standard-program/overview-renewable-fuel-standard.

MTC and ABAG (Metropolitan Transportation Commission and Association of Bay Area Governments). 2017. *Plan Bay Area: Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area 2017–2040*. Adopted July 26, 2017. Accessed May 2019. http://2040.planbayarea.org/cdn/farfuture/u_7TKELkH2s3AAiOhCyh9Q9QlWEZIdYcJzi2QDCZuIs/1510696833/sites/default/files/2017-11/Final_Plan_Bay_Area_2040.pdf.

PG&E (Pacific Gas & Electric Company). 2019. "Company Profile." Accessed May 2019. https://www.pge.com/en_US/about-pge/company-information/profile/profile.page.

SVCE (Silicon Valley Clean Energy). 2019. "About Us." Accessed November 2019. https://www.svcleanenergy.org/about-us/

The Climate Registry. 2018. Default Emission Factors. May 1. Accessed May 2019. https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf.

3.6 GEOLOGY AND SOILS

3.6.1 Introduction

This section of the EIR describes the environmental setting, regulatory framework, and potential impacts to geology and soils of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts. Information used to prepare this section primarily comes from the Geotechnical Investigation for Two Proposed New Residential Structures prepared by GeoForensics Inc., which is included as Appendix F, as well as the Cultural and Paleontological Resources Assessment prepared by Dudek, which is included as Appendix D. Publicly available information was gathered to supplement the geotechnical investigation where necessary to support the impact analysis.

3.6.2 Environmental Setting

3.6.2.1 Topography

Regionally, the proposed project is located on a broad alluvial plain formed by several creeks that emerge out of the northern and eastern flanks of the Santa Cruz Mountains, including Saratoga Creek, Wildcat Creek, and Calabasas Creek. Locally, the west-northwestern edge of the proposed project is defined by the course of Saratoga Creek, whose bottom occurs at an elevation of approximately 281 feet above mean sea level, and whose top of bank is up to 20 feet higher (refer to Appendix F). The developed portion of the proposed project would occur on flat land behind the creek bank which ranges in elevation between 297 and 300 feet above mean sea level. The width of the creek bank, from top to bottom, varies between 5 and 20 feet wide, and varies in slope between an inclination of 5:1 and a 1:1 (horizontal:vertical) (refer to Appendix F).

3.6.2.2 Geology and Soils

The geologic unit underlying the project site consists of young Holocene-age[1] alluvial fan sediments consisting of gravel, sand, silt and clay (Dibblee and Minch 2007). Within the banks of Saratoga Creek, the underlying geology is mapped as modern stream channel deposits (DOC 2002). Geotechnical exploration of the site consisted of five soil borings completed with a truck mounted drilling rig equipped with 4-inch-diameter helical flight augers (refer to Appendix F). The borings ranged in depth between 12 and 27.5 feet below ground surface (bgs), where the presence of cobbles prevented further advancement of the borings (refer to Appendix F). In general, the subsurface conditions encountered consisted of coarse sediments (i.e., sand with varying amounts of gravel and/or silt), consistent with the alluvial fan geology mapped by Dibblee and Minch (2007). Laboratory testing of soil samples retrieved from the borings indicates the soils are composed of 20–40 percent gravel, 47–

[1] The Holocene is a geologic epoch lasting from 11,700 years ago (+/− 100 years) to the present day.

71 percent sand, and 6–20 percent silt and clay, with variable unconfined compressive strength, ranging from low to high (refer to Appendix F). Based on laboratory testing of site soils, there is a low potential for expansive soils to be present and a low susceptibility to liquefaction.

3.6.2.3 Ground Movement Potential

The City of Saratoga (City) uses a ground movement potential map to determine the level of geotechnical investigation required for project approvals. According to this map, the proposed project footprint is located on relatively stable ground consisting of unconsolidated granular material on level ground (map unit "Sun") (CSA 2013). However, the west-northwestern edge of the project parcel intersects an area mapped as having a significant potential for ground movement (map unit "Ps") due to unstable, unconsolidated material commonly less than 10 feet in thickness on moderately steep slopes to steep ground subject to shallow sliding or slumping (CSA 2013). This area reflects the narrow albeit locally steep creek bank along the southeastern side of Saratoga Creek. The designations on the City's ground movement potential map are consistent with the site-specific geotechnical report completed by GeoForensics Inc. (refer to Appendix F).

3.6.2.4 Faulting

Geologists commonly use the age of offset rocks as evidence of fault activity—the younger the displaced rocks, the more recently earthquakes have occurred. To evaluate the likelihood that a fault will produce an earthquake, geologists examine the magnitude and frequency of recorded earthquakes and evidence of past displacement along a fault. Under the Alquist-Priolo Earthquake Fault Zoning Act (AP Act), an active fault is defined by the State of California as a fault that has had surface displacement within Holocene time (last 11,000 years). Earthquake fault zones are designated by the California Geological Survey (CGS) where concrete evidence (e.g., geologic offsets, geomorphic features, trench studies, etc.) demonstrates surface fault rupture has occurred within the past 11,000 years. A potentially active fault is a fault that has shown evidence of surface displacement during the Quaternary (last 1.6 million years). Because the age of many potentially active faults are poorly constrained, and due to the sheer number of such faults in the state, the location and trace of both active and potentially active faults should be identified to examine potential for surface rupture.

The project site is not crossed by an earthquake fault zone designated under the AP Act, nor is it crossed by a Quaternary-age fault mapped by the U.S. Geological Survey or CGS (USGS and CGS 2019; DOC 2002, 2019). The closest earthquake fault zone designated under the AP Act is the San Andreas Fault, located approximately 4 miles southwest of the project site. This fault is the major active fault in the region, is 700 miles in length along western California, and ruptured in 1989 to produce the Loma Prieta earthquake (magnitude 6.7). This is the last major earthquake to affect the San Jose region, and it produced very strong to severe ground shaking and significant losses.

The closest potentially active fault to the proposed project is the Monte Vista-Shannon fault zone, which is located approximately 0.7 miles southwest of the proposed project site. The Monte Vista-Shannon fault is a well located, concealed fault thought to be of Late Quaternary (< 130,000 years) age (USGS and CGS 2019). The City has designated the Monte Vista and Shannon Faults as primary fault rupture zones even though they are not designated as such by the state, and generally requires development on these zones to carry out detailed site investigations (City of Saratoga 2013). However, because the project site is not crossed by an active or potentially active fault, it would not be affected by fault-related ground offset (i.e., primary fault rupture).

However, a major earthquake on any of the active or potentially active faults throughout the region is likely to produce very strong to violent ground shaking at least once over the lifespan of the proposed project (refer to Appendix F).

3.6.2.5 Seismicity and Seismic Hazards

The U.S. Geological Survey cites a 70 percent chance that the greater San Francisco Bay Area will experience an earthquake of Richter magnitude 7 or larger at some point in the next 30 years (refer to Appendix F).

A primary tool that seismologists use to describe ground-shaking hazard is a probabilistic seismic hazard assessment (PSHA). The PSHA for the State of California takes into consideration the range of possible earthquake sources and estimates their characteristic magnitudes to generate a probability map for ground shaking. The PSHA maps depict values of peak ground acceleration (PGA)[2] that have a 10 percent probability of being exceeded in 50 years (a 1 in 475 chance). This probability level allows engineers to design buildings for ground motions that have a 90 percent chance of not occurring in the next 50 years, making buildings safer than if they were simply designed for the most likely events. Based on the PSHA for California, the proposed project site has a 2 percent chance of exceeding a PGA value of 0.88g in the next 50 years (a 1 in 2,475 chance) (OSHPD 2019). For comparison purposes, the maximum PGA value recorded during the Loma Prieta earthquake was in the vicinity of the epicenter, near Santa Cruz, at 0.64g. Thus, the proposed project is likely to experience very strong to violent ground shaking at least once over the lifespan of the proposed structures.

[2] The PGA for a given component of motion is the largest value of horizontal acceleration obtained from a seismograph. PGA is expressed as the percentage of the acceleration due to gravity (g), which is approximately 980 centimeters per second squared. In terms of automobile accelerations, 1 g of acceleration is equivalent to the motion of a car traveling 328 feet from rest in 4.5 seconds.

Liquefaction

Localities most susceptible to liquefaction-induced damage are underlain by loose, water-saturated, granular sediment within 40 feet of the ground surface (DOC 2002). In designating zones of required investigation for liquefaction in its seismic hazard zone maps, the CGS has designated an approximately 75-foot wide corridor along Saratoga Creek as a liquefaction zone (DOC 2002, 2019). CGS determines zones of required investigation for liquefaction based on liquefaction susceptibility (which consists of a combination of the character of sediment and highest recorded groundwater level) and liquefaction opportunity (which is based on the PSHA) (DOC 2002). The designation of the Saratoga Creek corridor as a liquefaction zone is based on a narrow (approximately 75-foot) zone of modern creek channel deposits mapped along Saratoga Creek, and the presumption that such sediments could be saturated at certain times of the year.

It is important to note that the static groundwater table underlying the project site is well in excess of 40 feet bgs, which precludes the possibility for liquefaction outside the immediate stream corridor. Maps showing the historical high groundwater table in the seismic hazard zone report for the Cupertino 7.5-minute Quadrangle indicate the historically highest groundwater depth in the project area was between 40 and 50 feet bgs (DOC 2002). CGS uses the highest historically known groundwater levels in designating liquefaction zones because neither the timing of an earthquake nor future groundwater conditions can be known with certainty. The Santa Clara Valley Water District operates a groundwater monitoring well along Saratoga Creek approximately 1.3 miles downstream of the proposed project site. Based on the groundwater level record of this well, which consists of monthly readings between 2004 and the present, the highest recorded groundwater level was 75 feet bgs in 2006; the fall 2018 groundwater level measurement was 88 feet bgs (DWR 2019). Although the monitoring well is situated over 1 mile downstream, the regional groundwater table generally follows the topography along the broad alluvial plain, and thus is likely similar in depth bgs at the proposed project site. West of State Route 85, the depth to groundwater decreases gradually with proximity to the bedrock boundary of the groundwater basin.

Furthermore, based on the geotechnical exploration of the site, the subsurface sediments are not prone to earthquake-induced liquefaction (refer to Appendix F). The subsurface investigation indicates that the soils underlying the proposed project have a low potential for liquefaction because sediments are fairly widely distributed between sand, gravel, and silt/clay.

3.6.2.6 Paleontological Resources

The paleontological sensitivity of geologic formations underlying the project depends on their age and the prevalence of known paleontological resource localities within the same or similar geologic units. As described above, the project site is underlain by Holocene (< 11,700 years ago) alluvial fan sediments consisting of gravel, sand, silt, and clay. Due to their relatively young age,

Holocene-age sediments have a low paleontological potential; however, sedimentary deposits older than the Holocene have yielded several fossils of significance in the region. The Pleistocene[3] to Late Pliocene[4] Santa Clara Formation is mapped on the surface less than 0.25 miles to the southwest of the project site (Dibblee and Minch 2007). According to Appendix F, the Santa Clara Formation or Pleistocene-age alluvium likely underlies the project site at a relatively shallow depth. The Natural History Museum of Los Angeles County (LACM) recommended paleontological monitoring of substantial excavations within the project site.

A review of paleontological records held by the LACM and the University of California at Berkeley Museum of Paleontology (UCMP) shows the surrounding region has yielded fossils of significance, likely within Pleistocene and older sediments, but at uncertain depths. The LACM records search request, including the project site and a 0.5-mile-radius buffer, was submitted on March 18, 2019, and the results were received on April 1, 2019 (refer to Appendix F). The LACM reported no localities within the project site or the 0.5-mile-radius buffer; however, they do have vertebrate fossil localities from similar deposits that underlie the project at depth (refer to Appendix F). The nearest LACM locality, LACM 4626, approximately 50 miles north–northeast of the project, produced a new species of horse (*Equus pacificus*) from an unspecified depth bgs (refer to Appendix F). In addition to this locality, the LACM reported a closer vertebrate fossil locality from the UCMP that yielded fossil specimens of horse (*Equus*) and bison (*Bison antiquus*) from an unspecified depth west of Livermore. The UCMP online locality database also listed the following Pleistocene mammalian taxa found within Santa Clara County: peccary (*Platygonus*), bison (*Bison latifrons*), horse (*Equus*), mammoth (*Mammuthus columbi*), ground sloth (*Paramylodon harlani*), dwarf pronghorn (*Capromeryx*), and camel (*Camelops*) (UCMP 2019).

3.6.3 Regulatory Setting

3.6.3.1 Federal Regulations

The following federal regulations pertaining to geology and soils would apply to the proposed project.

Occupational Safety and Health Administration Regulations

Excavation and trenching are among the most hazardous construction activities. The Occupational Safety and Health Administration's Excavation and Trenching standard, Title 29 of the Code of Federal Regulations, Part 1926.650, covers requirements for excavation and trenching operations. The Occupational Safety and Health Administration requires that all excavations in which employees could potentially be exposed to cave-ins be protected by sloping

[3] The Pleistocene is a geologic epoch lasting from 2.6 million years ago to 11,700 years ago.
[4] The Pliocene is a geologic epoch lasting from 3.6 million years ago to 2.6 million years ago.

or benching the sides of the excavation, supporting the sides of the excavation, or placing a shield between the side of the excavation and the work area.

3.6.3.2 State Regulations

The statewide minimum public safety standard for mitigation of earthquake hazards (as established through the California Building Code (CBC), AP Act, and the Seismic Hazards Mapping Act) requires that the minimum level of mitigation for a project reduce the risk of ground failure during an earthquake to a level that does not cause the collapse of buildings for human occupancy, but in most cases, does not require that the mitigation prevent or avoid the ground failure itself. It is not feasible to design all structures to completely avoid damage in worst-case earthquake scenarios. Accordingly, regulatory agencies have generally defined an "acceptable level" of risk as that which provides reasonable protection for public safety, although it does not necessarily ensure continued structural integrity and functionality of a project (14 CCR 3721(a)). Nothing in these acts, however, precludes lead agencies from enacting more stringent requirements, requiring a higher level of performance, or applying these requirements to developments other than those that meet the acts' definitions of "project."

Alquist-Priolo Earthquake Fault Zoning Act

The AP Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. In accordance with this act, the state geologist established regulatory zones, called earthquake fault zones, around the surface traces of active faults, and published maps showing these zones. Earthquake fault zones are designated by the CGS and are delineated along traces of faults where mapping demonstrates surface fault rupture has occurred within the past 11,000 years. Construction within these zones cannot be permitted until a geologic investigation has been conducted to prove that a building planned for human occupancy will not be constructed across an active fault. These types of site evaluations address the precise location and recency of rupture along traces of the faults and are typically based on observations made in trenches excavated across fault traces.

The proposed project is not within an Alquist-Priolo Earthquake Fault Zone and therefore is not subject to the requirements of this act.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (California Public Resources Code, Sections 2690–2699.6) directs the California Department of Conservation to protect the public from earthquake-induced liquefaction and landslide hazards (note that these hazards are distinct from the fault surface rupture hazard regulated by the AP Act of 1972). This act requires the state geologist to delineate various seismic hazard zones, and requires cities, counties, and other local permitting

agencies to regulate certain development projects within these zones (i.e., zones of required investigation). Before a development permit may be granted for a site within a seismic hazard zone, a geotechnical investigation of the site must be conducted and appropriate mitigation measures incorporated into the project design. Evaluation and mitigation of potential risks from seismic hazards within zones of required investigation must be conducted in accordance with the CGS Special Publication 117A, adopted March 13, 1997, by the State Mining and Geology Board, as updated in 2008 (DOC 2008).

This statute is not applicable to the project because the area along Saratoga Creek designated as a liquefaction zone is located outside the proposed development footprint of the project.

California Building Code

The CBC has been codified in the California Code of Regulations as Title 24, Part 2. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 to be enforceable. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction. The 2016 edition of the CBC is based on the 2015 International Building Code published by the International Code Conference. The 2016 CBC contains California amendments based on the American Society of Civil Engineers Minimum Design Standards 7-16, which provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (such as wind loads) for inclusion into building codes. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The earthquake design requirements take into account the occupancy category of the structure, site class, soil classifications, and various seismic coefficients, which are used to determine a Seismic Design Category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site and ranges from SDC A (very small seismic vulnerability) to SDC E/F (very high seismic vulnerability and near a major fault). Design specifications are then determined according to the SDC.

Paleontological Resources

Paleontological resources are limited, nonrenewable resources of scientific, cultural, and educational value and are afforded protection under state laws and regulations, namely California Public Resources Code, Sections 21000 et seq. and 5097.5 (CEQA). Paleontological resources

are explicitly afforded protection by CEQA, specifically in Section VII(f) of CEQA Guidelines Appendix G, the Environmental Checklist Form, which addresses the potential for adverse impacts to "unique paleontological resource[s] or site[s] or . . . unique geological feature[s]" (14 CCR 15000 et seq.). This provision covers fossils of signal importance—remains of species or genera new to science, for example, or fossils exhibiting features not previously recognized for a given animal group—as well as localities that yield fossils significant in their abundance, diversity, preservation, and so forth. Further, CEQA provides that, generally, a resource shall be considered "historically significant" if it has yielded or may be likely to yield information important in prehistory (14 CCR 15064.5(a)(3)(D)). Paleontological resources would fall within this category. California Public Resources Code, Sections 5097.5 and 30244, also regulates removal of paleontological resources from state lands, defines unauthorized removal of fossil resources as a misdemeanor, and requires mitigation of disturbed sites.

3.6.3.3 Local Regulations

The following local/regional regulations pertaining to geology and soils would apply to the proposed project.

Saratoga City Code

Recommendations from geotechnical, soils, liquefaction, and/or engineering geology investigations for site preparation, grading, and foundation/building designs are incorporated into the process for review and approval of grading and building permits (Saratoga City Code Section 16-17.060). During site grading, geotechnical observation, inspection, and testing are required to verify that recommendations and corrective measures identified in soils and geologic reports have been properly implemented.

City of Saratoga General Plan

The City's General Plan defines goals, objectives, and policies regarding development within the City. The General Plan provides the following policies and implementation measures aimed at protecting the public from geologic (i.e., land instability) and seismic hazards (City of Saratoga 2013):

- **Policy SAF-1.1:** No development shall be permitted in geologic hazard areas without individual site-specific geotechnical investigations to determine depth of bedrock, soil stability, location of rift zones and other localized geotechnical problems.
    - **Implementation Measure SAF-1.1a:** As part of the development review process, a qualified Geotechnical Consultant will review proposals involving sites having potential land instability or geologic hazards and will make recommendations accordingly.

- **Policy SAF-1.2:** Development in areas subject to natural hazards shall be limited and shall be designed to protect the environment, inhabitants and general public. In areas that have been proven to be unsafe, development of structures for human habitation shall be prohibited to the maximum extent permitted by law.
- **Policy SAF-1.3:** Proposals for General Plan amendments, zone changes, use permits, variances, building site approvals, and all land development applications subject to environmental assessment according to CEQA guidelines shall be reviewed for hazardous conditions utilizing the most current data.
    - **Implementation Measure SAF-1.3a**: Mitigation measures to eliminate potential geologic hazards identified during the environmental review process will be required as conditions of development.
- **Policy SAF-2.1:** In order to mitigate the danger of earthquake damage, the City shall enforce strict earthquake construction and soil-engineering standards, selecting the most stable areas for development and requiring developers to compensate for soil instabilities through approved engineering and construction techniques.

The General Plan provides the following policy aimed at preserving and protecting paleontological resources (City of Saratoga 2007):

- **Policy LU 12.9:** Conduct reconnaissance level analyses of new development projects to ensure that no significant archaeological, prehistoric, paleontological, Native American resources would be disturbed. If such resources are found, appropriate steps shall be taken consistent with CEQA requirements to protect these resources.

3.6.4 Impacts

3.6.4.1 Methods of Analysis

Impacts with respect to geology, soils, and seismicity are assessed by comparing conditions expected under the proposed project to the existing environmental setting described in Section 3.6.2. The California Supreme Court has recently confirmed that “CEQA generally does not require an analysis of how existing environmental conditions will impact a project’s future users or residents” (*California Building Industry Association v. Bay Area Air Quality Management District* 2015). However, an agency must “evaluate existing conditions in order to assess whether a project could exacerbate hazards that are already present.” The analysis evaluates if the project would directly or indirectly place people, structures, or the general public at increased exposure to health and/or safety risks associated with soil, geologic, or seismic hazards.

As noted in Section 3.6.1, *Introduction*, the technical analysis supporting the impact conclusions in this sections was completed by GeoForensics in the Geotechnical Investigation (refer to Appendix F). The Geotechnical Investigation included site reconnaissance; five soil borings and laboratory testing; review of published geologic and seismic data related to the project area; and review of pertinent geotechnical reports for the project site.

3.6.4.2 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts to geology and soils is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this geology and soils analysis, a significant impact would occur if the project would do any of the following (14 CCR 15000 et seq.):

- 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;
  - Strong seismic ground shaking;
  - Seismic-related ground failure, including liquefaction;
  - Landslides.
- Result in substantial soil erosion or the loss of topsoil.
- 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.
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

3.6.4.3 Criteria not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain significance criteria are not applicable and therefore are not considered potential impacts. These criteria are addressed briefly below and are not discussed further in this document.

Fault Rupture

As discussed in Section 3.6.2, the proposed project is not located within a fault rupture hazard zone. This includes both earthquake fault zones designated under the AP Act and potentially active faults designated by the City. Because the project site is not crossed by any known active or potentially active fault, there would be no impact and this issue is not further addressed.

Landslide or Mudflow

As discussed in Section 3.6.2, the proposed project is not at risk of landslide or mudflow because it is nearly flat, and because there are no substantial slopes or hillside areas in the immediate vicinity. The project is located on relatively stable ground consisting of unconsolidated granular material on level ground (map unit “Sun”) (CSA 2013). In addition, the project is not at risk of mudflow or debris flow runout because it is surrounded on all sides by paved urban development on nearly flat ground, and the nearest exposed hillsides that could be debris flow or mudflow source areas are well over 2 miles to the west and southwest. Therefore, there would be no impact and this issue is not further addressed.

Soil Erosion and Loss of Topsoil

Potential impacts of erosion on water quality are discussed in Section 3.9, Hydrology and Water Quality. In the context of this section, a substantial impact would occur if accelerated and significant soil erosion were to be sufficient in magnitude to undermine structures or compromise slope stability. Examples of this style of erosion are rills and gullies, whereby storm runoff produces deep incisions into the soils and slopes. Because the proposed project is on flat land, and would be developed into residential uses, there is no reasonable potential for any rills and/or gullies to develop. Runoff from the proposed project would be managed and discharged into a bioretention area and into underground infiltration systems, as described in more detail in Section 3.9. Because runoff would not be discharged directly to Saratoga Creek, runoff from the project would not result in scour or creek bank erosion. Therefore, this impact is not applicable to the proposed project and is not further addressed.

Unique Geologic Features

The project site is undeveloped and has been disturbed due to prior earthwork and disturbance activities. The project site does not contain any unique geologic features, such as a landform or rock outcrop of scientific, cultural, or aesthetic interest. Therefore, the project would not directly or indirectly destroy a unique geologic feature. Therefore, there would be no impact and this issue is not further addressed.

3.6.4.4 Impacts and Mitigation Measures

Impact 3.6-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking or seismic-related ground failure, including liquefaction?

Seismic ground shaking is an unavoidable hazard for nearly all human-made facilities (buildings and structures) in the region. The geologic setting means the proposed project is likely to experience ground shaking from at least one major earthquake (e.g., greater than moment magnitude 7) sometime during its operational life. Based on the most recent PSHA for the State of California, the project site would have an approximately 2 percent probability of exceeding a PGA of 0.88g in the next 50 years (OSHPD 2019). This level of ground shaking, while highly improbable (i.e., a 1 in 2,475 chance), is violent to extreme and capable of producing extensive damage at the site. The amount of ground shaking that actually occurs depends on the magnitude of the earthquake, the distance from the epicenter, and the type of earth materials between the receptor and the epicenter. The project site is also underlain by soils that, if not properly engineered during construction site preparation, could be subject to secondary effects such as differential settlement and/or compression.

If future development of the site is not constructed in a manner that protects residents from geologic and seismic hazards, the proposed project could have a significant impact. However, the General Plan policies implemented by the City require that geologic or seismic risks be mitigated to an acceptable level as a condition of project approval (Implementing Measures SAF-1.1a and SAF-1.3a). These General Plan policies (listed in Section 3.6.3, Regulatory Setting) are enforced as part of the tentative subdivision map submittal and approval process, as described in the Saratoga City Code (e.g., Saratoga City Code Sections 14-2, 16-05, 16-17, and 16-65). Furthermore, Saratoga City Code Chapter 16 (Building Regulations) incorporates the CBC and thus enforces the structural design requirements associated with seismic loads. As part of this process, a design-level geotechnical investigation has been completed (included as Appendix F) that assesses site conditions at a greater level of detail and makes geotechnical recommendations to be incorporated into the site development plan, grading plan, and building plan. Per General Plan policies and the Saratoga City Code, the City will require that such geotechnical recommendations be incorporated into the proposed project and verified at time of grading and building construction prior to issuance of a certificate of occupancy.

The geotechnical work completed for the project concluded that there is no possibility of seismically induced landslides and that the liquefaction potential on the site is low (refer to Appendix F). Due to the flat nature of the site, the report included site preparation requirements and subsurface, exterior, and surface drainage improvements to be incorporated into the design. Based on the subsurface exploration and soils testing, the site can be expected to experience

seismic settlement of less than 1 inch but included utility/pavement specifications to help reduce post-construction movement.~~,~~ The project ~~and development~~ can avoid impacts from bank instabilities along Saratoga Creek (including seismically induced lateral spreading) by ensuring the outer face of the new basement in Lot 1 is more than 20 feet away from the base of the creek bank (refer to Appendix F). According to project plans, the closest portion of the site to the base of the creek bank (i.e., grade break) would be a retaining wall on the southern portion of Lot 1. This retaining wall would be located as close as 30 feet from the base of the bank along Saratoga Creek; the outer face of the basement would be no closer than 54 feet from base of the bank. Although there are loose sandy soils in the upper 10 feet of the project site, the geotechnical report determined that the proposed building can be safely supported by the basement area (refer to Appendix F). However, due to the poor soil conditions, the report recommended the entire building be supported by the basement area and included basement foundation and wall design specifications sufficient for seismic design.~~–~~ These seismic design coefficients and other geotechnical recommendations help ensure that seismic risks are reduced to an acceptable level. ~~Geotechnical recommendations include seismic design coefficients; site preparation requirements; basement mat slab and wall design specifications sufficient for seismic design; subsurface, exterior, and surface drainage improvements; utility/pavement specifications; and other means of ensuring that seismic risks are reduced to an acceptable level.~~

Implementation of recommendations in the geotechnical report are required as part of standard practice (compliance with General Plan policies and the Saratoga City Code, which also incorporate the California Building Code) by the City. Therefore, in accordance with Saratoga City Code Section 16-17.060, the proposed project would incorporate all applicable geotechnical recommendations from the Geotechnical Investigation conducted by GeoForensics in 2016 (refer to Appendix F), into the project's design and engineering. These include recommendations related to site preparation and grading, basement foundations, drainage, utility lines, pavement, and plan review. As required, modifications, updates, or amendments (if any) per City geologist and/or City engineer review-shall be incorporated into project plans and verified during construction. This would ensure the proposed project would be constructed in a manner that protects site residents and the surrounding public from strong seismic ground shaking seismic-related ground failure.

~~Both General Plan policies and the Saratoga City Code would require that recommendations from geotechnical, soils, liquefaction, and/or engineering geology investigations for site preparation, grading, and foundation/building designs are incorporated into the process for review and approval of grading and building permits (Saratoga City Code Section 16-17.060). As required, modifications, updates, or amendments (if any) per City geologist and/or City engineer review – shall be incorporated into project plans and verified during construction. Because the geotechnical report found that the proposed project is not subject to severe or unusual geologic and seismic risks, and because it would be constructed in a manner that protects site residents and the~~

~~surrounding public from strong seismic ground shaking and seismic-ground failure, the impact~~ Impacts would be **less than significant.**

Mitigation Measures

None required.

Impact 3.6-2: Would the project 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 lateral spreading, subsidence, liquefaction or collapse?

As described under Impact 3.6-1, the geotechnical report for the proposed project did not identify any severe or unusual geologic and/or seismic risks associated with the project's location. Based on the subsurface exploration, the top 10 feet of soil consists of loose sandy soils are not appropriate as foundation materials without treatment and/or removal and replacement with engineered fill (refer to Appendix F). However, the report concluded that the project can be safely constructed with the support of the basement area, which will be designed to resist seismic forces and constructed deeper than 10 feet bgs on a mat slab over adequate soils. Furthermore, the report concluded that the project site can avoid bank instabilities by locating structures at least 20 feet away from the bottom of the Saratoga Creek bank (the basement side wall would be 54 feet away).

The risk of soil subsidence, liquefaction, or collapse is minimal. The geotechnical report found that seismic settlement of about 1 inch may occur (refer to Appendix F). This amount of settlement can be easily accommodated by the project design without substantial risk to public safety. Long-term settlement could result in cracked pavement, but would be a maintenance concern rather than a safety risk to residents or surrounding areas. Furthermore, the soils immediately below the site are not saturated and do not feature a water table shallower than 40 feet bgs, which means the preconditions for liquefaction are not present beneath the site. Collapsible soils consist of loose, dry, low-density materials that collapse and compact under the addition of water or excessive loading. These soils are distributed throughout the southwestern United States, specifically in areas of young alluvial fans, debris flow sediments, and loess (wind-blown sediment) deposits. Since collapsible soils occur in arid desert environments, it is not a concern for the project site or more generally in Santa Clara County.

Both General Plan policies and the Saratoga City Code would require the recommendations of the geotechnical report—with required modifications, updates, or amendments (if any) per City geologist and/or City engineer review—to be incorporated into project plans and verified during construction. Because the geotechnical report found that the proposed project is not subject to severe or unusual geologic risks (including unstable soils), and because it would be constructed in a manner that protects site residents and the surrounding public from unstable geology, the impact would be **less than significant.**

Mitigation Measures

None required.

Impact 3.6-3: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Expansion and contraction of soil volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly. As a consequence of such volume changes, structural damage to building and infrastructure may occur if the potentially expansive soils were not considered in building design and during construction. Soils with a higher clay content tend to be the most expansive. Due to the site's sandy soils, the expansive potential of the soils is low (refer to Appendix F). Furthermore, the recommendations of the geotechnical report, including standard soil preparation and/or use of engineered soil bases, would further minimize the risks of expansive soils. Therefore, the impact from expansive soil would be **less than significant**.

Mitigation Measures

None required.

Impact 3.6-4: Would the project directly or indirectly destroy a unique paleontological resource or site?

No paleontological resources were identified within the project site as a result of the institutional records search or desktop geological review (refer to Appendix F). While this area is underlain by Holocene sediments that are generally too young to contain significant paleontological resources, intact paleontological resources may be present below the Holocene alluvial sediments where older, Pliocene and Pleistocene sediments are anticipated. If intact paleontological resources are located on site, ground-disturbing activities associated with construction of the project, such as grading during site preparation or excavations for basement levels, have the potential to destroy a unique paleontological resource or site. As such, the project site is considered to be potentially sensitive for paleontological resources, and without mitigation, the potential damage to paleontological resources during construction associated with the project would be considered a potentially significant impact. Given the proximity of past fossil discoveries in Pliocene and Pleistocene sediments within Santa Clara County and the potential for underlying, Pliocene- and Pleistocene-age older alluvial deposits, the project site is highly sensitive for supporting paleontological resources below the depth of fill and recent Quaternary alluvium. However, upon implementation of Mitigation Measure (MM)-GEO-1, impacts would be reduced to below a level

of significance. Impacts of the project are considered **less than significant with mitigation incorporated** during construction.

Mitigation Measure

MM-GEO-1: Prior to commencement of any grading activity on site, the applicant shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (2010) guidelines. The qualified paleontologist shall attend the preconstruction meeting and a paleontological monitor shall be on site during all rough grading and other significant ground-disturbing activities in previously undisturbed, fine-grained Pliocene and Pleistocene alluvial deposits. These deposits may be encountered at depths as shallow as 5–10 feet below ground surface. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed, the monitor will remove the rope and allow grading to recommence in the area of the find. Documentation of the appropriate salvage and recovery of fossil specimens and their transfer to an appropriate repository (e.g., University of California at Berkeley Museum of Paleontology) shall be submitted to the City of Saratoga as evidence of compliance with this mitigation measure.

3.6.5 References

California Building Industry *Association v. Bay Area Air Quality Management District*, 218 Cal.App.4th 1171; No. S213478.

City of Saratoga. 2007. *City of Saratoga General Plan: Land Use Element*. Adopted June 6, 2007.

City of Saratoga. 2013. *City of Saratoga General Plan: 2013 Safety Element*. Final Adopted Draft. February 20, 2013.

CSA (Cotton, Shires and Associates Inc.). 2013. Ground Movement Potential Map. City of Saratoga, California. April 2013.

Dibblee, T.W., and J.A. Minch. 2007. Geologic map of the Cupertino and San Jose West quadrangles, Santa Clara and Santa Cruz Counties, California. Map Scale 1:24,000. Dibblee Foundation Map DF-351. 2007.

DOC (California Department of Conservation). 2002. Seismic Hazard Zone Report for the Cupertino 7.5-Minute Quadrangle, Santa Clara County, California. California Geological Survey, Seismic Hazard Zone Report No. 068. 2002.

DOC. 2008. Guidelines for Evaluating and Mitigating of Seismic Hazards in California. California Geological Survey Special Publication 117A. https://www.conservation.ca.gov/cgs/Documents/Publications/SP_117a.pdf. 2008.

DOC. 2019. Earthquake Zones of Required Investigation. California Geological Survey. Web Map. Accessed April 2019. https://maps.conservation.ca.gov/cgs/EQZApp/.

DWR (California Department of Water Resources). 2019. SGMA Data Viewer. Water Level Data for State Well ID. 07S01W29C006M. Accessed April 2019. https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer.

OSHPD (California Office of Statewide Health Planning and Development). 2019. Seismic Design Maps. ASCE7-10 Parameters for Risk Category II, Site Class D, Lat: 37.28051992, Lng: -122.00587721. Accessed April 2019. https://seismicmaps.org/.

UCMP (University of California at Berkeley Museum of Paleontology). 2019. UCMP Online Specimen Search. Accessed March 26, 2019. https://ucmpdb.berkeley.edu/.

USGS (U.S. Geological Survey) and CGS (California Geological Survey). 2019. Quaternary Fault and Fold Database for the United States. Accessed April 11, 2019. http//earthquake.usgs.gov/hazards/qfaults/.

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3.7 GREENHOUSE GAS EMISSIONS

3.7.1 Introduction

This section of the EIR presents potential impacts regarding greenhouse gas (GHG) emissions of the proposed project. This section presents the environmental setting, regulatory framework, and impacts of the proposed project on the environment. The analysis is based on the Air Quality and Greenhouse Gas Emissions Analysis Technical Report for the Palm Villas Saratoga Project, which is included in Appendix B-1.

3.7.2 Environmental Setting

3.7.2.1 Climate Change Overview

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2017).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: Short-wave radiation emitted by the Sun is absorbed by the Earth, the Earth emits a portion of this energy in the form of long-wave radiation, and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-twentieth century and are the most significant driver of observed climate change (IPCC 2013; EPA 2017). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate

system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system.

3.7.2.2 Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (see also 14 CCR 15364.5).[1] Some GHGs, such as CO_2, CH_4, and N_2O are emitted into the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases, such as HFCs, PFCs, and SF_6, which are associated with certain industrial products and processes. Appendix B~~-1~~ provides additional detail regarding the most common GHGs and their sources.

3.7.2.3 Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2017). The Intergovernmental Panel on Climate Change (IPCC) developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO_2 equivalent (CO_2e).

The current version of the California Emissions Estimator Model (CalEEMod) (Version 2016.3.2) assumes that the GWP for CH_4 is 25 (so emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the IPCC's Fourth Assessment Report (IPCC 2007). The GWP values identified in CalEEMod were applied to the project.

[1] Climate forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code Section 38505, because impacts associated with other climate forcing substances are not evaluated herein.

3.7.3 Regulatory Setting

3.7.3.1 Federal Regulations

Massachusetts v. EPA

In *Massachusetts v. EPA* (April 2007), the U.S. Supreme Court directed the U.S. Environmental Protection Agency (EPA) administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In December 2009, the administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the federal Clean Air Act:

- The administrator found that elevated concentrations of GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations. This is the "endangerment finding."
- The administrator further found the combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, would do the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020, and direct National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy-efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Federal Vehicle Standards

In 2007, in response to the *Massachusetts v. EPA* U.S. Supreme Court ruling, the Bush administration issued Executive Order (EO) 13432 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016 (75 FR 25324–25728).

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams/mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021 (77 FR 62624–63200), and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6%–23% over the 2010 baselines (76 FR 57106–57513).

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

In August 2018, EPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards now in place, the 2018 proposal would increase U.S. fuel consumption by about half a million barrels per day (2%–3% of total daily consumption,

according to the Energy Information Administration) and would impact the global climate by 3/1000th of one degree Celsius by 2100 (EPA and NHTSA 2018). California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. Thus, the timing and consequences of the 2018 federal proposal are speculative at this time.

3.7.3.2 State Regulations

The following text describes EOs, assembly bills (ABs), senate bills (SBs), legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues. For state regulations not included in the following text, please refer to Appendix B-1 for further details.

Executive Order S-3-05

EO S-3-05 (June 2005) established California's GHG emissions reduction targets and laid out responsibilities among the state agencies for implementing the EO and for reporting on progress toward the targets. This EO established the following targets:

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

EO S-3-05 also directed the California Environmental Protection Agency to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The Climate Action Team was formed, which subsequently issued reports from 2006 to 2010.

Assembly Bill 32

In furtherance of the goals established in EO S-3-05, the legislature enacted AB 32 (Núñez and Pavley). The bill is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California's GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the state's long-range climate objectives.

Executive Order B-30-15

EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting

or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050 as set forth in S-3-05. To facilitate achieving this goal, EO B-30-15 called for the California Air Resources Board (CARB) to update the scoping plan to express the 2030 target in terms of million metric tons (MMT) CO_2e. The EO also called for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets.

Senate Bill 32 and Assembly Bill 197

SB 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the senate and three members of the assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the legislature to CARB as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the scoping plan.

Executive Order B-55-18

EO B-55-18 (September 2018) establishes a statewide policy for the state to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the state's GHG emissions. CARB will work with relevant state agencies to ensure that future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

California Air Resources Board's Climate Change Scoping Plan

One specific requirement of AB 32 is for CARB to prepare a scoping plan for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (Health and Safety Code, Section 38561[a]), and to update the plan at least once every 5 years. In 2008, CARB approved the first scoping plan. The Climate Change Scoping Plan: A Framework for Change (Scoping Plan) included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state's long-range climate objectives. The key elements of the Scoping Plan include the following (CARB 2008):

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
- Achieving a statewide renewable energy mix of 33%.

- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions.
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS) (17 CCR 95480 et seq.).
- Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

The Scoping Plan also identified local governments as essential partners in achieving California's goals to reduce GHG emissions because they have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations. Specifically, the Scoping Plan encouraged local governments to adopt a reduction goal for municipal operations and for community emissions to reduce GHGs by approximately 15% from then levels (2008) by 2020. Many local governments developed community-scale local GHG reduction plans based on this Scoping Plan recommendation.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the state's GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in EO S-3-05 and EO B-16-2012. The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050 including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the state's 1990 emissions level, using more recent global warming potentials identified by the IPCC, from 427 MMT CO_2e to 431 MMT CO_2e (CARB 2014).

In 2015, as directed by EO B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050 as set forth in S-3-05. The governor called on California to pursue a new and

ambitious set of strategies, in line with the five climate change pillars from his inaugural address, to reduce GHG emissions and prepare for the unavoidable impacts of climate change. In the summer of 2016, the legislature affirmed the importance of addressing climate change through passage of SB 32.

In December 2017, CARB adopted California's 2017 Climate Change Scoping Plan (2017 Scoping Plan) for public review and comment (CARB 2017). The 2017 Scoping Plan builds on the successful framework established in the initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target as established by SB 32 and define the state's climate change priorities to 2030 and beyond. The strategies' known commitments include implementing renewable energy and energy efficiency (including the mandates of SB 350), increasing stringency of the LCFS, implementing measures identified in the Mobile Source and Freight Strategies, implementing measures identified in the proposed Short-Lived Climate Pollutant Plan, and increasing stringency of SB 375 targets. To fill the gap in additional reductions needed to achieve the 2030 target, it recommends continuing the Cap-and-Trade Program and a measure to reduce GHGs from refineries by 20%.

When discussing project-level GHG emissions reduction actions and thresholds in the context of the California Environmental Quality Act (CEQA), the 2017 Scoping Plan states that "achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development" for project-level CEQA analysis, but also recognizes that such a standard may not be appropriate or feasible for every development project. The 2017 Scoping Plan further provides that "the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA."

California Code of Regulations, Title 24, Part 6

Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every few years by the Building Standards Commission and the California Energy Commission (CEC) (and revised if necessary) (California Public Resources Code, Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, with the goal of "reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (California Public Resources Code, Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code, Section 25402[d]) and

cost effectiveness (California Public Resources Code, Sections 25402[b][2]–[3]). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2016 Title 24 standards are the currently applicable building energy efficiency standards, and became effective on January 1, 2017. The 2019 Title 24 Building Energy Efficiency Standards, which will be effective January 1, 2020, will further reduce energy used and associated GHG emissions compared to current standards. In general, single-family residences built to the 2019 standards are anticipated to use approximately 7% less energy due to energy efficiency measures than those built to the 2016 standards; once rooftop solar electricity generation is factored in, single-family residences built under the 2019 standards will use approximately 53% less energy than those under the 2016 standards (CEC 2018). Nonresidential buildings built to the 2019 standards are anticipated to use an estimated 30% less energy than those built to the 2016 standards (CEC 2018).

The 2019 Title 24 standards focus on building energy efficiency and ensuring solar electricity generated on site is used on site. “Looking beyond the 2019 standards, the most important energy characteristic for a building will be that it produces and consumes energy at times that are appropriate and responds to the needs of the grid, which reduces the building’s emissions” (CEC 2018). In furtherance of that characteristic, the 2019 standards require that new homes include solar photovoltaic to meet the home's expected annual electric needs, and also encourage demand-responsive technologies including battery storage, heat-pump water heaters, and improving buildings’ thermal envelopes through high performance attics, walls, and windows. These smarter homes perform better and affect the grid less, which reduces the buildings’ GHG emissions.

California Green Building Standards, Title 24, Part 11

In addition to the CEC’s efforts, in 2008, the California Building Standards Commission adopted the nation’s first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen, and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings and schools and hospitals. The CALGreen 2016 standards, which are the current standards, became effective January 1, 2017. The CALGreen 2019 standards will continue to improve upon the 2016 CALGreen standards, and will go into effect on January 1, 2020. The mandatory standards require the following (24 CCR, Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings.
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance.
- 65% of construction and demolition waste must be diverted from landfills.
- Mandatory inspections of energy systems to ensure optimal working efficiency.
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations.
- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

The CALGreen standards also include voluntary efficiency measures that are provided at two separate tiers and implemented at the discretion of local agencies and applicants. CALGreen's Tier 1 standards call for a 15% improvement in energy requirements, stricter water conservation, 65% diversion of construction and demolition waste, 10% recycled content in building materials, 20% permeable paving, 20% cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30% improvement in energy requirements, stricter water conservation, 80% diversion of construction and demolition waste, 15% recycled content in building materials, 30% permeable paving, 25% cement reduction, and cool/solar-reflective roofs.

Senate Bill X1-2

SB X1-2 expanded the Renewable Portfolio Standard (RPS) by establishing a renewable energy target of 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation (30 megawatts or less), digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. SB X1-2 applies to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must meet the renewable energy goals listed above.

Senate Bill 100

SB 100 (2018) increased the RPS requirements establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and

60% by December 31, 2030, must be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Senate Bill 375

SB 375 (Steinberg) (September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035 and to update those targets every 8 years. SB 375 requires the state's 18 regional metropolitan planning organizations (MPOs) to prepare a sustainable communities strategy (SCS) as part of their regional transportation plan (RTP) that will achieve the GHG reduction targets set by CARB. If an MPO is unable to devise an SCS to achieve the GHG reduction target, the MPO must prepare an alternative planning strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to California Government Code, Section 65080(b)(2)(K), an SCS does not (1) regulate the use of land, (2) supersede the land use authority of cities and counties, or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

On September 23, 2010, CARB adopted the SB 375 targets for the regional MPOs. CARB set a target of 7% per capita reduction by 2020 and a 15% per capita reduction by 2035 for the Bay Area. The Metropolitan Transportation Commission (MTC), which is the MPO for the Bay Area, as well as the Association of Bay Area Governments (ABAG), adopted the Plan Bay Area 2040 in July 2017 (MTC and ABAG 2017), which is the RTP/SCS for the Bay Area. The Plan Bay Area 2040 is a long-range plan for transportation projects within the planning area and established 13 performance targets to achieve the following goals/outcomes: climate protection, adequate housing, healthy and safe communities, open space and agricultural preservation, equitable access, economic vitality, and transportation system effectiveness. Two of these targets are mandatory to comply with SB 375, and the Plan Bay Area 2040 exceeds the 15% reduction per capita in GHG emissions from light-trucks and cars by 2035 (climate protection goal) and plans to house 100% of the region's projected growth (from a 2010 baseline year) by income level without displacing current low-income residents and with no increase in in-commuters (adequate housing goal).

Senate Bill 97

SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, the Governor's Office of Planning and Research issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities (OPR 2008). The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The California Natural Resources Agency adopted the CEQA Guidelines amendments in December 2009, and they became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emissions threshold, instead allowing a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. The California Natural Resources Agency also acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009).

With respect to GHG emissions, the CEQA Guidelines state that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions (14 CCR 15064.4[a]). The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance based standards" (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

3.7.3.3 Local Regulations

Bay Area Air Quality Management District

Air districts typically act in an advisory capacity to local governments in establishing the framework for environmental review of air pollution impacts under CEQA. This may include recommendations regarding significance thresholds, analytical tools to estimate emissions and assess impacts, and mitigations for potentially significant impacts. The Bay Area Air Quality Management District (BAAQMD) has adopted numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts.

Metropolitan Transportation Commission and Association of Bay Area Governments

SB 375 requires MPOs to prepare an SCS in their RTP. In the Bay Area, the MTC and the ABAG are jointly responsible for developing and adopting a SCS that integrates transportation, land use, and housing to meet GHG reduction targets set by CARB. The Plan Bay Area 2040 was adopted by MTC and ABAG on July 26, 2017, and represents a limited and focused update that builds on the growth pattern and strategies developed in the original Plan Bay Area (2013). The Plan Bay Area 2040 does not mandate any changes to local zoning rules, general plans, or processes for reviewing projects; nor is the plan an enforceable direct or indirect cap on development locations or targets in the region (MTC and ABAG 2017).

City of Saratoga General Plan

Multiple chapters of the City of Saratoga's General Plan contain policies pertaining to improving air quality. Specifically, the Open Space and Conservation Element (City of Saratoga 2007a) and the Land Use Element (City of Saratoga 2007b) of the City's General Plan include goals and policies designed to help improve air quality within the City of Saratoga (City). Also, trip reduction strategies are addressed in the Circulation and Scenic Highway Element (City of Saratoga 2010). To reduce vehicle traffic and congestion within the City, the Circulation Element and Scenic Highway Element includes policies to encourage the use of alternative forms of transportation and strategies including promoting bicycling, walking, and transit use. Many of these air quality and transportation policies would also result in co-benefits with reducing GHG emissions.

Open Space and Conservation Element

Goal OSC 15: Improve local and regional air quality by ensuring that all development projects incorporate all feasible measures to reduce air pollutants.

Land Use Element

The following goals and policies from the Land Use Element of the City's General Plan are relevant to the proposed project (City of Saratoga 2007b):

Goal LU 15: Improve local and regional air quality by ensuring all development projects incorporate all feasible measures to reduce air pollutants.

- **Policy LU 15.2:** Encourage use of trip demand measures as part of major commercial and office development projects to reduce dependence on auto use.

City of Saratoga Municipal Code

17-05.10 - Greenhouse gas reduction policies.

The list below provides a reference to Sections of the City of Saratoga Municipal Code seeking to reduce emissions of greenhouse gases, together with a brief description of each Section. Nothing in this section shall change the meaning of the code sections summarized below and the full text of each section shall apply regardless of the summary below.

a) **2-45.95 Recycled paper.** Mandates the establishment of procedures for purchasing recycled paper and paper products, giving preference to recycled materials when all other factors are equal.

b) **4-65.090 Recyclers; quarterly reports.** Requires quarterly reports on meeting waste reduction goals.

c) **6-15.070 Discharge of pollutants into storm drains and watercourses.** Establishes a misdemeanor for depositing pollutants into natural waterways and storm drains.

d) **9-70 Transportation demand management.** Promotes the implementation of programs to reduce traffic congestion and improve air quality in the City.

e) **14-25.065 Subdivisions: design requirements: creek protection easement.** To protect creeks, creek banks, and associated wildlife habitats, prohibits building within a specified area around a protected creek.

f) **15-16 P-C: Planned community district.** Allows for the creation of Planned Community Districts, which include smaller, less expensive housing, in addition to dedicating space for parks and recreation uses.

g) **15-20.050(j) R-OS: Residential open space district, development criteria: Landscaping.** In R-OS areas, gives preference to natural, indigenous, and drought-resistant plants.

h) **15-45.055 Residential design handbook.** Requires that all single-family structures be built in accordance with the guidelines in the Residential Design Handbook, which includes information on energy efficiency and promotes native vegetation and minimizing the amount of paved surfaces.

i) **15-47 Water-efficient landscapes.** To promote water conservation, encourages water-efficient landscaping including programming watering devices to account for weather patterns, using recycled water for landscape irrigation, and grouping plants for efficient watering. Also requires that the City inform new home-owners about water-efficient landscapes.

j) **15-48 Limitations on wood-burning fireplaces.** To improve air quality, limits installation of fireplaces in new construction, and outlaws burning garbage, plastics, rubber, paint, and anything that might emit noxious or toxic fumes.

k) **15-50 Tree regulations.** Provides for the preservation of trees, which offer both scenic and climatic benefits to the City. Requires approval for the removal of protected trees (15-50.050), and gives the City the power to require the planting of new trees as a condition for approving the removal of a tree (15-50.080).

l) **15-52 Small wind energy systems.** Facilitates construction of small wind energy conversions systems for home, farm, and small commercial use.

m) **15-56 Accessory dwelling units.** Section 15-56.030(a)(3) allows additional site coverage and allowable floor area in an accessory dwelling unit, if that unit is deed restricted to only be rented to below market rate households.

n) **15-80.030(f) Miscellaneous regulations and exceptions: Solar panels.** Subject to approval by the Community Development Director, solar panels not exceeding six feet in height may be located within any portion of a rear setback area.

o) **15-81 Housing density bonus.** Provides for incentives for high-density housing that includes housing specifically set aside for senior citizens and low income persons.

p) **16-47 Green building regulations.** Requires that new single-family dwellings, multi-family dwellings, commercial, mixed-use, public and community facility buildings demonstrate compliance with green building standards.

q) **16-49 Green Building Standards Code.** Requires compliance with the State of California Green Building Code.

r) **CALGreen sections 4.408, 5.408, 301.1.1, and 301.3 Construction and demolition debris.** Requires a recycling plan for construction and demolition debris for new buildings, residential additions or alterations that increase the buildings area, volume, or size, and non-residential additions and alterations that require a permit. Plans must

divert at least sixty-five percent of waste from landfills, and are documented, approved, and overseen by City staff.

s) **16-75.030 Water conservation devices.** Requires that all newly constructed buildings incorporate water conservation devices into plumbing and irrigation systems.

3.7.4 Greenhouse Gas Inventories and Climate Change Conditions

3.7.4.1 Sources of Greenhouse Gas Emissions

Per the EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2017, total U.S. GHG emissions were approximately 6,457 MMT CO_2e in 2017 (EPA 2019). The largest source of CO_2, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 93.2% of CO_2 emissions in 2017 (4,912.0 MMT CO_2e). Relative to the 1990 emissions level, gross U.S. GHG emissions in 2017 were 1.3% higher; however, the gross emissions are down from a high of 15.7% above the 1990 level that occurred in 2007. GHG emissions decreased from 2016 to 2017 by 0.5% (35.5 MMT CO_2e) and, overall, net emissions in 2017 were 13% below 2005 levels (EPA 2019).

According to California's 2000–2016 GHG emissions inventory (2018 edition), California emitted 429.4 MMT CO_2e in 2016, including emissions resulting from out-of-state electrical generation (CARB 2018). The sources of GHG emissions in California include transportation, industrial uses, electric power production from both in-state and out-of-state sources, commercial and residential uses, agriculture, high GWP substances, and recycling and waste. The California GHG emission source categories (as defined in CARB's 2008 Scoping Plan) and their relative contributions in 2016 are presented in Table 3.7-1.

Table 3.7-1
Greenhouse Gas Emissions Sources in California

Source Category	Annual GHG Emissions (MMT CO_2e)	Percent of Total[a]
Transportation	169.38	39%
Industrial uses[b]	89.61	21%
Electricity generation[c]	68.58	16%
Residential and commercial uses	39.36	9%
Agriculture	33.84	8%
High GWP substances	19.78	5%
Recycling and waste	8.81	2%
Totals	**429.40**	**100%**

Source: CARB 2018.
Notes: GHG = greenhouse gas; MMT CO_2e = million metric tons of carbon dioxide equivalent; GWP = global warming potential.
Emissions reflect 2016 California GHG inventory.
[a] Percentage of total has been rounded and total may not sum due to rounding.

[b] The Aliso Canyon natural gas leak event released 1.96 MMT CO_2e of unanticipated emissions in 2015 and 0.53 MMT CO_2e in 2016. These leak emissions will be fully mitigated according to legal settlement and are tracked separately from routine inventory emissions.
[c] Includes emissions associated with imported electricity, which account for 26.28 MMT CO_2e.

Between 2000 and 2016, per capita GHG emissions in California have dropped from a peak of 14.0 MT per person in 2001 to 10.8 MT per person in 2016, representing a 23% decrease. In addition, total GHG emissions in 2016 were approximately 12 MMT CO_2e less than 2015 emissions. The declining trend in GHG emissions, coupled with programs that will continue to provide additional GHG reductions going forward, demonstrates that California will continue to reduce emissions below the 2020 target of 431 MT CO_2e (CARB 2018).

The BAAQMD prepared a GHG inventory for year 2015 in the San Francisco Bay Area Air Basin in the Spare the Air: Cool The Climate Final 2017 Clean Air Plan (BAAQMD 2017a). This GHG inventory, which includes black carbon emissions, is depicted in Table 3.7-2. Total emissions of GHGs in the San Francisco Bay Area Air Basin were estimated to be 86.54 MMT CO_2e, with transportation and stationary sources generating the majority of GHG emissions.

Table 3.7-2
Greenhouse Gas Emissions Sources in the San Francisco Bay Area Air Basin

Source Category	Annual CO_2e Emissions ($MMT\ CO_2$, CH_4, N_2O, HFC/PFC, SF_6)	Black Carbon ($MMT\ CO_2e$)	Total Emissions by Source ($MMT\ CO_2e$)
Transportation	34.63	0.79	35.42
Electricity/ co-generation	12.11	0.13	12.24
Buildings	8.88	0.39	9.27
Stationary sources	22.02	0.34	22.36
Waste Management	2.28	0.02	2.30
Fluorinated gases	3.56	0.00	3.56
Agriculture	1.22	0.17	1.39
Totals	**84.7**	**1.84**	**86.54**

Source: BAAQMD 2017a.
Notes: CO_2e = carbon dioxide equivalent; MMT = million metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; HFC = hydrofluorocarbons; PFC = perfluorocarbons; SF_6 = sulfur hexafluoride.
Emissions reflect the 2015 SFBAAB GHG inventory, which is the most recent year available.

3.7.4.2 Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 Intergovernmental Panel on Climate Change Synthesis Report (IPCC 2014) indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, and rising sea levels (IPCC 2014).

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, and electricity demand and supply (CCCC 2006). The primary effect of global climate change has been a 0.2°C rise in average global tropospheric temperature per decade, determined from meteorological measurements worldwide between 1990 and 2005. Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the 21st century than were observed during the twentieth century. A warming of about 0.2°C (0.36°F) per decade is projected, and there are identifiable signs that global warming could be taking place.

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The average temperatures in California have increased, leading to more extreme hot days and fewer cold nights. Shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year. Sea levels have risen, and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010).

An increase in annual average temperature is a reasonably foreseeable effect of climate change. Observed changes over the last several decades across the western United States reveal clear signals of climate change. Statewide average temperatures increased by about 1.7°F from 1895 to 2011, and warming has been greatest in the Sierra Nevada (CCCC 2012). By 2050, California is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1°F to 8.6°F, depending on emissions levels. Springtime warming—a critical influence on snowmelt—will be particularly pronounced. Summer temperatures will rise more than winter temperatures, and the increases will be greater in inland California, compared to the coast. Heat waves will be more frequent, hotter, and longer. There will be fewer extremely cold nights (CCCC 2012). A decline of Sierra Nevada snowpack, which accounts for approximately half of the surface water storage in California, by 30% to as much as 90% is predicted over the next 100 years (CAT 2006).

Model projections for precipitation over California continue to show the Mediterranean pattern of wet winters and dry summers with seasonal, year-to-year, and decade-to-decade variability. For the first time, however, several of the improved climate models shift toward drier conditions by the mid- to late- twenty-first century in central, and most notably, Southern California. By the late century, all projections show drying, and half of them suggest 30-year average precipitation will decline by more than 10% below the historical average (CCCC 2012). Appendix B~~-1~~ provides additional detail regarding the potential effects of climate change to resource areas in California.

3.7.5 Impacts

3.7.5.1 Methods of Analysis

Construction

CalEEMod was used to estimate potential project-generated GHG emissions during construction. Construction of the project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 3.2, *Air Quality*, and Appendix B-1 of this draft environmental impact report are also applicable for the estimation of construction-related GHG emissions. As such, see Section 3.2 or Appendix B-1 for a discussion of construction emissions calculation methodology and assumptions.

Operations

CalEEMod was used to estimate potential project-generated operational GHG emissions from area sources (landscape maintenance), energy sources (natural gas and electricity), mobile sources, solid waste, and water supply and wastewater treatment. Emissions from each category are discussed in the following text with respect to the project. Year 2022 was assumed as the first full year of operations after project construction.

Area Sources

CalEEMod was used to estimate GHG emissions from the project's area sources, which include operation of gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions. Consumer product use and architectural coatings result in reactive organic gas emissions, which are analyzed in air quality analysis only, and little to no GHG emissions.

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage (non-hearth). The estimation of operational energy emissions was based on CalEEMod land use defaults and units or total area (i.e., square footage) of the project's land use. The 2019 Title 24 standards were approved and adopted by the California Building Standards Commission in December 2018. The 2019 standards will become effective January 1, 2020. However, CalEEMod uses the 2016 version of Title 24 as a basis for energy modeling, which was conservatively applied in the analysis.

Emissions were calculated by multiplying the energy use by the utility carbon intensity (pounds of GHGs per kilowatt-hour for electricity or 1,000 British thermal units for natural gas) for CO_2 and other GHGs. Annual natural gas (non-hearth) and electricity emissions were estimated in

CalEEMod using the default emissions factors for the proposed land uses. These values reflect adherence with the 2016 Title 24 standards.

Pacific Gas & Electric (PG&E) would be the energy source provider for the project. Notably, SB X1-2 established a target of 33% from renewable energy sources for all electricity providers in California by 2020. The CO_2 emissions intensity factor for utility energy use in CalEEMod was adjusted consistent with the PG&E 2018 Corporate Responsibility and Sustainability Report, which noted that PG&E has delivered 33% of the electricity from RPS eligible resources (PG&E 2018). This is a conservative assumption since PG&E has already met the 33% RPS by December 31, 2020, and therefore, the CO_2 emissions intensity factor is anticipated to be less than assumed in CalEEMod at project operation (2022), which would reflect the increase in percentage of renewable energy in PG&E's energy portfolio.

Mobile Sources

Mobile sources for the proposed project would primarily be motor vehicles traveling to and from the proposed project. The project would generate 362 daily trips, with an average trip length of 8.0 miles, for a total of approximately 2,900 vehicle miles traveled per day (Appendix J, Traffic Impact Analysis). Default trip generation rates included in CalEEMod were adjusted to match the proposed project's trip generation and vehicle miles traveled.

Stationary Sources

The project would include a natural gas emergency generator on the rooftop of each building. GHG emissions associated with operations of the generators were estimated for the routine testing and maintenance of the natural gas emergency generators, assuming up to 1 hour of operation per day and up to 50 hours of operation per year. The CalEEMod default load factor 0.73 was applied to each emergency generator.

Solid Waste

The project would generate solid waste, and therefore, result in CO_2e emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste.

Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the project require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the project requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for both

indoor and outdoor water use and associated electricity consumption from water use and wastewater generation were estimated using CalEEMod default values.

3.7.5.2 Thresholds of Significance

The significance criteria used to evaluate the project's GHG emissions impacts are based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this GHG emissions analysis, and in accordance with Appendix G of the CEQA Guidelines, a significant impact would occur if development of the proposed project would do any of the following (14 CCR 15000 et seq.):

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

Regarding impacts from GHGs, both BAAQMD and the California Air Pollution Control Officers Association consider GHG impacts to be exclusively cumulative impacts (BAAQMD 2017b; CAPCOA 2008); therefore, assessment of significance is based on a determination of whether the GHG emissions from a project represent a cumulatively considerable contribution to the global atmosphere.

Separate thresholds of significance have been established by the BAAQMD for operational emissions from stationary sources (such as generators, furnaces, and boilers) and nonstationary sources (such as on-road vehicles) (BAAQMD 2017b). The threshold for stationary sources is 10,000 MT CO_2e per year (i.e., emissions above this level may be considered significant).

For nonstationary sources, the following three separate thresholds have been established:

- Compliance with a Qualified Greenhouse Gas Reduction Strategy (i.e., if a project is found to be out of compliance with a Qualified Greenhouse Gas Reduction Strategy, its GHG emissions may be considered significant).
- 1,100 MT CO_2e per year (i.e., emissions above this level may be considered significant).
- 4.6 MT CO_2e per service population per year (i.e., emissions above this level may be considered significant). (Service population is the sum of residents plus employees expected for a development project).

The quantitative threshold of 1,100 MT CO_2e per year adopted by BAAQMD is applied to this analysis. If the project-related GHG emissions would exceed this threshold then, consistent with BAAQMD *CEQA* Air Quality Guidelines, it would be considered to have a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact on climate change.

3.7.5.3 Impacts and Mitigation Measures

Impact 3.7-1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction Emissions

Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, vendor and haul trucks, and worker vehicles. Since the BAAQMD has not established construction-phase GHG thresholds, construction GHG emissions were amortized assuming a 30-year development life after completion of construction and were compared to the BAAQMD operational GHG threshold. A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, trucks, and worker vehicles—is included in Appendix B-1. The estimated project-generated GHG emissions from construction activities are shown in Table 3.7-3.

Table 3.7-3
Estimated Annual Construction Greenhouse Gas Emissions

Construction Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2020	211.22	0.04	0.00	212.12
2021	121.10	0.02	0.00	121.69
Total	**332.32**	**0.06**	**0.00**	**333.81**
Amortized construction emissions				*11.13*

Source: Appendix B-2, CalEEMod Outputs.
Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
Total emissions may not sum due to rounding.

As shown in Table 3.7-3, the estimated total GHG emissions during construction would be approximately 334 MT CO_2e over the construction period. Estimated project-generated construction emissions amortized over 30 years would be approximately 11 MT CO_2e per year. As with project-generated construction criteria air pollutant emissions, GHG emissions generated during construction of the project would be short term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions. Because there is no separate GHG threshold for construction, the evaluation of significance is discussed in the operational emissions analysis in the following text.

Operational Emissions

Operation of the project would generate GHG emissions through motor vehicle trips to and from the project site; landscape maintenance equipment operation; energy use (natural gas and generation of electricity consumed by the project); natural gas-fueled emergency generator

maintenance and testing; solid waste disposal; and generation of electricity associated with water supply, treatment, and distribution and wastewater treatment.

The estimated operational project-generated GHG emissions from area sources, energy usage, motor vehicles, natural gas emergency generator stationary sources, solid waste generation, and water usage and wastewater generation are shown in Table 3.7-4.

Table 3.7-4
Estimated Annual Operational Greenhouse Gas Emissions

Emission Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Area	0.75	<0.01	0.00	0.76
Energy	77.14	<0.01	<0.01	77.55
Mobile	384.10	0.01	0.00	384.41
Stationary	1.28	<0.01	0.00	1.34
Solid waste	7.59	0.45	0.00	18.81
Water supply and wastewater	5.46	0.09	<0.01	8.27
Total	**476.32**	**0.56**	**<0.01**	**491.15**
			Amortized construction emissions	*11.13*
			Total operational + amortized construction GHGs	**502.28**

Source: Appendix B-2, CalEEMod Outputs.
Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; GHG = greenhouse gas.
These emissions reflect operational year 2022.

As shown in Table 3.7-4, estimated annual project-generated GHG emissions would be approximately 491 MT CO_2e per year as a result of project operations only. After summing the amortized project construction emissions, total GHGs generated by the project would be approximately 502 MT CO_2e per year. As such, annual operational GHG emissions with amortized construction emissions would not exceed the BAAQMD threshold of 1,100 MT CO_2e per year. Therefore, the project's GHG contribution would be **less than significant** and would not be cumulatively considerable.

Mitigation Measures

None required.

Impact 3.7-2: Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The City does not yet have an adopted climate action plan or similar plan that would be applicable to the proposed project. However, consistency with other plans including the Scoping Plan, GHG

reduction laws and regulations, the Plan Bay Area 2040, and future GHG reduction goals are described below.

Project Consistency with the Scoping Plan

The Scoping Plan (approved by CARB in 2008 and updated in 2014 and 2017) provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.[2] Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., LCFS), among others.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. Table 3.7-5 highlights measures that have been, or will be, developed under the Scoping Plan that are applicable to the project, as well as the project's consistency with these measures. The project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent required by law and to the extent that they are applicable to the project.

Table 3.7-5
Proposed Project Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Proposed Project Consistency
Transportation Sector		
Advanced Clean Cars	T-1	*Consistent.* This is a statewide measure that cannot be implemented by a project applicant or lead agency. However, the measure will result in clean vehicles that would be available to California residents and the project's employees would have the option to purchase and drive these cars in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
Low Carbon Fuel Standard	T-2	*Consistent.* This is a statewide measure that cannot be implemented by a project applicant or lead agency. Nonetheless, this standard would be applicable to the fuel used

[2] The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

Table 3.7-5
Proposed Project Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Proposed Project Consistency
		by vehicles that would access the project site (i.e., motor vehicles driven by the project's employees and visitors would use compliant fuels).
Vehicle Efficiency Measures 1. Tire Pressure 2. Fuel Efficiency Tire Program 3. Low-Friction Oil 4. Solar-Reflective Automotive Paint and Window Glazing	T-4	*Consistent.* This is a statewide measure that cannot be implemented by a project applicant or lead agency. However, these measures would result in greater efficiency for vehicles that are maintained and serviced in accordance with these standards.
Electricity and Natural Gas Sector		
Energy Efficiency Measures (Electricity)	E-1	*Consistent.* The project would comply with the current Title 24 Building Energy Efficiency Standards. In addition, the project would not prevent CARB from implementing this measure.
Energy Efficiency (Natural Gas)	CR-1	*Consistent.* The project would comply with the current Title 24 Building Energy Efficiency Standards. In addition, the project would not prevent CARB from implementing this measure.
Renewables Portfolio Standard (33% by 2020)	E-3	*Consistent*. This is a statewide measure that cannot be implemented by a project applicant or lead agency. However, the increased proportion of renewables in electricity generated by utility companies would result in reduced GHG emissions associated with electricity use by the project.
Renewables Portfolio Standard (50% by 2050)	N/A	*Consistent*. This is a statewide measure that cannot be implemented by a project applicant or lead agency. However, the increased proportion of renewables in electricity generated by utility companies would result in reduced GHG emissions associated with electricity use by the project.
Water Sector		
Water Use Efficiency	W-1	*Consistent.* The project would involve the installation of water-saving fixtures that would comply with City requirements for water conservation and contribute to achieving community sustainability objectives. In addition, the project would not prevent CARB from implementing this measure.
Green Buildings		
Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	*Consistent*. The project's buildings would meet green building standards that are in effect at the time of design and construction.
Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	*Consistent*. The project's buildings would meet green building standards that are in effect at the time of design and construction.
Recycling and Waste Management Sector		
Mandatory Commercial Recycling	RW-3	*Consistent.* During both construction and operation of the project, the project would comply with all state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act, as amended.

Notes: GHG = greenhouse gas; CARB = California Air Resources Board; VMT = vehicle miles traveled; SB = Senate Bill; N/A = not applicable; SF_6 = sulfur hexafluoride.

Based on the analysis in Table 3.7-5, the project would be consistent with the applicable strategies and measures in the Scoping Plan.

Compliance with Applicable Laws and Regulations

Table 3.7-6 identifies laws and regulations currently in effect that reduce project-related GHG emissions. Because GHG laws and regulations continue to expand under California's climate leadership efforts, including most recently the enactment of SB 100 (2018), Table 3.7-6 presents a snapshot of these GHG laws and regulations. Since additional GHG laws and regulations are likely to apply, and listed laws and regulations are likely to continue to evolve, the scope of GHG laws and regulations applicable to GHG-emissions related to the project is anticipated to expand over time and result in lower-than-predicted GHG emissions.

Table 3.7-6
Greenhouse-Gas-Related Laws and Regulations

Project Component	Applicable Laws/ Regulations	GHG Reduction Measures Required for Project
Building Components/Facility Operations		
Roofs/Ceilings/Insulation	California Energy Code (Title 24, Part 6)	The project must comply with efficiency standards regarding roofing, ceilings, and insulation. (See Title 24, Part 6 Compliance Manual at Section 3.2.2.)
Flooring	CALGreen Code (Title 24, Part 11)	The project must comply with efficiency standards regarding flooring materials. For example, for 80% of floor area receiving "resilient flooring," the flooring must meet applicable installation and material requirements contained in CALGreen Code Section 5.504.4.6.
Windows and Doors (Fenestration)	California Energy Code	The project must comply with fenestration efficiency requirements. For example, the choice of windows, glazed doors, and any skylights for the project must conform to energy consumption requirements affecting size, orientation, and types of fenestration products used. (See Title 24, Part 6 Compliance Manual, Section 3.3.)
Building Walls/Insulation	CALGreen Code California Energy Code	The project must comply with efficiency requirements for building walls and insulation. Exterior Walls: Must meet requirements in current edition of California Energy Code, and comply with Section 5.407.1, which required weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1403.2. Construction must also meet requirements contained in Title 24, Part 6, which vary by material of the exterior walls. (See Title 24, Part 6 Compliance Manual, Part 3.2.3.) Demising (Interior) Walls: Mandatory insulation requirements for demising walls (which separate conditioned from non-conditions space) differ by the type of wall material used. (*Id*. at 3.2.4.) Door Insulation: There are mandatory requirements for air infiltration rates to improve insulation efficiency; they differ according to the type of door. (*Id*. at 3.2.5.)

Table 3.7-6
Greenhouse-Gas-Related Laws and Regulations

Project Component	Applicable Laws/ Regulations	GHG Reduction Measures Required for Project
		Flooring Insulation: There are mandatory requirements for insulation that depend on the material and location of the flooring. (*Id.* at 3.2.6.)
Finish Materials	CALGreen Code	The project must comply with pollutant control requirements for finish materials. For example, materials including adhesives, sealants, caulks, paints and coatings, carpet systems, and composite wood products must meet requirements in CALGreen Code to ensure pollutant control. (CALGreen Code Section 5.504.4.)
Wet Appliances (Toilets/Faucets/Urinals, Dishwasher/Clothes Washer/Water Heater)	CALGreen Code California Energy Code Appliance Efficiency Regulations (Title 20 Standards)	Wet appliances associated with the project must meet various efficiency requirements. For example: Toilets/Faucets/Urinals: Use associated with the project is subject to new maximum rates for toilets, urinals, and faucets effective July 1, 2018: • Water closets maximum flush volume 1.28 gallons per flush • Showerheads maximum flow rate 2.0 gallons per minute (gpm) at 80 pounds per square inch (psi) • Wash fountains 1.8 gpm/20 (rim space inches at 60 psi) • Metering faucets 0.20 gallons/cycle • Lavatory faucets 0.5 gpm at 60 psi • Kitchen faucets and aerators 1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi • Wall mounted urinals 0.125 gallons per flush • Floor mounted urinals 0.5 gallons per flush (CALGreen Code Section 5.303.) Water Heaters: Use associated with the project is subject to appliance efficiency requirements for water heaters. (Title 20 Standards, Sections 1605.1(f), 1605.3(f).) Dishwasher/Clothes Washer: Use associated with the project is subject to appliance efficiency requirements for dishwashers and clothes washers. (Title 20 Standards, Sections 1605.1(o),(p),(q), 1605.3(o),(p),(q).)
Dry Appliances (Refrigerator/Freezer, Heater/Air Conditioner, Clothes Dryer)	Title 20 Standards CALGreen Code	Dry appliances associated with the project must meet various efficiency requirements. For example: Refrigerator/Freezer: Use associated with the project is subject to appliance efficiency requirements for refrigerators and freezers. (Title 20 Standards, Sections 1605.1(a), 1605.3(a).) Heater/Air Conditioner: Use associated with the project is subject to appliance efficiency requirements for heaters and air conditioners. (Title 20 Standards, Sections 1605.1(b),(c),(d),(e), 1605.3(b),(c),(d),(e) as applicable.) Clothes Dryer: Use associated with the project is subject to appliance efficiency requirements for clothes dryers. (Title 20 Standards, Section 1605.1(q).)
	CALGreen Code	Installations of HVAC, refrigeration and fire suppression equipment must comply with CALGreen Code Sections 5.508.1.1 and 508.1.2, which prohibits CFCs, halons, and certain HCFCs and HFCs.
Lighting	Title 20 Standards	Lighting associated with the project will be subject to energy efficiency requirements contained in Title 20 Standards.

Table 3.7-6
Greenhouse-Gas-Related Laws and Regulations

Project Component	Applicable Laws/ Regulations	GHG Reduction Measures Required for Project
		General Lighting: Indoor and outdoor lighting associated with the project must comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1(j),(k),(n), 1605.3(j),(k),(n).) Emergency lighting and self-contained lighting: the project must also comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1(l), 1605.3(l).)
	California Energy Code	Lighting associated with the project will also be subject to energy efficiency requirements contained in Title 24, Part 6, which contains energy standards for non-residential indoor lighting and outdoor lighting. (See Title 24 Part 6 Compliance Manual, at Sections 5, 6.) Mandatory lighting controls for indoor lighting include, for example, regulations for automatic shut-off, automatic daytime controls, demand responsive controls, and certificates of installation. (Id. at Section 5.) Regulations for outdoor lighting include, for example, creation of lighting zones, lighting power requirements, a hardscape lighting power allowance, requirements for outdoor incandescent and luminaire lighting, and lighting control functionality. (Id. at Section 6.)
	AB 1109	Lighting associated with the project will be subject to energy efficiency requirements adopted pursuant to AB 1109. Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general purpose lighting, to reduce electricity consumption 50% for indoor residential lighting and 25% for indoor commercial lighting.
Bicycle and Vehicle Parking	CALGreen Code	The project will be required to provide one electric ~~compliant bicycle parking, fuel-efficient vehicle parking, and electric~~ vehicle charging space per building~~s~~, for a total of two vehicle charging spaces (CALGreen Code Sections 5.106.4, 5.106.5.2, 5.106.5.3)
Landscaping	CALGreen Code	The CALGreen Code includes outdoor water efficiency provisions in Section 5.304.
	EO B-29-15	The project is also subject to emissions reduction requirements to be achieved by implementation of EO B-29-15. This emergency EO directs the Department of Water Resources to lead a statewide initiative to replace 50 million square feet of lawns and ornamental turf with drought tolerant landscapes. The order also directed the departments to update the Model Water Efficient Landscaping Ordinance, which they did in 2015.
	Model Water Efficient Landscaping Ordinance	The model ordinance promotes efficient landscaping in new developments and establishes an outdoor water budget for new and renovated landscaped areas that are 500 square feet or larger. (CCR, Title 23, Division 2, Chapter 2.7.)
	Cap-and-Trade Program	Transportation fuels used in landscape maintenance equipment (e.g., gasoline) would be subject to the Cap-and-Trade Program. (See "Energy Use," below.)
Refrigerants	CARB Management of High GWP Refrigerants for Stationary Sources	Any refrigerants associated with the project will be subject to CARB standards. CARB's Regulation for the Management of High GWP Refrigerants for Stationary Sources 1) reduces emissions of high-GWP

Table 3.7-6
Greenhouse-Gas-Related Laws and Regulations

Project Component	Applicable Laws/ Regulations	GHG Reduction Measures Required for Project
		refrigerants from leaky stationary, non-residential refrigeration equipment; 2) reduces emissions resulting from the installation and servicing of stationary refrigeration and air conditioning appliances using high-GWP refrigerants; and 3) requires verification GHG emission reductions. (CCR, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 5.1, Section 95380 et seq.)
Consumer Products	CARB High GWP GHGs in Consumer Products	All consumer products associated with the project will be subject to CARB standards. CARB's consumer products regulations set VOC limits for numerous categories of consumer products, and limits the reactivity of the ingredients used in numerous categories of aerosol coating products (CCR, Title 17, Division 3, Chapter 1, Subchapter 8.5.)
Construction		
Use of Off-Road Diesel Engines, Vehicles, and Equipment	CARB In-Use Off-Road Diesel Vehicle Regulation	Any relevant vehicle or machine use associated with the project will be subject to CARB standards. The CARB In-Use-Off-Road Diesel Vehicle Regulation applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation: 1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; 2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; 3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and 4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The requirements and compliance dates of the Off-Road regulation vary by fleet size, as defined by the regulation.
	Cap-and-Trade Program	Transportation fuels (e.g., gasoline) used in equipment operation would be subject to the Cap-and-Trade Program. (See "Energy Use," below.)
Pollutant Control	CALGreen Code	If an HVAC system is used during construction, the project must use return air filters with a MERV of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 5.2.1-1992. All filters must be replaced immediately prior to occupancy. (CALGreen Code Section 5.504.1.)
Greening New Construction	CALGreen Code	All new construction, including the project, must comply with CALGreen Code, as discussed in more detail throughout this table. Adoption of the mandatory CALGreen Code standards for construction has been essential for improving the overall environmental performance of new buildings; it also sets voluntary targets for builders to exceed the mandatory requirements.
Construction Waste	CALGreen Code	The project will be subject to CALGreen Code requirements for construction waste reduction, disposal, and recycling, such as a requirement to recycle and/or salvage for reuse a minimum of 65% of the non-hazardous construction waste in accordance with Section 5.408.1.1, 5.408.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.

Table 3.7-6
Greenhouse-Gas-Related Laws and Regulations

Project Component	Applicable Laws/ Regulations	GHG Reduction Measures Required for Project
Worker, vendor and truck vehicle trips (on-road vehicles)	Cap-and-Trade Program	Transportation fuels (e.g., gasoline) used in worker, vendor and truck vehicle trips would be subject to the Cap-and-Trade Program. (See "Energy Use," below.)
Solid Waste		
Solid Waste Management	Landfill Methane Control Measure	Waste associated with the project will be disposed per state requirements for landfills, material recovery facilities, and transfer stations. Per the statewide GHG emissions inventory, the largest emissions from waste management sectors come from landfills, and are in the form of CH_4. In 2010, CARB adopted a regulation that reduces emissions from methane in landfills, primarily by requiring owners and operators of certain uncontrolled municipal solid waste landfills to install gas collection and control systems, and requires existing and newly installed gas and control systems to operate in an optimal manner. The regulation allows local air districts to voluntarily enter into a memorandum of understanding with CARB to implement and enforce the regulation and to assess fees to cover costs of implementation.
	Mandatory Commercial Recycling (AB 341)	AB 341 will require the project, if it generates four cubic yards or more of commercial solid waste per week, to arrange for recycling services, using one of the following: self-haul; subscribe to a hauler(s); arranging for pickup of recyclable materials; subscribing to a recycling service that may include mixed waste processing that yields diversion results comparable to source separation. The project will also be subject to local commercial solid waste recycling program required to be implemented by each jurisdiction under AB 341.
	CALGreen Code	The project will be subject to CALGreen Code requirement to provide areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling (CALGreen Code Section 5.410.1)
Energy Use		
Electricity/Natural Gas Generation	Cap-and-Trade Program	Electricity and natural gas usage associated with the project will be subject to the Cap-and-Trade Program. The rules came into effect on January 1, 2013, applying to large electric power plants and large industrial plants. In 2015, importers and distributors of fossil fuels were added to the Cap-and-Trade Program in the second phase. Specifically, on January 1, 2015, cap-and-trade compliance obligations were phased in for suppliers of natural gas, reformulated gasoline blendstock for oxygenate blending (RBOB), distillate fuel oils, and liquefied petroleum gas that meet or exceed specified emissions thresholds. The threshold that triggers a cap-and-trade compliance obligation for a fuel supplier is 25,000 MT or more of CO_2e annually from the GHG emissions that would result from full combustion or oxidation of quantities of fuels (including natural gas, RBOB, distillate

Table 3.7-6
Greenhouse-Gas-Related Laws and Regulations

Project Component	Applicable Laws/ Regulations	GHG Reduction Measures Required for Project
		fuel oil, liquefied petroleum gas, and blended fuels that contain these fuels) imported and/or delivered to California.
Renewable Energy	California RPS (SB X1-2, SB 350, and SB 100)	Energy providers associated with the project will be required to comply with RPS set by SB X1-2, SB 350, and SB 100. SB X1-2 requires investor-owned utilities, publicly-owned utilities, and electric service providers to increase purchases of renewable energy such that at least 33% of retail sales are procured from renewable energy resources by December 31, 2020. In the interim, each entity was required to procure an average of 20% of renewable energy for the period of January 1, 2011 through December 31, 2013; and will be required to procure an average of 25% by December 31, 2016, and 33% by 2020. SB 350 requires retail sellers and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030. SB 100 increased the standards set forth in SB 350 establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California by 2045.
	Million Solar Roofs Program (SB 1)	The project will participate in California's energy market, which is affected by implementation of the Million Solar Roofs Program. As part of Governor Schwarzenegger's Million Solar Roofs Program, California has set a goal to install 3,000 megawatts of new, solar capacity through 2016. The Million Solar Roofs Program is a ratepayer-financed incentive program aimed at transforming the market for rooftop solar systems by driving down costs over time.
	California Solar Initiative- Thermal Program	The project will participate in California's energy market, which is affected by implementation of the California Solar Initiative -Thermal Program. The program offers cash rebates of up to $4,366 on solar water heating systems for single-family residential customers. Multifamily and Commercial properties qualify for rebates of up to $800,000 on solar water heating systems and eligible solar pool heating systems qualify for rebates of up to $500,000. Funding for the California Solar Initiative-Thermal program comes from ratepayers of PG&E, Southern California Edison, Southern California Gas Company, and San Diego Gas & Electric. The rebate program is overseen by the CPUC as part of the California Solar Initiative.
	Waste Heat and Carbon Emissions Reduction Act (AB 1613, AB 2791)	The project will participate in California's energy market, which is affected by implementation of the Waste Heat and Carbon Emissions Reduction Act. Originally enacted in 2007 and amended in 2008, this act directed the CEC, CPUC, and CARB to implement a program that would encourage the development of new combined heat and power systems in California with a generating capacity of not more than 20 megawatts, to increase combined heat and power use by 30,000 gigawatt-hour.

Table 3.7-6
Greenhouse-Gas-Related Laws and Regulations

Project Component	Applicable Laws/ Regulations	GHG Reduction Measures Required for Project
		The CPUC publicly owned electric utilities, and CEC duly established policies and procedures for the purchase of electricity from eligible combined heat and power systems. CEC guidelines require combined heat and power systems to be designed to reduce waste energy; have a minimum efficiency of 60%; have NO_x emissions of no more than 0.07 pounds per megawatt-hour; be sized to meet eligible customer generation thermal load; operate continuously in a manner that meets expected thermal load and optimizes efficient use of waste heat; and be cost effective, technologically feasible, and environmentally beneficial.
Vehicular/Mobile Sources		
General	SB 375 and MTC and ABAG RTP/SCS	The project complies with, and is subject to, the MTC and ABAG adopted Plan Bay Area 2040 (RTP/SCS), which CARB approved as meeting its regional GHG targets.
Fuel	Low Carbon Fuel Standard (LCFS)/ EO S-01-07	Auto trips associated with the project will be subject to LCFS (EO S-01-07), which requires a 10% or greater reduction in the average fuel carbon intensity by 2020 with a 2010 baseline for transportation fuels in California regulated by CARB. The program establishes a strong framework to promote the low carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG goals.
	Cap-and-Trade Program	Use of gasoline associated with the project will be subject to the Cap-and-Trade Program. The rules came into effect on January 1, 2013, applying to large electric power plants and large industrial plants. In 2015, importers and distributors of fossil fuels were added to the Cap-and-Trade Program in the second phase. Specifically, on January 1, 2015, cap-and-trade compliance obligations were phased in for suppliers of natural gas, RBOB, distillate fuel oils, and liquefied petroleum gas that meet or exceed specified emissions thresholds. The threshold that triggers a cap-and-trade compliance obligation for a fuel supplier is 25,000 MT or more of CO_2e annually from the GHG emissions that would result from full combustion or oxidation of quantities of fuels (including natural gas, RBOB, distillate fuel oil, liquefied petroleum gas, and blended fuels that contain these fuels) imported and/or delivered to California.
Automotive Refrigerants	CARB Regulation for Small Containers of Automotive Refrigerant	Vehicles associated with the project will be subject to CARB's Regulation for Small Containers of Automotive Refrigerant. (CCR, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 5, Section 95360 et seq.) The regulation applies to the sale, use, and disposal of small containers of automotive refrigerant with a GWP greater than 150. The regulation achieves emission reductions through implementation of four requirements: 1) use of a self-sealing valve on the container, 2) improved labeling instructions, 3) a deposit and recycling program for small containers, and 4) an education program that emphasizes best practices for vehicle recharging. This regulation went into effect on January 1, 2010 with a one-year sell-through period for containers manufactured before January 1, 2010.

Table 3.7-6
Greenhouse-Gas-Related Laws and Regulations

Project Component	Applicable Laws/ Regulations	GHG Reduction Measures Required for Project
		The target recycle rate is initially set at 90%, and rises to 95% beginning January 1, 2012.
Light-Duty Vehicles	AB 1493 (or the Pavley Standard)	Cars that drive to and from the project will be subject to AB 1493, which directed CARB to adopt a regulation requiring the maximum feasible and cost effective reduction of GHG emissions from new passenger vehicles. Pursuant to AB 1493, CARB adopted regulations that establish a declining fleet average standard for CO_2, CH_4, N_2O, and HFCs (air conditioner refrigerants) in new passenger vehicles and light-duty trucks beginning with the 2009 model year and phased-in through the 2016 model year. These standards are divided into those applicable to lighter and those applicable to heavier portions of the passenger vehicle fleet. The regulations will reduce "upstream" smog-forming emissions from refining, marketing, and distribution of fuel.
	Advanced Clean Car and ZEV Programs	Cars that drive to and from the project will be subject to the Advanced Clean Car and ZEV Programs. In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards called Advanced Clean Cars. By 2025, new automobiles will emit 34% fewer global warming gases and 75% fewer smog-forming emissions. The ZEV program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018-2025 model years.
	Tire Inflation Regulation	Cars that drive to and from the project will be subject to the CARB Tire Inflation Regulation, which took effect on September 1, 2010, and applies to vehicles with a gross vehicle weight rating of 10,000 pounds or less. Under this regulation, automotive service providers must, inter alia, check and inflate each vehicle's tires to the recommended tire pressure rating, with air or nitrogen, as appropriate, at the time of performing any automotive maintenance or repair service, and to keep a copy of the service invoice for a minimum of three years, and make the vehicle service invoice available to the CARB, or its authorized representative upon request.
	EPA and NHTSA GHG and CAFE standards.	Mobile sources that travel to and from the project would be subject to EPA and NHTSA GHG and CAFE standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles. (75 FR 25324–25728 and 77 FR 62624–63200.)
Medium- and Heavy-Duty Vehicles	CARB In-Use On-Road Heavy-Duty Diesel Vehicles Regulation (Truck and Bus Regulation)	Any heavy-duty trucks associated with the project will be subject to CARB standards. The regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet PM filter requirements. Lighter and older heavier trucks must be

Table 3.7-6
Greenhouse-Gas-Related Laws and Regulations

Project Component	Applicable Laws/ Regulations	GHG Reduction Measures Required for Project
		replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. The regulation applies to nearly all privately and federally owned diesel fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds.
	CARB In-Use Off-Road Diesel Vehicle Regulation	Any relevant vehicle or machine use associated with the project will be subject to CARB standards. The CARB In-Use-Off-Road Diesel Vehicle Regulation applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulations: 1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; 2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; 3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and 4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The requirements and compliance dates of the Off-Road regulation vary by fleet size, as defined by the regulation.
	Heavy-Duty Vehicle GHG Emission Reduction Regulation	Any relevant vehicle or machine use associated with the project will be subject to CARB standards. The CARB Heavy-Duty Vehicle GHG Emission Reduction Regulation applies to heavy-duty tractors that pull 53-foot or longer box-type trailers. (CCR, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 1, Section 95300 et seq.) Fuel efficiency is improved through improvements in tractor and trailer aerodynamics and the use of low rolling resistance tires.
	EPA and NHTSA GHG and CAFE standards.	Mobile sources that travel to and from the project would be subject to EPA and NHTSA GHG and CAFE standards for medium- and heavy-duty vehicles. (76 FR 57106–57513.)
Water Use		
Water Use Efficiency	Emergency State Water Board Regulations	Water use associated with the project will be subject to emergency regulations. On May 18, 2016, partially in response to EO B-27-16, the State Water Board adopted emergency water use regulations (CCR, title 23, Section 864.5 and amended and re-adopted Sections 863, 864, 865, and 866). The regulation directs the State Water Board, Department of Water Resources, and CPUC to implement rates and pricing structures to incentivize water conservation, and calls upon water suppliers, homeowners' associations, California businesses, landlords and tenants, and wholesale water agencies to take stronger conservation measures.

Table 3.7-6
Greenhouse-Gas-Related Laws and Regulations

Project Component	Applicable Laws/ Regulations	GHG Reduction Measures Required for Project
	EO B-37-16	Water use associated with the project will be subject to Emergency EO B-37-16, issued May 9, 2016, which directs the State Water Resources Control Board to adjust emergency water conservation regulations through the end of January, 2017 to reflect differing water supply conditions across the state. The Water Board must also develop a proposal to achieve a mandatory reduction of potable urban water usage that builds off the mandatory 25% reduction called for in EO B-29-15. The Water Board and Department of Water Resources will develop new, permanent water use targets to which the project will be subject. The Water Board will permanently prohibit water-wasting practices such as hosing off sidewalks, driveways, and other hardscapes; washing automobiles with hoses not equipped with a shut-off nozzle; using non-recirculated water in a fountain or other decorative water feature; watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and irrigating ornamental turf on public street medians.
	EO B-40-17	EO B-40-17 lifted the drought emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. It also rescinds EO B-29-15, but expressly states that EO B-37-16 remains in effect and directs the State Water Resources Control Board to continue development of permanent prohibitions on wasteful water use to which the project will be subject.
	SB X7-7	Water provided to the project will be affected by SB X7-7's requirements for water suppliers. SB X7-7, or the Water Conservation Act of 2009, requires all water suppliers to increase water use efficiency. It also requires, among other things, that the Department of Water Resources, in consultation with other state agencies, develop a single standardized water use reporting form, which would be used by both urban and agricultural water agencies.
	CALGreen Code ~~California Water Code, Division 6, Part 2.10, Sections 10910–10915.~~	The project is subject to CALGreen Code's water efficiency standards for indoor and outdoor water use (CALGreen Code, Section 5.303, 5.304.) ~~Development and approval of the project requires the development of a project-specific Water Supply Assessment.~~
	Cap-and-Trade Program	Electricity usage associated with water and wastewater supply, treatment and distribution would be subject to the Cap-and-Trade Program.
	California RPS (SB X1-2, SB 350, SB 100)	Electricity usage associated with water and wastewater supply, treatment and distribution associated with the project will be required to comply with RPS set by SB X1-2, SB 350, and SB 100.

Notes: GHG = greenhouse gas; CALGreen = California Green Building Standards; gpm = gallons per minute; psi = pounds per square inch; HVAC = heating, ventilation, and air conditioning; CFC = chlorofluorocarbons; HCFCs = hydrochlorofluorocarbons; HFCs = hydrofluorocarbons; AB = Assembly Bill; CEC = California Energy Commission; EO = Executive Order; CCR = California Code of Regulations; CARB = California Air Resources Board; GWP = global warming potential; VOC = volatile organic compounds; MERV = Minimum Efficiency Reporting Value; ASHRAE = American Society of Heating, Refrigerating and Air-Conditioning Engineers; CH_4 = methane; RBOB = reformulated blendstock for oxygenate

blending; MT = metric ton; CO_2e = carbon dioxide equivalent; RPS = renewable portfolio standard; SB = Senate Bill; PG&E = Pacific Gas & Electric; CPUC = California Public Utilities Commission; NO_x = oxides of nitrogen; MTC = Metropolitan Transportation Commission; ABAG = Association of Bay Area Governments; RTP = regional transportation plan; SCS = sustainable communities strategy; LCFS = low carbon fuel standard; CO_2 = carbon dioxide; N_2O = nitrous oxide; ZEV = zero-emissions vehicle; EPA = Environmental Protection Agency; NHTSA = National Highway Traffic Safety Administration; CAFE = corporate average fuel economy; FR = Federal Register; PM = particulate matter.
For state regulations not included in Section 3.7.3, Regulatory Setting, of this environmental impact report section, please refer to Appendix B-1 for further details.

As described above, the project's GHG emissions (both on and off site) are regulated by many GHG reduction mandates. Compliance with these GHG reduction legal requirements is appropriately assumed to occur under CEQA (*Oakland Heritage Alliance v. City of Oakland* [2011] 195 Cal. App. 4th 884, 906; *Center for Biological Diversity v. Department of Fish & Wildlife* [2015] 234 Cal. App. 4th 214, 244–45).

Project Consistency with the MTC and ABAG's Plan Bay Area 2040

The MTC and ABAG's Plan Bay Area 2040 is a regional growth management strategy that targets per capita GHG reduction from passenger vehicles and light-duty trucks for the San Francisco Bay Area pursuant to SB 375. In addition to demonstrating the region's ability to attain and exceed the GHG emission-reduction targets set forth by CARB, the Plan Bay Area 2040 outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Within the Plan Bay Area 2040, the core strategy includes "focused growth" in existing communities along existing transportation networks. The keys to implementing the focused growth strategy are Priority Development Areas and Priority Conservative Areas. In addition, the MTC and the ABAG Executive Board established seven goals and 13 performance targets to measure Plan Bay Area 2040's effectiveness in addressing the major challenges facing the region. The development of the project site would support the overarching intent of the Plan Bay Area 2040 by developing a residential care facility consistent with the anticipated growth and uses in the City's General Plan and zoning designations. The project would help the City support its aging population by adding a diversity of local services so that local residents can remain in the community as they age. Therefore, the proposed project would be consistent with applicable goals and strategies set forth in the Plan Bay Area 2040.

Project Consistency with Senate Bill 32 and Executive Order S-3-05

The project would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in EO S-3-05 and SB 32. EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes for a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds

of significance for that future year analysis; CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

To begin, CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update states the following (CARB 2014):

> This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in the 2017 Scoping Plan, which states (CARB 2017):

> This Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade Program, which constrains and reduces emissions at covered sources.

In addition, as discussed previously, the project is consistent with GHG emission reduction laws and regulations, the Plan Bay Area 2040, and measures in the Scoping Plan, and would not conflict with the state's trajectory toward future GHG reductions. The project's consistency would assist in meeting the City's contribution to GHG emission reduction targets in California. With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet SB 32's 40% reduction target by 2030 and EO S-3-05's 80% reduction target by 2050. Since the specific path to compliance for the state in

regards to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional mitigation measures for the project would be speculative and cannot be identified at this time.

Based on the above considerations, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and impacts would be **less than significant**.

Mitigation Measures

None required.

3.7.6 References

BAAQMD (Bay Area Air Quality Management District). 2017a. *Spare the Air: Cool the Climate - Final 2017 Clean Air Plan.* April 19, 2017. Accessed May 2019. http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en.

BAAQMD. 2017b. *California Environmental Quality Act Air Quality Guidelines.* Updated May 2017. Accessed May 2019. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

CAPCOA (California Air Pollution Control Officers Association). 2008. *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*. January 2008.

CARB (California Air Resources Board). 2008. *Climate Change Scoping Plan: A Framework for Change*. December 2008. Accessed May 2019. https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.

CARB. 2014. *First Update to the Climate Change Scoping Plan Building on the Framework Pursuant to AB 32 – The California Global Warming Solutions Act of 2006*. May 2014. Accessed May 2019. http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.

CARB. 2017. *California's 2017 Climate Change Scoping Plan*. November 2017. Accessed May 2019. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

CARB. 2018. "California Greenhouse Gas Emission Inventory—2018 Edition." July 11, 2018. Accessed March 2019. http://www.arb.ca.gov/cc/inventory/data/data.htm.

CAT (California Climate Action Team). 2006. *Climate Action Team Report to the Governor Schwarzenegger and the Legislature*. Sacramento, California. March 2006. Accessed May 2019. http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF.

CAT. 2010. *Climate Action Team Report to Governor Schwarzenegger and the California Legislature*. Sacramento, California: California Environmental Protection Agency, Climate Action Team. December 2010. Accessed May 2019. https://www.energy.ca.gov/2010publications/CAT-1000-2010-005/CAT-1000-2010-005.PDF.

CCCC (California Climate Change Center). 2006. *Our Changing Climate: Assessing the Risks to California*. CEC-500-2006-077. July 2006. Accessed May 2019. http://www.energy.ca.gov/2006publications/CEC-500-2006-077/CEC-500-2006-077.PDF.

CCCC. 2012. *Our Changing Climate 2012: Vulnerability & Adaptation to the Increasing Risks from Climate Change in California*. CEC-500-2012-009. July 2012. Accessed May 2019. http://www.energy.ca.gov/2012publications/CEC-500-2012-007/CEC-500-2012-007.pdf.

CEC (California Energy Commission). 2018. 2019 Building Energy Efficiency Standards – Frequently Asked Questions. March 2018. Accessed May 2019. https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf.

City of Saratoga. 2007a. *Open Space Element*. June 6, 2007. Accessed May 2019. https://www.saratoga.ca.us/DocumentCenter/View/49/Open-Space-and-Conservation-Element-Dated-June-6-2007-PDF.

City of Saratoga. 2007b. *Land Use Element*. June 6, 2007. Accessed May 2019. https://www.saratoga.ca.us/DocumentCenter/View/48/Land-Use-Element-Dated-June-6-2007-PDF.

City of Saratoga. 2010. *Circulation and Scenic Highway Element Update.* November 17, 2010. Accessed May 2019. https://www.saratoga.ca.us/DocumentCenter/View/46/Circulation-and-Scenic-Highway-Element-Dated-November-17-2010-PDF.

CNRA (California Natural Resources Agency). 2009. *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97*. December 2009. Accessed May 2019. http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf.

EPA (U.S. Environmental Protection Agency). 2017. “Climate Change.” Last updated January 19, 2017. Accessed May 2019. https://19january2017snapshot.epa.gov/climatechange_.html

EPA. 2019. *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990–2017*. EPA 430-R-19-001. April 11, 2019. Accessed May 2019. https://www.epa.gov/sites/production/files/2019-04/documents/us-ghg-inventory-2019-main-text.pdf.

EPA and NHTSA (Department of Transportation's National Highway Traffic Safety Administration). 2016. *EPA and NHTSA Adopt Standards to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond*. August 2016. Accessed May 2019. https://nepis.epa.gov/Exe/ZyPDF.cgi/P100P7NL.PDF?Dockey=P100P7NL.PDF.

EPA and NHTSA. 2018. *The Safer Affordable Fuel-Efficient 'SAFE' Vehicles Rule for Model Years 2021-2026 Passenger Vehicles and Light Trucks*. Proposed Rule August 2018. Accessed May 2019. https://www.govinfo.gov/content/pkg/FR-2018-08-24/pdf/2018-16820.pdf.

IPCC (Intergovernmental Panel on Climate Change). 2007. *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 996 pp. Accessed May 2019. http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4_wg1_full_report.pdf.

IPCC. 2013. *Climate Change 2013: The Physical Science Basis*. *Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Accessed May 2019. http://www.ipcc.ch/report/ar5/wg1.

IPCC. 2014. *Climate Change 2014 Synthesis Report: A Report of the Intergovernmental Panel on Climate Change.* Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Accessed May 2019. http://www.ipcc.ch/report/ar5/syr/.

MTC and ABAG (Metropolitan Transportation Commission and Association of Bay Area Governments). 2017. *Plan Bay Area: Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area 2017–2040*. Adopted July 26, 2017. Accessed May 2019. http://2040.planbayarea.org/cdn/farfuture/u_7TKELkH2s3AAiOhCyh9Q9QlWEZIdYcJzi2QDCZuIs/1510696833/sites/default/files/2017-11/Final_Plan_Bay_Area_2040.pdf.

OPR (California Governor's Office of Planning and Research). 2008. "Technical Advisory—CEQA and Climate Change: Addressing Climate Change through California

Environmental Quality Act (CEQA) Review." June 19, 2008. Accessed May 2019. http://opr.ca.gov/docs/june08-ceqa.pdf.

PG&E (Pacific Gas & Electric). 2018. *Corporate Responsibility and Sustainability Report*. http://www.pgecorp.com/corp_responsibility/reports/2018/assets/PGE_CRSR_2018.pdf.

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3.8 HAZARDS AND HAZARDOUS MATERIALS

3.8.1 Introduction

This section of the EIR presents potential hazards and hazardous materials impacts of the proposed project. This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts related to hazards and hazardous materials. Information used to prepare this section comes from the Phase I Environmental Site Assessment (ESA) and Limited Phase II Site Screening reports prepared by Phase-1 Environmental Services, which are included as Appendices G and H, respectively. In addition, publicly available information was gathered to supplement the ESA reports, primarily with regard to emergency evacuation and response plans, airports, and schools.

3.8.2 Environmental Setting

3.8.2.1 Hazardous Materials Definition

The term “hazardous materials” refers to hazardous substances and wastes. Under federal and state laws, any material, including wastes, may be considered hazardous if it is specifically listed by statute as such or if it is toxic (known to cause adverse human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), or reactive (causes explosions or generates toxic gases). The term “hazardous material” is defined as any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released (California Health and Safety Code, Chapter 6.95, Section 25501[o]).

In some cases, past industrial or commercial activities on a site may have resulted in spills or leaks of hazardous materials to the ground, resulting in soil and/or groundwater contamination. If improperly handled, hazardous materials and waste can cause public health hazards when released to the soil, groundwater, or air. The four basic exposure pathways through which an individual can be exposed to a chemical agent are inhalation, ingestion, bodily contact, and injection. Exposure can result from an accidental release during transportation, storage, or handling of hazardous materials. Disturbance of subsurface soil during construction can also lead to exposure of workers or the public from stockpiling, handling, or transporting soils contaminated by hazardous materials from previous spills or leaks.

3.8.2.2 Hazardous Materials Sites

CEQA requires review of Section 65962.5 of the California Government Code, also known as the "Cortese List," to identify whether a project would cross or be close to a site known to have had a hazardous materials release or to represent a threat to human health and the environment. Because this statute was enacted more than 20 years ago, some of the provisions refer to agency activities that were conducted many years ago and are no longer being implemented, and in some cases the information to be included in the Cortese List does not exist. For example, California Government Code, Section 65962.5, makes reference to the preparation of a "list," and many changes have occurred related to web-based information access since 1992 and this information is now largely available on the internet sites of the responsible organizations. The following sources, databases, and lists comprise the Cortese List:

- **Hazardous waste and substance sites from the Department of Toxic Substances Control (DTSC) EnviroStor database**. The EnviroStor database is an online search and GIS tool for identifying sites that have known contamination or sites for which there may be reasons to investigate further. The EnviroStor database includes the following site types: Federal Superfund sites (National Priorities List); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. The proposed project's Phase I ESA found no DTSC EnviroStor database sites on or adjacent to the project site; the closest site is located between 0.5 and 1 mile away (Appendix G).
- **List of leaking underground storage tank sites from the State Water Resources Control Board (SWRCB) GeoTracker database**. GeoTracker is SWRCB's online search and geographic information system tool for sites that impact groundwater or have the potential to impact groundwater. GeoTracker contains sites that require groundwater cleanup (leaking underground storage tanks, Department of Defense sites, and the Site Cleanup Program), and permitted facilities that could impact groundwater (irrigated lands, oil and gas production, operating underground storage tanks, and land disposal sites). The project's Phase I ESA found no SWRCB Geotracker database sites exist on or adjacent to the project site; the closest to site is located between 0.5 and 1 mile away (Appendix G).
- **List of solid waste disposal sites identified by SWRCB with waste constituents higher than hazardous waste levels outside the waste management unit**. The project site does not intersect any of the solid waste disposal sites identified by SWRCB, the closest of which is in Richmond, California (CalEPA 2019).
- **List of active cease-and-desist orders and cleanup and abatement orders from SWRCB.** The project site does not intersect any of the sites that have active cease-and-desist orders or cleanup and abatement orders from SWRCB (CalEPA 2019).
- **List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the California Health and Safety Code, as identified by DTSC**. There are only two sites in California that are on this list, neither of which is near the project site (CalEPA 2019).

The regulatory records search performed as part of the Phase I ESA (Appendix G) includes a much more extensive search than the Cortese list alone, including local agency records and sites that handle, store, or transport hazardous materials (without record of spills, leaks, or incidents). The records search found two sites within 0.5 to 1 mile of the project site that are on the contaminated sites list (one listed as inactive and the other listed as closed), and one leaking underground storage tank site within 0.5 to 1 mile of the project site for which the case has been closed. In addition, a surgery center located approximately 350 feet southeast of the project site is listed as using and/or storing hazardous materials, but has no records of violations. Based on their distance from the project site, the nature of the incident or contamination, depth and flow direction of groundwater, and extent of cleanup efforts, the Phase I ESA concluded that these sites do not present an environmental concern with respect to the project site (Appendix G).

3.8.2.3 Environmental Site Assessment and Testing

To identify recognized environmental conditions[1] in connection with the proposed project, a Phase I ESA was prepared (Appendix G). The Phase I ESA consists of a site reconnaissance, research of past studies performed on the project site, interviews with representatives of the occupants and property management, and research of various available environmental databases and agencies. The Phase I ESA concluded that there are no recognized environmental conditions in connection with the project site. This conclusion is based on the lack of any visual evidence of contamination (e.g., chemically stained soils; distressed vegetation; or signs of past or present hazardous materials usage, storage, or disposal), the lack of records of past hazardous materials use or release, and the absence of evidence that past land uses could have resulted in hazardous materials releases.

Although it was not identified as a recognized environmental condition, the Phase I ESA noted that topographical maps and aerial photographs indicate that the project site was cultivated with an orchard during a period roughly between 1948 and 1966. Organochlorine pesticides (OCPs) such as DDT, toxaphene, and dieldrin, as well as arsenic in the form of arsenical herbicides, were commonly used as agricultural pesticides prior to the late 1970s. OCPs were first introduced into California's agricultural operations in 1944, and reached peak usage in the 1960s (DTSC 2008). In 1974, the use of DDT was banned, and the elimination of the remaining OCPs quickly followed (DTSC 2008). OCPs are biopersistent and bioaccumulate in the environment, whereas other types of pesticides have a short half-life (i.e., they degrade fairly quickly with time) (DTSC 2008). Today, to obtain U.S. Environmental Protection Agency (EPA) approval, pesticides are required to demonstrate a lack of persistence in the environment considerably beyond their intended period

[1] Per the American Society for Testing and Materials (ASTM) Standard E-1527-13, a recognized environmental condition is the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

of use. Furthermore, when pesticides are used properly and in accordance with label specifications, potential impacts on the surrounding environment and receiving waters (surface water and groundwater) can be minimized.

Since it has been more than 50 years since the project site has been in agricultural use, concentrations of OCPs, arsenic, and/or copper (a heavy metal commonly associated with agricultural chemicals), if present, have likely degraded to the point where residual concentrations no longer pose a threat to human health or the environment. To confirm this, the applicant conducted a testing program in accordance with DTSC's Interim Guidance for Sampling Agricultural Properties (DTSC 2008) to evaluate the potential presence of OCPs, arsenic, and copper in shallow soils. None of the three soil samples collected and sent for laboratory testing contained detectable quantities of OCPs above detection limits, and metals concentrations were below applicable screening levels or consistent with regional background concentrations (Appendix G).

3.8.2.4 Airports

The closest public airport or public use airport is the Norman Y. Mineta San Jose International Airport (SJC), located more than 6.5 miles east-northeast of the project site. Based on the airport land use plan, the project site is outside of the airport's 65-decibel noise contour, and outside of all land use compatibility zones (e.g., height, safety, runway protection) and airport influence areas (Santa Clara County ALUC 2016).

3.8.2.5 Schools

Refer to Section 3.12, *Public Services and Safety*. The closest school to the project site is the Challenger School, a private preschool located along Cox Avenue approximately 0.26 miles east of the project site. All other schools in the area are located more than 0.25 miles from the project site.

3.8.3 Regulatory Setting

Hazardous materials and wastes are subject to federal, state, and local regulations for the purpose of protecting public health and the environment. These regulations define hazardous materials; establish reporting requirements; set guidelines for handling, storage, transport, remediation, and disposal of hazardous wastes; and require health and safety provisions for workers and the public.

Hazardous materials contain certain chemical, physical, and/or infectious properties that cause them to be considered hazardous. Hazardous wastes are defined in the Code of Federal Regulations (CFR) Title 40, Parts 260–265, and in the California Code of Regulations (CCR), Title 22, Section 66261. Over the years, these laws and regulations have evolved to deal with different aspects of the handling, treatment, storage, and disposal of hazardous substances. The major

agencies enforcing these regulations are EPA, the U.S. Occupational Safety and Health Administration (OSHA), and the U.S. Department of Transportation at the federal level; DTSC, SWRCB, and the San Francisco Bay Regional Water Quality Control Board at the state level; and the air district and local oversight programs at the regional level. In accordance Senate Bill 1082, passed in 1993, state-mandated hazardous waste and hazardous materials management programs are consolidated within a single unified program administered by the Hazardous Materials Compliance Division of the Santa Clara County Department of Environmental Health. The Hazardous Materials Compliance Division acts as the Certified Unified Program Agency for the City of Saratoga (City), as further discussed below.

3.8.3.1 Federal Regulations

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC 6901–6992) established a program administered by the EPA for regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (PL 98-616), which affirmed and extended the “cradle-to-grave” system of regulating hazardous wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by the Hazardous and Solid Waste Act. Under the authority of the RCRA, the regulatory framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste, is found in 40 CFR, Parts 260–299. California is delegated authority from the EPA to enforce the RCRA and its own Hazardous Waste Control Act (see following sections) in California. The EPA retains enforcement authority.

Hazardous Materials Transportation Act

The U.S. Department of Transportation regulates hazardous materials packaging, handling, and transportation under Title 49 of the United States Code (USC). State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. These agencies also govern permitting for hazardous materials transportation. Title 49 CFR reflects laws passed by Congress as of January 2, 2006.

Occupational and Safety Health Act

Congress passed the Occupational and Safety Health Act to ensure worker and workplace safety. Its goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, and unsanitary conditions. To establish standards for workplace health and safety, the Occupational and Safety Health Act also created the National

Institute for Occupational Safety and Health as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees administration of the Occupational and Safety Health Act and enforces standards in all 50 states. Because California has an approved State Plan, only California Occupational Safety and Health Administration (CalOSHA) standards apply to the project site.

International Fire Code

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements of hazardous materials at fixed facilities. The IFC and the International Building Code use a hazard classification system to determine what measures are required to protect against structural fires. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, IFC employs a permit system based on hazard classification. The IFC is updated every 3 years.

3.8.3.2 State Regulations

California hazardous materials and waste regulations are equal to or more stringent than federal regulations. EPA has granted the state primary oversight responsibility to administer and enforce hazardous waste management programs. State regulations require planning and management to ensure that hazardous materials are handled, stored, and disposed of properly to reduce risks to human health and the environment. Several key state laws pertaining to hazardous materials and wastes are discussed herein.

California Occupational Safety and Health Administration

CalOSHA is the primary agency responsible for worker safety in the handling and use of chemicals in the work place. CalOSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and to notify workers of exposure (8 CCR 337 et seq.). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

California Hazardous Waste Control Act

The DTSC is responsible for enforcement of the Hazardous Waste Control Act (California Health and Safety Code, Section 25100 et seq.), which creates the framework under which hazardous wastes are managed in California. The law provides for the development of a state hazardous

waste program that administers and implements the provisions of the federal RCRA cradle-to-grave waste management system in California. The Hazardous Waste Control Act also provides for the designation of California-only hazardous waste and development of standards that are equal to or, in some cases, more stringent than federal requirements. The Hazardous Waste Control Act lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous waste; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

California Hazardous Materials Release Response Plans and Inventory

In California, the handling and storage of hazardous materials is regulated by Division 20, Chapter 6.95, of the California Health and Safety Code (Section 25500 et seq.). Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare a Hazardous Materials Business Plan. Hazardous Materials Business Plans contain basic information about the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state.

Chapter 6.95 of the Health and Safety Code establishes minimum statewide standards for Hazardous Materials Business Plans. Each business must prepare a Hazardous Materials Business Plan if that business uses, handles, or stores a hazardous material (including hazardous waste) or an extremely hazardous material in disclosable quantities greater than or equal to the following:

- 500 pounds of a solid substance
- 55 gallons of a liquid
- 200 cubic feet of compressed gas
- A hazardous compressed gas in any amount (highly toxic with a Threshold Limit Value of 10 parts per million or less)
- Extremely hazardous substances in threshold planning quantities (California Health and Safety Code Section 25503.5).

In addition, in the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by California codes, facilities are also required to prepare a Risk Management Plan and California Accidental Release Prevention Plan. The Risk Management Plan and Accidental Release Prevention Plan provide information about the potential impact zone of a worst-case release, and require plans and programs designed to minimize the probability of a release and to mitigate potential impacts.

Medical Waste Management Act

The Medical Waste Management Act is part of California Health and Safety Code Sections 117600–118360. The Medical Waste Management Act was adopted by the state legislature in 1990 and regulates the generation, handling, storage, treatment, and disposal of medical waste. The Medical Waste Management Act provides the authority for the Santa Clara County Department of Environmental Health to issue permits and enforce regulations at facilities such as hospitals, skilled nursing facilities, biotech facilities, clinics, and offices that generate large quantities of medical waste. The Department of Environmental Health issues permits to small-quantity medical waste generators under the authority of Santa Clara County Ordinance Sections B11-260 to B11-268.

California Office of Emergency Services (CalOES)

Through the California Emergency Services Act of 1970, the California Office of Emergency Service provides the basis for local emergency preparedness. The Office of Emergency Services is responsible for preparing the California State Emergency Plan and for coordinating and supporting emergency services conducted by local governments. The responsibility for immediate response to an emergency, such as fires, landslides, earthquakes, or riots, rests with local government agencies and segments of the private sector, with support services provided by other jurisdictions and/or state and federal agencies. In accordance with their normal operating procedures, the initial response to an emergency is made by local fire, law enforcement, medical, or maintenance (public works) districts or departments.

3.8.3.3 Local Regulations

The following local and regional regulations pertaining to hazards and hazardous materials would apply to the proposed project.

Saratoga Municipal Code

The City's Municipal Code requires projects seeking approvals for construction and occupancy to comply with fire safety and hazardous materials management requirements. For example, Chapter 16 of the Municipal Code includes the most recently adopted state codes (e.g., Building Code, Fire Code, Residential Building Code) associated with fire regulations that affect development within the City. The requirements include installation of early warning fire alarm systems and fire sprinkler systems. In addition, Chapter 8 of the Municipal Code regulates hazardous materials within the City. The purpose of Chapter 8 is to protect health, life, resources, and property through the prevention and control of unauthorized discharges of hazardous materials. The City delegates its authority over the regulation of hazardous materials to the County of Santa Clara.

City of Saratoga General Plan

The Safety Element of the City's General Plan provides guidance for hazards and hazardous materials in the City and includes goals, policies, and implementation measures.

Relevant General Plan policies related to hazards and hazardous materials are included below:

Safety Element

Goal SAF-4: Reduce the danger of property damage and loss of life due to urban and wild fires.

- **Policy SAF-4.1**: The City shall require the installation of an early warning fire alarm system in each of the following cases:
  - […] All new multi-family dwellings and other new structures having multiple sleeping units, such as hotels, motels, apartments, condominium or other community housing projects, townhouses and nursing homes. […]
- **Implementation Measure SAF-4.1a**. Implement through continuation of existing subdivision, zoning and building regulations as contained in the City Code.

3.8.4 Impacts

3.8.4.1 Methods of Analysis

Impacts with respect to hazards and hazardous materials are assessed by comparing conditions expected under the proposed project to the existing environmental setting described above. The analysis considers impacts related to hazards and hazardous materials in the context of broader issues and concerns affecting the region. Actions required to implement the City's General Plan policies related to hazards and hazardous materials, as enforced through the City Code and the development approval process, are ~~considered~~ mandatory regulations applicable to all development. Therefore, the impact evaluation assumes compliance with all applicable regulations.~~components of the proposed project in the evaluation of impacts.~~ See Section 3.17 *Wildfire* for a description of potential risk of loss, injury, or death involving wildland fires.

3.8.4.2 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts to hazards and hazardous materials are based on the recommendations provided in Appendix G of the CEQA Guidelines. In accordance with Appendix G of the CEQA Guidelines and professional judgement, the project would have a significant impact on hazards and hazardous materials if it would do any of the following (14 CCR 15000 et seq.):

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

- 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.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- 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.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

3.8.4.3 Criteria not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain elements of the significance criteria listed above are not applicable, and therefore, are not considered potential impacts. These criteria elements are addressed briefly below and are not discussed further in this document.

Hazards to Schools

The closest school to the project site is the Challenger School, a private preschool located along Cox Avenue approximately 0.26 miles east of the project site (GoogleEarth 2019). Because the proposed project would not be located within 0.25 miles of an existing or proposed school, the CEQA Appendix G checklist item regarding hazardous emissions or handling of acutely hazardous materials, substances, or waste within a 0.25 mile of a school is not applicable.

Airport-Related Hazards

The closest public airport or public use airport is the Norman Y. Mineta San Jose International Airport, located more than 6.5 miles east-northeast of the project site (GoogleEarth 2019). Based on the Airport Land Use Plan, the project site is outside of the airport's 65-decibel noise contour, and outside of all land use compatibility zones (e.g., height, safety, runway protection) and airport influence areas (Santa Clara County ALUC 2016). Therefore, the CEQA Appendix G checklist item regarding airport safety and/or noise hazards is not applicable to the proposed project.

3.8.4.4 Impacts and Mitigation Measures

Impact 3.8-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction

Construction of the proposed project would involve the use of hazardous materials, such as substances associated with construction vehicles and equipment (e.g., fuels, lubricating and cooling oils, and/or grease), and construction materials such as concrete-curing compounds, paints and thinners, material coatings, and cleaning solvents. When not in use, any hazardous material would be stored in designated construction staging areas in compliance with federal, state, and local requirements. The volume of stored materials in any one place would be small and would be the minimum necessary to carry out construction activities during the particular construction location and phase. Maintenance, fueling, and servicing of construction vehicles would occur off site, such as at a pre-existing gas station or service center.

Any hazardous materials needed for construction would be stored and used in accordance with the product specifications and applicable regulations. Product specifications are described in detail on Material Safety Data Sheets that accompany every batch of materials considered hazardous. Information in the Material Safety Data Sheets includes instructions on the proper use and application of the material, accidental release measures, and handling and storage requirements. Applicable regulations specify storage and handling requirements, such as proper container types and usage methods. Transportation of hazardous materials to be used during construction would be conducted in compliance with U.S. Department of Transportation requirements. After construction, all hazardous materials and waste would be removed from the site for reuse, recycling, or disposal at a properly licensed facility in accordance with federal and state regulations and requirements.

In addition, as described in Section 3.9, *Hydrology and Water Quality*, of this EIR, construction activities would be conducted in accordance with a Stormwater Pollution Prevention Plan, as required by the Construction General Permit and the Municipal Code. The Stormwater Pollution Prevention Plan includes best management practices for waste management, site housekeeping, and provision of emergency spill supplies and equipment during construction. These standard practices would minimize the likelihood of spills and ensure a prompt, safe, and effective response if a spill were to occur. The impacts of potentially hazardous materials on the environment or exposure of the public and site workers to potentially hazardous materials routinely transported, used, or disposed of during project construction would be less than significant through compliance with applicable regulations. This less-than-significant impact is specific to public and environmental hazards from the transport, use, and disposal of small quantities of hazardous

materials required to construct the proposed project. Impacts associated with the potential presence of hazardous constituents of concern present within soil and groundwater underlying construction work areas are addressed under Impact 3.8-3, below.

Operation and Maintenance

The purpose of the proposed project is to provide a licensed residential care facility with a special designation for Alzheimer's/dementia memory care (memory care facility) to assist in meeting the needs of the growing population living with dementia in the City. The project would operate as a residential care/assisted living facility and would not be licensed to provide skilled nursing services, such as giving injections, maintaining catheters, or doing colostomy care for residents. Residents needing medical attention would be treated at the nearby hospital or, if they require skilled nursing care, would be transferred to an appropriate facility.

The proposed project would not generate biohazardous waste as defined by the California Medical Waste Act, including, for example, blood or tissue samples, or pathogenic waste. Care would not be as advanced or complicated as what happens in a comprehensive hospital or urgent care center~~, but~~ . ~~other~~ Other types of medical waste, such as pharmaceutical waste, sharps waste,[2] and/or oxygen tubes/tanks (if prescribed by a physician for a respiratory condition) may be produced in small quantities. The proposed project would not be a biohazardous waste generator~~Per California Health and Safety Code Sections 117600–118360, if the facility is defined as a medical waste generator, the project would prepare~~ and preparation of a Medical Waste Management Plan (to be submitted to the Santa Clara County Department of Environmental Health) is not required. ~~This plan would outline the types and amounts of medical waste generated and how the waste would be disposed.~~ Expired or leftover pharmaceuticals, sharps waste, and/or oxygen tubes/tanks would be disposed of in an appropriate fashion in ~~according~~ accordance to Santa Clara County Department of Environmental Health policies.

Operation of the project would involve handling and storage of minor amounts of hazardous materials and would comply with the California Health and Safety Code Chapter 6.95. Minimum quantities of customary laundry, housekeeping, and kitchen maintenance cleaning supplies would be stored in locked cabinets or rooms on site. Fencing, required signage, and secured storage for cleaning materials would be provided. Vehicle maintenance would not be performed on site.

The facility would meet all licensing and permitting requirements set forth by the Community Care Licensing Division of the California Department of Social Services (State Licensing). Because the

[2] "Sharps waste" means a device that has acute rigid corners, edges, or protuberances capable of cutting or piercing, including hypodermic needles, hypodermic needles with syringes, blades, needles with attached tubing, acupuncture needles, root canal files, broken glass items used in health care such as Pasteur pipettes and blood vials contaminated with biohazardous waste, and any item capable of cutting or piercing from trauma scene waste (California Health and Safety Code Section 117690).

improper disposal of medical waste could result in a significant hazard to the public or the environment, the impact would be potentially significant. Compliance with all applicable medical waste and hazardous materials laws, regulations, and permits would ensure that medical waste and other hazardous waste stored on site would be properly identified, managed, and disposed. Impacts from routine transport, use, or disposal of hazardous materials would be **less than significant**.

Mitigation Measures

None required.

Impact 3.8-2: Would the project 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?

As an assisted living facility, there is a low potential for upset and accident conditions involving the release of hazardous materials. As discussed under Impact 3.8-1 above, hazardous materials would be limited to certain medical/pharmaceutical and small quantities of household hazardous wastes, which would be properly stored, handled, and disposed of in accordance with applicable laws and regulations listed above. The proposed project would not require the storage of fuel, flammable liquids, or other combustible/ignitable substances in either aboveground or underground storage tanks. Furthermore, the Phase I ESA conducted for the project found that there are no pre-existing hazards or conditions of concern, such as underground fuel storage tanks, water or oil wells, or natural gas transmission pipelines (Appendix G). The potential for release of hazardous materials during a flood event is addressed in Section 3.9, *Hydrology and Water Quality*, and was determined to be a less-than-significant impact. Solid waste would be serviced by West Valley Collection & Recycling in the same manner as it is for the surrounding neighborhood. Impacts related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be **less than significant**.

Mitigation Measures

None required.

Impact 3.8-3: Would the project create a significant hazard to the public or the environment by being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5?

Based on the results of the Phase I ESA and testing report, the soils on site do not contain contaminants of concern at concentrations that are hazardous to human health or the environment (Appendix G). Furthermore, the project site is not located on or adjacent to a site

included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, also known as the Cortese List (Appendix G). Impacts related to location on a site included on the Cortese List would be **less than significant**.

Mitigation Measures

None required.

Impact 3.8-4: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Emergency Operations Plan (EOP) is the master all-hazards document that organizes emergency preparedness and response efforts in the City~~ of Saratoga~~. The EOP describes the City's jurisdictional incident management organization, compliance with relevant legal statutes and guidelines, public information functions, and resource management (City of Saratoga 2019). ~~is maintained and updated periodically by the Santa Clara County Fire Department to protect the life and property of City residents (City of Saratoga 2013). and~~ The EOP is supported by the Santa Clara County Operational Area Hazard Mitigation Plan, which assesses risks and develops mitigation strategies to address threats from natural and human-caused disasters (e.g., earthquake, fire, flooding, landslides) (County of Santa Clara 2017). Dedicated staff support from the Santa Clara County Fire Department has assisted the City in ensuring regular update, maintenance, and implementation of the Emergency Operations Plan. Through collaboration with the Santa Clara County Office of Emergency Services and promotion of educational programs like the Community Emergency Response Team, community members receive the training needed to be self-sufficient during a major emergency. In addition, the City and the Santa Clara County Fire Department work to disseminate basic emergency preparedness information to residents and businesses in the City.

An important emergency preparedness function within the City is the development of evacuation plans that relocate residents from hazardous areas to safer locations. The evacuation route closest to the project site, as identified in Exhibit 8 of the General Plan, is Saratoga Avenue (City of Saratoga 2013). Because the proposed project would not be located on Saratoga Avenue, it would not physically interfere with or impair the utilization of Saratoga Avenue as an effective evacuation route, either during construction or operation. As discussed in Section 3.14, *Transportation*, the project has been designed with adequate access for emergency response vehicles. Furthermore, it would not affect or reduce the number of American Red Cross shelters or primary places of assembly identified in the General Plan (City of Saratoga 2013). Because the proposed project is consistent with General Plan designations and would not induce population growth, it would not affect an emergency response plan in an indirect manner (e.g., by

causing congestion). As discussed in Section 3.14, the project would not have a significant impact with regard to traffic.

Finally, as part of the licensing requirements for residential care facilities (22 CCR 87212), the operator must prepare an Emergency Disaster Plan that describes staff responsibilities in an emergency, means of egress, fire safety procedures, transportation arrangement, means of contacting local agencies (e.g., fire department, law enforcement agencies, civil defense, and other disaster authorities), and at least two relocation sites away from the facility that are able to accommodate the number of clients in the facility.

Impacts of the project with regard to an adopted emergency response plan or emergency evacuation plan would be **less than significant**.

Mitigation Measures

None required.

3.8.5 References

CalEPA (California Environmental Protection Agency). 2019. “Cortese List Data Resources.” Accessed May 6, 2019. https://calepa.ca.gov/sitecleanup/corteselist/.

City of Saratoga. 2013. *City of Saratoga General Plan: 2013 Safety Element*. Final Adopted Draft. February 20, 2013.

City of Saratoga. 2019. *Emergency Operations Plan*. Final Adopted Draft. June 19, 2019

County of Santa Clara. 2017. *Santa Clara County Operational Area Hazard Mitigation Plan*. Prepared by the Office of Emergency Services, County of Santa Clara and Santa Clara County Fire. October 15, 2017.

DTSC (California Department of Toxics Substances Control). 2008. *Interim Guidance for Sampling Agricultural Properties (Third Revision)*. California Environmental Protection Agency. August 7, 2008. https://www.dtsc.ca.gov/Schools/upload/Ag-Guidance-Rev-3-August-7-2008-2.pdf.

Santa Clara County ALUC (Airport Land Use Commission). 2016. *Norman Y. Mineta San Jose International Airport, Comprehensive Land Use Plan, Santa Clara County*. Adopted May 25, 2011; amended November 16, 2016.

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3.9 HYDROLOGY AND WATER QUALITY

3.9.1 Introduction

This section of the EIR presents potential hydrology and water quality impacts of the proposed project. This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts. Information used to prepare this section comes from the Palm Villas Saratoga Creek Stormwater Management Plan prepared by SANDIS, which is included as Appendix I. In addition, publicly available information was gathered to supplement the hydrology report, primarily with regard to regional hydrology, receiving waters, groundwater, and water quality.

3.9.2 Environmental Setting

3.9.2.1 Regional Watersheds

The proposed project is located within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB), which administers the Water Quality Control Plan for the San Francisco Bay Basin (Region 2) (Basin Plan) and other water quality programs for the San Francisco Bay Hydrologic Basin. The San Francisco Bay region covers approximately 4,603 square miles and includes all or large portions of the Counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma (SFB RWQCB 2017). The majority of freshwater entering the San Francisco Bay is from the Sacramento and San Joaquin Rivers, which flow through the Sacramento–San Joaquin River Delta at the eastern end of Suisun Bay to enter the San Francisco Bay. In addition, bayside rivers and streams, including Saratoga Creek, contribute freshwater to the San Francisco Bay. Over 90 percent of annual runoff within the San Francisco Bay region occurs within the winter rainy season between October and April (SFB RWQCB 2017).

Table 3.9-1 shows the watersheds that encompass the project site as designated by the U.S. Geological Survey (USGS) Watershed Boundary Dataset as well as the Basin Plan. These watersheds generally constitute the geographic basis around which many surface water quality problems and goals/objectives are defined in the Basin Plan. The proposed project is within the Santa Clara hydrologic unit (Basin No. 205), and the Palo Alto hydrologic area (Basin No. 205.50), for which where are no hydrologic subareas defined (see Table 3.9-1) (SFB RWQCB 1994). The USGS Watershed Boundary Dataset indicates the project site is crossed by two subwatersheds: the 23-square-mile San Tomas Aquinas Creek subwatershed and the 19-square-mile Saratoga Creek subwatershed (USGS 2019).

Table 3.9-1
Watershed Designations by Agency/Source

Agency/Source	HUC/Basin No.	Analysis Scale	Name	Size (Sq. Mi.)
USGS Watershed Boundary Dataset	180500	Basin	San Francisco Bay	5,371
	18050003	Subbasin	Coyote	720
	1805000304	Watershed	Saratoga Creek-Frontal San Francisco Bay Estuaries	195
	180500030402 180500030401	Subwatersheds	Saratoga Creek San Tomas Aquinas Creek	19 23
Water Quality Control Plan for the San Francisco Bay Basin (Region 2)	2	RWQCB Region	San Francisco Bay	4,603
	205	Hydrologic Unit	Santa Clara	839
	205.50	Hydrologic Area	Palo Alto	230
	205.50	Hydrologic Subarea	Undefined	132

Sources: USGS 2019; SFB RWQCB 2017.
Notes: HUC = hydrologic unit code; sq. mi. = square miles; USGS = U.S. Geological Survey; RWQCB = San Francisco Bay Regional Water Quality Control Board.

3.9.2.2 Topography and Drainage Patterns

Regionally, the proposed project is located on a broad alluvial plain formed by several creeks that emerge out of the northern and eastern flanks of the Santa Cruz Mountains, including Saratoga Creek, Wildcat Creek, and Calabasas Creek. Locally, the west-northwestern edge of the proposed project is defined by the course of Saratoga Creek, whose bottom occurs at an elevation of approximately 281 feet above mean sea level (amsl), and whose top of bank is up to 20 feet higher (Appendix I). The property currently consists of pervious, native soil with light vegetation, several trees, and a paved road that runs through the center of the site. The developed portion of the proposed project would occur on flat land behind the creek bank which ranges in elevation between 297 and 300 feet amsl. The width of the creek bank, from top to bottom, varies between 5 and 20 feet wide, and it varies in slope between an inclination of 5:1 and 1:1 (horizontal:vertical) (Appendix I).

The destination for stormwater runoff from the proposed project site is Saratoga Creek. The average slope of the site is less than 2 percent, and it carries sheet flow (i.e., un-channelized) in a northerly to easterly direction, away from the creek corridor. Stormwater runoff on site is currently unmanaged and collects in shallow ponds/depressions and/or is conveyed as sheet flow to the nearest street curb. Though the site has a slight average slope away from Saratoga Creek, storm runoff from areas on or immediately adjacent to the creek bank likely drain as sheet flow directly into the creek. For the remainder of the site, peak storms likely carry accumulated runoff in curb sides along Saratoga Creek Drive and/or Village Drive to the nearest catch basins along Cox Avenue (City of Saratoga 2015). The underground storm drain line along Cox Avenue varies in width from 15 to 22 inches in diameter and eventually discharges neighborhood stormwater

runoff to Saratoga Creek through an outfall beneath the Cox Street bridge crossing (City of Saratoga 2015). Saratoga Creek confluences with San Tomas Aquinas Creek shortly before discharging to the sloughs/estuaries of the South San Francisco Bay.

3.9.2.3 Flood Hazards

The severity of floods in relation to urban development varies from year to year. Several significant flooding events have occurred in Saratoga, dating back as far as 1914 (City of Saratoga 2007). The Santa Clara Valley Water District (SCVWD) is the primary water resources agency for Santa Clara County, California. It acts not only as the county's water wholesaler, but also as its flood protection agency and is the steward for its streams and creeks, underground aquifers, and district-built reservoirs. The SCVWD has made progress in improving the channels as funds became available; as a result, flood damage has been reduced over the years (City of Saratoga 2007).

Saratoga is located in the North Central Flood Zone of the SCVWD. The SCVWD has an 18-foot easement along Saratoga Creek, as measured from the top of bank, for the purpose of flood protection and maintenance activities. Any development, disturbance, or modification to areas within the easement must obtain an encroachment permit in accordance with the Water Resources Protection Ordinance of the SCVWD. However, the layout of the project has been designed to avoid the district easement. The rear of the building on Lot 1 and the retaining wall for the exterior patio area have been set back to be at least 25 feet away from the top of the bank, which provides an adequate buffer to avoid the SCVWD easement. Therefore, an encroachment permit from SCVWD is not required.

Federal Emergency Management Agency Special Flood Hazard Areas

Flood zones identified on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps are identified as Special Flood Hazard Areas (SFHAs) and “other areas of flood hazard.” An SFHA is defined as the area that will be inundated by a flood event having a 1 percent chance of being equaled or exceeded in any given year. The 1 percent annual-chance flood is also referred to as the base flood or 100-year flood, and is the national standard used by all federal agencies for the purposes of requiring the purchase of flood insurance and regulating new development. FEMA defines “other areas of flood hazard” as including areas with a 0.2 percent annual chance of flooding (i.e., the 500-year flood zone), and areas with reduced risk due to a levee. SFHAs are considered high-risk flood areas, whereas other areas of flood hazard are considered low- to moderate-risk areas.

The development footprint of the proposed project is not within a 100-year flood zone as identified by FEMA (FEMA 2019). According to the Flood Insurance Rate Maps, the 100-year floodplain is confined to within the banks of Saratoga Creek. As indicated above, the development footprint of the project is a minimum of 25 feet away from the top of the bank.

Specific base flood elevations have not been determined for the reach of Saratoga Creek adjacent to the proposed project, though base flood elevations were determined for Saratoga Creek upstream of the crossing of State Route 85 (FEMA 2019). The project site, along with the entire City, is mapped as being within an area with a 0.2 percent annual chance of flooding (i.e., the 500-year flood zone) (FEMA 2019).

Sea-Level Rise, Tsunami Inundation, and Seiche

The project site is not subject to sea-level rise, tsunami inundation, or seiche wave. The preconditions necessary for a project to be at risk of such hazards are that it be located within a reasonable distance and elevation relative to a coastline (for sea-level rise or seiche) or large body of water (for seiche waves). The project is located at 300 feet amsl in elevation and is not next to a large water body subject to seiche.

3.9.2.4 Groundwater Resources

Groundwater Basin Status

The proposed project is located within the Santa Clara Subbasin (California Department of Water Resources [DWR] Basin No. 2-9.02) of the Santa Clara Valley Groundwater Basin as designated by the DWR (DWR 2019a). The DWR is currently in the process of evaluating and re-prioritizing[1] all of the groundwater basins across California. During the first phase of DWR's basin re-prioritization (finalized in January 2019) the Santa Clara Subbasin was designated a high priority ranking (DWR 2019b). The high-priority designation for the Santa Clara Subbasin is due primarily to the high number of public supply wells, the high population of the Subbasin, the percentage of public water supply sourced from groundwater (48 percent), and documented impacts including intrusion of seawater into the shallow aquifer and historic long-term decline in groundwater levels. The high-priority designation means it is subject to the statewide requirements of the 2014 Sustainable Groundwater Management Act (SGMA). Local public agencies and groundwater sustainability agencies are required to develop and implement groundwater sustainability plans (GSPs) or alternatives to GSPs (alternative plans) for groundwater basins designated by DWR as medium and high priority.

The SCVWD has prepared an alternative plan that has been designed to be functionally equivalent to a GSP (SCVWD 2016). The City receives its water supply from the San Jose Water Company (SJWC). SJWC obtains water from three major sources: groundwater, imported surface water, and local mountain surface water. Groundwater is pumped from over 100 wells that draw water from the Santa Clara Groundwater Basin. Groundwater accounts for approximately 40 percent of supply.

[1] DWR's priority rating is based on estimates of population density, anticipated growth, well density, the amount of irrigated agriculture, the degree to which water demands are met from wells (versus surface water), and the existence of documented impacts (e.g., overdraft) (DWR 2019b).

Local surface water accounts for approximately 10 percent of supply. These sources are often blended together in the distribution system. Consequently, different sources are dispersed to the City from day to day as customer usage changes. According to the alternative plan prepared by SCVWD, the Santa Clara Groundwater Subbasin is currently in long-term balance, groundwater quality is overall very good (most public supply wells do not require any treatment), and the Subbasin is currently meeting sustainability goals and objectives (SCVWD 2016). The SCVWD tracks the status of the basin on an annual basis by measuring conditions against measurable performance criteria (summarized in annual reports), and has committed to taking action should the basin show evidence in the future that it is not achieving sustainable management (SCVWD 2016).

Local Groundwater Levels

The SCVWD operates a groundwater monitoring well along Saratoga Creek approximately 1.3 miles downstream of the proposed project site. Based on the groundwater level record of this well, which consists of monthly readings between 2004 and the present, the highest recorded groundwater level was 75 feet below ground surface in 2006; the fall 2018 groundwater level measurement was 88 feet below ground surface (DWR 2019a). Although the monitoring well is situated over 1 mile downstream, the regional groundwater table generally follows the topography along the broad alluvial plain. Five soil borings were conducted at the proposed project site in 2016 for the geotechnical investigation, with depths between 12.5 to 27.5 feet (Appendix F). None of the borings conducted encountered groundwater. ~~, and thus is likely similar in depth below ground surface at the proposed project site.~~ Furthermore, SCVWD has generated contour maps of the region based on regional groundwater monitoring data that indicate the proposed project site has a groundwater table between 30 to 50 feet below ground surface (SCVWD 2016). West of State Route 85, the depth to groundwater decreases gradually with proximity to the bedrock boundary of the groundwater basin.

3.9.2.5 Water Quality

Water quality in surface and groundwater bodies is regulated by the State Water Resources Control Board (SWRCB) and RWQCBs. The project site is under the jurisdiction of the San Francisco Bay RWQCB, which is responsible for the implementation of state and federal water quality protection statutes, regulations, and policies in the vicinity of the project site. The San Francisco Bay RWQCB implements the Basin Plan, a master policy document for managing water quality in the region (SFB RWQCB 2017).

Several water bodies within the watershed are designated as “water quality-limited” for water quality impairments under the federal Clean Water Act (CWA) Section 303(d) (Table 3.9-2). Being “water quality-limited” means that a water body is “not reasonably expected to attain or maintain water quality standards” without additional regulation. The law requires that the U.S.

Environmental Protection Agency develop total maximum daily loads[2] (TMDLs) for each impaired water body in the nation (described further below in Section 3.9.3, Regulatory Setting). The most recently approved Section 303(d) List of Water Quality Limited Segments, as listed in the 2014/2016 Integrated Report (SWRCB 2019), lists both Saratoga Creek and the Southern San Francisco Bay as impaired water bodies under Section 303(d) of the CWA.

As indicated in Table 3.9-2, Saratoga creek is identified as impaired for diazanon and trash, and the Southern San Francisco Bay is listed as impaired for a number of pollutants originating from a multitude of urban, agricultural, and industrial/port sources. Diazanon, chlordane, DDT (Dichlorodiphenyltrichloroethane), dieldrin, and dioxins and furans are compounds that originate from pesticides, herbicides, insecticides, fungicides, and other agricultural chemicals historically used in the Santa Clara Valley. Polychlorinated biphenyls (PCBs) were once widely used as dielectric and coolant fluids in electrical apparatus and are a persistent organic pollutant that has caused adverse impacts on fish and wildlife. Mercury and selenium are naturally occurring metals that have accumulated at elevated levels in the San Francisco Bay through a combination of mining activities and natural sources. TMDLs have been adopted for diazanon, mercury, and PCBs; the impairment for trash is being addressed through the provisions of the Municipal Separate Storm Sewer System (MS4) Permit.

Based on the sources of the pollutants listed as impaired, the project site is not currently or expected to be a potential contributor to a CWA Section 303~~0~~(d) impairment, except for trash, which would be addressed through MS4 Permit compliance (RWQCB 2015).

Table 3.9-2
CWA Section 303(d) Impairments

Name	Pollutant/Stressor	Potential Sources	TMDL Status	Year
Saratoga Creek	Diazanon	Source Unknown	Approved	2007
	Trash	Source Unknown	Scheduled	2029
San Francisco Bay (South)	Chlordane	Source Unknown	Scheduled	2013
	DDT	Source Unknown	Scheduled	2013
	Dieldrin	Source Unknown	Scheduled	2013
	Dioxins	Source Unknown	Scheduled	2019
	Furans	Source Unknown	Scheduled	2019
	Invasive Species	Source Unknown	Scheduled	2019
	Mercury	Source Unknown	Approved	2008
	PCBs	Source Unknown	Approved	2010
	Selenium	Source Unknown	Scheduled	2021

Source: SWRCB 2019.

[2] A TMDL specifies the maximum amount of a pollutant a water body can receive and still meet water quality standards. A TMDL may also include a plan for bringing an impaired water body back within standards.

Notes: CWA = Clean Water Act; TMDL = total maximum daily load; DDT = Dichlorodiphenyltrichloroethane; PCBs = polychlorinated biphenyls.

3.9.3 Regulatory Setting

The regulatory framework related to hydrology and water quality is extensive, because it addresses issues related to the environment (i.e., maintaining high quality waters for water-dependent species and activities), public health (e.g., ensuring adequate drinking water quality), and public safety (e.g., avoiding flood damage). Impacts pertaining to provision of potable and non-potable water supplies, including applicable regulations, are addressed in Section 3.16, Utilities and Service Systems.

3.9.3.1 Federal Regulations

Clean Water Act

The CWA (33 USC 1251 et seq.), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Important sections of the act are as follows:

- CWA Sections 303 and 304 provide for water quality standards, criteria, and guidelines. Under Section 303(d) of the CWA, the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. California is required to establish TMDLs for each pollutant/stressor. A TMDL defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. The impairments applicable to the project's receiving waters are described in Section 3.9.2, Environmental Setting.
- CWA Section 401 (Water Quality Certification) requires an applicant for any federal permit that proposes an activity which may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the act. The development footprint of the proposed project does not contain potentially jurisdictional wetlands, and this issue is addressed in Section 3.3, Biological Resources.
- CWA Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the SWRCB and the nine RWQCBs, who have several programs that implement individual and general permits related to construction activities, stormwater runoff quality, and various kinds of non-stormwater discharges. The City operates under an MS4 Permit from the SWRCB and all projects in the City are required to comply with the MS4 Permit requirement that addresses stormwater runoff discharges to a water of the United States (i.e., the Saratoga Creek and the southern San Francisco Bay).

- CWA Section 404 establishes a permit program for the discharge of dredged or fill material into waters of the United States. This permit program is jointly administered by the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency. The development footprint of proposed project does not contain potentially jurisdictional wetlands, and this issue is addressed in Section 3.3.

Numerous agencies have responsibilities for administration and enforcement of the CWA. At the federal level this includes the U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers, the Bureau of Reclamation, and the major federal land management agencies such as the U.S. Forest Service and the Bureau of Land Management. At the state level, with the exception of tribal lands, the California Environmental Protection Agency and its sub-agencies, including the SWRCB, have been delegated primary responsibility for administering and enforcing the CWA.

Federal Antidegradation Policy

The federal antidegradation policy is designed to protect water quality and water resources. The policy directs states to adopt a statewide policy that includes the following primary provisions: (1) existing instream uses and the water quality necessary to protect those uses shall be maintained and protected; (2) where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and (3) where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

National Flood Insurance Program

The National Flood Insurance Act of 1968 established the National Flood Insurance Program to provide flood insurance within communities that were willing to adopt floodplain management programs to mitigate future flood losses. The National Flood Insurance Act also required the identification of all floodplain areas within the United States and the establishment of flood-risk zones within those areas. FEMA is the primary agency responsible for administering programs and coordinating with communities to establish effective floodplain management standards. FEMA is responsible for preparing the Flood Insurance Rate Maps that delineate the areas of known special flood hazards and their risk applicable to the community. The program encourages the adoption and enforcement by local communities of floodplain management ordinances that reduce flood risks. In support of the program, FEMA identifies flood hazard areas throughout the United States on FEMA flood hazard boundary maps.

3.9.3.2 State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) (codified in the California Water Code Section 13000 et seq.) is the primary water quality control law for California. Whereas the CWA applies to all waters of the United States, the Porter-Cologne Act applies to waters of the state, which includes isolated wetlands and groundwater in addition to federal waters. It is implemented by the SWRCB and the nine RWQCBs. In addition to other regulatory responsibilities, the RWQCBs have the authority to conduct, order, and oversee investigation and cleanup where discharges or threatened discharges of waste to waters of the state[3] could cause pollution or nuisance, including impacts to public health and the environment.

The act requires a Report of Waste Discharge for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the state. California Water Code Section 13260(a) requires that any person discharging waste or proposing to discharge waste, other than to a community sewer system, that could affect the quality of the waters of the state, file a Report of Waste Discharge with the applicable RWQCB. For discharges directly to surface water (waters of the United States), an NPDES permit is required, which is issued under both state and federal law; for other types of discharges, such as waste discharges to land (e.g., spoils disposal and storage), erosion from soil disturbance, or discharges to waters of the state (such as groundwater and isolated wetlands), Waste Discharge Requirements (WDRs) are required and are issued exclusively under state law. WDRs typically require many of the same best management practices (BMPs) and pollution control technologies as required by NPDES-derived permits.

Water Quality Control Plan for the San Francisco Bay Basin

The SWRCB provides state-level coordination of the water quality control program by establishing statewide policies and plans for implementation of state and federal regulations. The nine RWQCBs throughout California adopt and implement basin plans that recognize the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems. The San Francisco Bay RWQCB is responsible for the protection of the beneficial uses of waters draining to the San Francisco Bay, including the project site. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan (California Water Code Sections 13240–13247) (SFB RWQCB 2017).

[3] "Waters of the state" are defined in the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]).

General NPDES Permits and Waste Discharge Requirements

To enable efficient permitting under both the CWA and the Porter-Cologne Act, the SWRCB and the RWQCBs run permit programs that group similar types of activities that have similar threats to water quality. These general permit programs include the NPDES MS4 Permit, the construction general permit, the industrial general permit and other general permits for low-threat discharges. The construction stormwater program, the small MS4 permit program, and the general permit for low-threat discharges are administered by the SWRCB, while other general WDRs are administered by the San Francisco Bay RWQCB. Table 3.9-3 lists the water-quality-related permits that would apply to the project, each of which is further described below. General WDRs and NPDES permits contain effluent limitations that may be stricter than basin-wide water quality objectives, because they regulate specific categories of discharge and are designed to limit the cumulative effects of development over broad areas.

Table 3.9-3
State and Regional Water Quality-Related Permits and Approvals

Program/Activity	Order Number/ NPDES Number	Permit Name	Affected Area
Construction Stormwater Program	2009-0009-DWQ/ CAS000002, as amended	NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit)	Statewide
Municipal Stormwater Program	RWQCB Order No. R2-2015-0049, as amended	Waste Discharge Requirements for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4 Permit)	All regulated MS4 systems; new development and redevelopment projects within the City of Saratoga
Temporary/Low Volume Dewatering[1]	SWRCB Water Quality Order 2003-0003-DWQ	Statewide General Waste Discharge Requirements for Discharges to Land with a Low Threat to Water Quality	Statewide

Notes:
[1] No dewatering is required.
NPDES = National Pollutant Discharge Elimination System; RWQCB = Regional Water Quality Control Board; SWRCB = State Water Resources Control Board.

General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities

For stormwater discharges associated with construction activity in the State of California, the SWRCB has adopted the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (SWRCB Order 2009-0009-DWQ, as amended) to avoid and minimize water quality impacts attributable to such activities. The Construction General Permit applies to all projects in which construction

activity disturbs 1 acre or more of soil. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling and excavation. The Construction General Permit requires the development and implementation of a stormwater pollution prevention plan (SWPPP), which would include and specify water quality BMPs designed to prevent pollutants from contacting stormwater and keep all products of erosion from moving off site into receiving waters. Routine inspection of all BMPs is required under the provisions of the Construction General Permit, and the SWPPP must be prepared and implemented by qualified individuals as defined by the SWRCB. The project applicant must submit a notice of intent to the SWRCB to be covered by an NPDES permit and must prepare the SWPPP prior to the beginning of construction.

Various levels of soil disturbances associated with project construction are anticipated to occur over the majority of the project site, which is about 56,114 square feet (1.3 acres); therefore, the project would require coverage under the Construction General Permit.

San Francisco Bay Region Municipal Regional Stormwater NPDES Permit

Pursuant to Section 402 of the CWA and the Porter-Cologne Act, municipal stormwater discharges in the City are regulated under the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MRP), Order No. R2-2015-0049, NPDES Permit No. CAS612008, adopted November 18, 2015. The most relevant requirement that pertains to the project is Provision C.3.

MRP Provision C.3 addresses post-construction stormwater management requirements for new development and redevelopment projects. Because the project would create or replace 10,000 square feet or more of impervious surface, it is subject to the MRP. Currently, the City requires project applicants to install hydrodynamic devices or other BMPs to remove pollutants such as floating liquids and solids, trash and debris, and coarse sediment from stormwater runoff, and to show the locations of such controls on plans submitted with the building permit application. In addition, the City requires implementation of low impact development (LID) strategies, preventative source controls, and additional stormwater treatment measures to minimize the discharge of pollutants in stormwater runoff and non-stormwater discharge, as well as prevention of increase in runoff flows. The MRP requires that LID methods shall be the primary mechanism for implementing such controls. The City and Santa Clara Valley Urban Runoff Pollution Prevention Program C.3 requirements require the project to treat 100 percent of the stormwater runoff with LID treatment measures. The proposed LID measures for the project include stormwater infiltration and bio-treatment facilities, among others (Appendix I). The project is exempt from hydromodification requirements per the Santa Clara County C.3 technical guidance document due to the fact that the impervious area added or replaced is less than 1 acre (Appendix I).

Sustainable Groundwater Management Act

The SGMA is a package of three bills (Assembly Bill 1739, Senate Bill 1168, and Senate Bill 1319) that provide local agencies with a framework for managing groundwater basins in a sustainable manner. The SGMA establishes standards for sustainable groundwater management, roles and responsibilities for local agencies that manage groundwater resources, and priorities and timelines to achieve sustainable groundwater management within 20 years of adoption of a GSP. Central to the SGMA are the identification of critically over-drafted basins and the prioritization of groundwater basins, establishment of groundwater sustainability agencies, and preparation and implementation of GSPs for medium-priority, high-priority and critically over-drafted basins. Groundwater sustainability agencies must be formed by June 30, 2017. GSPs must consider all beneficial uses and users of groundwater in the basin, as well as include measurable objectives and interim milestones that ensure basin sustainability. A basin may be managed by a single GSP or multiple coordinated GSPs.

At the state level, DWR has the primary role in the implementation, administration, and oversight of the SGMA, with the SWRCB stepping in should a local agency be found to not be managing groundwater in a sustainable manner. DWR recently approved regulations and guidelines for implementation of the SGMA. Under SGMA Section 10733.6, a local entity (or entities) can pursue an alternative to a GSP provided that certain sustainability objectives are met. An alternative to a GSP may include "[a]n analysis of basin conditions that demonstrates that the basin has operated within its sustainable yield over a period of at least 10 years" (California Water Code Section 10733.6[b][3]). In response to SGMA, the Santa Clara Valley Water District, which has elected to become the groundwater sustainability agency for the Santa Clara Valley and Llagas Subbasins, prepared the 2016 Groundwater Management Plan to serve as the alternative to a GSP, per the requirements of California Water Code Section 10733.6(b)(3).

3.9.3.3 Local Regulations

The following local/regional regulations pertaining to hydrology and water quality would apply to the proposed project.

Saratoga City Code

The Saratoga City Code requires projects seeking approvals for construction and occupancy to submit evidence that the project complies with MRP requirements. Per Saratoga City Code Section 14-30.030 (Storm Water and Sewage), and 16-17.120 (Drainage and Terracing), all drainage plans must be consistent with the requirements of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVPPP), which is designed to help developers comply with NPDES and MS4 Permit requirements. Consistency with the SCVPPP means projects must implement site design measures, pollutant source controls, and treatment control measures necessary to meet MRP requirements.

City of Saratoga General Plan

The following goals, policies, and implementation measures from the Open Space and Conservation Element of the City's General Plan are relevant to the proposed project (City of Saratoga 2007):

Open Space and Conservation Element

Goal OSC 9: Protect existing watercourses in the community and enhance water quality in surface and subsurface water sources.

- **Policy OSC 9.1:** Retain surface watercourses in their natural condition to the greatest extent possible.
- **Policy OSC 9.2:** Concentrate development in those portions of the community least susceptible to soil erosion and minimize grading and the introduction of impervious surfaces. Where appropriate, consider the use of on-site detention or retention basins to minimize stormwater runoff from sites.
    - **Implementation Measure OSC.9.a:** The City shall coordinate review of development projects adjacent to watercourses with the Santa Clara Valley Water District and other applicable agencies.
    - **Implementation Measure OSC.9.b:** The City shall ensure erosion control measures are required with each development project as part of the development approval process.
    - **Implementation Measure OSC.9.c:** Amend the Zoning Ordinance and standard conditions of approval to require that all new developments are in compliance with stormwater pollution prevention best management practices.

Goal OSC 10: Maximize efficiencies in the use of the City's water supply.

- **Policy OSC 10.1:** Implement water conservation provisions of the San Jose Water Company's Urban Water Management Plan.
    - **Implementation Measure OSC.10.a:** The City shall inform applicants of water conservation provisions and require that all new development proposals be in compliance with the water conservation provisions of the San Jose Urban Water Management Plan.
    - **Implementation Measure OSC.10.b:** The City shall require as part of the conditions of development approval that native drought-tolerant vegetation be used in proposed landscaping, whenever feasible.

3.9.4 Impacts

3.9.4.1 Methods of Analysis

Impacts with respect to hydrology and water quality are assessed by comparing conditions expected under the proposed project to the existing environmental setting described above. Post-project hydrology is assessed using the hydrology report prepared for the proposed project by the applicant's consultant, included as Appendix I, as well as preliminary project plans (e.g., stormwater management plan, grading plan, and erosion control notes). The analysis considers impacts on hydrology, water quality, flooding, and groundwater resources in the context of broader issues and concerns affecting the region. The study area for surface water hydrology is the Saratoga Creek and San Tomas Aquinas Creek subwatersheds (see Table 3.9-1), and the study area for groundwater resources is the Santa Clara Groundwater Subbasin of the Santa Clara Groundwater Basin. Actions required to implement the City's General Plan policies related to hydrology and water quality, as enforced through the Saratoga City Code and the development approval process, are considered as components of the project in the evaluation of impacts.

3.9.4.2 Thresholds of Significance

The significance criteria used to evaluate the project impacts to hydrology and water quality are based on Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). According to Appendix G, a significant impact would occur if development of the proposed project would do any of the following:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- 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 offsite;
    - 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.

- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.9.4.3 Criteria not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain elements of the significance criteria above are not applicable and therefore are not considered potential impacts. These criteria elements are addressed briefly below and are not discussed further in this document.

Alteration of a Stream or River

The proposed project would not alter the course of a stream or river because none are encompassed by the development footprint of the proposed project. Though Saratoga Creek partially crosses the parcel boundary of Lot 1, direct impacts to the stream will be avoided through application of appropriate buffers during both construction and operation and maintenance. The project would not substantially alter the general pattern and/or direction of stormwater runoff because it does not propose substantial modifications to topography (the site is and will remain nearly level). Stormwater runoff from the site would be collected by a series of vegetated swales and/or catch basins in parking and pedestrian areas and beneath building downspouts, and conveyed to underground vaults for treatment and infiltration into the underlying groundwater table. Therefore, Impact 3.9-3 addresses the potential for alteration of existing drainage patterns through the increases in the rate or volume of runoff from impervious surfaces, but not through modification of the course of a stream or river.

Coastal Flooding, Tsunami, or Seiche

The preconditions necessary for a project to be at risk of hazards due to coastal flood (as exacerbated by sea-level rise), tsunami, or seiche require a reasonable distance and elevation relative to a coastline (for sea-level rise or seiche) or large body of water (for seiche waves). The project is located at 300 feet amsl in elevation and is not next to a large water body subject to seiche. Therefore, there is no impact (or risk) associated with a coastal flooding, tsunami, or seiche and this issue is not further addressed.

3.9.4.4 Impacts and Mitigation Measures

Impact 3.9-1: Would the project violate water quality standards or waste discharge requirements or degrade surface or ground water quality?

Construction

The proposed project would involve up to approximately 1.3 acres of soil disturbance over the course of the 15-month construction period. The most intensive soil disturbance would occur during site preparation and earthmoving activities associated with installation of underground utilities, foundation and building pad construction, and road and streetscape construction. During this period, soil erosion may result in discharges of sediment-laden stormwater runoff into nearby receiving waters. As discussed in the setting, existing runoff from the project site may pond on site, run into the City's storm drain system along Cox Avenue, and eventually directly or indirectly flow to Saratoga Creek.

The primary potential pollutant associated with construction activity is sediment (i.e., high turbidity) generated from site preparation and grading activities. Although Saratoga Creek is not listed under CWA Section 303(d) as impaired for sedimentation/siltation, a measurable increase in sedimentation/siltation from construction activities on the site could temporarily violate Basin Plan objectives, if not properly controlled. In addition to sediment, other pollutants associated with construction activity could include heavy metals, oil/grease, fuels, trash, and other pollutants from accidental spills or releases of refuse, paints, solvents, sanitary wastes, and concrete curing compounds. Without adequate precautions, construction activities could generate pollutants and/or mobilize sediment such that it contributes to water quality degradation of receiving waters and/or violates Basin Plan objectives.

However, compliance with the Construction General Permit and the approval of a grading permit (Saratoga City Code Sections 16-17.120 and 16-17.130) would require implementation of a SWPPP to address potential construction-related impacts on water quality. The SWPPP must specify the location, type, and maintenance requirements for BMPs necessary to prevent stormwater runoff from carrying construction-related pollutants into ~~Napa River~~Saratoga Creek and/or the underlying groundwater basin. BMPs must be implemented to address potential release of fuels, oil, and/or lubricants from construction vehicles and equipment (e.g., drip pans, secondary containment, washing stations); release of sediment from material stockpiles and other construction-related excavations (e.g., sediment barriers, soil binders); and other construction-related activities with the potential to adversely affect water quality. The SWPPP must also include a construction site monitoring program that identifies specific requirements for dry weather visual observations of pollutants at all discharge locations, and any additional measures, as appropriate.

SWPPPs must be developed and implemented by a Construction General Permit Qualified SWPPP Developer (QSD)/Qualified SWPPP Practitioner (QSP). The QSD/QSP is tasked with determining the receiving water risks (including beneficial uses and CWA Section 303d impairments), monitoring site activities that could pose risks to water quality, and developing a comprehensive strategy to control construction-related pollutant loads in site runoff. Minimum standard BMPs include erosion and sediment controls; site management/ housekeeping/waste management; management of non-stormwater discharges; run-on and runoff controls; and BMP inspection, maintenance, and repair activities. A rain event action plan must also be prepared by the QSD/QSP to outline the procedures to prepare the construction site for rain events and minimize the potential release of construction-related contaminants. It is at the discretion of the QSD/QSP to use as many BMPs as available that would successfully protect on- and off-site resources from erosion, sedimentation, and pollution.

The following list includes examples of treatment control BMPs commonly employed during construction, although these would vary based on the nature of construction activities, the characteristics of the site, and the existing receiving waters impairments (these features would appear as notes on any final design plans):

- Silt fences installed along limits of work and/or the construction site
- Stockpile containment (e.g., visqueen, fiber rolls, gravel bags)
- Exposed soil stabilization structures (e.g., fiber matrix on slopes and construction access stabilization mechanisms)
- Street sweeping
- Tire washes for equipment
- Runoff control devices (e.g., drainage swales, gravel bag barriers/chevrons, velocity check dams) and slope protection
- Drainage system inlet protection
- Wind erosion (dust) controls
- Tracking controls
- Prevention of fluid leaks (inspections and drip pans) from vehicles
- Dewatering operations best practices
- Materials pollution management
- Proper waste management (e.g., concrete waste management)
- Regular inspections and maintenance of BMPs

Based on the local groundwater levels described in the setting, the need for groundwater dewatering of subsurface excavations and/or utility trenches is not anticipated. The applicant's current erosion control plan includes the placement of fiber rolls around the perimeter of disturbed areas to filter out sediment, debris, and floatable material; storm drain inlet protection; use of hazardous material spill kits; and stabilized construction zone ingress/egress. These plans are to be further developed through preparation of a SWPPP in compliance with the Construction General Permit.

The standard requirements contained in a SWPPP are sufficient to address a project's potential to violate water quality standards or waste discharge requirements. Implementation of SWRCB and San Francisco Bay RWQCB requirements (CWA NPDES Program and Porter-Cologne Act WDRs) are enforced through the Saratoga City Code chapters pertaining to grading, excavation, drainage, and stormwater. In addition to stormwater runoff, construction activities can generate fugitive dust, which, if not properly controlled, can be deposited in nearby waters. Note that this potential impact is addressed in Section 3.2, *Air Quality*—actions to mitigate adverse effects on air quality would likewise mitigate potential adverse effects on water quality from atmospheric deposition.

The construction-related impact of the project on water quality would be less than significant, because existing permitting requirements ~~and conditions of approval~~ are sufficient to avoid water quality degradation, meet water quality standards and Basin Plan objectives, and prevent adverse effects on beneficial uses.

Operation

Implementation of the proposed project would include the development of impervious surfaces, including roadways and driveways, and structures that would impede water infiltration and contribute to increased water runoff rates. These increased water runoff rates could gather potential pollutants such as heavy metals, oil/grease and fuels from areas where vehicles are parked, and other institutional trash and debris. Stormwater runoff would have the potential to pollute nearby surface waters if storm drain infrastructure and buffers would not be used. The project site is currently unpaved and vacant; the portion of the site outside the Saratoga Creek corridor (which will remain undeveloped) will be developed with approximately 0.72 acres of impervious surfaces, resulting in an impervious percentage of 70 percent (Appendix I).

Constituents found in urban runoff vary as a result of differences in rainfall intensity and occurrence, geographic features, the land use of a site, and vehicle traffic and percent of impervious surface. In the Santa Clara Valley, there is a natural weather pattern of a long dry period from May to October. During this seasonal dry period, pollutants contributed by vehicle exhaust, vehicle and tire wear, crankcase drippings, spills, and atmospheric fallout accumulate

on roadways, driveways, and parking lots within the urban watershed. Precipitation during the early portion of the wet season (which typically spans from November to April) washes these pollutants into the stormwater runoff, which can result in elevated pollutant concentrations in the initial wet weather runoff.

The proposed project would be subject to the most recent standards and performance criteria contained in the MS4 Permit (described in Section 3.9.3, Regulatory Setting). The City is in compliance with MS4 Permit standards through submittal of a stormwater management plan that is compliant with the C.3 Stormwater Handbook.

The proposed project's stormwater management plan includes the information necessary to demonstrate it will comply with the C.3 requirements of the MRP. Based on Appendix I, the selected method of stormwater treatment for the project is stormwater infiltration systems that are sized to store and infiltrate the C.3 level storm event. Each lot will have its own infiltration system to ensure 100 percent of the impervious runoff for the regulated storm event is stored and allowed to infiltrate, while storms beyond the regulated storm event will be allowed to pass through the facility and enter the public storm drainage system. The calculations in Appendix I provide the peak flow runoff rate and volume in both pre-development and post-development conditions, based on a 25-year recurrent storm event with a 60-minute duration. The pre-development runoff peak flow of Lot 1 is 0.16 cubic feet per second. The post-development runoff peak flow of Lot 1 will be reduced to 0.08 cubic feet per second with a 1,516 cubic feet storage capacity for the proposed subsurface infiltration system (Appendix I). The pre-development runoff peak flow of Lot 2 is 0.18 cubic feet per second. The post-development runoff peak flow of Lot 2 will be reduced to 0.14 cubic feet per second with a 1,428 cubic feet storage capacity for the proposed subsurface infiltration system (Appendix I).

The subsurface infiltration system will consist of a Contech Chambermaxx (or similar) system consisting of underground vaults connected to the on-site stormwater collection system. Furthermore, additional source control BMPs that would be implemented to prevent storm runoff of poor quality from entering the Saratoga Creek or seeping into the underlying groundwater table include downspouts to planter areas, landscaped/vegetated swales; non-stormwater management measures (e.g., proper exterior maintenance and cleaning and regularly managed and maintained trash enclosure area), and occupant educational materials on stormwater pollution prevention.

Impacts associated with project construction and operation on water quality would be **less than significant**, because existing permitting requirements and conditions of approval (i.e., MS4 Permit and the Saratoga City Code) are sufficient to avoid water quality degradation, meet water quality standards and Basin Plan objectives, and prevent adverse effects on beneficial uses.

Mitigation Measures

None required.

Impact 3.9-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The project does not propose any on-site groundwater wells, nor would it indirectly result in the off-site construction of groundwater wells. ~~The regional static groundwater level underlying the proposed project is in excess of 75 feet below ground surface, based on regional monitoring (DWR 2019b).~~As noted, geotechnical borings conducted at the proposed project site to a maximum depth of 27.5 feet did not encounter groundwater (Appendix F). Furthermore, SCVWD contour maps indicate that the proposed project site has a groundwater table between 30 to 50 feet below ground surface (SCVWD 2016). The proposed project would involve excavation to a depth of up to 16.5 feet below existing grade. Therefore, construction excavations are not anticipated to intercept the groundwater table. Although the project would include impervious surfaces that impede groundwater recharge, runoff from those impervious surfaces would be directed to a subsurface infiltration system designed to promote recharge of the underlying aquifer (Appendix L, Sheet C-6.0 Stormwater Management Plan). Therefore, potential impacts to groundwater supplies or to sustainable groundwater management would be limited to the indirect impacts from the water demand for the proposed project.

The water demand for the proposed project would be served by SJWC. SJWC has a large 139-square-mile service area consisting of 225,299 municipal connections that serves a population of 983,000 people (SJWC 2016). On average, groundwater consists of one third of the SJWC's water supply portfolio; for the 5-year period between 2011 and 2015, SJWC has supplied between 12,346 and 18,804 acre-feet of groundwater to its service area (SJWC 2016). The amount of groundwater utilized depends on the availability of local surface water supplies and the amount available for purchase from water wholesalers, which, for the area, consists of the SCVWD. Groundwater use increases during drought periods to compensate for the loss of surface water availability. The 2015 Urban Water Management Plan incorporates land use and population projections in its water supply reliability and water shortage contingency planning.

Because the proposed project does not involve a zoning change and would not involve a regional population increase sufficient to affect the growth assumptions or methodology of the SJWC's 2015 UWMP, the available water supply would be sufficient to serve the proposed project (SJWC 2018). The conclusions of the UWMP regarding the sufficiency of future water supplies and the efficacy of water conservation programs and drought contingency planning would be unaffected by the proposed project. As indicated in Sections 3.9.2 and 3.9.3, the SCVWD monitors the Santa Clara Subbasin for

groundwater level trends. On average, groundwater supplies and groundwater levels have remained stable. Given the proposed project would consist of only one or two water supply connections out of SJWC's 225,299 municipal connections, it would have a negligible and **less-than-significant impact** with respect to the sustainable management of the groundwater basin.

Mitigation Measures

None required.

Impact 3.9-3: Would the project substantially alter the existing drainage pattern of the site or area through the addition of impervious surfaces resulting in erosion or siltation on- or off-site; increasing the rate or amount of surface runoff resulting in flooding on- or off-site; contributing runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide polluted runoff; or impede or redirect flood flows?

Alterations to drainage patterns would be limited to increases in the rate and volume of runoff associated with impervious surfaces. According to Appendix I, the portion of the site outside the Saratoga Creek corridor (which will remain undeveloped) will be developed with approximately 0.72 acres of impervious surfaces, resulting in an impervious percentage of 70 percent. Increases in the rate and volume of storm runoff can be associated with exceedance of local storm drain capacity, increases in on- or off-site flooding, and/or hydromodification impacts to receiving waters, which include increased bank erosion or contribution of site-related pollutants. Because the project would not alter the course of a stream or river and is not located within the SFHA of Saratoga Creek, it would not impede or redirect flood flows. Potential impacts associated with increases in the rate and/or volume of runoff produced by the project are addressed below.

Substantial Erosion or Siltation On or Off Site

As discussed under Impact 3.9-1, the proposed project would be constructed to capture, store and infiltrate 100 percent of the stormwater runoff from the site for the regulated storm event (i.e., 25-year recurrent storm event with a 60-minute duration) in a subsurface infiltration system designed to meet the requirements of the MS4 Permit and the SCVPPP C.3 Stormwater Handbook. Because runoff produced from the site would be routed underground, there would be no impact with regard to increased erosion or siltation on or off site.

Increases in On- or Off-Site Flooding

Because the development footprint of the project is not located within a FEMA SFHA, the project would not result in increases in on- or off-site flooding.

However, the project site is located within a 500-year flood zone (i.e., a 0.2 percent annual chance flood). In the extremely unlikely event of a catastrophic flood of this nature, project-related impacts would be less than significant because the project would not increase the severity or extent of such flooding for off-site properties. Being outside of the 100-year floodplain means that the nature of such flooding would likely be shallow and slower than it would be within the Saratoga Creek corridor. Furthermore, site residents would be covered by emergency evacuation procedures, if necessary. Such flooding would not constitute a significant life or safety risk because the project has been designed with emergency access and has ready access to emergency evacuation routes.

Stormwater Drainage System Capacity

The underground storm drain line along Cox Avenue varies in width from 15 to 22 inches in diameter and eventually discharges neighborhood stormwater runoff to Saratoga Creek through an outfall beneath the Cox Street bridge crossing (City of Saratoga 2015). As discussed under Impact 3.9-1, the proposed project would be constructed to capture, store, and infiltrate 100 percent of the stormwater runoff from the site for the regulated storm event (i.e., 25-year recurrent storm event with a 60-minute duration) in a subsurface infiltration system. The underground vaults have 1,516 and 1,428 cubic feet of storage capacity for Lot 1 and Lot 2, respectively. Only in storms exceeding water quality design criteria would flow be routed to the municipal storm drain system. Because the system will have already captured and stored about 2,944 cubic feet of runoff by the time it starts discharging off site, the project would not result in an increase in runoff beyond existing conditions. Under existing conditions, runoff from the site is carried untreated and unstored to surface street curbs and eventually to the storm drain along Cox Avenue. For these reasons, the impact of the project on existing stormwater drainage system capacity would be **less than significant.**

Mitigation Measures

None required.

Impact 3.9-4: Would the project release pollutants during flooding?

The project site would be subject to flooding only in a highly unlikely, catastrophic scenario as described above. Because the project consists of assisted living facilities (as opposed to industry or businesses that store appreciable quantities of hazardous materials and/or wastes), the risk of releasing pollutants during such flooding would be low. The facility may store small quantities of household hazardous wastes or medical wastes, but such wastes would be stored in interior/enclosed spaces and would not be released in a catastrophic flood scenario. Similarly, solid waste (i.e., trash bins) would be stored in an enclosed space that would minimize the risk of release during a 500-year flood. For these reasons the impact would be **less than significant**.

Mitigation Measures

None required.

Impact 3.9-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As discussed under Impact 3.9-1, the project would comply with applicable regulations and permits designed to comply with the Basin Plan. The SWPPP and stormwater management plan to be developed and implemented in compliance with the Saratoga City Code would be effective at meeting water quality objectives of the Basin Plan. As discussed under Impact 3.9-2, the SCVWD is currently achieving sustainable groundwater management under an alternative GSP submittal (SCVWD 2016). For the reasons discussed therein, the groundwater demand of the project would not have an appreciable impact on sustainable management of groundwater within the Santa Clara Subbasin. Therefore the impact of the project on water quality and groundwater management plans would be **less than significant**.

Mitigation Measures

None required.

3.9.5 References

City of Saratoga. 2007. *Open Space and Conservation Element 2007*. Adopted June 6, 2007. https://www.saratoga.ca.us/DocumentCenter/View/49/Open-Space-and-Conservation-Element-Dated-June-6-2007-PDF.

City of Saratoga. 2013. *City of Saratoga General Plan: 2013 Safety Element*. Final Adopted Draft. February 20, 2013.

City of Saratoga. 2015. *City of Saratoga Storm Drainage Master Plan*. February 2015.

DWR (California Department of Water Resources). 2019a. SGMA Data Viewer. Water Level Data for State Well ID. 07S01W29C006M. Accessed April 11, 2019. https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer.

DWR. 2019b. Sustainable Groundwater Management Act 2018 Basin Prioritization. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Basin-Prioritization/Files/2018-Sustainable-Groundwater-Management-Act-Basin-Prioritization.pdf?la=en&hash=B9F946563AA3E6B338674951A7FFB0D80B037530.

FEMA (Federal Emergency Management Administration). 2019. FEMA Flood Map Service Center. FIRM Map No. 06085C0219H. Accessed May 10, 2019. https://msc.fema.gov/portal/search?AddressQuery=Saratoga%2C%20CA#searchresultsanchor.

SCVWD (Santa Clara Valley Water District). 2016. *2016 Groundwater Management Plan, Santa Clara and Llagas Subbasins*. November 2016.

SFB RWQCB (San Francisco Bay Regional Water Quality Control Board). 2015. *Municipal Regional Stormwater NPDES Permit.* Order No. R2-2015-0049. November 19, 2015.

SFB RWQCB ~~(San Francisco Bay Regional Water Quality Control Board)~~. 2017. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*. May 4, 2017.

SJWC (San Jose Water Company). 2016. *2015 Urban Water Management Plan*. June 2016.

SJWC. 2018. *Will Serve Letter* from Wanda Folk (Water Services Representative). August 20, 2018.

SWRCB (State Water Resources Control Board). 2019. "Final 2014/2016 California Integrated Report (Clean Water Act Section 303(d) List/305(b) Report)." Accessed May 10, 2019. https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtm.

USGS (U.S. Geological Survey). 2019. The National Map Viewer. Web Map Service. Accessed May 1, 2019. http://viewer.nationalmap.gov/viewer.

3.10 LAND USE AND PLANNING

3.10.1 Introduction

This section of the EIR describes existing and planned land uses within and adjacent to the project site, current land uses, land use designations, and zoning. This section also analyzes the consistency of the proposed project with existing land use plans and policies as well as land use compatibility with adjacent lands and with uses proposed internal to the project site. This section also contains a discussion of the project's general consistency with relevant City's General Plan land use policies. However, conflicts between a project and applicable policies do not constitute a significant physical environmental impact in and of themselves; as such, the project's environmental impacts resulting from any inconsistency with applicable policies is included in the analysis.

3.10.2 Environmental Setting

3.10.2.1 Regional Setting

The City is one of 15 cities in the County of Santa Clara. The 2010 U.S. Census reports a population of 1,781,642 in Santa Clara County and a population in the City of 30,706 in 2013. According to the U.S. Census, the City experienced a 7 ~~%~~ percent population increase between 1990 and 2000, and less than a 1 ~~%~~ percent increase between 2000 and 2010. Despite a slower growth rate over the past decade, the Association of Bay Area Governments predicts that growth rates will increase and the city will have nearly 3,000 more residents in 2040. However, the composition of the age groups of the population is also shifting. The majority of the City's working age population, those of prime working age (25–54 years), decreased from 41~~%~~ percent of the population in 2000 to 37~~%~~ percent in 2010. Saratoga's retirement age (55–64 years) and senior citizen age (65+ years) populations increased from 2000 to 2010. In 2000 these age groups combined to make up 29~~%~~ percent of the population. In 2010 they had grown to 35~~%~~ percent of the population. The decreasing proportion of younger residents and growing proportion of older residents was reflected in the higher median age in 2010 (47.8 years) compared with that of 2000 (43.2 years) (City of Saratoga 2014).

The predominant land use in the City is residential, most of which is low density, single-family on individual lots. Medium density residential uses, comprised primarily of smaller apartment and condominium units, are found near the intersections of Saratoga Avenue and State Route 85, Prospect Road and Saratoga-Sunnyvale Road, and adjacent to the downtown Saratoga Village.

3.10.2.2 Existing Site

The project site is composed of two parcels (Assessor's Parcel Numbers 389-06-020 and 389-06-021) totaling 1.~~29~~ 3 acres. The City's General Plan land use map designation for the project

site is Professional Administrative (PA); the City's zoning map designates the site Professional and Administrative (P-A). The Professional and Administrative zoning district permits uses such as professional, administrative, and medical offices; financial institutions; accessory structures; and parking lots. Conditional uses allowable in this district extend to community facilities, institutional facilities, police and fire stations, nursing homes, and day care facilities and other uses.

3.10.2.3 Adjacent Land Uses

Professional and administrative office buildings are located immediately to the north and east of the project site, and south of Cox Avenue. The area north of Cox Avenue is zoned Single Family Residential, R-1-10,000. Single-family residential uses are located to the west, across Saratoga Creek. Vacant parcels zoned for Professional and Administrative office uses border the subject property to the south; the property south of the vacant properties is zoned Multi Family Residential R-M-4,000.

3.10.3 Regulatory Setting

3.10.3.1 Federal Regulations

There are no federal regulations pertaining to land use and planning that would apply to the proposed project.

3.10.3.2 State Regulations

There are no state regulations pertaining to land use and planning that would apply to the proposed project.

3.10.3.3 Local Regulations

The following local regulations pertaining to land use and planning would apply to the proposed project.

City of Saratoga General Plan

The Land Use Element (City of Saratoga 2007) and Housing Element (City of Saratoga 2014) of the City of Saratoga 2040 General Plan provide objectives, policies, and programs regarding land use, including the following:

Land Use Element

Goal LU 1: Maintain the predominantly ~~small-town~~small-town residential character of Saratoga which includes semi-rural and open space areas.

- **Policy LU 1.2**: Continue to review all residential development proposals to ensure consistency with Land Use Element goals and Policies

Goal LU 2: Encourage the economic viability of Saratoga's existing commercial and office areas and their accessibility by residents, taking into account the impact on surrounding residential areas.

- **Policy LU 2.5**: The City shall monitor Zoning Ordinance standards to ensure that nonresidential parking standards are adequate to minimize spill-over of parking into adjacent neighborhoods.

Goal LU 5: Relate development proposals to existing and planned street capacities to avoid excessive noise, traffic, and other public safety hazards so as to protect neighborhoods. If it is determined that existing streets need to be improved to accommodate a project, such improvements shall be in place or bonded for prior to issuance of building permits.

- **Policy LU 5.1**: Prior to approval, the decision making body shall consider the cumulative traffic impacts of single-family residential projects of 4 or more lots, multi-family residential projects of eight or more units, and commercial projects designed for an occupancy load of more than 30 persons. This may be accomplished through the completion of traffic impact analyses prepared by qualified traffic engineers or transportation planners.
- **Policy LU 5.2**: Development proposals shall be evaluated against City standards and guidelines to assure that the related traffic, noise, light, appearance, and intensity of the proposed use have limited adverse impact on the area and can be fully mitigated.
- **Policy LU 5.3**: The capacity of existing streets shall be recognized prior to tentative building site or subdivision approval of any project. New development shall be designed to minimize disruption to the area caused by an increase in through or heavy traffic.
- **Policy LU 5.4**: Through the development review process, ensure that adjoining neighborhoods are protected from noise, light, glare and other impacts resulting from new or expanded non-residential developments.
    - **LU.5.a.** Through the design review and subdivision review process, the City shall require that all major development projects include traffic and environmental review to ensure adherence with Neighborhood Protection Goals and Policies.

Goal LU 6: Protect natural resources and amenities through appropriate land use and related programs.

- **Policy LU 6.2**: Development proposals shall incorporate stormwater quality features, including but not limited to grassy bio-swales, to protect surface and subsurface water quality.

Goal LU 13: The City shall use the design review process to assure that new construction and major additions thereto are compatible with the site and the adjacent surroundings.

- **Policy LU 13.1**: Utilize the design review process and the California Environmental Quality Act in the review of proposed residential and non-residential projects to promote high quality design, to ensure compliance with applicable regulations, to ensure compatibility with surrounding properties and use, and to minimize environmental impacts. Special attention shall be given to ensuring compatibility between residential and non-residential uses (e.g., land use buffering).
- **Policy LU 13.2**: When considering development proposals, including new construction, remodeling and/or additions to existing buildings, the city shall adhere to applicable adopted design guidelines, such as, but not limited to, the Residential Design Handbook, the Village Plan Design Guidelines and the Saratoga-Sunnyvale Road Gateway Guidelines, as may be adopted and revised by City Council from time to time.

Housing Element

- **Policy Action 4-3.1**: Maintain Community Design. The City recognizes the importance of maintaining the character of Saratoga's neighborhoods. The City adopted updates to the Single Family Residential Design Review Handbook in February 2014. In order to ensure quality design of new housing units and modifications to existing housing units, the City will review and revise the General Plan or Zoning Code and enforce the design guidelines and update as needed to provide aesthetic direction for future residential development.
- **Policy Action 4-4.3**: Reasonable Accommodation Procedures to comply with State law (SB 520), the City adopted written Reasonable Accommodation Procedures (Municipal Code Section 15-80.025). The City will continue to analyze existing land use controls, building codes, and permit and processing procedures to determine constraints they impose on the development, maintenance, and improvement of housing for persons with disabilities. The City will prepare an informational brochure and include 4-8 information on the City's website to inform residents of the Reasonable Accommodation Procedures.
- **Policy Area 4-4**: Access to Housing Opportunities. The City promotes the practice of providing equal housing opportunities for all persons. Housing should be available for all persons regardless of income, family status, presence of a disability, age, race, sex, national origin, or color. The City encourages the provision of housing to meet needs of families with children, elderly households, persons with disabilities, the homeless and all other segments of the community.

City of Saratoga Municipal Code

Article 15-46 – Design Review: Multi-Family Dwellings and Commercial Structures

15-46.040 – Design review findings. The Planning Commission shall not grant design review approval unless it is able to make the following findings:

a) Where more than one building or structure will be constructed, the architectural features and landscaping thereof shall be harmonious. Such features include height, elevations, roofs, material, color and appurtenances.

b) Where more than one sign will be erected or displayed on the site, the signs shall have a common or compatible design and locational positions and shall be harmonious in appearance.

c) Landscaping shall integrate and accommodate existing trees and vegetation to be preserved; it shall make use of water-conserving plants, materials and irrigation systems to the maximum extent feasible; and, to the maximum extent feasible, it shall be clustered in natural appearing groups, as opposed to being placed in rows or regularly spaced.

d) Colors of wall and roofing materials shall blend with the natural landscape and be nonreflective.

e) Roofing materials shall be wood shingles, wood shakes, tile, or other materials such as composition as approved by the Planning Commission. No mechanical equipment shall be located upon a roof unless it is appropriately screened.

f) The proposed development shall be compatible in terms of height, bulk and design with other structures in the immediate area.

3.10.4 Impacts

3.10.4.1 Methods of Analysis

Existing land uses in the vicinity of the project site were identified based on a site visit. Planned land uses were identified based on the City's General Plan and information provided by the City. The land use evaluation is based on a qualitative comparison of existing and proposed uses on the site and their compatibility with existing land uses and planned land uses, as defined in the City's General Plan.

The CEQA Guidelines, Section 15125(d) (found in 14 CCR 15000 et seq.), states that the environmental setting of an EIR must discuss "any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans." An inconsistency with a general plan or other policy would not necessarily create an environmental impact. In some cases, a general plan policy lays out the standard by which an environmental impact is judged to be

significant or less than significant. The determination of project consistency with the City's General Plan must be made by the Saratoga Planning Commission. The information provided in this section is meant to inform that decision.

The analysis below evaluates the proposed project's consistency with applicable goals and policies contained in the City's General Plan and with other relevant planning documents. Physical environmental impacts resulting from development of the project site are discussed in the applicable technical sections in Chapter 3, *Environmental Analysis*, of this draft EIR. CEQA does not treat project consequences relating solely to land use, socioeconomic or population, employment, or housing issues as direct physical impacts to the environment. An EIR may provide information regarding land use, planning, and socioeconomic effects; however, CEQA does not recognize these types of project consequences as typical impacts on the physical environment. The analysis in this section discusses only general land use compatibility and land use policy consistency as opposed to analyzing the physical impacts on the environment that could occur with implementation of the project. This discussion complies with Section 15125(d) of the CEQA Guidelines, as discussed above.

3.10.4.2 Thresholds of Significance

The significance criteria used to evaluate the project impacts related to land use and planning are based on Appendix G of the CEQA Guidelines. According to Appendix G, a significant impact would occur if development of the proposed project would do any of the following (14 CCR 15000 et seq.):

- Physically divide an established community.
- Cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.10.4.3 Impacts and Mitigation Measures

Impact 3.10-1: Would the project physically divide an established community?

The physical division of an established community typically refers to the construction of a physical feature (such as a road, railroad tracks, or other type of structure that prohibits access) or removal of a means of access (such as a local road or bridge) that would impair internal access within an existing community, or between a community and adjacent areas. The project does not involve any such features and would not remove any means of access in the surrounding area. The project proposes development on a currently vacant lot that is bounded by residential land uses to the west and south and commercial land uses to the north and east. The project would implement roadway improvements and extend Saratoga Creek Drive by approximately ~~150~~ 140 feet to provide access to the property. ~~The roadway extension would provide secondary access to the vacant lots immediately south of the project site, which are currently accessible from Village~~

~~Drive and Saratoga Drive.~~ The Saratoga Creek Drive extension would include Americans with Disabilities Act–compliant sidewalks with curb cuts and ramps, improving walkability and safety. The project would improve access and would not physically divide an established community. There would be **no impact**.

Mitigation Measures

None required.

Impact 3.10-2: Would the project 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?

A significant impact would occur if the project would result in a significant environmental impact due to a conflict with the City's General Plan or Municipal Code, including the Zoning Ordinance, or tree removal controls. As stated above, the General Plan land use designation applicable to the project site is PA**.** The maximum net site area covered by buildings on any lot in a PA zoning district is 30%. The project would comply with these standards: Lot 1 has a proposed building footprint of ~~7,536~~ ~~537~~ 7,440 square feet or ~~29.89~~-29.85~~%~~ percent and Lot 2 has a proposed building footprint of 4,614 square feet or 29.94%. The project is within the maximum permitted density of this land use designation. The project would also comply with the development standards of the PA district, including site frontage, setbacks, height of structures, landscaping and fencing screening, and off-street parking. The project would undergo design review with the Planning Commission to ensure that the architectural features, landscaping, colors, and compatibility with the existing neighborhood. Therefore, the project would be consistent with the General Plan land use designation.

As described in Section 3.3, *Biological Resources*, the project would comply with Chapter 15, Article 50.050, of the City's Municipal Code, which prohibits the removal of protected trees prior to obtaining a tree permit from the City. Five trees protected by Saratoga City Code are proposed for removal by the project: three native coast live oak (*Quercus agrifolia*) trees and two non-native Brazilian pepper (*Schinus terebinthifolius*) trees. As described in Section 3.3.5, *Biological Resources*, impacts related to the removal of these protected trees would be less than significant. In addition, Chapter 15, Articles 50.120, 50.140, and 50.150 require building setbacks from the root zones of protected trees, development of a tree preservation plan for project sites on which an arborist report is prepared, and mitigation for the removal of protected trees in the form of on- or off-site replacement plantings or compensatory mitigation. Therefore, the proposed project does not conflict with these ordinances, as a tree permit would be obtained from the City for the lawful removal of any protected trees from the project site, the tree protection security deposit would be paid, and new replacement trees would be planted. The impact 3.4-5 within Section 3.3.5 further analyzes the removal of protected trees.

The City's General Plan Housing Element (City of Saratoga 2014) includes Policy Area 4-4: Access to Housing Opportunities:

> The City promotes the practice of providing equal housing opportunities for all persons. Housing should be available for all persons regardless of income, family status, presence of a disability, age, race, sex, national origin, or color. The City encourages the provision of housing to meet needs of families with children, elderly households, persons with disabilities, the homeless and all other segments of the community.

The proposed project complies with this policy through the project's improvements in serving senior and elderly residents with mental disabilities, as defined by the Housing Element. The proposed project would provide the benefit of additional housing and care services for the elderly and those with mental disabilities. The addition of a senior living facility would also contribute to the City's Housing Element Quantified Objectives 2015–2023, in which the City attempts to achieve housing production at a level consistent with its regional housing needs allocation. As the proposed project would provide housing for 78~~9~~ residents, it would be consistent with the City's Quantified Objective for New Construction (City of Saratoga 2014).

The project vicinity is comprised of a mix of office and residential uses. Adjacent parcels to the north and east of the project site currently provide professional office use; residential neighborhoods and vacant land adjoin the project site to the west and south. The purpose of the PA zoning district is to provide a buffer between professional office uses and residential neighborhoods; the project would comply with this intent. The proposed residential care facility would be consistent with this mix of uses, particularly with the adjacent professional office buildings to the north and east. In addition, since the project site and adjoining parcels to the south are designated by the General Plan to develop with P-~~Arofessional and Administrative~~ office uses, the proposed residential care facility use would be consistent with the anticipated use of this area as allowed by a conditional use permit. The proposed project would result in less-than-significant land use and planning effects.

Potential visual, noise, and traffic impacts from the project are evaluated in Sections 3.1, *Aesthetics*; 3.11, *Noise*; and 3.14, *Transportation and Circulation*, respectively, of this ~~draft~~ EIR, and would not interfere with adjacent land uses.

In general, the project is not expected to conflict with surrounding land uses, or to negatively affect the character of adjacent residential neighborhoods. The project proposes a self-contained senior living facility for residents with varying medical needs, particularly for memory care and Alzheimer's~~s patients~~. Other services, such as formal dining facilities, banking, and a fitness center, would also be available on site to provide for residents' recreational, social, and housekeeping needs. Additionally, transportation services would be available to residents requiring travel off site

for medical attention or other purposes. These amenities would provide high-quality care for senior residents and would serve to minimize impacts on surrounding residences by contributing to the self-sustaining nature of the proposed residential community.

Implementation of the proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project site adopted for the purpose of avoiding or mitigating an environmental effect.

Impacts related to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect would be ~~This is considered a~~ **less- than -significant ~~impact~~**.

Mitigation Measures

None required.

3.10.5 References

City of Saratoga. 2007. *City of Saratoga General Plan: Land Use Element*. Adopted June 6, 2007.

City of Saratoga. 2014. *2015–2023 Housing Element.* Adopted November 19, 2014. https://www.saratoga.ca.us/DocumentCenter/View/45/Housing-Element-2015---2023-Dated-November-2014-PDF.

Arborist Final Report – Corrected. Prepared by Kate Bear, City Arborist. Community Development Department. December 4, 2017

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3.11 NOISE

3.11.1 Introduction

This section of the EIR evaluates the potential noise impacts of the proposed project. This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

Several comments were received regarding noise impacts from emergency service vehicles traveling to and from the project site. Impacts related to emergency service vehicles are discussed under Impact 3.11.1.

Public comments received in response to the Notice of Preparation (NOP) included concerns associated with the increase in noise due to 24-hour operation of the facility, emergency vehicles, delivery trucks, and visitors to the facility. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period. The analysis is based on the Noise Assessment Technical Report for the Palm Villas Saratoga Project, which is included as Appendix J of this draft EIR.

3.11.2 Environmental Setting

This section describes the existing noise conditions in the project area and also identifies the resources that could be affected by the proposed project.

3.11.2.1 Noise Background Terminology

Fundamentals of Environmental Noise

Vibrations, traveling as waves through air from a source, exert a force perceived by the human ear as sound. Sound pressure level (referred to as sound level) is measured on a logarithmic scale in decibels (dB) that represent the fluctuation of air pressure above and below atmospheric pressure. Frequency, or pitch, is a physical characteristic of sound and is expressed in units of cycles per second, or hertz. The normal frequency range of hearing for most people extends from about 20 to 20,000 hertz. The human ear is more sensitive to middle and high frequencies, especially when the noise levels are lower. As noise levels increase, the human ear starts to hear the frequency spectrum more evenly. To accommodate for this phenomenon, a weighting system has been developed to mimic the response of the human ear. The frequency weighting called “A” weighting is typically used for lower noise levels, which de-emphasizes the low frequency components of the sound in a manner similar to the response of a human ear. This A-weighted sound level is referenced in units of dBA.

Since sound is measured on a logarithmic scale, a doubling of sound energy results in a 3 dBA increase in the noise level. “It is generally accepted that the average healthy ear … can barely perceive a noise level change of 3 dB” (Caltrans 2013a). A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as twice or half as loud.

Community noise sources vary continuously, being the product of many noise sources at various distances, all of which constitute a relatively stable background or ambient noise environment. The background, or ambient, noise level gradually changes throughout a typical day, corresponding to distant noise sources, such as traffic, as well as changes in atmospheric conditions.

Noise levels are generally higher during the daytime and early evening when traffic (including airplanes), commercial, and industrial activity is the greatest. However, noise sources experienced during nighttime hours when background levels are generally lower can be potentially more conspicuous and irritating to the receiver. In order to evaluate noise in a way that considers periodic fluctuations experienced throughout the day and night, a concept termed “community noise equivalent level” (CNEL) was developed, wherein noise measurements are weighted, added, and averaged over a 24-hour period to reflect magnitude, duration, frequency, and time of occurrence.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), percentile-exceeded sound levels (L_{xx}), the day–night sound level (L_{dn}), and CNEL. Below are brief definitions of these measurements and other terminology used in this report.

- *Decibel (dB)* is a unitless measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micropascals.
- *A-weighted decibel (dBA)* is an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- *Equivalent sound level (L_{eq})* is the constant level that, over a given time period, transmits the same amount of acoustic energy as the actual time-varying sound. Equivalent sound levels are the basis for both the day–night average sound levels (L_{dn}) and community noise equivalent level (CNEL) scales.
- *Maximum sound level (L_{max})* is the maximum sound level measured during the measurement period.
- *Minimum sound level (L_{min})* is the minimum sound level measured during the measurement period.

- *Percentile-exceeded sound level (L_{xx})* is the sound level exceeded x% of a specific time period. L_{10} is the sound level exceeded 10% of the time.
- *Day–night average sound level (L_{dn})* is a 24-hour average A-weighted sound level with a 10 dB penalty added to the nighttime hours from 10:00 p.m. to 7:00 a.m. The 10 dB penalty is applied to account for increased noise sensitivity during the nighttime hours. Resulting values from application of L_{dn} versus CNEL rarely differ by more than 1 dB (see definition below), and therefore these two methods of describing average noise levels are often considered interchangeable.
- *Community noise equivalent level (CNEL)* is the average equivalent A-weighted sound level during a 24-hour day. CNEL accounts for the increased noise sensitivity during the evening hours (7:00 p.m. to 10:00 p.m.) and nighttime hours (10:00 p.m. to 7:00 a.m.) by adding 5 dB to the sound levels in the evening and 10 dB to the sound levels at night. CNEL and L_{dn} are often considered equivalent descriptors.

Exterior Noise Distance Attenuation

Noise sources are classified in two forms: (1) point sources, such as stationary equipment or a group of construction vehicles and equipment working within a spatially limited area at a given time, and (2) line sources, such as a roadway with a large number of pass-by sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6 dBA for each doubling of distance from the source to the receptor at acoustically “hard” sites and at a rate of 7.5 dBA for each doubling of distance from source to receptor at acoustically “soft” sites. Sound generated by a line source (i.e., a roadway) typically attenuates at rates of 3 dBA and 4.5 dBA per doubling distance, for hard and soft sites, respectively. Sound levels can also be attenuated by human-made or natural barriers. For the purpose of sound attenuation discussion, a hard or reflective site does not provide any excess ground-effect attenuation and is characteristic of asphalt or concrete ground surfaces, as well as very hard-packed soils. An acoustically soft or absorptive site is characteristic of unpaved loose soil or vegetated ground.

Structural Noise Attenuation

Sound levels can also be attenuated by human-made or natural barriers. Solid walls or slopes associated with elevation differences typically reduce noise levels by 5 to 10 dBA (DOT 1980). Structures can also provide noise reduction by insulating interior spaces from outdoor noise. The outside-to-inside noise attenuation provided by typical structures in California ranges between 17 to 30 dBA with open and closed windows, respectively, as shown in Table 3.11-1.

Table 3.11-1
Outside-to-Inside Noise Attenuation (dBA)

Building Type	Open Windows	Closed Windows[a]
Residences	17	25
Schools	17	25
Churches	20	30
Hospitals/Offices/Hotels	17	25
Theaters	17	25

Source: Transportation Research Board, National Research Council, 1971.
dBA = A-weighted decibel.
[a] As shown, structures with closed windows can attenuate exterior noise by a minimum of 25 to 30 dBA.

Fundamentals of Vibration

Vibration is an oscillatory motion that can be described in terms of displacement, velocity, or acceleration. The response of humans to vibration is very complex. However, it is generally accepted that human response is best approximated by the vibration velocity level associated with the vibration occurrence.

Heavy equipment operation, including stationary equipment that produces substantial oscillation or construction equipment that causes percussive action against the ground surface, may be perceived by building occupants as perceptible vibration. It is also common for ground-borne vibration to cause windows, pictures on walls, or items on shelves to rattle. Although the perceived vibration from such equipment operation can be intrusive to building occupants, the vibration is seldom of sufficient magnitude to cause even minor cosmetic damage to buildings.

When evaluating human response, ground-borne vibration is usually expressed in terms of root mean square vibration velocity. Root mean square is defined as the average of the squared amplitude of the vibration signal. As for sound, it is common to express vibration amplitudes (L_v) in terms of decibels defined as

$$L_v = 20 \log \left(\frac{v_{rms}}{v_{ref}} \right)$$

where v_{rms} is the root mean square vibration velocity amplitude in inches/second and v_{ref} is the decibel reference of 1×10^{-6} inches/second.

To avoid confusion with sound decibels, the abbreviation VdB is used for vibration decibels. The vibration threshold of perception for most people is around 65 VdB. Vibration levels in the 70 to 75 VdB range are often noticeable but generally deemed acceptable, and levels in excess of 80 VdB are often considered unacceptable (FTA 2018).

3.11.2.2 Existing Noise Conditions

Noise measurements were taken on and near the project site in March 2019 to characterize the existing noise environment. The daytime, short-term (1 hour or less) attended sound level measurements were taken with a SoftdB Piccolo sound-level meter. This sound-level meter meets the current American National Standards Institute standard for a Type 2 general purpose sound-level meter. The calibration of the sound-level meter was verified before and after the measurements were taken, and the measurements were conducted with the microphone positioned approximately 5 feet above the ground.

Four noise measurement locations (ST1, ST2, ST3, and ST4) were selected within or adjacent to the project site with exposure to the roadways immediately adjacent to or leading to the property, as described in Table 3.11-2. The measurement locations are shown in Figure 3.11-1, Noise Measurement Locations. The selected locations are representative of the worst-case traffic noise exposure for the subject property, and were also used for calibrating the traffic noise model (which was used to predict existing and future traffic noise exposure levels at the property and along selected streets).

Manual traffic counts were also completed during the sound level measurements; measurement location descriptions, measured average noise levels, and traffic counts are provided in Table 3.11-2. Noise measurement data is also included in Appendix J. The primary noise sources at the measurement locations consisted of traffic along the adjacent roads.

Table 3.11-2
Measured Noise Levels

Receptor	Location/ Address	Date	Time	L_{eq} (dBA) [1]	Cars	MT[2]	HT[3]	Bus	MC[4]
ST1	Project site	March 19, 2019	11:50 a.m. to 12:05 p.m.	64.9	118	4	0	0	2
ST2	De Havilland Drive and Cox Avenue	March 19, 2019	12:17 p.m. to 12:32 p.m.	50.7	0	0	0	0	0
ST3	Saratoga Creek Drive and Cox Avenue	March 19, 2019	12:38 p.m. to 12:53 p.m.	68.4	134	7	1	0	0
ST4	Cox Avenue	March 19, 2019	12:59 p.m. to 01:14 p.m.	54.9	1	0	0	0	0

1 Equivalent continuous sound level (time-average sound level) in A-weighted decibels.
2 Medium truck.
3 Heavy truck.
4 Motorcycle.

The sound levels reported in Table 3.11-2 represent the average noise level throughout the measurement period at each of the four locations. Using the existing traffic volume data for Cox Avenue, Saratoga Avenue, and Saratoga Creek Drive from the traffic impact analysis (Fehr and

Peers 2019) and employing the Federal Highway Administration (FHWA) Traffic Noise Model 2.5 (FHWA 2004), Dudek calculated the existing L_{dn} for the four short-term measurement points. Based on the traffic volume data provided by the traffic impact analysis, the calculated existing L_{dn} at ST1 is 53 dBA, the calculated L_{dn} at ST2 is 66 dBA, the calculated L_{dn} at ST3 is 67 dBA, and the calculated L_{dn} at ST4 is 59 dBA. The calculated sound levels at both ST2 and ST3 are above the "normally acceptable" limit of 60 dBA L_{dn} for single-family residential land uses. The existing noise levels at ST1 and ST4 fall within the exterior noise limit.

3.11.3 Regulatory Setting

3.11.3.1 Federal Regulations

Federal Interagency Committee on Noise

Some guidance regarding the determination of a substantial permanent increase in ambient noise levels in the project vicinity above existing levels is provided by the 1992 findings of the Federal Interagency Committee on Noise (FICON), which assessed the annoyance effects of changes in ambient noise levels resulting from aircraft operations. The FICON recommendations are based upon studies that relate aircraft and traffic noise levels to the percentage of persons highly annoyed by the noise. The rationale for the FICON recommendations is that it is possible to consistently describe the annoyance of people exposed to transportation noise in terms of L_{dn}. Table 3.11-3 lists the significance criteria for an increase in ambient noise level, which is dependent upon the existing ambient noise level. Although the FICON recommendations were specifically developed to address aircraft noise impacts, they are used in this analysis to define a substantial increase in community noise levels related to all transportation noise sources and permanent non-transportation noise sources.

Table 3.11-3
Measures of Substantial Increase for Community Noise Sources

Ambient Noise Level Without Project (L_{dn})	Significant Impact Assumed to Occur if the Project Increases Ambient Noise Levels by:
<60 dB	+ 5 dB or more
60–65 dB	+ 3 dB or more
>65 dB	+ 2 dB or more

Source: FICON 2000.
L_{dn} = day–night average sound level; dB = decibels.

SOURCE: USDA 2016

DUDEK

0 130 260 Feet

FIGURE 3.11-1

Noise Measurement Locations

Palm Villas Saratoga Project

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Federal Transit Administration and Federal Railroad Administration Standards

Although Federal Transit Administration (FTA) standards are intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the FTA Transit Noise and Vibration Impact Assessment Manual (FTA 2018) are routinely used for projects proposed by local jurisdictions. The FTA and Federal Railroad Administration have published guidelines for assessing the impacts of ground-borne vibration associated with rail projects, which have been applied by other jurisdictions to other types of projects. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 inches per second peak particle velocity (PPV).

3.11.3.2 State Regulations

California Noise Control Act of 1973

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, declare that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

California Noise Insulation Standards (CCR Title 24)

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for hotels, motels, dormitories, and multifamily residential buildings (CCR Title 24, Part 2). Title 24 establishes standards for interior room noise (attributable to outside noise sources). The regulations also specify that acoustical studies must be prepared whenever a multifamily residential building or structure is proposed to be located in an area with CNEL (or L_{dn}) of 60 dBA or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or L_{dn}) of at least 45 dBA (CCR Title 24, Chapter 2-35). The City of Saratoga (City) applies an interior noise criterion of L_{dn} 45 dBA for single-family residences, in addition to multifamily residential structures.

3.11.3.3 Local Regulations

City of Saratoga General Plan

The Noise Element of the City's General Plan includes policies, goals, and implementation measures regarding noise, listed below (City of Saratoga 2014).

Noise Element

- **Policy 1.2**: The City shall use the planning and code enforcement process to discourage activities, practices or land uses that create or result in excessive noise exposure.
- **Policy 2.1**: An acoustical analysis is to be conducted for proposed Residential and Quasi-Public development where the existing noise level exceeds Outdoor DNL [L_{dn}] 60 dB determine measures needed to reduce noise impacts to meet City noise standards.
- **Policy 2.2**: New residential development shall be designed and constructed to provide an interior noise level of DNL 45 dB or less in habitable rooms (due to outdoor sources).
- **Policy 2.3**: Residential outdoor open space intended for use and enjoyment shall be designated to meet Outdoor DNL 60 dB. This policy does not apply to private exterior balconies. Where this level cannot feasibly be met by incorporating reasonable measures, such as strategic site layout and noise barriers, DNL 65 dB may be approved.
- **Policy 2.4**: New office/commercial development shall be designed and constructed to reduce daytime interior noise levels in accordance with State CALGreen standards prescribing an interior noise levels standards of $L_{eq(h)}$ 50 dB as the maximum allowable hourly average noise levels during any hour of operation.
- **Policy 2.6**: The City recognizes that certain community uses and events are inherent to a suburban environment.
    - **Implementation Measure 2.6.1**: Update City Noise Control Ordinance to specifically address sources that would have an impact on the community, such as noise generated by equipment, animals and amplified sound.
- **Policy 2.7**: Noise generated by equipment, animals and amplified sound shall meet adopted standards as amended from time to time.
    - **Implementation Measure 2.7.1**: The City should continue to enforce the restrictions in the Noise Ordinance of the Saratoga City Code.
- **Policy 2.8**: The City shall enforce regulations pertaining to home occupations and not permit those that create noise beyond the property boundaries
- **Policy 3.1**: Changes in use and development shall be reviewed for noise impacts to neighboring land uses.

- **Policy 3.2**: New development shall be required to utilize appropriate measures to reduce noise impacts to the adopted noise standards; and acoustical analysis may be required by the approving authority.
- **Policy 4.1**: The City should work with other agencies to mitigate the effect of existing and future transportation noise sources
- **Policy 4.3**: The City should design new or improved roads in Saratoga with careful consideration given to both long and short-term noise impacts.
    - **Implementation Measure 4.3.1**: Noise abatement measures should be considered in the design of new and improved roadways.
- **Policy 4.4**: The City should discourage through traffic in residential neighborhoods to reduce noise impacts.
- **Policy 4.5**: The City should continue to designate truck routes in order to direct truck traffic away from noise-sensitive land uses.

Saratoga City Municipal Code

Noise impacts from construction are regulated through the City's Municipal Code (i.e., the City noise ordinance) (see Table 3.11-4). Chapter 7-30.060 of the noise ordinance, Exceptions for Specific Activities, include guidelines applicable to the project's construction. Chapter 7-30.060(a) stipulates (City of Saratoga 2019):

> Construction activities. Construction, alteration, repair, and grading activities shall not exceed one hundred dBA measured at any point twenty-five feet or more from the source of noise. Such activities may be conducted between the hours of 7:30 A.M. and 6:00 P.M. Monday through Friday and between the hours of 9:00 A.M. and 5:00 P.M. on Saturday. Construction activities shall be prohibited on Sundays and weekday holidays.

Chapter 7.30.040, Nose Standards, includes guidelines applicable to the project's exterior noise levels. Chapter 7.30.040(a) stipulates (City of Saratoga 2019):

> Except as otherwise provided in Paragraph (b) of this Section, all uses and developments shall comply with the following noise standards for the various land uses and times of day as indicated below. No person shall cause, produce, or allow to be produced any noise that exceeds these noise standards at any point outside the property boundary on which the noise is generated.

Table 3.11-4
City of Saratoga Exterior Noise Standards

Noise Zone	Sound Level (dBA)		Time Period
	L_{eq}	L_{max}	
Residential (Single-family and multifamily)	55	65	Daytime (7:00 a.m. to 7:00 p.m.)
	45	55	Evening (7:00 p.m. to 10:00 p.m.)
	40	50	Nighttime (10:00 p.m. to 7:00 a.m.)
Open Space/Parks	60	70	Daytime (7:00 a.m. to 7:00 p.m.)
	50	55	Evening (7:00 p.m. to 10:00 p.m.)
	45	50	Nighttime (10:00 p.m. to 7:00 a.m.)
Commercial/Office	65	75	Daytime (7:00 a.m. to 7:00 p.m.)
	60	70	Evening (7:00 p.m. to 10:00 p.m.)
	55	60	Nighttime (10:00 p.m. to 7:00 a.m.)
Public and Quasi-Public Facilities	60	70	Daytime (7:00 a.m. to 7:00 p.m.)
	66	60	Evening (7:00 p.m. to 10:00 p.m.)
	45	50	Nighttime (10:00 p.m. to 7:00 a.m.)

Source: City of Saratoga 2014.
dBA = A-weighted decibel; L_{eq} = equivalent sound level; L_{max} = maximum sound level.

3.11.4 Impacts

3.11.4.1 Methods of Analysis

The analysis of existing and future noise environments is based on observations, noise level measurements, and computer modeling. Existing noise levels were monitored at selected on-site and off-site locations using an American National Standards Institute Type 2 sound-level meter. Traffic noise modeling involved the calculation of existing and future traffic noise levels along roadway segments where the proposed project would contribute additional vehicle trips, as provided by the project traffic consultant, using the FHWA Transportation Noise Model.

For the analysis of construction noise, the FHWA's Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels at adjacent noise-sensitive land uses. Although the model was funded and promulgated by the FHWA, the RCNM is often used for non-roadway projects, because the same types of construction equipment used for roadway projects are also used for other project types. To analyze construction noise levels from the project, information regarding the receiver/land use types, the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (i.e., percentage of hours the equipment typically works per day), and the distance from the noise-sensitive receiver are input into the RCNM. No topographical or structural shielding was assumed in the modeling of construction noise.

Ground-borne vibration levels resulting from construction activities at the proposed project site were estimated using reference data and methodologies published in the Transit Noise and Vibration Impact Assessment Manual (FTA 2018). Vibration from transportation sources was not evaluated in detail because it is not common for vibration from motor vehicles traveling on paved roads to cause disturbance or substantial annoyance in these areas. Operational on-site noise was assessed by using information provided by the project applicant and applying standard acoustical formulas for attenuation of noise from distance and structural shielding. The resulting noise levels at the nearest noise-sensitive land use was then estimated using standard propagation equations for the attenuation of noise with distance (i.e., a decrease of 6 dB per doubling of distance as for a point source).

3.11.4.2 Thresholds of Significance

The significance criteria used to evaluate the project impacts related to noise are based on Appendix G of the CEQA Guidelines. According to Appendix G, a significant impact would occur if development of the proposed project would do any of the following (14 CCR 15000 et seq.):

- 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.
- Generation of excessive groundborne vibration or groundborne noise levels.
- 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.

3.11.4.3 Criteria Not Applicable to the Proposed Project

Due to the location and characteristics of the proposed project, certain significance criteria are not applicable, and therefore are not considered potential impacts. These criteria are addressed briefly below and are not discussed further in this document.

Airports/Airport Land Use Plan

The project site is not located within 2 miles of an airport; the closest airport is the Norman Y. Mineta San Jose International airport (SJC), approximately 7 miles north-northeast of the project site. Therefore, future residents would not be exposed to elevated noise levels from aircraft operation and airport noise impacts are not addressed further in the analysis.

3.11.4.4 Impacts and Mitigation Measures

Impact 3.11-1: Would the project generate 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?

Noise Significance Criteria Applicable to the Proposed Project

Based on the City's 2014 General Plan Noise Element and Municipal Code (noise ordinance), as well as standards adopted by other agencies that are customarily applied to the assessment of short-term noise generation, the proposed project would have a significant impact on noise if it would result in:

- During construction, between the hours 7:30 a.m. and 6:00 p.m. Monday through Friday and between the hours of 9:00 a.m. and 5:00 p.m. on Saturday, construction noise levels greater than 100 dBA L_{eq} measured at any point 25 feet or more from the source of noise (City of Saratoga 2014). Construction activities are prohibited Sundays and weekend holidays (City of Saratoga 2014).
- For project operation, generation of noise in excess of 60 dBA L_{dn} at the property line for any existing residential properties in the project vicinity (City of Saratoga 2014).
- From project operation, an increase of 3 dBA CNEL or more in existing roadway traffic noise levels, as a result of the addition of project generated traffic on vicinity roadways (Caltrans 2013a).

Construction Noise

Construction Equipment Noise Background

The proposed project would be constructed in phases; the primary phases would consist of grading, building construction, paving of the on-site roads and parking areas, and application of architectural coatings. Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, and sensitivity of nearby land uses, and the timing and duration of the construction activities. The nearest sensitive receptors to the project site are single-family homes located approximately 120 feet west of the project site. Other residential land uses are located farther to the north, east, and south of the project site.

Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, sizes of equipment used, percentage of time, condition of each piece of equipment, and number of pieces of equipment that will actually operate on site. The range of

maximum noise levels for various types of construction equipment at a distance of 50 feet is depicted in Table 3.11-5. The noise values represent maximum noise generation, or full-power operation of the equipment. As an example, a loader and two dozers, all operating at full power and relatively close together, would generate a maximum sound level of approximately 90 dBA at 50 feet from their operations. As one increases the distance between equipment and/or between areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of separate noise sources added together. In addition, typical operating cycles may involve two minutes of full-power operation, followed by three or four minutes at lower levels. The average noise level during construction activity is generally lower, since maximum noise generation may only occur up to 50% of the time. Noise levels from construction operations decrease at a rate of approximately 6 dBA per doubling of distance from the source.

Table 3.11-5
Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Roller	74
Concrete vibrator	76
Pump	76
Saw	76
Backhoe	80
Air compressor	81
Generator	81
Compactor	82
Concrete pump	82
Crane, mobile	83
Concrete mixer	85
Dozer	85
Grader	85
Impact wrench	85
Loader	85
Pneumatic tool	85
Jackhammer	88
Truck	88
Paver	89

Source: FTA 2018.
dBA = A-weighted decibel.

The nearest point of construction activities to the closest noise-sensitive receiver (a single-family residence located to the west) would be approximately 120 feet and the farthest would be approximately 445 feet. For construction noise, a concept called the “acoustic center” is useful in describing average noise levels across the entire construction period for adjacent receivers. The acoustic center is the idealized point from which the energy sum of all construction activity noise

near and far would originate, and it is derived by taking the square root of the product of the shortest distance multiplied by the farthest distance. For this project construction, the acoustic center is calculated to be 230 feet from the closest receiver. Thus, the distance to the nearest construction activities would be approximately 120 feet, but the typical or average construction sound exposure at these residences from distribution of construction activity across the site would be represented by modelling construction activities to be located at the acoustic center, approximately 230 feet away from the closest noise-sensitive receivers.

As described previously, the RCNM noise model was used to assess noise from project construction. The noise levels from the proposed construction activities are summarized in Table 3.11-6. The complete set of RCNM input and output data for construction noise is provided in Appendix J.

Table 3.11-6
Construction Noise Model Results Summary

Receiver	Source/Receiver Distances (feet)	Construction Phase Noise Levels (dBA L_{eq})				
		Site Preparation	*Grading*	*Paving*	*Building Construction*	*Archit. Coating*
Nearest Residences (West of Project Site)	Nearest/120	74	78	75	76	66
	Acoustic Center/230	69	72	70	71	60
Criteria	**Construction Noise Limit/Reference Distance (feet)**	**Construction Phase Noise Levels (dBA L_{max})**				
		Site Preparation	*Grading*	*Paving*	*Building Construction*	*Archit. Coating*
City Ordinance	100 dBA L_{max}/25	91	96	86	89	84

Notes: dBA = A-weighted decibels; L_{eq} = equivalent sound level, L_{max} = maximum sound level

As shown in Table 3.11-6, noise levels at the nearest residences would range from approximately 66 to 78 dBA L_{eq} when construction is taking place at or near the project boundary. More typical construction noise levels (represented by the acoustic center distance noise levels) at the residences to the west would range from approximately 60 to 72 dBA $L_{eq.}$

The City regulates construction noise by establishing a maximum allowable noise level and restricting the allowable hours of construction. Section 7-30.060 of the City's Municipal Code states (City of Saratoga 2019):

> Construction, alteration, repair, and grading activities shall not exceed one hundred dBA measured at any point twenty-five feet or more from the source of noise. Such activities may be conducted between the hours of 7:30 A.M. and 6:00 P.M. Monday through Friday and between the hours of 9:00 A.M. and 5:00 P.M. on Saturday. Construction activities shall be prohibited on Sundays and weekday holidays.

The ordinance limit described as maximum noise would equate to the RCNM L_{max} values, as displayed in Table 3.11-6.

Based on the calculated results in the RCNM model using the applied City noise ordinance distance (i.e., 25 feet), the calculated dBA L_{max} values would range from approximately 84 to 96 dBA L_{max} and would therefore not exceed the City's significance threshold of 100 dBA at 25 feet.

Existing average noise levels associated with roadways in the vicinity of the project site range from 61 to 68 dBA L_{eq}. Construction noise levels at the closest residence would range from 66 to 78 dBA L_{eq}. Thus construction noise levels at the closest residence could be up to 17 dBA above ambient noise levels, which would be clearly noticeable. With standard residential construction achieving an exterior to interior attenuation of approximately 25 dBA (with doors and windows closed), construction noise levels would not be expected to exceed 53 dBA L_{eq} in the interior of homes adjacent to the project site, which is well below the level at which normal conversational levels or dialogue from television or radio would be disrupted.

Average noise levels from construction activities may be annoying, since levels are expected to be higher than the ambient noise level in the site vicinity. This is particularly true for the nearest single-family homes to the west of the project site. However, restricting construction activities to the daytime period (in accordance with noise ordinance requirements) will avoid disruption of evening relaxation and overnight sleep periods. Based upon the above discussion, short-term construction noise would be considered less than significant.

Operational Noise

Operational Traffic Noise

The primary noise-related effect that most non-industrial projects produce is a potential for off-site increases in traffic. Acoustical calculations were performed for existing traffic levels (presented in Section 3.11.2.2, Existing Noise Conditions), as traffic is often a major contributor to the ambient or community noise level. The vehicle trips associated with the proposed project were based on the trip generation estimated in the project's traffic impact analysis. The project is expected to generate 21 AM peak hour trips and 28 PM peak hour trips.

Potential noise effects from vehicular traffic were assessed using the FHWA's Traffic Noise Model 2.5 (FHWA 2004). Information used in the model included the roadway geometry, existing conditions (year 2019), existing plus project conditions, cumulative and cumulative plus project conditions, and posted traffic speeds. Noise levels were modeled at representative noise-sensitive receivers ST1, ST2, ST3 and ST4 (discussed in Section 3.11.2.2); additionally, three modeled-only receivers (M1, M2, and M3) were used in the traffic noise model in order to provide additional information regarding potential traffic noise increases resulting from the proposed project. Receiver M1 was placed adjacent to residences along the west side of Saratoga Avenue, north of the intersection of Saratoga Avenue and Cox Avenue; receiver M2 was placed adjacent to a church along the east side of Saratoga Avenue, north of the intersection of Saratoga Avenue

and Cox Avenue; and receiver M3 was placed adjacent to residences along the east side of Saratoga Avenue, south of the intersection of Saratoga Avenue and Cox Avenue. The measurement and modeling locations are shown in Figure 3.11-1.

The receivers were modeled to be 5 feet above the local ground elevation. The noise model results are summarized in Table 3.11-7. The input and output files for the project are provided in Appendix J. The City does not have a specific noise criterion for evaluating off-site noise impacts to residences or noise-sensitive areas from project-related traffic. For the purposes of this noise analysis, such impacts are considered significant when they cause an increase of 3 dB from existing noise levels or cause an exceedance of the 65 dBA CNEL noise threshold. An increase or decrease in noise level of at least 3 dB is required before any noticeable change in community response would be expected (Caltrans 2013a).

The traffic noise modelling data summarized in Table 3.11-7 shows that the maximum noise level increase attributed to project-generated traffic would be 0 dB (when rounded to whole numbers). Consequently, there would be no noticeable change in community response associated with the addition of project-generated traffic to the area roadway network, and the impact would be less than significant. No mitigation is required.

Table 3.11-7
Off-Site Traffic Noise Modeling Results

Modeled Receiver No. – Description	Existing (2019) Noise Level (dBA CNEL)	Existing (2019) Plus Project Noise Level (dBA CNEL)	Cumulative Noise Level (dBA CNEL)	Cumulative with Project Noise Level (dBA CNEL)	Maximum Project-Related Noise Level Increase (dB)
ST1	53	53	54	54	0
ST2	66	66	67	67	0
ST3	67	67	68	68	0
ST4	59	59	60	60	0
M1	67	67	68	68	0
M2	68	68	69	69	0
M3	61	61	62	62	0

Notes: dBA = A-weighted decibel; CNEL = community noise equivalent level; dB = decibel.
See Appendix J for details.

During construction, workers and equipment will use the roadway network to access the project site. The number of worker vehicles and delivery trucks associated with the construction is anticipated to be less than the total daily trips associated with project operations. The project would therefore result in less-than-significant traffic noise impacts.

On-Site Operational Noise Generation

The implementation of the project would also result in changes to existing noise levels on the project site by developing new stationary sources of noise. These sources may affect noise-sensitive vicinity land uses off the project site. The following analysis evaluates noise from exterior mechanical equipment.

Outdoor Mechanical Equipment

Important outdoor (exterior) mechanical equipment associated with the proposed project includes the following:

- (2) 5-ton Carrier HVAC System
- (2) 3-ton Carrier HVAC System
- (1) 45 kilowatt (kW) Generac Standby Generator
- (1) 30 kW Generac Standby Generator

The heating, ventilation, and air conditioning (HVAC) units proposed for the project provide climate control for building interiors and would run during 24-hour operation for the facility. They were conservatively assumed to be in operation during daytime, evening, and nighttime hours. Dudek assessed the noise level associated with the proposed 5-ton and 3-ton HVAC systems and the 30 kW and 45 kW generators as proposed under the project.

Dudek used sound ratings published by the manufacturer for each of the proposed new HVAC systems and generators. In order to assess noise levels from mechanical equipment operations along the common property boundary of the proposed project and neighboring residential properties, distance measurements were completed from the mechanical equipment locations to the nearest property line. Standard acoustic calculations were then performed to determine the distance-attenuated noise level at the property line location for each of the mechanical noise sources. The proposed HVAC equipment and generators are located close to one another and would have a combined noise effect at the closest neighboring property lines, located to the west. The noise levels (L_{eq}) from the individual equipment, and the combined noise levels of all of the equipment, are shown in Table 3.11-8.

Table 3.11-8
Mechanical Equipment Operation Noise Summary of Results

Equipment	Noise Level at Property Boundary	
	Distance to Property Line (feet)	*Noise Level (dBA L_{eq})*
3-ton HVAC System[1]	126	14.6
5-ton HVAC System[1]	300	14.6

Table 3.11-8
Mechanical Equipment Operation Noise Summary of Results

Equipment	Noise Level at Property Boundary	
	Distance to Property Line (feet)	*Noise Level (dBA L_{eq})*
30 kW Generator	126	34.5
45 kW Generator	300	34.5
Combined Mechanical Equipment Noise[2]		**34.5**

Notes: dBA = A-weighted decibel; L_{eq} = equivalent sound level; HVAC = heating, ventilation, and air conditioning; kW = kilowatt.
1 Assumes continuous operation of mechanical equipment (daytime, evening, and nighttime hours).
2 Assumes simultaneous operation of all mechanical equipment.

The results of the mechanical equipment operations noise analysis indicate that the project operations would comply with the City's(14 CCR 15000 et seq.) noise ordinance standards. Project operations would result in noise at residential property boundaries that is in each case below the applicable noise standards of 55 dBA daytime (7:00 a.m. to 7:00 p.m), 45 dBA evening (7:00 p.m. to 10:00 p.m.), and 40 dBA nighttime (10:00 p.m. to 7:00 a.m.).

Parking Lot Activity

Noise sources from parking lots include car alarms, door slams, radios, and tire squeals. These sources typically range from about 30 to 66 dBA at a distance of 100 feet (Gordon Bricken & Associates 1996) and are generally short term and intermittent. Parking lots have the potential to generate noise levels that exceed 60 dBA depending on the location of the source; however, noise sources from the parking lot would be different from each other in kind, duration, and location, so that the overall effects would be separate and in most cases would not affect noise-sensitive receptors at the same time.

Parking lot operation is not regulated by the City's noise ordinance per se. There are not noise regulations that restrict the hours of operation for a parking lot. Noise sensitivity is at the highest for residents in the period between 10:00 p.m. and 7:00 a.m. (where sleep disruption could occur). Based on the low number of vehicles that the project would generate even during peak AM and PM hours, it is anticipated that nighttime parking lot noise would be negligible.

Emergency Response Vehicles

The proposed project may, on occasion, require emergency vehicle assistance, which may include the use of a siren. However, the decision to use the siren and lights is made by the emergency vehicle driver and is dependent upon traffic conditions and the condition of the ~~patient~~resident. At a distance of approximately 50 feet, sirens could reach levels of 92 to 94 dBA L_{max}. The nearest residences would be located approximately 100 feet from the entrance driveway of the project site, and at this distance the maximum instantaneous noise levels would reach 88 to 90 dBA L_{max}. While

these levels could be considered to be excessive, they would occur in short time spans and would be in response to emergencies only, similar to the response that would be anticipated for emergency calls that could occur within the surrounding neighborhood. Furthermore, it is not anticipated that every emergency response vehicle would engage the siren each time. According to Chapter 7-30.030 of the City's Municipal Code, this type of noise source is exempt from the established noise regulations (City of Saratoga 2019). Additionally, based on information provided by the applicant based on similar RCFE facilities, the number of emergency response calls is anticipated to be quite low, averaging three to six such calls per year (N. Johnson, personal communication, M. Sneper, March, 2019). Therefore, noise generated by emergency response vehicles would be less than significant.

Based on the above discussion, the proposed project would not conflict with local general plan or noise ordinance policies, or applicable standards of other agencies, and noise impacts would be **less than significant**.

Mitigation Measures

None required.

Impact 3.11-2: Would the project generate excessive groundborne vibration or groundborne noise levels?

Vibration Significance Criteria Applicable to the Proposed Project

The proposed project would have a significant impact on noise if, during construction, it would result in the exposure of existing structures in the project vicinity to vibration levels exceeding 0.2 inches per second PPV, or exposure of residents to vibration levels of 80 VdB in residences where people normally sleep, for infrequent events (FTA 2018).

Vibration Impact Analysis

The main concern associated with ground-borne vibration is annoyance; however, in extreme cases, vibration can cause damage to buildings, particularly those that are old or otherwise fragile. Some common sources of ground-borne vibration are trains and construction activities such as blasting, pile driving, and heavy earth-moving equipment. The primary source of ground-borne vibration occurring as part of the project is construction activity.

Ground-borne vibration information related to construction activities has been collected by the California Department of Transportation (Caltrans 2013b). Information from the California Department of Transportation indicates that transient vibrations (such as construction activity) of approximately 0.035 inch per second PPV may be characterized as barely perceptible, and vibration levels of 0.24 inch per second PPV may be characterized as distinctly perceptible.

Ground-borne vibration is typically attenuated over short distances. The heavier pieces of construction equipment, such as bulldozers, would have peak particle velocities of approximately 0.089 inches per second or less at a distance of 25 feet (FTA 2018). At the distance from the nearest residence to major construction activities (approximately 120 feet) and with the anticipated construction equipment, the PPV would be approximately 0.0103 inches per second. This vibration level would be below the level considered barely perceptible, and well below the level considered distinctly perceptible.

The major concern with regard to construction vibration is related to building damage. Pile driving, blasting, or other special construction techniques would not be necessary for construction of the proposed project; therefore, excessive ground-borne vibration and ground-borne noise are not anticipated. In particular, construction vibration as a result of the proposed project would not result in structural building damage, which typically occurs at vibration levels of 0.5 inches per second or greater for buildings of reinforced-concrete, steel, or timber construction, or 0.2 inches per second for typical residential construction. At the distance from the nearest residence to major construction activities (approximately 120 feet) and with the anticipated construction equipment, the PPV would be approximately 0.0085 inches per second, which is well below the damage threshold. Similarly, office buildings to the north and east of the project site are more than 100 feet away so that ground vibration would not be perceptible. Ground-borne vibration would not be associated with the proposed project following construction activities. Ground-borne vibrations from construction activities do not often reach the levels that can damage structures or affect activities that are not vibration sensitive, although the vibrations may be felt by nearby persons in close proximity and result in annoyance (FTA 2018). Impacts related to ground-borne vibration would be **less than significant**.

Mitigation Measures

None required.

3.11.5 References

Caltrans. 2013a. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. Prepared by R. Hendriks, B. Rymer, D. Buehler, and J. Andrews. Sacramento: Caltrans. September 2013. http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf.

Caltrans. 2013b. *Transportation and Construction Vibration Guidance Manual*. Prepared by J. Andrews, D. Buehler, H. Gill, and W.L. Bender. Sacramento: Caltrans. September 2013. http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf.

City of Saratoga. 2014. *City of Saratoga Updated Noise Element of the General Plan*. Prepared by Charles M. Salter Associates Inc. Adopted March 5, 2014. Accessed April 2019. https://www.saratoga.ca.us/DocumentCenter/View/42/Noise-Element-Dated-March-5-2014-PDF.

City of Saratoga. 2019. City of Saratoga Municipal Code. Adopted March 14, 2019. Accessed April 2019. https://library.municode.com/ca/saratoga/codes/code_of_ordinances?nodeId=CH7HESA_ART7-30NOCO_7-30.040NOST.

DOT (U.S. Department of Transportation). 1980. *Noise Effects Handbook, A Desk Reference to Health and Welfare Effects of Noise, Office of Noise and Abatement Control.* July 1981.

Fehr and Peers. 2019. *Palm Villas Saratoga Draft Transportation Impact Analysis.* Prepared for the City of Saratoga. April 2019.

FHWA (Federal Highway Administration). 2004. FHWA Traffic Noise Model, Version 2.5. Washington, DC: FHWA, Office of Environment and Planning. February 2004.

FHWA. 2008. Roadway Construction Noise Model, Software Version 1.1. U.S. Department of Transportation, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division. December 8, 2008.

FTA (Federal Transit Administration). 2018. *Transit Noise and Vibration Impact Assessment Manual*. Prepared by John A. Volpe National Transportation Systems Center. Washington, DC: FTA. September 2018. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

Gordon Bricken & Associates. 1996. Acoustical Analysis Addendum to the Adopted Environmental Impact Report Disneyland Resort, City of Anaheim, February 1996.

Johnson, Nicole. 2019. "Palm Villas EIR Data Request." Email from Michael Sneper to Nicole Johnson (City of Saratoga). March 29, 2019.

Transportation Research Board, National Research Council. 1971. National Cooperative Highway Research Program Report 117. http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_117.pdf

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3.12 PUBLIC SERVICES AND SAFETY

3.12.1 Introduction

This section of the EIR ~~presents~~ evaluates potential public services and safety impacts of the proposed project. Th~~is section evaluates potential impacts related to~~e analysis focuses on law enforcement, fire, and ambulance/emergency services. This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts on public services and safety.

3.12.2 Environmental Setting

3.12.2.1 Fire Protection

Fire protection in the City of Saratoga (City) is provided by both the Santa Clara County Fire Department (SCCFD) and the Saratoga Fire Protection District (District).

The SCCFD serves approximately 134 square miles within the communities of Campbell, Cupertino, Los Altos, Los Altos Hills, Los Gatos, Monte Sereno, Saratoga, and the adjacent unincorporated areas of Santa Clara County (SCCFD 2014). The SCCFD is configured into four battalion districts and operates 15 fire stations throughout Santa Clara County (SCCFD 2018a). West Valley Fire Station is 0.8 miles from the project site, located at 19800 Cox Avenue. SCCFD is a County-dependent special fire district providing fire suppression, basic and advanced rescue, advanced life support first response medical services, hazardous materials and technical rescue response, fire inspection, fire investigation, disaster preparedness, and public education (SCCFD n.d.a). Of the 330 SCCFD total personnel, 66 comprise the daily emergency response force, which is also augmented by 15 volunteer firefighters. These personnel respond to more than 18,000 calls for service annually from 15 fire stations, housing 31 front-line fire apparatus and 3 command vehicles (SCCFD 2018a).

In addition to the SCCFD, the City is also served by the District, which provides fire protection services to approximately 12 square miles, encompassing half of the City and sections of the unincorporated areas to the south (District n.d.). Approximately 20,000 people reside within the District's service area. The District is co-located with the SCCFD in the Saratoga Fire Station located at 14380 Saratoga Avenue (District n.d.; SCCFD 2016). This 15,000-square-foot station was rebuilt in 2004 to accommodate the growing needs of the City and houses a staff of seven personnel, four engines (Nos. 73, 373, 17, and 973), and one rescue vehicle (No. 73) (SCCFD n.d.b).

SCCFD also provides advanced life support paramedic services to the City. They operate 19 fully equipped fire apparatus, which are all staffed with a minimum of one paramedic and two emergency medical technicians on board. Santa Clara County Emergency Medical Services has

a contract with a third-party ambulance transport provider for the ground transport of all ~~patients~~residents.

SCCFD and the City are also supported by the Community Emergency Response Team (CERT). In times of disaster, divisions assess damage in their neighborhoods, assist the injured, fight small fires, perform light search and rescue, and fulfill disaster related tasks as needed. The project site is located in the Quito CERT division (City of Saratoga 2019a).

3.12.2.2 Law Enforcement Services

Law enforcement services are provided by the Santa Clara County Sheriff's Office (SCCSO), West Valley Division, located at 1601 S. De Anza Boulevard in the City of Cupertino. The West Valley Division of the SCCSO serves the cities of Saratoga, Cupertino, and Los Altos Hills, as well as the western unincorporated areas of Santa Clara County from Summit Road to Moffett Field (SCCSO n.d.). The project site is located approximately 2.5 miles from the West Valley Division of the SCCSO.

The Sheriff oversees the agency, which has 2,025 employees. Of those employees, 1,453 of them are sworn law enforcement officers and 572 are non-sworn, civilian support staff. The SCCSO has 77 sworn positions and 8 professional support staff assigned to the West Valley Division (SCCSO 2018). Deputies provide a full range of law enforcement responsibilities to include Patrol, Traffic, Detectives, School Resource Officers, and Special Enforcement details. The West Valley Division employs strategies such as community-oriented policing and also stays current on law enforcement practices such as predictive policing.

3.12.2.3 Schools

The City is served by four elementary school districts, three high school districts, and two community college districts. Only one of the elementary school districts, Saratoga Union School District, is located entirely within the City. All other elementary school districts overlay other cities. Currently, in addition to the public schools listed above, there are three private elementary (kindergarten through eighth grade) schools, and several nursery schools and daycare centers serving the Saratoga community. The total school site land area that serves City residents is over 300 acres; over 100 acres of these areas are already devoted to open space and recreation use. School sites contribute to the sense of open space in the neighborhoods in which they are located. In addition, many school sites include playgrounds and playfields, some of which are used by the community through joint use agreements with the school districts.

3.12.3 Regulatory Setting

3.12.3.1 Federal Regulations

There are no federal regulations regarding the provision of local services.

3.12.3.2 State Regulations

California Occupational Safety and Health Administration

In accordance with Section 1270, Fire Prevention, and Section 6773, Fire Protection and Fire Equipment, of Title 8 of the California Code of Regulations, the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials; fire hose sizing requirements; restrictions on the use of compressed air; access roads; and the testing, maintenance, and use of all firefighting and emergency medical equipment.

3.12.3.3 Local Regulations

City of Saratoga Regulations

Chapter 16 of the City Code of Ordinances (City of Saratoga 2019b) includes the most recently adopted state codes (Building Code, Fire Code, Residential Building Code, etc.) associated with fire regulations that affect development within the City. The requirements include the installation of early warning fire alarm systems and fire sprinkler systems.

Emergency Operations Plan

The City implements its Emergency Operations Plan, which provides an overview of prevention and operational concepts, identifies components of the City's emergency management organization within the Standardized Emergency Management System and by extension, the National Incident Management System, and describes the overall responsibilities of the federal, state, and county entities and the City for protecting life and property and assuring the overall wellbeing of the population.

3.12.4 Impacts

3.12.4.1 Methods of Analysis

This impact analysis evaluates the ability of SCCFD, the District, and SCCSO to provide fire protection and law enforcement services to the project site. Schools and other public facilities are

also analyzed through a qualitative review of project characteristics, such as location, land uses, access routes, and availability of services.

3.12.4.2 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts to public resources and safety is based on the recommendations provided in Appendix G of the CEQA Guidelines. In accordance with Appendix G of the CEQA Guidelines, the project would have a significant impact on public services and safety if it would do any of the following (14 CCR 15000 et seq.):

- 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:
  - Fire protection
  - Law enforcement protection
  - Schools
  - Other public facilities

3.12.4.3 Impacts and Mitigation Measures

Impact 3.12-1: Would the project result in substantial adverse physical impacts associated with the need for new or physically altered fire protection or law enforcement facilities, schools, or other public facilities in order to maintain acceptable service ratios and response times or other performance objectives?

Fire Protection

SCCFD serves the existing professional offices and residential uses in the project area and would serve the proposed project. The SSCFD responds to emergency calls with a fire company and one paramedic within 8 minutes 90 percent of the time (SCCFD 2018a). With implementation of the proposed project, response times at the West Valley Fire Station (which would serve the project site) may increase incrementally. However, the emergency response vehicles of SSCFD can override traffic controls with lights, sirens, and signal pre-emption, as well as to travel in opposing travel lanes in congested conditions.

SCCFD reviewed early versions of project plans and provided comments for design requirements to be incorporated into updated project plans (SCCFD 2018b). These noted requirements include specifications for fire sprinklers, the City's early warning fire alarm system, smoke alarms, water supply requirements, access for fire personnel and equipment, and construction site fire safety. The

proposed project has incorporated all of the SCCFD requirements into the site design and would not require an expansion of an existing fire station or the construction of a new one. For these reasons, the project's impact to fire protection services would be **less than significant**.

Law Enforcement Services

The proposed project would include 78 ~~patient~~ resident beds. New ~~patients~~ residents at the project site would result in an increase in calls for service, as the project site is currently undeveloped. In addition, residential complexes such as nursing homes, typically utilize law enforcement services well into evening and nighttime hours, after businesses typically close.

The SCCSO West Valley Division does not have a standard for officer-to-resident ratio. Rather, response time and crime statistics are evaluated annually to determine staffing levels (Urena, pers. comm. 2019). However, the addition of project residents would be within the anticipated range for the City's population growth, which is expected to increase by approximately 1,800 residents by 2040 (City of Saratoga 2014, ABAG 2017). No new law enforcement facilities would need to be constructed, and therefore, the project would not result in any physical impacts related to the need for new or alteration of existing law enforcement facilities. The amount of traffic and the demand for parking would increase at the project site, but would not interfere with the existing operations and response times of the law enforcement station. As such, the project's impact to law enforcement services would be **less than significant**.

Schools

The closest school to the project site is the Challenger School, which is a private preschool located along Cox Avenue approximately 0.26 miles east of the project site. All other schools in the area are located more than 0.25 miles from the project site.

The proposed project is a RCFE and the incoming residents would be elderly; these residents would not be attending public schools in ~~in one of~~ the nearby school districts. However, it is possible that staff of the facility would have school-aged children who would attend schools in one of the nearby school districts. Approximately 40 total staff (up to 22 staff at a given time) are expected to be employed at the facility; it is reasonably foreseeable that many of these staff members would be from the local area. However, the project does not include any new residential units, which is the typical measure to determine increase in school enrollment. The Saratoga Union School District would have the capacity to enroll any additional students related to employees of the proposed project (Education Data 2019). Should there be a small increase in student population as the result of the project, it would not result in significant impacts to school facilities. Therefore, the project's impacts to schools would be **less than significant**.

Parks and Recreation

See Section 3.13, *Recreation*, for an evaluation of the project's impacts on parks and recreational facilities.

Other Public Facilities

The City is served by the Santa Clara County Library System, which has a branch library in the City at the intersection of Allendale Avenue and Saratoga Avenue. Property taxes and assessments fund the library operations. The addition of approximately 78~~9~~ residents could result in a minor increase in demand for library services. However, the proposed project would include library-oriented services on site. In addition, there are three other libraries (Cupertino Library, Calabazas Branch Library, and West Valley Branch Library) located within 5 miles of the project site. Therefore, it is anticipated that on-site services and existing public libraries would be able to accommodate any increased demand for library services demanded by the proposed project and impacts to libraries would be **less than significant**.

Mitigation Measures

None required.

3.12.5 References

Association of Bay Area Governments (ABAG). 2017. "Forecasts and Projections." http://projections.planbayarea.org/data

City of Saratoga. 2014. *2015–2023 Housing Element.* Adopted November 19, 2014. https://www.saratoga.ca.us/DocumentCenter/View/45/Housing-Element-2015---2023-Dated-November-2014-PDF.

City of Saratoga. 2019a. Emergency Preparedness and Saratoga CERT. Saratoga CERT Program. Access May 2019. https://www.saratoga.ca.us/224/Emergency-Preparedness-and-CERT.

City of Saratoga. 2019b. Code of Ordinances. Supplement 45, Update 1. As updated February 6, 2019. Accessed May 2019. https://library.municode.com/ca/saratoga/codes/code_of_ordinances?nodeId=16616.

County of Santa Clara. *Santa Clara County Operational Area Hazard Mitigation Plan*. Vol. 1, Operational-Area-Wide Elements. San Jose, California: County of Santa Clara, Office of Emergency Services. Accessed May 2019. https://www.sccgov.org/sites/oes/partners/Documents/Local-Hazard-Mitigation-Plan-LHMP-Vol-1.pdf.

District (Saratoga Fire District). n.d. “General District Info.” Accessed May 2019. http://www.saratogafire.org/general-district-info/.

Education Data Partnership. 2019. Saratoga Union District Summary. Accessed December 2019. http://www.ed-data.org/district/Santa-Clara/Saratoga-Union-Elementary

SCCFD (Santa Clara County Fire Department). 2010. *Santa Clara County Strategic Plan January 2010–December 2014*. Accessed May 2019. http://www.sccfd.org/images/documents/key_reports_documents/1-5_strategic_plan.pdf.

SCCFD. 2014. *Santa Clara County Fire Department 2014–2019 Strategic Plan*. Accessed May 2019. https://www.sccfd.org/images/documents/key_reports_documents/strategic_plan.pdf.

SCCFD. 2016. “Annex 6. City of Saratoga.” In *Santa Clara County Community Wildfire Protection Plan*. August 2016. Accessed May 2019. http://www.sccfd.org/images/documents/fire_prevention/CWPP/Annex_6_City_of_Saratoga_2017.pdf.

SCCFD. 2018a. *2018 Annual Report*. Accessed May 2019. http://www.sccfd.org/images/annual-report/2018_SCCFD_Annual_Report.pdf.

SCCFD. 2018b. “Developmental Review Comments for Palm Villas Saratoga.” November 4, 2018.

SCCFD. n.d.a. “Fire Resources and Services.” Accessed May 2019. http://www.sccfd.org/fire-resources-services/fire-resources-services-overview.

SCCFD. n.d.b. “Saratoga Fire Station.” Accessed May 2019. http://www.sccfd.org/about-sccfd/fire-station-locations/saratoga-fire-station.

SCCSO (Santa Clara County Sheriff’s Office). 2018. “Enforcement Operations.” Updated July 26, 2018. Accessed May 2019. https://www.sccgov.org/sites/sheriff/pages/eo.aspx.

SCCSO. 2019. “The Sheriff’s Office.” Updated February 1, 2019. Accessed May 2019. https://www.sccgov.org/sites/sheriff/Pages/overview.aspx.

SCCSO. n.d. Home Page. Accessed May 2019. https://www.sccgov.org/sites/sheriff/Pages/sheriff.aspx.

Urena, R. 2019. SCCSO Response Times. Email from R. Urena (SCCSO) to K. Laurenson-Wright (Dudek). May 15, 2019.

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3.13 RECREATION

3.13.1 Introduction

This section of the EIR evaluates the impact of the proposed project on recreational opportunities within the project vicinity. This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

3.13.2 Environmental Setting

This section describes the existing setting in the project area and also identifies the recreation facilities that could be affected by the proposed project.

The City of Saratoga (City) Public Works Department is responsible for three divisions: Engineering, Streets, and Parks. The Parks Division maintains the City's parks, trails, medians, rights-of-way, landscape districts, and City Hall. This division maintains and operates 87 acres of parkland, 63 of which currently operate as City parks. There are 14 neighborhood parks (10 acres and smaller) and three parks greater than 10 acres in size (Central Park, Hakone Gardens, and Kevin Moran Park). Three major regional parks exist within, or partially within, the City's Planning Area and are accessible to City residents: Montalvo Arboretum, Stevens Creek Park, and Sanborn County Park. These parks total approximately 1,830 acres. The City's General Plan sets a park goal of 5 acres of developed municipal parkland per 1,000 residents. In the year 2020, with a population estimated to be 33,300, the City would require 165.5 acres of parks, an increase of approximately 78 acres. High land costs and the limited amount of undeveloped land pose challenges to the City in seeking to attain its goal.

The closest existing park to the project site is Brookglen Park, located approximately 0.25 miles west of the project site, along Cox Avenue. Brookglen Park is 0.7 acres of land with a children's playground, a half-court basketball court, and picnic tables. El Quito Park is 0.5 miles to the east of the project site. It contains 6.3 acres of land with a children's playground, volleyball courts, picnic area, and community garden, among other amenities. Congress Springs Park is 1 mile southwest of the project site. It contains approximately 10 acres of recreational facilities, including three soccer fields, five baseball diamonds, two children's playgrounds, and picnic facilities with barbecues, among other amenities.

In addition to parks, the City also maintains a network of trails. The closest existing City trail to the project site is in El Quito Park, located approximately 0.35 miles away, south of Saratoga Avenue. Other nearby trails include Joe's Trail which runs parallel to SR 85, approximately 0.35 miles to the west of the project site, and a bicycle and pedestrian trail and overcrossing over SR 85 between Azule Park and Kevin Moran Park, approximately 0.85 miles to the northwest (City of Saratoga 2016). Although a "proposed trail" (see "Other Proposed Public Trails") immediately

adjacent to the project site (adjacent to the Saratoga Creek corridor) is identified in the August 2010 City's Circulation and Scenic Highway Element Figure C-6, City staff have indicated that a trail in that location is neither planned nor considered feasible by the City (City of Saratoga 2019).

The completed San Tomas Aquino/Saratoga Trail ends approximately 0.8 miles north of the project site. According to the San Tomas Aquino/Saratoga Creek Trail Master Plan (Master Plan) (Santa Clara County 1999), the trail consists of six (6) trail reaches totaling nearly 8 miles, beginning just north of State Route 237 and ending just north of Prospect Road. The trail parallels San Tomas Aquino Creek in the north and Saratoga Creek in the south. There is no indication in the Master Plan that the San Tomas Aquino/Saratoga Trail will be extended. However, the City's General Plan Open Space and Conservation Element (City of Saratoga 2007) identifies approximately 12 linear miles of proposed trails, including a segment along Saratoga Creek that intersects the project site (see Figure C-6 of the General Plan). However, placement of these proposed trails was conceptual and could not be accommodated based on existing site conditions.

Several recreational and community facilities are located in the City. The Saratoga Library, Brookside Club of Saratoga, Saratoga Woods Swim Club, Saratoga Civic Theater, and Joan Pisani Community Center are within 1.5 miles of the project site. The Saratoga Area Senior Coordinating Council also operates both the Saratoga Adult Care Center and Saratoga Senior Center, which serve the needs of seniors. The Saratoga Senior Center provides access to physical, social, and educational activities. In addition, it provides services in health, finance, legal assistance, and library lending. The Saratoga Adult Care Center provides structured activity programs for seniors ages 60 and older with physical and cognitive limitations who are unable to use the services of the Saratoga Senior Center. The Midpeninsula Regional Open Space District (MROSD) holdings include over 320 acres within Saratoga's Planning Area. Among them is Fremont Older Open Space, a 739-acre preserve located on the urban fringe and extending to Upper Stevens Creek Park to the north and west. This open space resource offers a variety of experiences to hikers, bicyclists, and equestrians.

3.13.3 Regulatory Setting

3.13.3.1 Federal Regulations

There are no federal regulations related to the provision of recreational facilities.

3.13.3.2 State Regulations

There are no state regulations related to the provision of recreational facilities.

3.13.3.3 Local Regulations

City of Saratoga General Plan

The Open Space and Conservation Element of the City's General Plan provide objectives, policies, and programs regarding recreational facilities, including the following (City of Saratoga 2007):

Open Space and Conservation Element

Goal OSC 2: To preserve the City's existing character which includes small town residential, rural/semi-rural areas and open spaces.

- **Policy OSC 2.1:** Ensure that all development proposals, public and private, are sensitive to the natural environment and the community's open space resources.
  - **OSC 2.a.** The City shall continue to use the design review process to ensure that all development proposals are sensitive to the natural environment and consistent with the existing character of the community which includes small town residential, rural/semi-rural areas and open spaces.

Goal OSC 3: To provide and maintain parks and a variety of passive and active recreational sites which are located, designed, and improved to serve the needs of the residents, the community, and the neighborhoods of Saratoga.

Goal OSC 4: Strive to achieve a ratio of 5 acres of park and open space area per 1,000 residents.

- **Policy OSC 5.8:** The City shall not acquire, plan, or develop trail easements or public access easements along Wildcat Creek or Saratoga Creek, across single or multifamily land uses as designated in the Saratoga General Plan abutting said creeks, or adjacent to said creeks between the centerline thereof, and any single or multi-family designated property. This policy statement shall apply to Saratoga Creek from Prospect Avenue south to Tollgate Road, and to Wildcat Creek from Quito Road south to the Villa Montalvo Arboretum property line, with the exception of the section between: 1) Carnelian Glen Drive and Douglass Lane, 2) Gardiner Park and Springhill Court, 3) Crestbrook Drive and Via Monte Drive, and 4) Via Real Drive, as shown on the Trail System Map.

City of Saratoga Municipal Code

The Park and Recreation chapter of the City's Municipal Code defines acceptable and prohibited activities within City parks and recreational facilities. The chapter sets forth general regulations and permit requirements for special recreation activities, including sports and group uses. In order to preserve and prevent incidents of fire and loss of parkland, the chapter specifically states that use of

tobacco is prohibited in recreational areas, which are defined as any outdoor area that is open to the public for recreational purposes. This includes parks and trails.

Midpeninsula Regional Open Space District

The MROSD is a non-enterprise special district that serves parts of Santa Clara, San Mateo, and Santa Cruz counties in order to form a continuous greenbelt of permanently preserved open space by linking public parklands. This governmental agency is dedicated to the acquisition and protection of open space lands. As a member of Bay Area Open Space Council, the MROSD participates in cooperative efforts, including Bay Trail, Ridge Trail, and Skyline-to-the-Sea Trail, which are regional Bay Area trails running across MROSD's jurisdiction. The MROSD's basic policy document includes goals and policies that relate to open space land preservation and management, inter-agency relationships, and public involvement. MROSD's Saratoga Gap and Fremont Older Open Space Preserves are located in the vicinity of the City.

3.13.4 Impacts

3.13.4.1 Methods of Analysis

The project setting was developed by reviewing available information on recreational facilities in the project vicinity, including information regarding the City's existing parks, recreational facilities, and open spaces.

3.13.4.2 Thresholds of Significance

The significance criteria used to evaluate the project impacts on recreational facilities are based on Appendix G of the CEQA Guidelines. In accordance with Appendix G of the CEQA Guidelines, a significant impact would occur if development of the proposed project would do any of the following (14 CCR 15000 et seq.):

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

3.13.4.3 Impacts and Mitigation Measures

Impacts 3.13-1 and 3.13-2: 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? Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

As described in Section 3.13.2, *Environmental Setting*, the City currently manages approximately 87 acres of parkland, 63 acres of which currently serve as parks and recreational facilities. Brookglen Park, El Quito Park, and Congress Springs Park are within 0.5 miles of the project site. As discussed in Section 3.13.2, the San Tomas Aquino/Saratoga Trail" was proposed to be located immediately adjacent to the project site. According to the General Plan, the City may require dedication of trail easements as a condition of development when a proposed project site is located adjacent to a planned trail. However, limited space along the south side of Saratoga Creek in the vicinity of the project site precludes trail development through the area. There is approximately 5 feet or less of space between the creek's top of bank and the existing development to the north. Similarly, there is approximately 5 feet of space between the top of bank and the existing dirt road easement used by the Santa Clara Valley Water District to maintain Saratoga Creek, immediately downstream of the project site. The San Tomas Aquino/Saratoga Trail required a 30-foot-wide Greater Optimum Easement for trail construction adjacent to creeks, parks, or open space, which included a 17-foot-wide, paved trail corridor (Santa Clara County 1999). Given the current condition and spatial constraints, it is unlikely that a trail could be developed along Saratoga Creek in the vicinity of the project site. Therefore, the City indicated that a trail in that location is neither planned nor considered feasible; as such, it is not discussed further in Section 3.13, *Recreation* (City of Saratoga 2019).

The proposed project would construct a facility that would not substantially increase the use of existing neighborhood and regional parks or other recreational facilities due to the nature of the anticipated resident population. Both buildings included in the project would include a number of passive and active recreational amenities for use by the residents in the facility's open space areas, including a fitness room, spa, and outdoor spaces. This facility would cater to residents in need of controlled care and does not increase the number of residential units in the City. Future residents of the facility would be expected to largely come from the City and southern Bay Area and would not represent a substantial influx of population. There are approximately 40 total staff (up to 21 at a time) expected to be employed at the facility. Although it is reasonable to assume that staff would be drawn from the local population, this would represent a population increase that would cause a further shortfall in the General Plan's goal of 5 acres per 1,000 residents. However, this potential addition of staff would have a negligible impact on the park goal. Therefore, with no significant increase in demand for

parks or recreational facilities, the project would not require new or physically altered resources. There would be **less than significant impacts** related to the use of existing parks or recreational facilities.

Mitigation Measures

None required.

3.13.5 References

City of Saratoga. 1991. Parks and Trails Master Plan. Adopted November, 1991.

City of Saratoga. 2007. *Open Space and Conservation Element 2007*. Adopted June 6, 2007. Accessed May 2019. https://www.saratoga.ca.us/DocumentCenter/View/49/Open-Space-and-Conservation-Element-Dated-June-6-2007-PDF.

City of Saratoga. 2010. *City of Saratoga Circulation and Scenic Highway Element*. Figure C-6. Existing and Proposed Trails. Page 55. Prepared by Fehr & Peers.

City of Saratoga. 2016. City of Saratoga Trails Map. Accessed May 2019. https://www.saratoga.ca.us/DocumentCenter/View/517/Citywide-Trail-Map-Showing-Individual-Trail-Maps-PDF

City of Saratoga. 2019. Personal communication with City of Saratoga Planning/Department of Public Works Staff. December 2019.

County of Santa Clara. 1999. San Tomas Aquino/Saratoga Creek Trail Master Plan. Adopted June, 1999.

3.14 TRANSPORTATION AND CIRCULATION

3.14.1 Introduction

This section of the EIR review presents potential transportation and circulation-related impacts of the proposed project. The analysis provided in this section is based on Palm Villas Saratoga Transportation Impact Analysis (TIA), April 2019 (updated August 2020), prepared by Fehr & Peers (Appendix K). The TIA was prepared following guidelines of the City of Saratoga (City) and the Santa Clara Valley Transportation Authority (VTA), the congestion management agency for Santa Clara County. This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the CEQA, and/or were raised by responsible and trustee agencies or the public, they are identified and addressed in this environmental impact review. See Appendix A for a copy of the NOP and complete list of public comments received during the public scoping period.

3.14.2 Environmental Setting

This section describes the existing setting of the surrounding transportation facilities in the study area. The project site is located in the City in the western portion of Santa Clara County. The project site is located approximately 175 feet south of the intersection of Saratoga Creek Drive and Cox Avenue, northeast of SR 85 and west of Saratoga Avenue. Access to the site is via the intersection of Cox Avenue/Saratoga Creek Drive. The project proposes two buildings on adjacent and vacant parcels, Lots 1 and 2. Figures 2-3, 2-4, and 2-5 illustrate the site plan for the proposed project.

3.14.2.1 Study Area

The study intersections listed below form the study area, and were selected in consultation with City staff and were generally determined based on VTA's 10 trip per lane guideline, which indicates that an intersection should be included if the proposed project adds 10 or more peak-hour vehicles per lane to any intersection movement. These are the study intersections included in the TIA. All of the study intersections are signalized except for the intersection of Cox Avenue/Saratoga Creek Drive. The jurisdiction that maintains each intersection is noted in parentheses.

1. Cox Avenue/Saratoga Creek Drive (City)
2. Cox Avenue/Saratoga Avenue (City)
3. Saratoga Avenue/SR 85 northbound ramps (City/California Department of Transportation [Caltrans])

4. Saratoga Avenue/SR 85 southbound ramps (City/Caltrans)

Figure 3.14-1, Study Area, shows the study area intersections.

According to the VTA guidelines, a freeway segment shall be included in the TIA if it meets any one of the following conditions:

1. The proposed development project is expected to add traffic equal to or greater than one percent of the freeway segment's capacity.
2. The proposed development project is adjacent to a freeway segment's access or egress points;
3. Based on engineering judgment, the Lead Agency staff determines that the freeway segment should be included in the analysis.

The project would not add traffic of more than 1 percent of capacity to any freeway segment; 1 percent of capacity on SR 85 at the Saratoga Avenue interchange is 69 trips, which is greater than the estimated number of project trips during the weekday morning (AM) or weekday evening (PM) peak hour. In addition, the project is not directly adjacent to the SR 85/Saratoga Avenue interchange and, no freeway analysis is required or included in the study.

The operations of the study intersections were evaluated during the (AM) and (PM) peak hours for the following scenarios:

- Existing Conditions: Analysis of existing traffic volumes obtained from traffic counts collected in March 2019
- Existing Plus Project Conditions
- Background Conditions: Analysis of existing traffic volumes plus approved and not occupied developments in the area
- Background Plus Project Conditions

3.14.3 Alternative Modes

3.14.3.1 Pedestrian, Bicycle, and Transit Facilities

Pedestrian facilities near the project site include sidewalks, crosswalks, pedestrian signals, and off-street shared use paths. There is a continuous sidewalk along the south side of Cox Avenue north of the project site that measures 6 feet in width. In addition, there are continuous sidewalks along both sides of Saratoga Avenue east of the project site. No sidewalks are present along Saratoga Creek Drive. Crosswalks are provided at all the signalized study intersections. No

crosswalks exist at the unsignalized intersection of Saratoga Creek Drive and Cox Avenue north of the project site. The project site is approximately 1 mile away from De Anza Union Pacific Railroad Trail south of SR 85. VTA bus stops along Saratoga Avenue serving Route 58 are accessible within a 5-minute walking distance using the pedestrian sidewalk network.

Figure 3.14-2 shows the location of the existing bicycle facilities near the project site. Cox Avenue and Saratoga Avenue have Class II bike facilities (bike lanes) along both sides of the street. There is a Class I shared-use path bike facility along the De Anza Union Pacific Railroad Trail within a 5-minute biking distance south of the project site. This trail is identified as of one the priority cross-county bicycle corridors in the Santa Clara Countywide Bicycle Plan and serves regional trips with north–south connectivity along the Union Pacific Railroad right-of-way. In addition, there are bike lanes along Quito Road within a 3-minute biking distance east of the project site.

The project site is directly served by VTA buses and indirectly served by Caltrain commuter rail service. The West Valley Transit Center located 1.5 miles southeast of the project site acts as a transfer center for VTA buses.

Table 3.14-1 includes the origin and destination, operating hours and headways of the transit routes near the site.

Table 3.14-1
Transit Service in the Study Area

Route	From	To	Weekdays		Weekends	
			Operating Hours[1]	*Peak Headway*[1] *(minutes)*	*Operating Hours*	*Headway (minutes)*
Existing VTA Route 58	West Valley College	Liberty and Taylor	6:03 a.m.–8:14 p.m.	30	No Service	
VTA New Transit Plan Route 26	West Valley College	Eastridge Transit Center	5:30 a.m.–12:00 a.m.	15	6:30 a.m.–12:00 a.m. Saturday 7:30 a.m.–11:00 p.m. Sunday	20
Caltrain	San Jose Diridon (Gilroy)	San Francisco	4:28 a.m.–12:05 a.m.	15	7:00 a.m.–12:31 a.m. Saturday 8:38 a.m.–12:11 a.m. Sunday	60

Source: Appendix K.
Notes: VTA = Santa Clara Valley Transportation Authority.
1 Headways are defined as the time interval between two transit vehicles traveling in the same direction over the same route. Caltrain headways are measured from San Jose Diridon Station.

Figure 3.14-3 shows the existing transit facilities in the study area. The site is currently served by VTA Bus Route 58. Route 58 operates from West Valley College in Saratoga to the Liberty

Street/Taylor Street intersection in north San Jose. On weekdays, headways are 30 minutes during the AM and PM peak periods and about 1 hour during off-peak time periods. This route stops at Saratoga Avenue/Cox Avenue, a walking distance of 0.2 miles from the project site.

VTA is developing a new transit service plan called the 2019 New Transit Plan. The goal of the new plan is to increase ridership and improve cost effectiveness, and it includes changes to Route 58. The New Transit Plan proposes to discontinue Route 58. Current riders may use Route 26 along Saratoga Avenue. Route 26, which currently connects the Lockheed Martin Transit Center with the Westgate area and Eastridge Transit Center would be divided into two routes: Route 26 and Route 56. Route 26 would connect West Valley College with the Westgate area and Eastridge Transit Center. Weekday frequency on Route 26 would be improved from 30 minutes to 15 minutes and weekend frequency would improve from 30 minutes to 20 minutes. Figure 3.14-4, New Transit Plan Service, shows the changes to the bus routes near the project site.

Caltrain provides regional passenger rail service between San Francisco and San Jose, with extended service to Morgan Hill and Gilroy during weekday commute hours. The San Jose Diridon Caltrain station is located approximately 8 miles from the project. The station is accessible from the project site via driving and public transit (Routes 902, 26, and 37).

3.14.4 Significance Criteria

3.14.4.1 Signalized Intersections

Signalized intersection operations and impacts were evaluated based on the appropriate jurisdiction's level-of-service (LOS) standards and are included in the impact criteria discussion below.

City of Saratoga

The City has established a minimum acceptable operation level of LOS D for local streets (City of Saratoga 2010). The City defers to VTA and applies an LOS E threshold to Congestion Management Program (CMP) intersections (VTA 2017); though none of the study intersections are CMP designated facilities. Significant impacts at signalized City intersections would occur when the addition of project traffic causes one of the following:

- Intersection operations to degrade from an acceptable level (LOS D or better for local streets and LOS E or better for CMP intersections) to an unacceptable level (LOS E or F for local streets and LOS F for CMP intersections)
- Unacceptable operations to be exacerbated by increasing the critical delay by 4 seconds or more, and increasing the volume-to-capacity ratio by 0.01 or more

- An increase in the volume-to-capacity ratio of 0.01 or more at an intersection with unacceptable operations when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change

California Department of Transportation

Caltrans has identified an LOS objective of C/D (i.e., on the cusp between LOS C and D) as the acceptable service level (Caltrans 2002). The two SR 85 ramp intersections with Saratoga Avenue are the only facilities analyzed under Caltrans' LOS impact criteria, since they are not included under VTA's CMP (VTA 2017). Intersection impacts are defined as occurring when the addition of project traffic:

- Causes operations to deteriorate from an acceptable level (LOS C) to an unacceptable level (LOS D, E, or F)
- Exacerbates unacceptable operations by increasing vehicle delay (i.e. increases delay by 0.1 seconds or more)

The signalized intersection LOS standards for the City and Caltrans are summarized below in Table 3.14-2. The applicable LOS standards for each study intersection are summarized in Table 3.14-3.

Table 3.14-2
Applicable Signalized Intersection Level-of-Service Standards

Jurisdiction	Intersection LOS Standard	Citation
City of Saratoga (City)	LOS D	City of Saratoga Circulation and Scenic Highway Element: Background Report/Goals, Policies, and Implementation Measures, November 2010
Caltrans	LOS C/D	Caltrans Guide for the Preparation of Traffic Impact Studies, 2002

Source: Appendix K.
LOS = Level of Service; Caltrans = California Department of Transportation.

3.14.4.2 Unsignalized Intersections

LOS analysis at unsignalized intersections is generally used to determine the need for modification in type of intersection control (i.e., all-way stop or signalization). The peak-hour signal warrant is evaluated if the unsignalized intersection operates at an unacceptable LOS.

There is one unsignalized intersection requiring evaluation within study area. The City does not have officially adopted significance criteria for unsignalized intersections. Based on previous studies, significant impacts are defined to occur when the addition of project traffic causes the average intersection delay for all-way-stop-controlled intersections or the worst

movement/approach for side-street-stop-controlled intersections to degrade to an unacceptable level (LOS E or F) and the intersection satisfies the California Manual on Traffic Control Devices peak-hour volume signal warrant.

3.14.4.3 Summary of Intersection LOS Thresholds

The applicable LOS standards for each study intersection as discussed above are summarized in Table 3.14-3.

Table 3.14-3
Level-of-Service Standards for Study Intersections

No.	Intersection	Intersection Control	Location	LOS Standard
1	Cox Avenue/Saratoga Creek Drive	SSSC	City	D
2	Cox Avenue/Saratoga Avenue	Signal	City	D
3	Saratoga Avenue/SR 85 Northbound Ramps	Signal	City (Caltrans)	C
4	Saratoga Avenue/SR 85 Southbound Ramps	Signal	City (Caltrans)	C

Source: Appendix K.
LOS = level of service; SSSC = side-street stop-controlled intersection; Signal = signalized intersection; SR = State Route; Caltrans = California Department of Transportation.

Pedestrian and Bicycle Impact Criteria

Pedestrian and bicycle impacts are considered significant if the project would potentially disrupt existing pedestrian and bicycle facilities; eliminate existing pedestrian and/or bicycle facilities; interfere with planned pedestrian and bicycle facilities; increase conflicts between drivers, pedestrians, and/or bicyclists; or create inconsistencies or conflicts with adopted pedestrian and bicycle plans, guidelines, policies, or standards.

Transit Impact Criteria

Transit impacts are considered significant if the project conflicts with existing or planned transit facilities, substantially increases transit delay, or does not provide adequate facilities for pedestrians and bicyclists to access transit routes and stops.

3.14.5 Existing Traffic Operations

The existing operations of the study intersections were evaluated for the highest one-hour volumes during the weekday morning and evening commute periods. Traffic counts were conducted in March 2018. Figure 3.14-5 presents the existing AM and PM peak-hour turning movement volumes, lane configurations, and traffic control devices at the study intersections.

3.14.5.1 Existing Intersection Levels of Service

Existing intersection lane configurations, signal timings, and peak-hour turning movement volumes were used to calculate the LOSs for study intersections during each peak hour. The results of the LOS analysis for Existing Conditions are presented in Table 3.14-4. The results indicate that all study intersections operate at acceptable service levels (LOS D or better for City intersections and LOS C/D or better for Caltrans intersections) during the AM and PM peak hours.

Table 3.14-4
Existing Intersection Levels of Service

No.	Intersection Name	Count Date	Intersection Control	LOS Standard[1]	Peak Hour[2]	Existing Conditions	
						Delay[3]	*LOS[4]*
1	Cox Avenue/Saratoga Creek Drive	March 2018	SSSC	D	AM PM	18.0 15.6	C C
2	Saratoga Avenue/Cox Avenue	March 2018	Signal	D	AM PM	33.2 38.5	C- D+
3	Saratoga Avenue/NB Ramp SR 85	March 2018	Signal	C	AM PM	20.5 24.8	C+ C
4	Saratoga Avenue/SB Ramp SR 85	March 2018	Signal	C	AM PM	18.6 18.5	B- B-

Source: Appendix K.
Notes: LOS = level of service; SSSC = Side-Street Stop Controlled Intersection; Signal = Signalized Intersection; NB = northbound; SR = State Route; SB = southbound.
1 LOS standard of intersection's jurisdiction.
2 AM = morning peak hour (between 7:00 a.m. and 9:00 a.m.); PM = evening peak hour (between 4:00 p.m. and 6:00 p.m.).
3 Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop control intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
4 Calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the *2000 HCM*.

Field visits at the project and study intersections were conducted in April 2018 to verify the calculated intersection LOS operations for the Existing Conditions and to observe overall transportation characteristics. Observations indicated that all the study intersections are operating at or near the calculated LOS values. Cycle lengths and signal phasing were observed at all signalized study intersections and applied to the calculation of existing intersection LOS described above.

3.14.5.2 Background Conditions

The City provided a list of "approved but not yet built" and "not occupied" development projects in the vicinity of the project. Based on the trip generation rates published in the Institute of Transportation Engineers Trip Generation Manual, 10th edition (ITE 2017), and/or respective TIA reports of these developments, estimates of vehicular traffic that would be generated by these projects were

forecasted for Background Conditions. Vehicle trips for each of the background projects were then assigned to the roadway network (i.e. study area intersections) based on population and employment data, existing and estimated future travel patterns, and recent TIAs completed in the area.

Appendix C of the TIA (Appendix K) contains a full list of approved and not occupied projects included in the background volume estimates. The trips for each of the background projects were added to the existing volumes to represent Background Conditions, as shown in Figure 3.14-6, Background No Project Volumes and Lane Configurations. Under Background Conditions, there are no foreseeable transportation network improvements identified for the study area, including projects under construction or fully funded modifications. Therefore, under Background Conditions, the roadway network in the study area was assumed to be same as under Existing Conditions.

3.14.6 Regulatory Setting

The federal, state, and local laws and guidelines regarding transportation are summarized below.

3.14.6.1 Federal Regulations

There are no federal regulations applicable to the proposed project.

3.14.6.2 State Regulations

California Department of Transportation

Caltrans manages interregional transportation, including management and construction of the California highway system. In addition, Caltrans is responsible for permitting and regulation of the use of state roadways.

Santa Clara Valley Transportation Authority

The VTA is the designated Congestion Management Agency for Santa Clara County. A complete TIA for CMP purposes is generally performed for a project in Santa Clara County that expects to generate 100 or more net new weekday (AM or PM peak hour) or weekend peak-hour trips. Since the project generates less than 100 peak hour trips, a CMP-level analysis is not warranted; however, the TIA for the project has been prepared per VTA's Transportation Impact Analysis Guidelines, adopted October 2014.

Senate Bill 743

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline the review under the CEQA process for several categories of development projects, including the development of infill projects in transit priority areas,

and to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions. SB 743 adds Chapter 2.7, Modernization of Transportation Analysis for Transit Oriented Infill Projects, to the CEQA Statute (California Public Resources Code, Section 21099).

Among other things, SB 743 mandates that alternative metrics for determining impacts relative to transportation shall be developed to replace the use of LOS in CEQA documents. Currently, environmental review of transportation impacts focuses on the delay that vehicles experience at intersections and on roadway segments, which is often measured using LOS.

Pursuant to SB 743, the focus of transportation analysis changes from vehicle delay to vehicle miles traveled (VMT). The Governor's Office of Planning and Research released two rounds of draft proposals for updating the CEQA Guidelines related to evaluating transportation impacts and, after further study and consideration of public comment, submitted a final set of revisions to the California Natural Resources Agency in November 2017. This was followed by a rulemaking process that would implement the requirements of the legislation. The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. The Governor's Office of Planning and Research's regulatory text indicates that a public agency may immediately commence implementation of the new transportation impact guidelines, and that the guidelines must be implemented statewide by January 1, 2020.

The City has not yet adopted local VMT criteria, but the City is currently in the process of updating its Circulation Element. Therefore, this section is based on a TIA that provides a delay-based LOS analysis for the proposed project.

3.14.6.3 Local Regulations

City of Saratoga Circulation Element and Scenic Highway Element: Background Report/Goals, Policies, and Implementation Measures, November 2010

Currently, the Circulation and Scenic Highway Element of the City's General Plan (City of Saratoga 2010) addresses all travel modes and includes the goals, policies, and implementation programs that guide the development and maintenance of the transportation system. It has established a minimum acceptable operation level of LOS D at all signalized street intersections and roadway segments that are under City jurisdiction. However, the City recognizes that in some cases it may not be practical or feasible to implement improvements to maintain LOS D operations, or that improvements to maintain LOS D would conflict with existing or planned bicycle, pedestrian, or transit facilities and services. In those cases, the City may consider accepting a lower LOS. Intersections and roadways located in the Santa Clara County CMP are held to an LOS E standard. However, a proposed development that exacerbates LOS E or F

operations and causes a significant intersection impact should also be considered for approval if it will provide a clear, overall benefit to the City.

3.14.7 Impacts

3.14.7.1 Methods of Analysis

Capacity Analysis

Intersection Level-of-Service Methodologies

The operations of roadway facilities are described with the term level of service. LOS is a qualitative description of traffic flow from a driver's perspective based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels are defined, from LOS A, with little or no delay, to LOS F, with excessive delays. LOS E represents at-capacity operations. When traffic volumes exceed the intersection capacity, stop-and-go conditions result and operations are designated as LOS F.

Signalized Intersections

The method described in Chapter 16 of the 2000 Highway Capacity Manual (TRB 2000) was used to prepare the LOS calculations for the signalized study intersections. This method, which is approved by the VTA, analyzes a signalized intersection's operation based on average control delay per vehicle. Control delay includes the initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for signalized intersections is calculated using TRAFFIX analysis software and is correlated to an LOS designation as shown in Table 3.14-5.

Table 3.14-5
Signalized Intersection Level of Service Definitions
Using Average Control Vehicular Delay

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤10.0
B+ B B-	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 12.0 12.1 to 18.0 18.1 to 20.0
C+ C C-	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 23.0 23.1 to 32.0 32.1 to 35.0

Table 3.14-5
Signalized Intersection Level of Service Definitions
Using Average Control Vehicular Delay

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
D+ D D-	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0 39.1 to 51.0 51.1 to 55.0
E+ E E-	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	55.1 to 60.0 60.1 to 75.0 75.1 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0

Source: Appendix K.

Unsignalized Intersections

The operations of the unsignalized study intersection were evaluated using the method contained in Chapter 17 of the 2000 Highway Capacity Manual (TRB 2000). LOS ratings for stop-sign-controlled intersections are based on the average control delay expressed in seconds per vehicle. At two-way or side-street-controlled intersections, the average control delay is calculated for each stopped movement, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. Table 3.14-6 summarizes the relationship between delay and LOS for unsignalized intersections.

Table 3.14-6
Signalized Intersection Level of Service Definitions
Using Average Control Vehicular Delay

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Little or no delay.	≤ 10.0
B	Short traffic delay.	10.1 to 15.0
C	Average traffic delays.	15.1 to 25.0
D	Long traffic delays.	25.1 to 35.0
E	Very long traffic delays.	35.1 to 50.0
F	Extreme traffic delays with intersection capacity exceeded.	> 50.0

Sources: Appendix K.

3.14.7.2 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts to transportation is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of the transportation analysis, a significant impact would occur if development of the proposed project would do any of the following (14 CCR 15000 et seq.):

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.
- Conflict or be inconsistent with the CEQA Guidelines Section 15064.3, subdivision (b).
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.

3.14.7.3 Impacts and Mitigation Measures

Impact 3.14-1: Would the project conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Project Traffic

The amount of traffic added to the roadway system by the proposed development was estimated using a three-step process: trip generation, trip distribution, and trip assignment. The first step estimates the amount of traffic added to the roadway network. The second step estimates the regional origin and destination areas for trips coming to/going from the project. The trips are assigned to specific street segments and intersection turning movements during the third step.

Trip Generation

The project is a residential care facility for individuals with mild to advanced stages of Alzheimer's/dementia. Trip generation estimates for the proposed project were calculated using rates developed from surveys conducted at other similar Palm Villas residential care facilities. These rates were compared to rates from similar facilities located throughout the United States and published in the Trip Generation Manual (ITE 2017). The surveys were conducted via 48-hour driveway counts at the Palm Villas facilities in Campbell and Redwood City on Wednesday, March 28, and Thursday, March 29, 2018. The daily and AM and PM peak-hour driveway volumes based on an average of the 2-day counts are presented in Table 3.14-7.

Table 3.14-7
Driveway Counts at Palm Villas Facilities

Palm Villas Facility	Daily Volume			AM Peak Hour Volume			PM Peak Hour Volume		
	In	*Out*	*Total*	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Redwood City Center	64	42	106	4	5	9	3	3	6
Campbell Center	116	105	221	6	7	13	8	10	18

Source: Appendix K.

The driveway volumes were divided by the numbers of beds and building sizes to develop trip generation rates per bed and per 1,000 square feet for each site as presented in Table 3.14-8. The Institute of Transportation Engineers rates are also presented in Table 3.14-8.

Table 3.14-8
Trip Generation Rates

Rate Source		Daily Rate	AM Peak Hour Rate	PM Peak Hour Rate
		Total	*Total*	*Total*
Palm Villas Surveys				
Campbell Site Rates	Beds	**4.58**	**0.26**	**0.36**
	KSF	10.08	0.57	0.80
Redwood City Site Rates	Beds	2.15	0.17	0.11
	KSF	5.15	0.41	0.27
Weighted Average Rates	Beds	3.36	0.22	0.24
	KSF	7.69	0.50	0.54
ITE Trip Generation Manual				
10th Edition Rates	Beds	3.06	0.17	0.22
	KSF	6.64	0.55	0.59

Source: Appendix K.
Note: Beds = number of proposed beds; KSF = 1,000 of square feet of proposed building size; ITE = Institute of Transportation Engineers.
Bold texts indicate the trip rates used to estimate the project trip generation estimates.

In general, for nursing homes and care facilities, trip generation rates on a per-bed basis provide more accurate estimates compared to rates on a square footage basis; nursing homes and care facilities with the same number of beds may have different floor areas due to the different interior settings and room sizes. Therefore, the trip generation rates on a per-bed basis were used to estimate the project vehicle trip generation.

The Campbell site rates are higher than the Palm Villas weighted average rates and rates published in the Trip Generation Manual (ITE 2017). As shown in Table 3.14-9, using the Campbell site trip rates, the project would generate approximately 21 AM peak hour vehicle trips (9 inbound and 12 outbound) and 28 PM peak hour vehicle trips (12 inbound and 16 outbound).

Table 3.14-9
Project Trip Generation Estimates

	Daily			AM Peak Hour			PM Peak Hour		
Proposed Project	*In*	*Out*	*Total*	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Palm Villas Saratoga (78 beds)	181	181	362	9	12	21	12	16	28

Source: Appendix K.

Trip Distribution and Assignment

The distribution of the traffic generated by the project onto the roadway system was based on the locations of complementary land uses, prevailing travel patterns, surrounding population densities, and patterns used in recent traffic studies completed in the area. Input from City staff was used to refine the trip distribution pattern and the result is shown on Figure 3.14-7, Project Trip Distribution.

Project trips were assigned to the roadway network based on the trip distribution pattern discussed above. Figure 3.14-8, Project Traffic Volumes, shows the AM and PM peak hour project trips assigned to each turning movement at the study intersections. The trip assignment was added to the existing volumes to establish volumes under Existing Plus Project Conditions, as shown on Figure 3.14-9.

Existing Plus Project Traffic

Intersection LOSs were calculated with traffic added by the project to evaluate the operating conditions of the intersections and identify potential impacts. The results for Existing Plus Project Conditions are presented in Table 3.14-10. The results for Existing Conditions are included for comparison purposes, along with the projected increases in average critical delay and critical volume-to-capacity ratios due to the project. Average critical delay represents the delay associated with the critical movements of the intersection, or the movements that require the most “green time” and have the greatest effect on overall intersection operations. The changes in critical delay and critical volume-to-capacity ratio between Existing and Existing Plus Project Conditions are used to identify significant impacts.

As shown in Table 3.14-10, the results indicate that all study intersections operate at acceptable service levels (LOS D or better for City intersections and LOS C/D or better for Caltrans intersections) during the AM and PM peak hours under Existing Plus Project Conditions.

Table 3.14-10
Existing and Existing Plus Project Conditions Intersection Levels of Service

Intersection Name		Intersection Control	LOS Standard[1]	Peak Hour[2]	Existing			Existing Plus Project		
					Delay[3]	*LOS*[4]	*Delay*[3]	*LOS*[4]	*Change in Critical V/C*[5]	*Change in Average Critical Delay*[6]
1	Cox Avenue/Saratoga Creek Drive	SSSC	D	AM PM	18.0 15.6	C C	18.6 14.2	C B	+0.004 +0.011	+0.6 -1.4
2	Saratoga Avenue/Cox Avenue	Signal	D	AM PM	33.2 38.5	C- D+	33.3 38.8	C- D+	+0.005 +0.007	+0.1 +0.3
3	Saratoga Avenue/NB Ramp SR 85	Signal	C	AM PM	20.5 24.8	C+ C	20.5 24.8	C+ C	+0.002 +0.002	0.0 0.0
4	Saratoga Avenue/SB Ramp SR 85	Signal	C	AM PM	18.6 18.5	B- B-	18.7 18.6	B- B-	+0.001 +0.002	+0.1 +0.1

Source: Appendix K.
Notes: LOS = level of service; V/C = volume-to-capacity ratio; SSSC = Side-Street Stop Controlled Intersection; Signal = Signalized Intersection; NB = northbound; SR = State Route; SB = southbound.
1 LOS standard of intersection's jurisdiction.
2 AM = morning peak hour (between 7:00 a.m. and 9:00 a.m.), PM = evening peak hour (between 4:00 a.m. and 6:00 p.m.).
3 Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop control intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
4 Calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the *2000 HCM*.
5 Change in critical volume-to-capacity ratio between No Project and Plus Project Conditions.
6 Change in critical movement delay between No Project and Plus Project Conditions.

The intersection of Cox Avenue/Saratoga Creek Drive shows a reduction in average delay with the addition of project traffic, which is counterintuitive. The average delay values in the table are weighted averages. Weighted average delays will be reduced when traffic is added to a movement with a low delay. For example, if you have one movement with 10 vehicles with a delay of 100 seconds and another movement with 400 vehicles and 10 seconds of delay, the weighted average delay is calculated as ((100 seconds × 10 vehicles) + (10 seconds × 400 vehicles))/410 vehicles = 12.2 seconds per vehicle. Now if you add 100 vehicles to the movement with 10 seconds of delay, the weight average is calculated as ((100 seconds × 10 vehicles) + (10 seconds × 500 vehicles))/510 vehicles = 11.8 seconds per vehicle. The weighted average delay improves, even though more vehicles are added.

Background Plus Project Traffic

Trips generated from the project were added to the background traffic projections to develop traffic volumes for Background Plus Project Conditions. The resulting volumes are shown on Figure 3.14-10, Background Plus Project Volumes and Lane Configuration. Table 3.14-11 presents the delays, LOS, and impact criteria metrics for the study intersections under Background and Background Plus Project Conditions. As shown in Table 3.14-11, the results indicate that all study intersections operate at acceptable service levels (generally LOS D or better for City intersections and LOS C or better for Caltrans intersections) during the AM and PM peak hours under Background Plus Project Conditions.

Table 3.14-11
Background and Background Plus Project Conditions
Intersection Levels of Service

Intersection		Intersection Control	LOS Standard[1]	Peak Hour[2]	Background		Background Plus Project			
					Delay[3]	*LOS[4]*	*Delay[3]*	*LOS[4]*	*Change in Critical V/C[5]*	*Change in Average Critical Delay[6]*
1	Cox Avenue/ Saratoga Creek Drive	SSSC	D	AM PM	18.0 15.6	C C	18.6 14.2	C B	+0.004 +0.011	+0.6 -1.4
2	Saratoga Avenue/ Cox Avenue	Signal	D	AM PM	32.8 38.1	C- D+	33.0 38.4	C- D+	+0.002 +0.007	+0.2 +0.3
3	Saratoga Avenue/ NB Ramp SR 85	Signal	C	AM PM	21.3 25.0	C+ C	21.3 25.0	C+ C	+0.002 +0.002	0.0 0.0
4	Saratoga Avenue/ SB Ramp SR 85	Signal	C	AM PM	18.7 18.8	B- B-	18.8 18.8	B- B-	+0.002 +0.002	+0.1 0.0

Source: Appendix K.
Notes: LOS = level of service; V/C = volume-to-capacity ratio; SSSC = Side-Street Stop Controlled Intersection; Signal = Signalized Intersection; NB = northbound; SR = State Route; SB = southbound.
1 LOS standard of intersection's jurisdiction.
2 AM = morning peak hour (between 7:00 and 9:00 a.m.), PM = evening peak hour (between 4:00 and 6:00 p.m.).
3 Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop control intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
4 Calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the *2000 HCM*.
5 Change in critical volume-to-capacity ratio between No Project and Plus Project Conditions.
6 Change in critical movement delay between No Project and Plus Project Conditions.

As discussed under Existing Plus Project Conditions, the intersection of Cox Avenue and Saratoga Creek Drive shows a reduction in average delay with the addition of project traffic. As

explained previously, the average delay values in the table are weighted averages. Weighted average delays will be reduced when traffic is added to a movement with a low delay.

As shown in the analysis under Existing Plus Project and Background Plus Project conditions, the project does not cause any intersection in the study area to operate at an unacceptable LOS. Therefore, no mitigation measures are required.

The project would not exceed the City's criteria for pedestrian and bicycle impacts and no mitigation measures are required. Per analysis provided in Appendix K, the addition of project traffic and associated congestion could result in added transit delay along Saratoga Avenue of less than 1 second for all scenarios. As such, the City and the VTA do not have adopted standards related to transit corridor performance associated with congestion resulting from new development projects, therefore no mitigation measures are recommended.

Based on the analysis above, the project's impacts to transit, roadway, bicycle, and pedestrian facilities would be **less than significant**.

Impact 3.14-2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3(b) focuses on newly adopted criteria (VMT) adopted pursuant to SB 743 for determining the significance of transportation impacts. As discussed under Section 3.14.6, Regulatory Setting, pursuant to SB 743, the focus of transportation analysis changes from vehicle delay to VMT. The related updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. As stated in CEQA Guidelines Section 15064.3(c), the provisions of Section 15064.3 shall apply prospectively. The provisions must be implemented statewide by July 1, 2020.

The City is currently in the process of updating its General Plan. As part of the process, the City will adopt new VMT thresholds in conformance with SB 743 and the new CEQA Guidelines. Because the new General Plan implementing SB 743 has not yet been adopted, this section's analysis is limited to vehicle delay (LOS). Therefore, the provisions of CEQA Guidelines Section 15064.3(b) are not yet applicable, and the project would not conflict or be inconsistent and impacts would be **less than significant**.

Impact 3.14-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Site Access

The proposed project includes an extension of Saratoga Creek Drive (refer to Figure 2-6, Saratoga Creek Drive Proposed Extension) south of Cox Avenue to provide access to the property. From its present terminus, Saratoga Creek Drive would be extended by ~~150~~ 140 feet and run down the center of the project. Currently, the south leg of Saratoga Creek Drive serves two existing professional office buildings on either side of the roadway and provides access to their rear parking lots.

~~The roadway extension would provide secondary access to the vacant lots immediately south of the project, which are currently accessible from Village Drive and Saratoga Drive.~~ The roadway extension was previously approved under the original Tentative Subdivision Map ~~Approval~~ in 2000.

The vehicular access to Lot 1 is provided via three driveways along the west side of Saratoga Creek Drive: one inbound-outbound driveway to access the underground parking ramp and one circular driveway providing access to surface parking spaces and the building entrance. This driveway would be used for passenger pick-up/drop-off and by delivery and emergency vehicles. Likewise, two inbound-outbound driveways along the east side of the Saratoga Creek Drive would provide access to Lot 2: the northern driveway would provide access to the underground parking ramp and the southern driveway would provide access to the common parking lot. Impacts associated with site access would **be less than significant**.

Pedestrian Access and On-Site Circulation

Currently there are no pedestrian crossing facilities available ~~proposed~~ across Saratoga Creek Drive in the proposed project vicinity. ~~T~~As shown in the updated project plans (Appendix L, Sheets A-1.2, Proposed Site Development Plan), the~~re would be~~proposed project includes~~s~~ a pedestrian~~s~~ crosswalk across~~ing~~ Saratoga Creek Drive ~~to travel~~ between the two lots. ~~However, t~~The two buildings have been designed to function as a single complex and ~~no~~ impacts associated with hazardous design features or incompatible uses are ~~anticipated. Impacts associated with pedestrian access and on-site circulation would~~ **be less than significant**.

~~The two proposed project buildings on Lot 1 and Lot 2 have been designed to function as a single complex. Therefore, there will be pedestrians crossing Saratoga Creek Drive to travel between the two lots. Currently there are no pedestrian crossing facilities proposed across Saratoga Creek Drive. Impacts associated with hazardous design features or incompatible uses would be **less than significant with mitigation incorporated**.~~

Impact 3.14-4: Would the project result in inadequate emergency access?

The project would be accessible to emergency responders and the project plans have been reviewed, and are subject to approval by the City of Saratoga Fire District. As described under Impact 3.14-3, local access to the proposed project would be provided via Saratoga Creek Drive and would be extended by ~~150~~ 140 feet from its present terminus and run down the center of the project site. The proposed project has been designed and constructed in accordance with all applicable provisions of the fire code, which includes requirements for width of emergency access routes and turning radii along emergency access routes. Emergency vehicle turnaround is illustrated on Lot 1 and Lot 2 site plans on Figures 2-4 and 2-5, respectively. Impacts associated with emergency access of the project would be less than significant.

Impacts associated with inadequate emergency access would be **less than significant**.

3.14.7.4 Queuing

The City is currently in the process of updating the signals at 15 locations within the City, including the signal at Saratoga Avenue/Cox Avenue to improve operations. The addition of project traffic along the roadway network has the potential to add vehicles to left-turn movements, causing left-turn queues to exceed the turn pocket storage lengths. Queues that exceed the turn pocket storage length have the potential to impede adjacent through traffic. Potentially affected study intersection movements were selected for this evaluation based on where the proposed project would add the most left-turning vehicles during either the AM or PM peak hour.

The following intersection and movements were selected:

- Saratoga Avenue/Cox Avenue – Northbound left-turn pocket and eastbound left-turn pocket

Table 3.14-12 compares the 95th percentile left-turn queues between No Project and Plus Project scenarios under Existing and Background Conditions. Per TIA guidelines, the queuing evaluation is only required for the near-term analysis. Both northbound left-turn and eastbound left-turn movements have projected 95th percentile queue lengths that exceed the left-turn storage under Existing and Background Conditions. The project will contribute to this operational deficiency and therefore improvements are identified to improve operations.

Table 3.14-12
Left-Turn Vehicle Queue Analysis

Intersection	Movement	Available Storage Length[1] (feet)	Peak Hour	Number of Project Trips Added	Projected Queue Length (feet)[2]		Recommended Improvements
					Existing (Existing Plus Project)[3]	*Background (Background Plus Project)*[3]	
Saratoga Avenue/Cox Avenue	NBL	270	AM	5	**300 (300)**	**300 (325)**	Implement Intelligent transportation systems (ITS) improvements, such as adaptive signal control, advanced signal loop detectors, to improve signal operations and reducing queuing.
			PM	7	**425 (425)**	**425 (450)**	
	EBL	220	AM	2	**375 (400)**	**375 (375)**	Implement ITS improvements, such as adaptive signal control, advanced signal loop detectors, or video image detectors, to improve signal operations and reduce queuing.
			PM	3	**425 (450)**	**450 (450)**	

Source: Appendix K.
Notes: NBL = northbound lane; EBL = eastbound lane; ITS = Intelligent Transportation System.
1 Maximum storage length for single lane. Where no pocket exists, the length of the left-turn lane is reported.
2 95 percent queue length for single lane with longest queue. Assumes 25 feet per vehicle in queue.
3 **Bold** text indicates available storage is exceeded.

As part of the City's improvements, the City may implement improvements to reduce northbound left-turn and eastbound left-turn queues at the Saratoga Avenue/Cox Avenue intersection, as summarized in Table 3.14-12. These improvements include traffic signal upgrade such as an interconnected traffic signal system that allows real-time monitoring and control of all traffic signals in the City from a cloud-based system. The City may require that the project applicant contribute to the City's ITS improvements to improve signal operations and reduce queuing.

3.14.7.5 Parking

The following provides a summary of the parking analysis prepared for the proposed project for disclosure purposes. The parking analysis is based on the City's off-street parking requirements in relation to the project's proposed parking supply.

Project Parking Requirements

The project is subject to the parking requirements specified in Chapter 15.35.030, Schedule of Off-Street Parking Spaces, of the City's Municipal Code. The minimum parking ratio for nursing homes is one (1) space for each three (3) beds, one (1) space for each two (2) doctors providing medical services on a regular basis, and one (1) space for each two (2) employees. The project's vehicle parking requirements are summarized in Table 3.14-13.

Table 3.14-13
Vehicle Parking Requirement

Parking Requirement Component	Project Size	Parking Rate	Required Minimum Vehicle Parking Supply
Beds	78	one space for each three beds	26
Employees and doctors	21	one space for each two employees	11
		Total	**37**

Source: Appendix K.

There are no specific bicycle parking requirements for nursing homes within the City's Municipal Code.

Parking Occupancy Survey

A supplemental parking data collection was conducted at the existing Bascom Palm Villas facility located at 3333 South Bascom Avenue in Campbell, California to evaluate the parking demand rate at this similar facility. The parking occupancy survey was collected in 30 minutes interval during peak demand periods from 8:00 AM to 9:00 AM, 11:00 AM to 1:00 PM, and 4:00 PM to 5:00 PM on Thursday June 20th and Tuesday June 25th, 2019. The results of the survey show that parking occupancy peaked between 11:00 AM to 1:00 PM on both days. The average parking demand during the peak period was observed to be below (93 percent) parking supply (15 parking spaces including 13 regular and two [2] ADA).

Table 3.14-14 shows the observed parking occupancy during the peak periods at the Bascom Palm Villas facility.

Table 3.14-14
Vehicle Parking Occupancy

Observed Peak periods	Average Number of Occupied Parking Spaces	Average Parking Occupancy (%)
8:00 AM – 9:00 AM	2	13%
11:00 AM – 1:00 PM	14	93%
4:00 PM – 5:00 PM	11	73%

Source: Fehr & Peers, June 2019

Given the total number of 48 beds in the Bascom Palm Villas facility and an observed parking occupancy of 93 percent during the peak demand period, the parking demand rate would be 0.29 parking spaces per bed. In general, a cushion of 5-15 percent circulation factor in the parking supply is a standard practice to account for vehicle (space) turnover. Given the small size of the proposed project, a 5 percent circulation factor is applied to the observed parking demand rate. Therefore, considering the 5 percent circulation factor, the peak parking demand rate would be 0.3.

Based on parking demand rate of 0.3 parking spaces per bed (and 78 total beds), the proposed project should provide a minimum of 24 parking spaces. The proposed parking supply of ~~47~~ 48 spaces meets and exceeds the observed parking demand ratio at the similar facility (Bascom Palm Villas).

Proposed Parking Supply

Per the proposed site plan, the parking for~~in~~ each building on each respective lot would be accessed from driveway ramps from the Saratoga Creek Drive extension. The Professional and Administrative Zone District requires one (1) loading space per building between 5,000 and 50,000 square feet, and the loading area is located on Lot 2.

The basement level of Lot 1 would contain 19 parking spaces, storage space, electrical rooms, pantry, break room, and a laundry area. There would be 22 total parking spaces serving Lot 1; two (2) would be accessible and conform to the Americans with Disabilities Act (ADA) standards (refer to Figure 2-4, Lot 1 Site Plan). The basement level of Lot 2 would contain ~~10~~ 11 parking spaces, electrical rooms, laundry area, and an activities office, and a break/storage room. There would be ~~25~~ 26 total parking spaces serving Lot 2; two (2) would be accessible and conform to ADA standards and one (1) would be a designated van-accessible parking space (refer to Figure 2-5, Lot 2 Site Plan). Each lot and building has enough parking to serve the individual uses of each building, independent of the other ~~The proposed project would include a parking sharing contract between the buildings to ensure that all 47 parking spaces on the site would be available on a shared basis for the proposed facility. Under Saratoga City Code Section 15-35.020(d), off-street parking requirements may be satisfied by a common parking facility, provided that the total number of spaces shall~~ not ~~be not less than the sum of the individual requirements, and provided further, that a contract between the parties setting forth the agreement for joint use of a common~~

~~parking facility is recorded in the office of the County Recorder and a certified copy filed with the City~~. To facilitate parking at the proposed project site, including the efficient use of the lift parking spaces in the building basement garages, an on-site parking attendant (valet-style) would be available. This attendant would be able to direct visitors and employees to appropriate parking spaces and ensure that employees use the lift-spaces if available.

Parking Analysis

Based on the City's parking requirements, the project is required to provide 37 vehicle parking spaces. As shown in Table 3.14-14, ~~T~~the proposed project parking supply of ~~47~~ 48 spaces would meet and exceed the City's requirements.

Table 3.14-14
Proposed Project Parking By Lot/Building

Parking Summary	Lot 1/Building 1 (48 beds)	Lot 2/Building 2 (30 beds)	Total (78 beds)
Provided	22	2~~5~~6	**~~47~~8**
Required per City Code	22	15	**37**
Difference from Required (Provided minus Required)	0	+1~~0~~1	**+1~~0~~1**

Source: Appendix K.

3.14.8 References

Caltrans (California Department of Transportation). 2002. *Guide for the Preparation of Traffic Impact Studies*. December 2002.

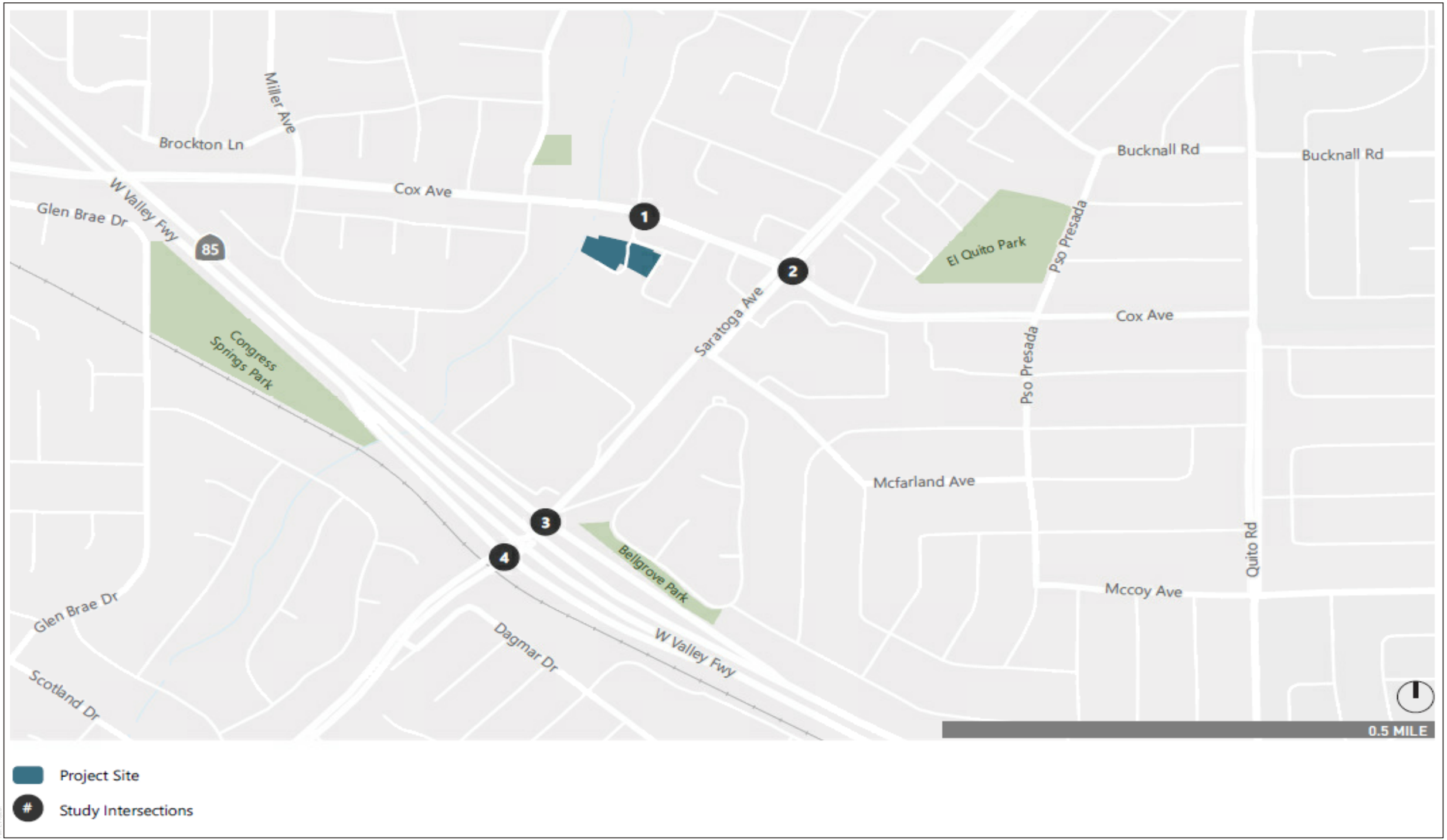
City of Saratoga. 2010. *City of Saratoga General Plan: Circulation and Scenic Highway Element Update*. Adopted November 17, 2010. Accessed May 2019. https://www.saratoga.ca.us/162/General-Plan.

ITE (Institute of Transportation Engineers). 2017. *Trip Generation Manual*. 10th ed. Washington, DC: Institute of Transportation Engineers.

TRB (Transportation Research Board). 2000. *Highway Capacity Manual*. Washington, DC: Transportation Research Board.

VTA (Santa Clara Valley Transportation Authority). 2014. *Transportation Impact Analysis Guidelines*. Santa Clara Valley Transportation Authority. Accessed May 2019. http://www.vta.org/sfc/servlet.shepherd/document/download/069A0000001frgIIAQ.

VTA. 2017. *2017 Congestion Management Program*. Santa Clara Valley Transportation Authority. Accessed May 2019. http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/2017_CMP_Document.pdf.



SOURCE: Fehr & Peers 2019

FIGURE 3.14-1

Study Area

Palm Villas Saratoga Project

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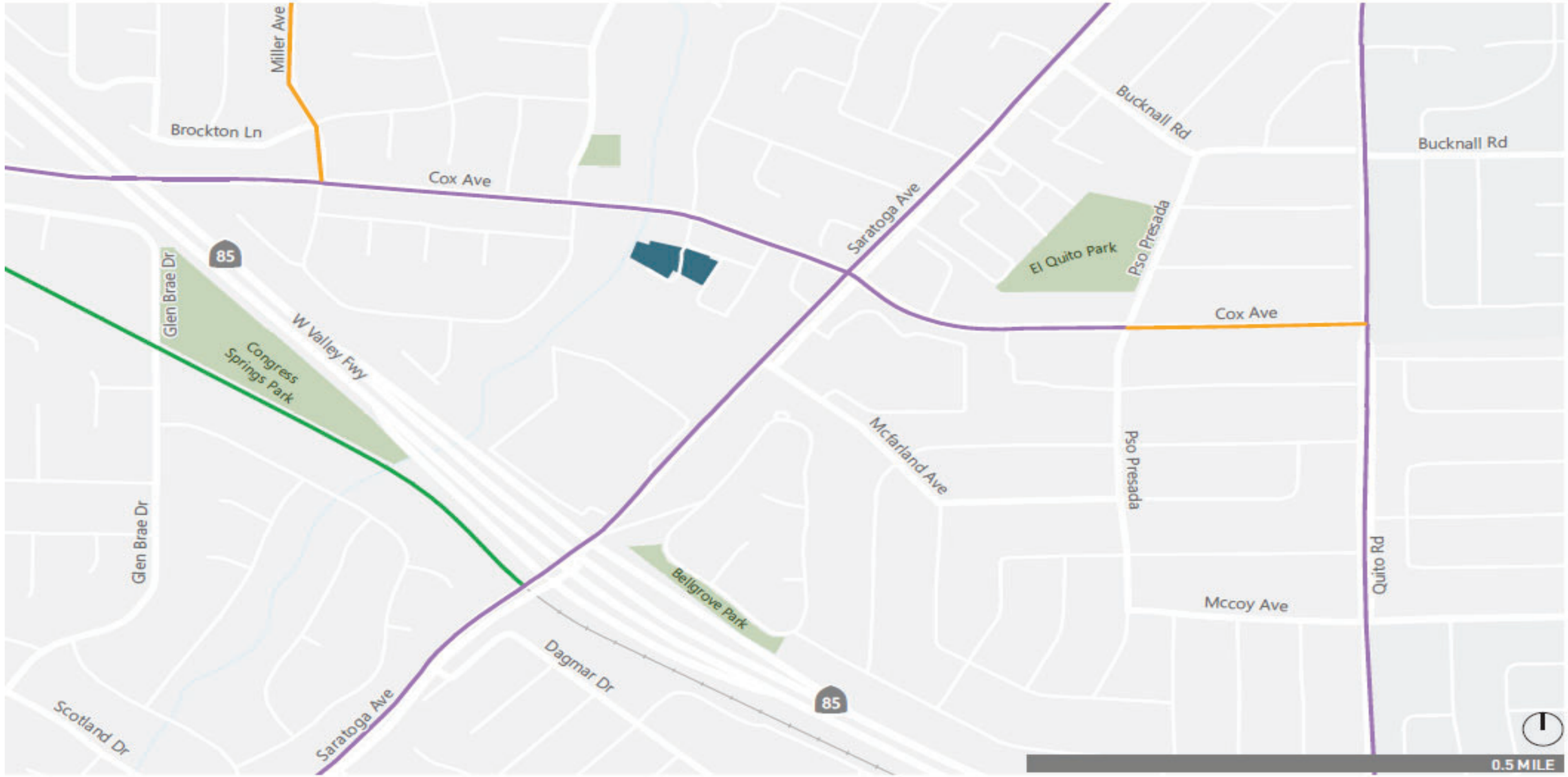

Project Site

Class I - Bike Path

Class II - Bike Lane

Class III - Bike Route

SOURCE: Fehr & Peers 2019

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FIGURE 3.14-2

Existing Bicycle Facilities

Palm Villas Saratoga Project

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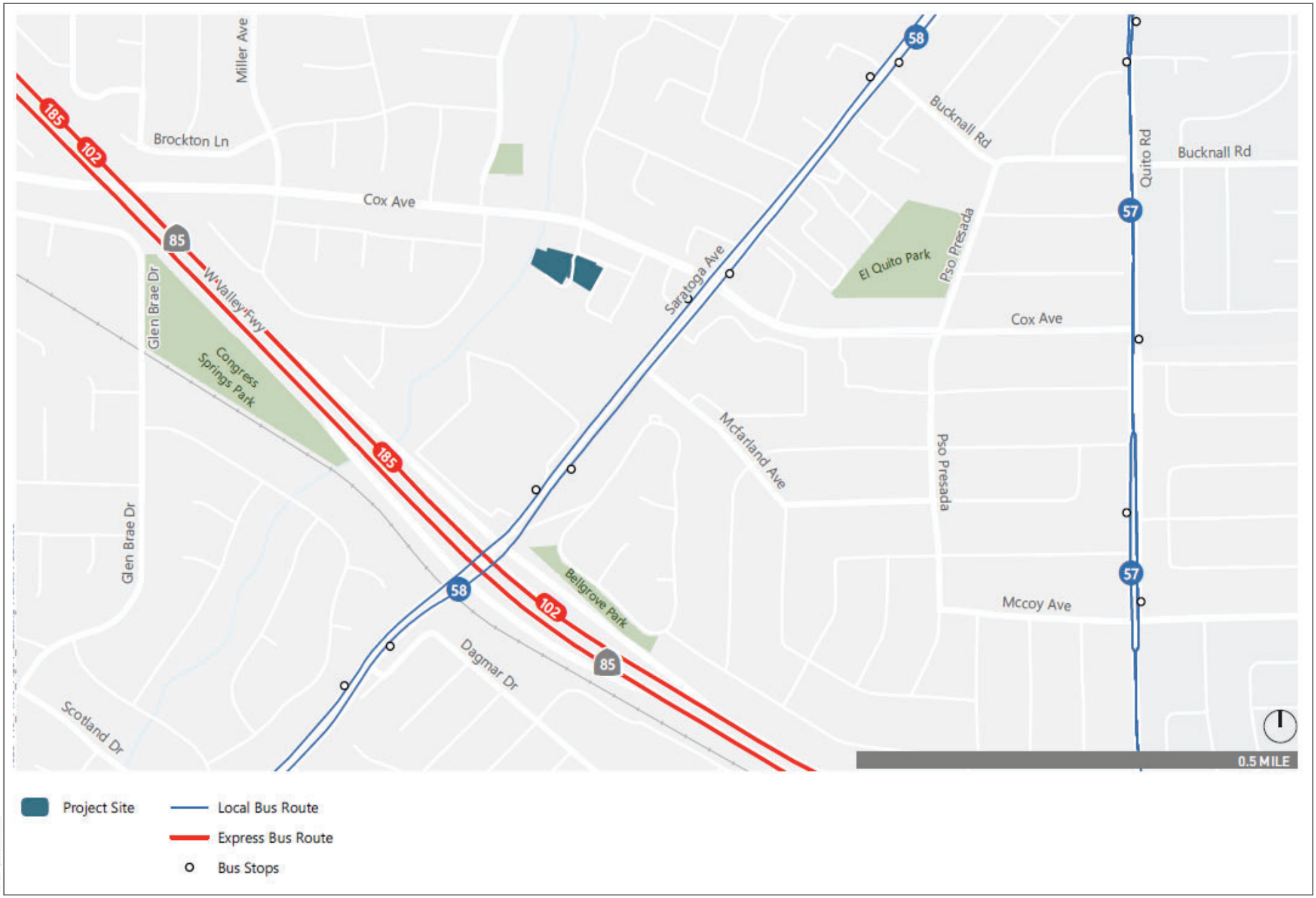

SOURCE: Fehr & Peers 2019

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FIGURE 3.14-3

Existing Transit Facilities

Palm Villas Saratoga Project

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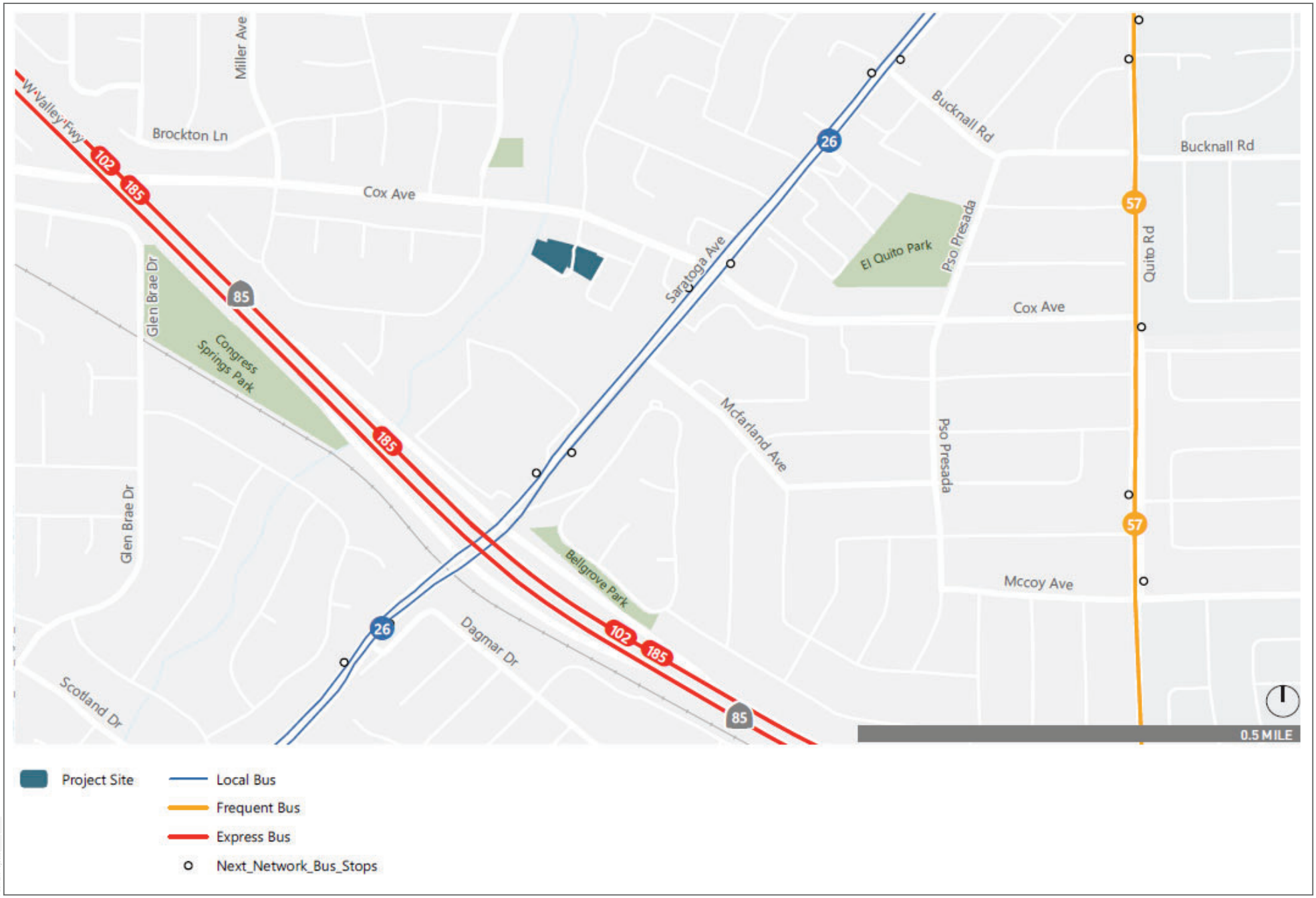

SOURCE: Fehr & Peers 2019

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FIGURE 3.14-4

New Transit Plan Service

Palm Villas Saratoga Project

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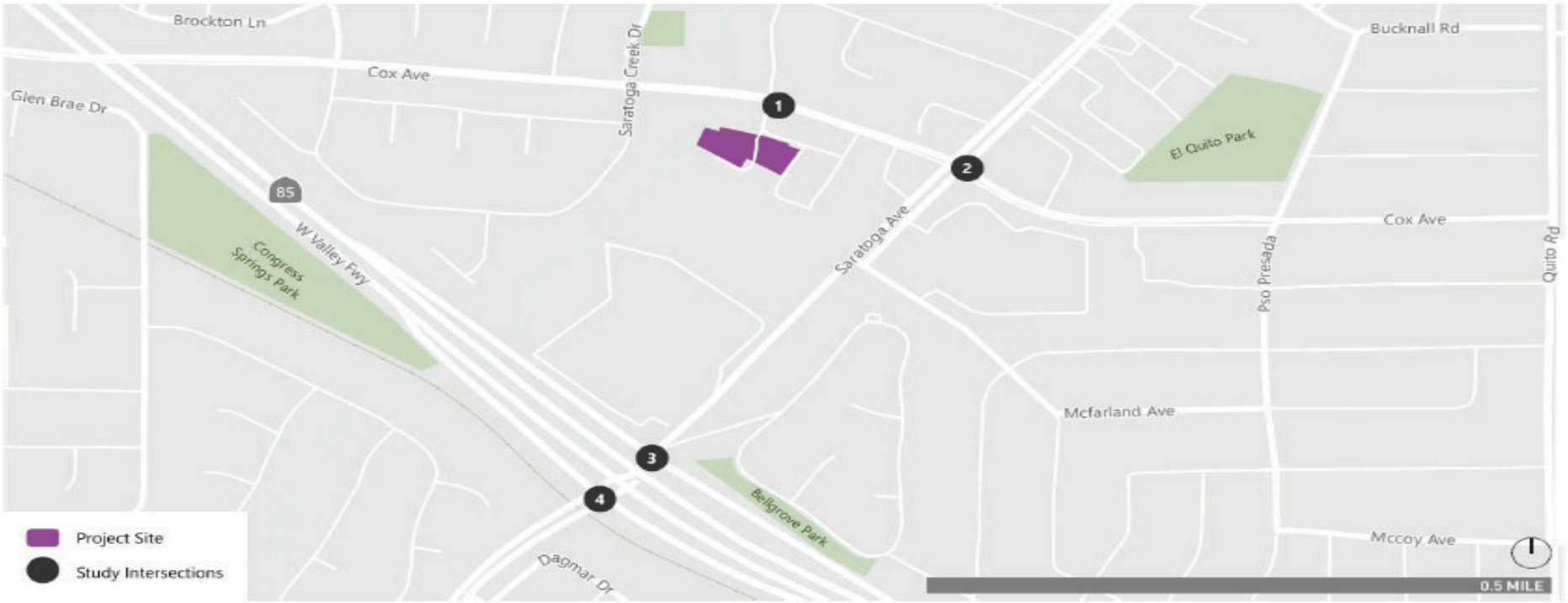

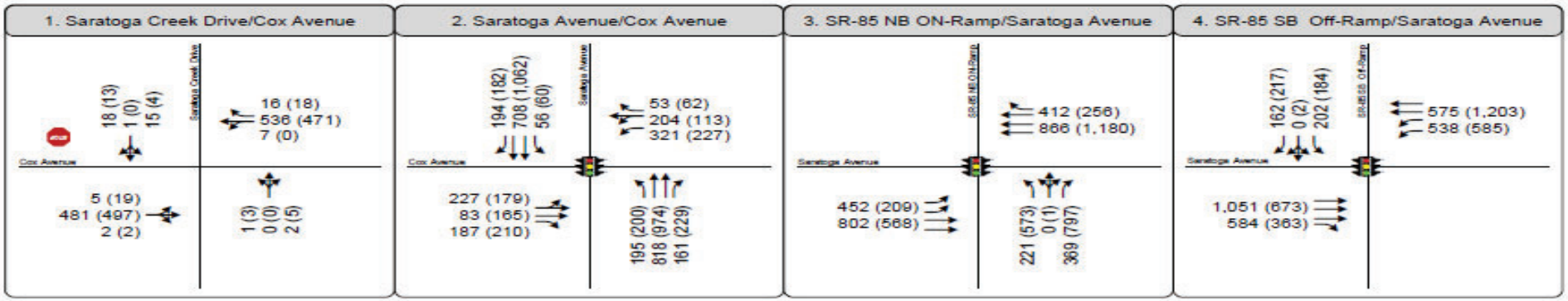

LEGEND

1	Study Intersection	AM (PM)	Peak Hour Traffic Volume
	Turn Lane	STOP	Stop Sign
			Traffic Signal

SOURCE: Fehr & Peers 2019

DUDEK

FIGURE 3.14-5

Existing Traffic Volumes and Lane Configurations

Palm Villas Saratoga Project

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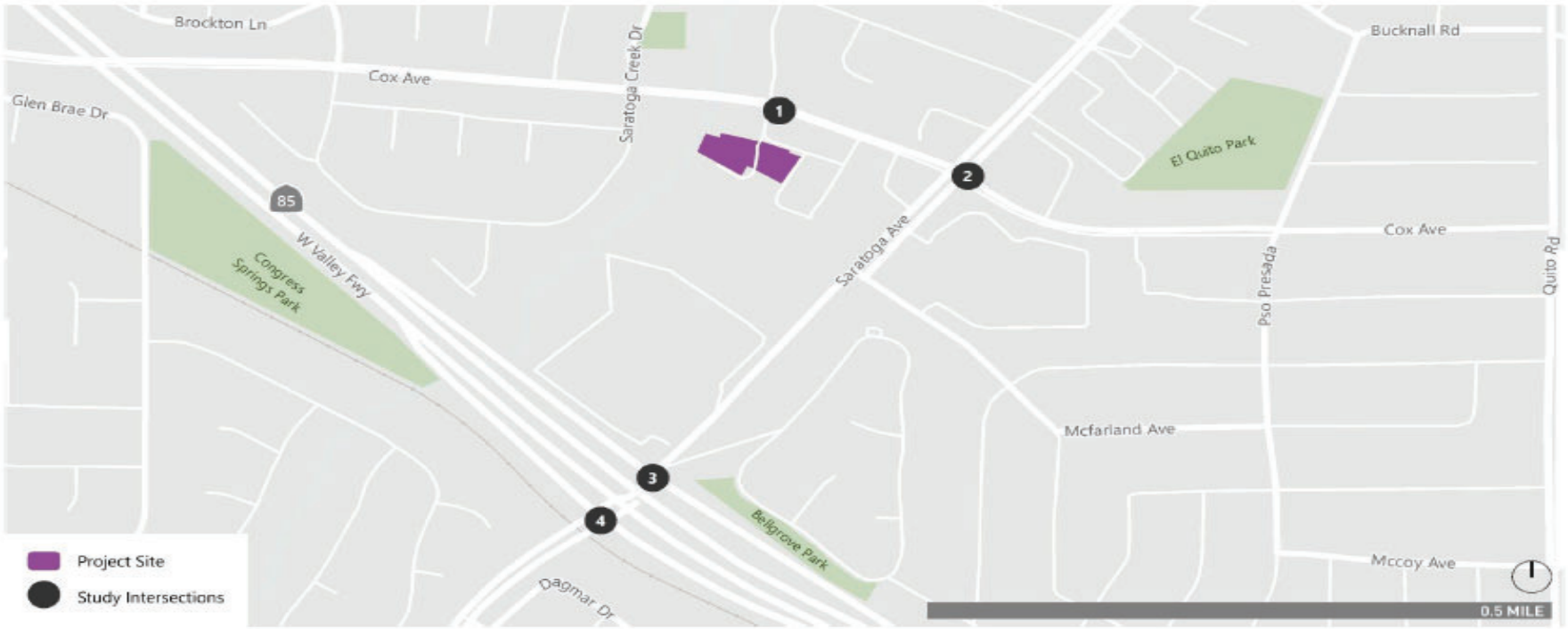

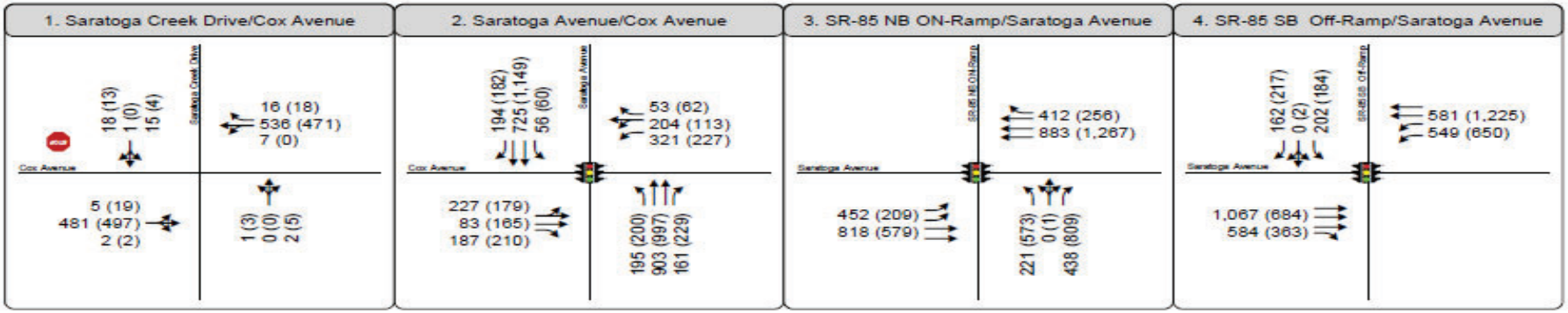

LEGEND

1	Study Intersection	AM (PM)	Peak Hour Traffic Volume
	Turn Lane	STOP	Stop Sign
			Traffic Signal

SOURCE: Fehr & Peers 2019

FIGURE 3.14-6

Background No Project Volumes and Lane Configurations

Palm Villas Saratoga Project

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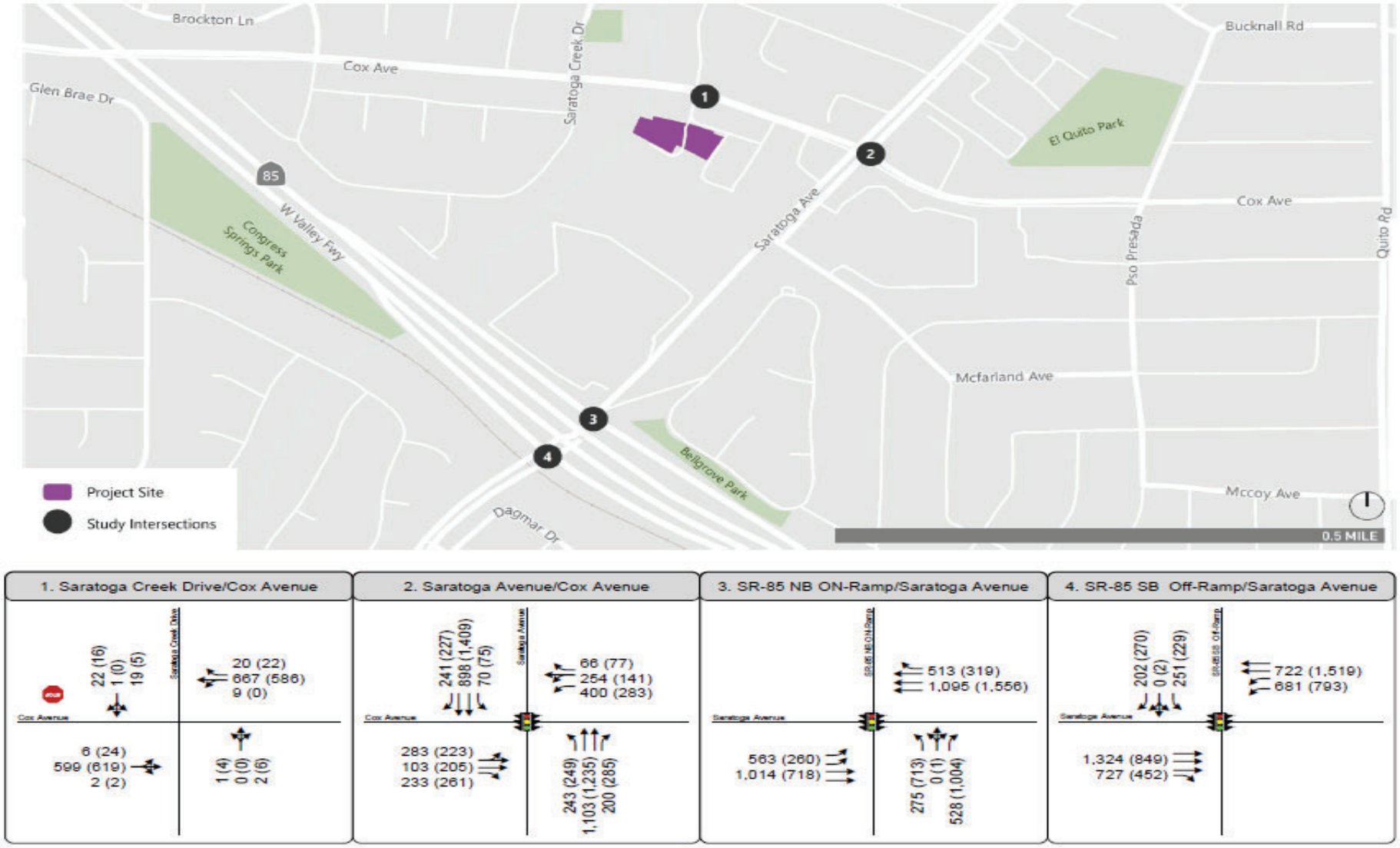

SOURCE: Fehr & Peers 2019

FIGURE 3.14-7

Cumulative No Project Volumes and Lane Configurations

Palm Villas Saratoga Project

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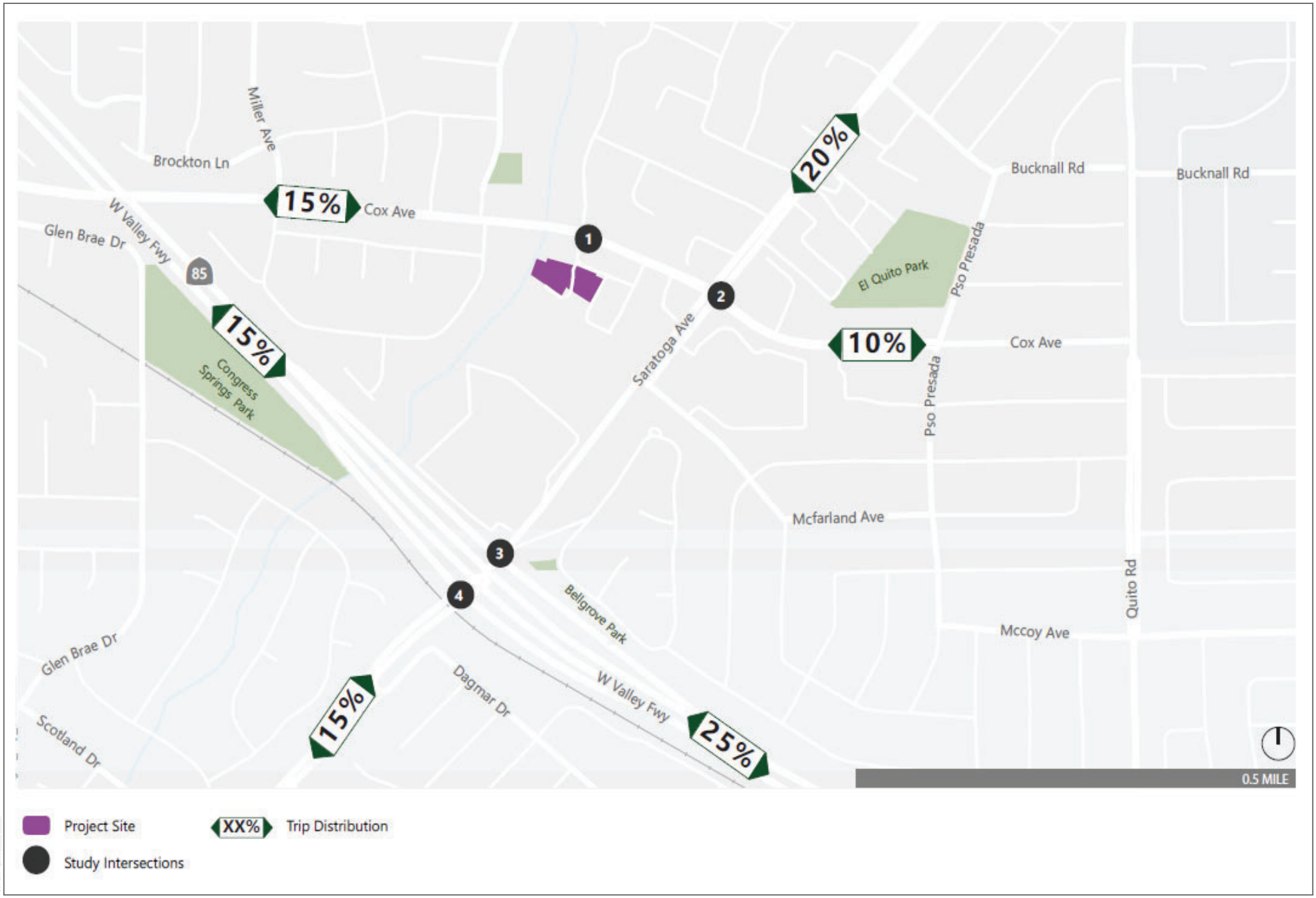

SOURCE: Fehr & Peers 2019

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FIGURE 3.14-8

Project Trip Distribution

Palm Villas Saratoga Project

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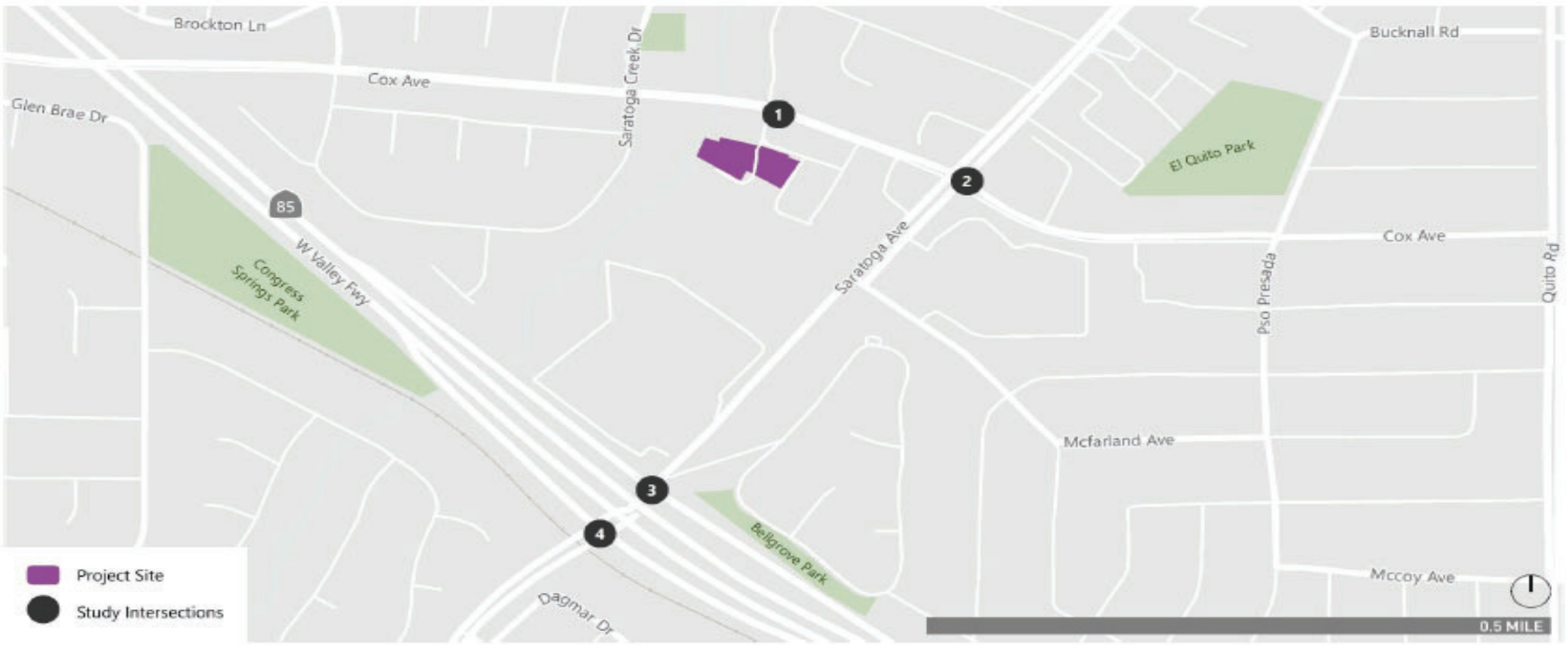

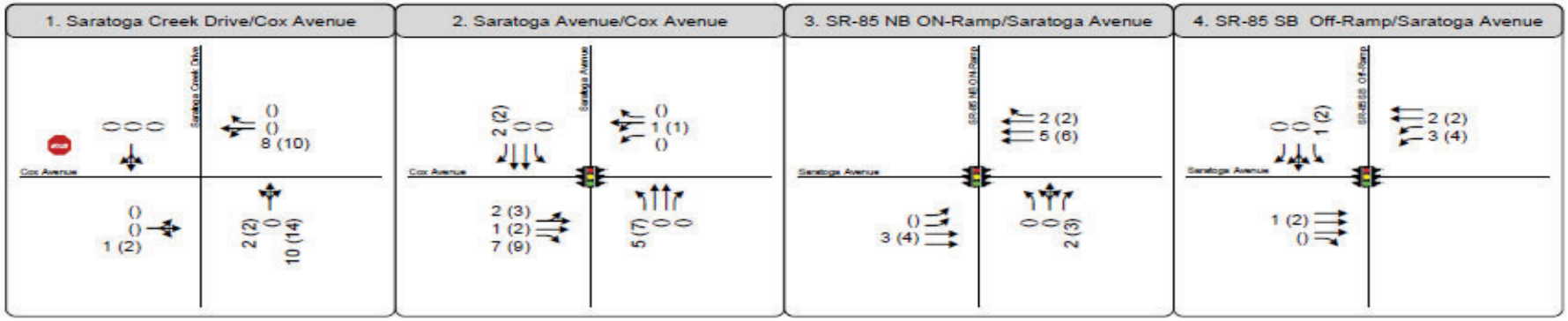

LEGEND

1	Study Intersection	AM (PM)	Peak Hour Traffic Volume
	Turn Lane	STOP	Stop Sign
			Traffic Signal

SOURCE: Fehr & Peers 2019

DUDEK

FIGURE 3.14-9

Project Traffic Volumes

Palm Villas Saratoga Project

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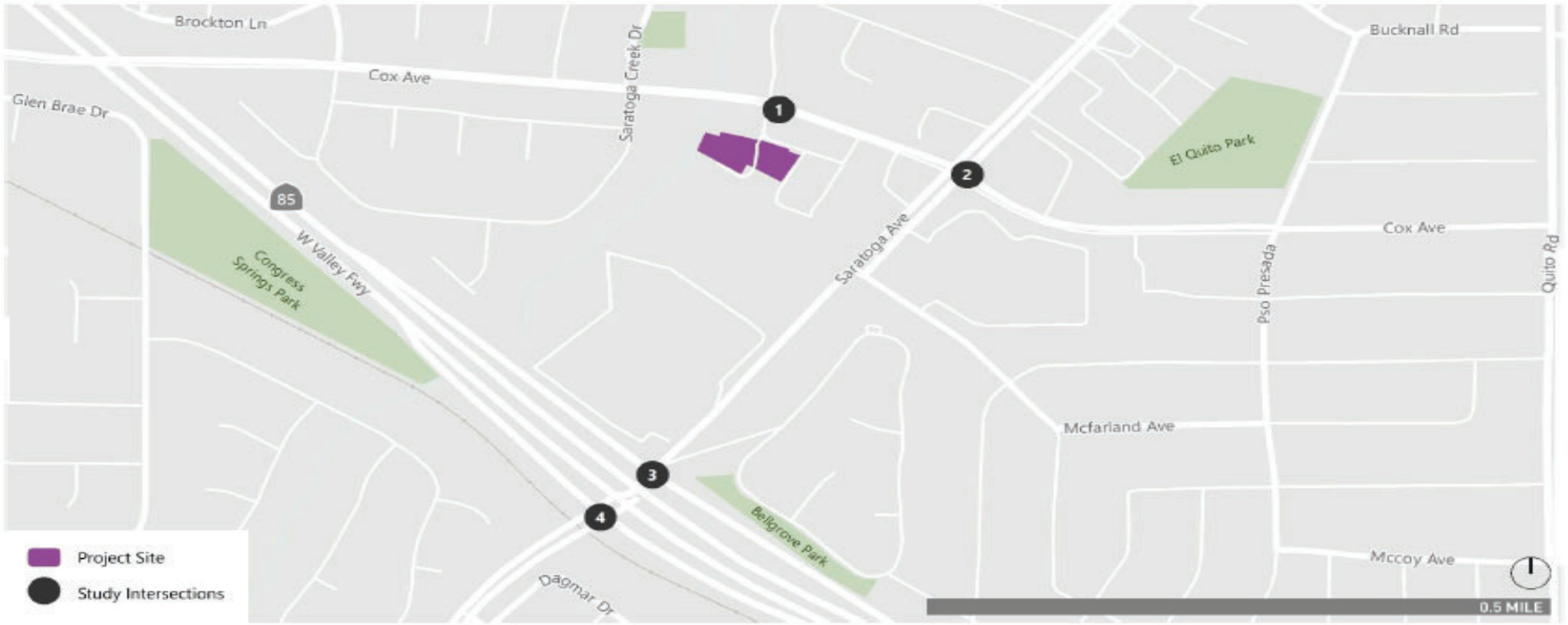

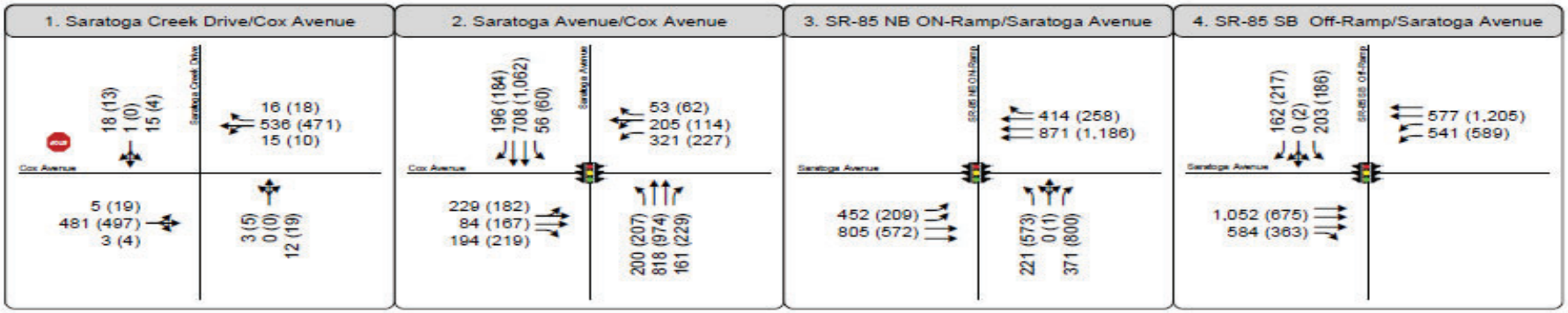

LEGEND

1	Study Intersection	AM (PM)	Peak Hour Traffic Volume
	Turn Lane	STOP	Stop Sign
			Traffic Signal

SOURCE: Fehr & Peers 2019

FIGURE 3.14-10

Existing Plus Project Volumes and Lane Configurations

Palm Villas Saratoga Project

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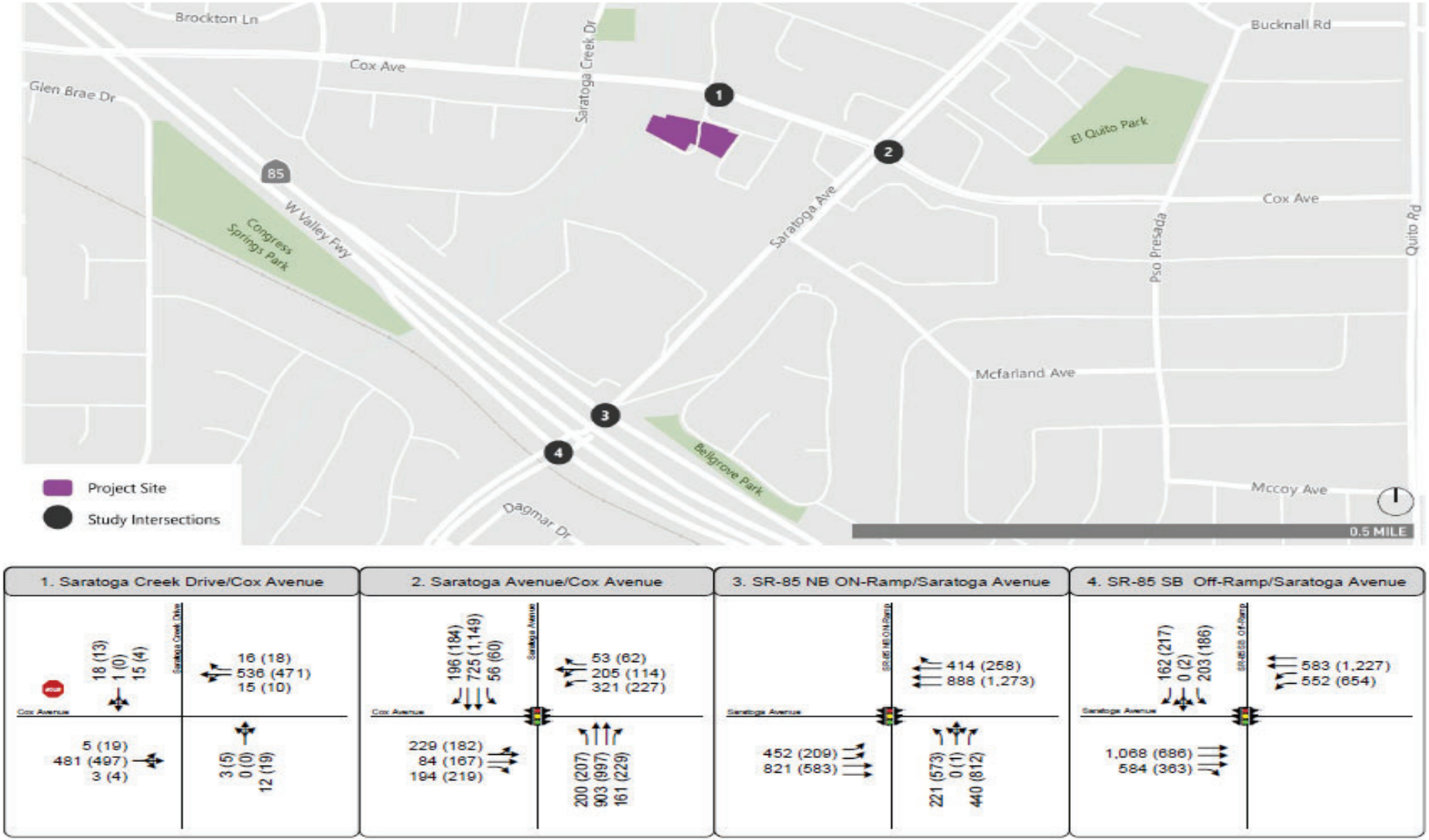

SOURCE: Fehr & Peers 2019

FIGURE 3.14-11

Background Plus Project Volumes and Lane Configuration

Palm Villas Saratoga Project

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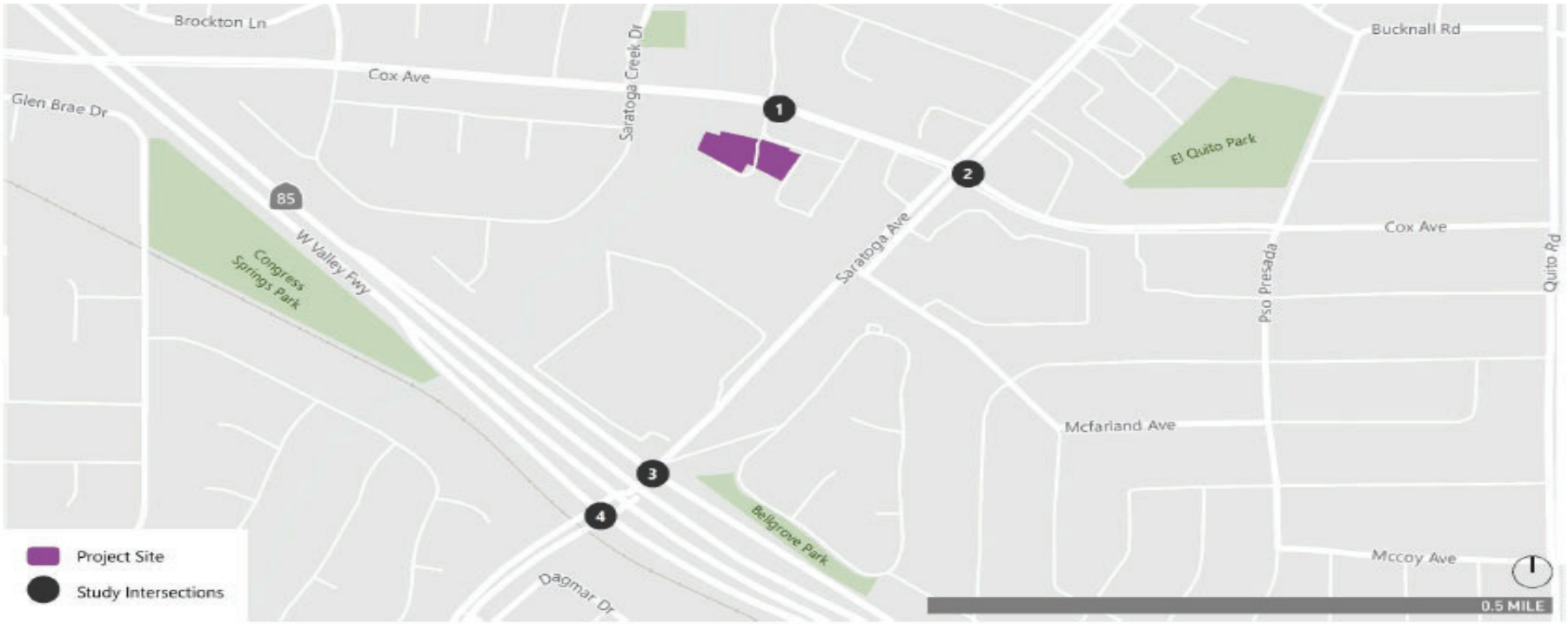

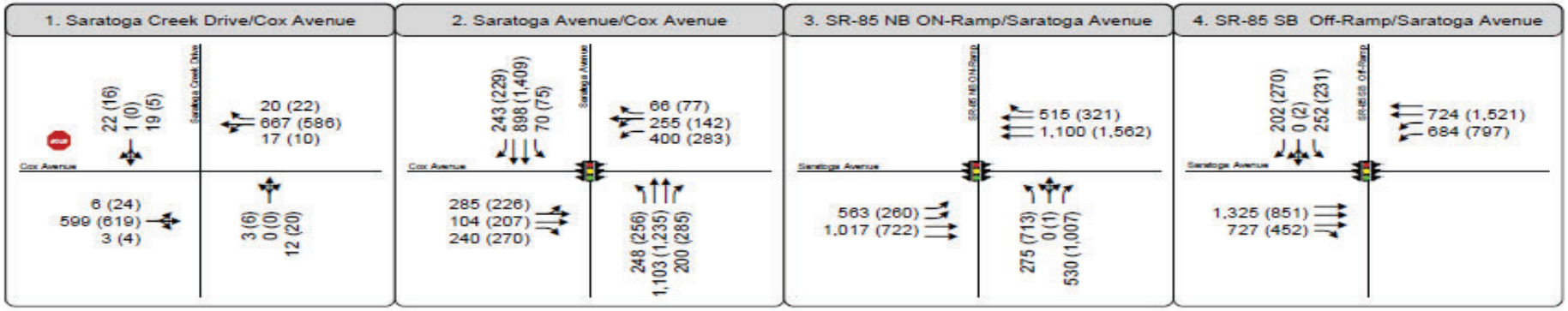

LEGEND

1	Study Intersection	AM (PM)	Peak Hour Traffic Volume
	Turn Lane		Stop Sign
			Traffic Signal

SOURCE: Fehr & Peers 2019

FIGURE 3.14-12

Cumulative Plus Project Volumes and Lane Configurations

Palm Villas Saratoga Project

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3.15 TRIBAL CULTURAL RESOURCES

3.15.1 Introduction

This section of the EIR evaluates the potential impacts to tribal cultural resources (TCRs) associated with the proposed project. This section presents the environmental setting, regulatory framework, impacts of the proposed project on TCRs, and proposed measures to mitigate any identified significant impacts to TCRs. Information used to prepare this section primarily comes from the Cultural and Paleontological Resources Assessment for the Palm Villas Saratoga Project for the proposed project as prepared by Dudek in April 2019, which is included as Appendix D of this report.

3.15.2 Environmental Setting

The project site is located in the City of Saratoga (City), in the western portion of Santa Clara County. It is located in Section 31 of Township 7 South, Range 1 West, of the Cupertino, California 7.5-minute U.S. Geological Survey Quadrangle map. The City is a primarily residential community bounded by the jurisdictions of Cupertino, San Jose, Campbell, Los Gatos, and Monte Sereno.

The project site is located approximately 150 feet south of the intersection of Saratoga Creek Drive and Cox Avenue. The project site is northeast of California State Route 85 and west of Saratoga Avenue.

The project site is an undeveloped, rectangular-shaped, 56,114-square foot (sf) area of land. The project site is nearly level, with a slight slope to the northwest, with elevations ranging from approximately 298 feet above mean sea level (msl) at the southeastern corner of the site to 281 feet above msl at the northwestern corner. Saratoga Creek runs along the northwestern side of the project site. The undeveloped project site is currently vegetated with annual grassland, ornamental landscaping (shrubs and trees), and sycamore woodland. The entire 56,114 sf project site comprises the location of potential impacts for this assessment.

3.15.3 Regulatory Setting

3.15.3.1 Federal Regulations

There are no federal regulations in regard to TCRs that apply to the proposed project.

3.15.3.2 State Regulations

Assembly Bill 52

Assembly Bill (AB 52) amended Section 5097.94 of the Public Resources Code (PRC) and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52

established that impacts to TCRs must be considered under the California Environmental Quality Act (CEQA), and provided for additional Native American consultation requirements for the lead agency. PRC Section 21074 describes a TCR as a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American tribe. A TCR is either of the following:

- On the California Register of Historical Resources or a local historic register or eligible for the California Register of Historical Resources or a local historic register.
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c).

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with a project site, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a proposed project.

Section 1 (a)(9) of AB 52 establishes that “a substantial adverse change to a tribal cultural resource has a significant effect on the environment.” Effects on TCRs should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures “capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource.” Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to TCRs, the consultation must include those topics (PRC Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) must include any mitigation measures that are adopted (PRC Section 21082.3[a]).

3.15.3.3 Local Regulations

City of Saratoga General Plan

The City’s General Plan (City of Saratoga 2007) Land Use Element included goals, objectives, and policies regarding development within the City. The General Plan provides the following goals and policies required actions aimed at preserving and protecting cultural resources (City of Saratoga 2007):

Land Use Element

GOAL LU 12: Recognize the heritage of the City by seeking to protect historic and cultural resources, where feasible.

- **Policy LU 12.9:** Conduct reconnaissance level analyses of new development projects to ensure that no significant archaeological, prehistoric, paleontological, Native American resources would be disturbed. If such resources are found, appropriate steps shall be taken consistent with CEQA requirements to protect these resources.

3.15.4 Impacts

3.15.4.1 Methods of Analysis

Previously Recorded Archaeological Resources

Dudek prepared a cultural resources assessment for the proposed project (Appendix D) in April 2019. The study included a California Historical Resources Information System records search, which was conducted at the Northwest Information Center in March 2019, to determine if previously recorded cultural resources are present within the project site and surrounding 0.5-mile radius. The records search involved a review of information pertaining to previously recorded cultural resources, previous cultural resources investigations and their limits within the project site, and historic aerial photographs and maps. This information indicated that no recorded cultural resources are located within the project site or within 0.5 miles of the site.

Field inventory included a pedestrian survey for archeological resources performed on March 29, 2019. The entire project site appears to have been graded or leveled from years of agricultural use. All areas of the project site were inspected for surface artifacts, undisturbed areas, archaeological deposits, or geological exposures. Subsurface exposures and rodent burrows were opportunistically inspected for indications of soils with the potential to contain deposits. Ground visibility was poor (0 to 20 percent) throughout the entire project site due to thick grass and asphalted surfaces. The entirety of the project site has been subject to substantial disturbances related to agricultural use. Exposed soil appeared to be a dark yellow-brown sandy loam and gravel. No cultural resources were observed during this survey (Appendix D).

Sacred Lands File Search and Assembly Bill 52 Consultation

On March 18, 2019, Dudek requested a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) for the project site and 0.5-mile buffer. The NAHC results, received March 20, 2019, indicated the SLF search show that no cultural resources or sacred lands were documented within the records search area. NAHC provided a list of Native American tribes

culturally and geographically affiliated with the project site who may have additional information about cultural resources within the area. On March 29, 2019, in a good faith effort to consult with California Native American tribes, the City sent project notification letters to each of the NAHC-listed contacts. The letters contained a proposed project description, maps of the project location, an agency contact, and a request that the tribes respond with a request to consult pursuant to AB 52 if they have any information or concerns relating to TCRs that have potential to be impacted. No responses were received, and consultation closed on April 29, 2019, which represented 30 days from the delivery of notification letters to NAHC-listed contacts.

3.15.4.2 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts on TCRs are based on the recommendations provided in Appendix G of the CEQA Guidelines. In accordance with Appendix G, the project would have a significant impact to TCRs if it would do any of the following (14 CCR 15000 et seq.):

- 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:
    i. 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).
    ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.15.3 Impacts and Mitigation Measures

Impact 3.15-1: 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:

i. 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)?

As noted in Section 3.15.2, there are no known TCRs, as defined in PRC Section 21074, identified within the project site or in its immediate vicinity. The project site has historically been used for agricultural uses and is currently undeveloped. The California Historical Resources Information System records search conducted for the project site did not identify any previously recorded archaeological resources within the project site and 0.5-mile buffer.

Further, no California Native American tribes have responded with a request for consultation or with information regarding TCRs affiliated with the project site. As stated, the proposed project site has been previously disturbed, and no information regarding the presence of known TCRs has been provided from the contacted California Native American tribes or from cultural resource surveys or records. However, the potential for subsurface unknown TCRs to be encountered during project ground-disturbing activities still exists. Mitigation Measure (MM)-TCR-1, described below is designed to address impacts to unknown TCRs that may be discovered during ground disturbance. As no known TCRs occur at the project site or would be affected by the proposed project, and implementation of MM-TCR-1 would reduce impacts to unknown TCRs during excavation activities, impacts would be **less than significant with mitigation**.

Mitigation Measures

MM-TCR-1: If potential archaeological resources, tribal cultural resources, or human remains are discovered during project activities, then work shall cease in the immediate vicinity of the find. If the unanticipated resource is archaeological in nature, appropriate management requirements shall be implemented as outlined in MM-CUL-1 (see Section 3.4, *Cultural Resources*) in conjunction with the following provisions specific to the management of TCRs. A qualified cultural resources specialist shall be contacted to inspect the find, and to assess if the resource is of Native American origin or otherwise has potential to be considered a tribal cultural resource. If the resource is a potential tribal cultural resource, the lead agency shall be immediately contacted. Depending on the nature of the find, if the lead agency determines,

pursuant to Public Resources Code Section 21074 (a)(2), that the find appears to be a tribal cultural resource in its discretion and supported by substantial evidence, the NAHC-listed tribes shall be contacted and provided a reasonable period of time to make recommendations. These representatives shall be provided the opportunity to inspect the find on site. The lead agency shall review recommendations, enlisting the aid of a qualified archaeologist or other specialists if needed, and move forward with management options determined to be reasonable and feasible. The project may recommence ground disturbance activities in the vicinity of the find after it has complied with agency-approved recommendations. If human remains are found, then the procedures outlined in **MM-CUL-2** (see Section 3.4) shall be implemented.

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

As previously described, the cultural resources assessment (Appendix D) concluded that the project site does not contain known TCRs or archaeological resources. The Sacred Lands File search conducted by the NAHC did not indicate that sacred sites have been recorded within the project site or surrounding search area. However, the NAHC noted that absence of specific site information in the Sacred Lands File does not imply absence of Native American cultural resources. No California Native American tribes or individuals have identified specific known TCRs associated with the project site, nor have any tribes responded to the project notification letter sent by the lead agency. With implementation of MM-TCR-1, impacts related to TCRs would be **less than significant with mitigation**.

Mitigation Measure

Refer to **MM-TCR-1**.

3.16 UTILITIES AND SERVICE SYSTEMS

3.16.1 Introduction

This section of the EIR review presents potential utilities and service systems impacts of the proposed project. This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant impacts.

3.16.2 Environmental Setting

3.16.2.1 Water Facilities and Service

The San Jose Water Company (SJWC) provides water services to the City of Saratoga (City). The SJWC also supplies domestic water to Los Gatos, Monte Sereno, San Jose, Campbell, and Cupertino, representing a 139-square-mile service area consisting of 231,00 municipal connections. This service area contains a population of approximately one million people (SJW Group 2019).

SJWC obtains its water supply from three major sources: groundwater, imported surface water, and local mountain surface water. Groundwater is pumped from over 100 wells that draw water from the Santa Clara Groundwater Basin. On average, groundwater consists of one third of the SJWC's water supply portfolio; for the 5-year period between 2011 and 2015, SJWC has supplied between 12,346 and 18,804 acre-feet of groundwater to its service area (San Jose Municipal Water System 2016). The amount of groundwater utilized depends on the availability of local surface water supplies and the amount available for purchase from water wholesalers, which, for the area, consists of the Santa Clara Valley Water District (SCVWD). This surface water is imported from the Sacramento-San Joaquin Delta and purchased from the SCVWD. The third source of SJWC's water, local mountain surface water, is collected in SJWC's 7,000 acres of watershed in the Santa Cruz Mountains, after which it is treated at SJWC's two water treatment plants. In 2017 and 2018, due to the shut-down of the Santa Teresa Water Treatment Plant (one of SJWC's two treatment plants), SJWC also purchased surface water from San Francisco Public Utility Commission (SFPUC) through SCVWD's intertie (SJW Group 2019).

These sources are often blended together in the distribution system. Consequently, different sources are dispersed to the City from day to day as customer usage changes. The City will continue to meet its future demands with imported water, groundwater, and local mountain surface water supplies. Portions of the higher elevations of the Santa Cruz Mountains within the City's Sphere of Influence provide water runoff into local streams and recharge wells that provide a portion of the City's water supply. These areas should be protected from significant urbanization in order to maximize continued production of the local water supply (SJWC 2018a).

The SJWC anticipates significant growth in water demand from 2015 to 2040 due to population growth in their service area. The total water demand of SJWC in 2015 was 19,314 acre-feet (SJWC 2016). The total water demand is projected to increase to 43,484 acre feet in 2040. As outlined in the 2015 UWMP, the supplies of SJWC are sufficient to meet demands during a single dry year through 2035 without temporary reductions of water demands. However, this assumes that reserves are at healthy levels at the beginning of the year. If reserves are low at the beginning of a single dry year, the SJWC might need to call for water use reductions in combination with using reserves. Although the supplies from SFPUC may be reduced by 10% for a single-dry year between 2015 and 2035, any water demand that cannot be met with the SFPUC and SCVWD supplies for the SJMWS will be met by a combination of supplies from SCVWD, groundwater, and utilizing conservation measures (SJWC 2016).

3.16.2.2 Wastewater

The project site is served by the West Valley Sanitation District (WVSD). The WVSD provides wastewater collection and disposal services to two-thirds of Saratoga, as well as Campbell, Monte Sereno, Los Gatos, and some unincorporated areas of Santa Clara County. The WVSD covers 30 square miles, serving a population of over 113,500~~09,000~~ people. WVSD facilities include approximately 415 miles of main and trunk sewers and ~~187~~ 210 miles of sewer laterals (WVSD 2018). Within the City, the WVSD consists of gravity sewer mains that convey wastewater flows northward in the municipal collection system, exiting the City limits through multiple trunk sewers. These systems continue to the north through the City of San Jose trunk sewers and ultimately to the San Jose/Santa Clara Regional Wastewater Facility Plant.

The San Jose/Santa Clara Regional Wastewater Facility Plant (RWF), located in north San Jose, collects and treats wastewater from local municipalities and sanitation districts and discharges the treated wastewater into the San Francisco Bay. The RWF treats an average of 110 million gallons of water per day (mgd) and has a design capacity of 167 mgd (San Jose Municipal Water System 2016). WVSD contracts with RWF for all wastewater treatment and disposal. In fiscal year 2017–2018, the WVSD collected and conveyed 9.62~~2~~ million gallons per day (mgd) of wastewater to the RWF (San Jose Municipal Water System 2016). WVSD accounts for approximately 10% of the treatment flow at the plant (San Jose Municipal Water System 2016). ~~The plant has a design capacity of 167 mgd.~~

WVSD has a fixed capacity allocation of 13.05 mgd~~million gallons per day~~. Based on population growth projections for 2030, the WVSD would not exceed the current fixed capacity allocation.

3.16.2.3 Stormwater

Stormwater is discussed in Section 3.9, Hydrology and Water Quality, of this document.

3.16.2.4 Solid Waste and Recycling

West Valley Collection & Recycling LLC (WVCR) provides solid waste, recycling, and yard waste collection services in the City. WVCR collects solid waste and green waste, which is transported directly to the Guadalupe Landfill, located in the City of San Jose. The Guadalupe Landfill is a Class III solid waste landfill. The total permitted capacity of the landfill is 28.6 million cubic yards, with a maximum throughput of 1,300 tons per day. As of the end of 2011, the landfill had a remaining capacity of 11.055 million cubic yards or 39 ~~percent~~ % of its capacity. Currently, the landfill is expected to reach its capacity in 2048 (CALRecycle 2019a).

WVCR provides single stream recycling to single-family and multi-family residences and commercial customers. Single stream recycling means all recyclables are placed in a single bin and do not need to be sorted based on the material type (i.e., paper, plastic, metal, etc.). All recyclable materials are sorted at WVCR's Materials Recovery Facility in the City of San Jose. WVCR also collects green waste, or yard trimmings, from residential customers. The green waste is taken to the Guadalupe Landfill (Waste Management 2015).

3.16.2.5 Energy

Pacific Gas & Electric (PG&E) provides electricity and natural gas service for Santa Clara County. PG&E charges connection and user fees for all new development, in addition to sliding rates for electrical and natural gas service based on use. These services are currently available at the project site.

3.16.3 Regulatory Setting

3.16.3.1 Federal

Federal Clean Water Act of 1987

The Clean Water Act is the primary federal law that protects our nation's waters, including lakes, rivers, aquifers, and coastal areas. Section 401 of the Clean Water Act requires that any applicant for a federal permit to conduct any activity, including the construction or operation of a facility that may result in the discharge of any pollutant, must obtain certification from the state.

Section 303 of the Clean Water Act requires states to identify surface waters that have been impaired. Under Section 303(d), states, territories, and authorized tribes are required to develop a list of water quality segments that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. Section 404 of the Clean Water Act established a permit program to regulate the discharge of dredged material into waters of the United States.

National Pollution Discharge Elimination System

Section 402 of the Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of pollutants from point sources. The U.S. Environmental Protection Agency (EPA) has authorized the State of California to administer its NPDES permitting program. The NPDES permitting program prohibits the unauthorized discharge of pollutants from a point source (pipe, ditch, well, etc.) into waters of the United States. The permitting program addresses municipal, commercial, and industrial wastewater discharges and discharges from large animal feeding operations. Permittees must verify compliance with permit requirements by monitoring their effluent, maintaining records, and filing periodic reports. The program is administered at the local level by the Regional Water Quality Control Boards.

Resource Recovery and Conservation Act of 1976

The Resource Conservation and Recovery Act (RCRA) (42 USC 6901 et seq.) gives the EPA the authority to control hazardous waste from “cradle to grave.” This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of nonhazardous solid wastes. The 1986 amendments to RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

The federal Hazardous and Solid Waste Amendments are the 1984 amendments to RCRA that focus 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.

3.16.3.2 State

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) preserves, enhances, and restores the quality of California’s water resources, and ensures the proper allocation and efficient use for the benefit of present and future generations. Wastewater generators must obtain a permit to discharge their wastewater. Pursuant to the federal Clean Water Act and California’s Porter–Cologne Water Quality Control Act, the SWRCB regulates wastewater discharges to surface waters through the NPDES program. Some wastewater discharges are exempt from federal NPDES requirements, but California law may still apply. Under California law, the SWRCB requires Waste Discharge Requirements for some discharges in addition to those subject to NPDES permits. Permits contain specific requirements that limit the pollutants in discharges. They also require dischargers to monitor their wastewater to ensure that it meets all requirements. Wastewater dischargers must maintain their treatment facilities, and treatment plant operators must be certified. The SWRCB routinely inspects treatment facilities and strictly enforces permit requirements.

Urban Water Management Planning Act

The California Urban Water Management Planning Act (California Water Code, Sections 10610–10656) requires urban water suppliers that provide over 3,000 acre-feet of water annually or serve 3,000 or more connections to analyze the reliability of their water sources over a 20-year planning horizon. The act requires urban water suppliers to prepare and update urban water management plans (UWMPs) that analyze the availability of water supplies to meet demands during normal, single-dry, and multiple-dry years as a way to encourage water conservation programs and create long-term planning obligations.

California Senate Bill 7

The Water Conservation Act of 2009, or SB X7-7, was enacted in November 2009 to require all water suppliers to increase water-use efficiency. The legislation sets an overall goal of reducing per capita urban water use by 20% by December 31, 2020 (California Water Code, Section 10608.20). In order to reach this goal, SB X7-7 requires each urban retail water supplier to report progress in meeting water-use targets (California Water Code, Section 10608.40). In their 2010 UWMPs, urban retail water suppliers must include the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates and references to the supporting data. Urban wholesale water suppliers must also include an assessment of present and proposed water conservation measures, programs, and policies needed to achieve the water use reductions required by this act. While it does not require existing customers to undertake changes in product formulation, operations, or equipment that would reduce process water use, suppliers may provide technical assistance and financial incentives to those customers to implement efficiency measures for process water.

State Agency Model Integrated Waste Management Act of 1999

Assembly Bill (AB) 75 was passed in 1999, and the State Agency Model Integrated Waste Management Act took effect on January 1, 2000. The State Agency Model Integrated Waste Management Act mandated that state agencies develop and implement an integrated waste management plan. The act also mandated that community service districts providing solid waste services report disposal and diversion information to the city, county, or regional agency in which the community service district is located. Provisions of the act require each state agency and large state facility to divert at least 50% of solid waste from landfills after 2004 and to submit an annual report to the California Department of Resources Recycling and Recovery (CalRecycle) summarizing its yearly progress in implementing waste diversion programs.

Solid Waste Disposal Measurement Act of 2008

The purpose of the Solid Waste Disposal Measurement Act of 2008 (SB 1016) is to make the process of goal measurement (as established by AB 939) simpler, more timely, and more

accurate. SB 1016 builds on the compliance requirements of AB 939 by implementing a simplified measure of a jurisdiction's performance. It accomplishes this by changing to a disposal-based indicator—the per capita disposal rate—which uses only two factors: (1) a jurisdiction's population (or in some cases employment) and (2) its disposal, as reported by disposal facilities.

Since 2008, CalRecycle calculates each jurisdiction's per capita (per resident or per employee) disposal rates each year. If business is the dominant source of a jurisdiction's waste generation, CalRecycle may use the per employee disposal rate. Each year's disposal rate will be compared to that jurisdiction's 50% per capita disposal target. As such, jurisdictions will not be compared to other jurisdictions or the statewide average, but they will only be compared to their own 50% per capita disposal target. Among other benefits, per capita disposal is an indicator that allows for jurisdiction growth because, as residents or employees increase, report year disposal tons can increase and still be consistent with the 50% per capita disposal target. A comparison of the reported annual per capita disposal rate to the 50% per capita disposal target will be useful for indicating progress or other changes over time.

Assembly Bill 341

On October 6, 2011, Governor Brown signed AB 341, establishing a state policy goal that no less than 75% of solid waste generated be source reduced, recycled, or composted by 2020, which is now in effect. AB 341 also mandated that local jurisdictions implement commercial recycling by July 1, 2012. CalRecycle will review each jurisdiction's commercial recycling program every 2 to 4 years for compliance. Businesses and public entities generating 4 cubic yards of trash or more per week and multi-family residential dwellings with five or more units are required to establish and maintain recycling service under AB 341.

California Energy Commission

The California Energy Commission is the state's primary energy policy and planning agency. Responsibilities of the California Energy Commission include, but are not limited to, forecasting future energy needs and keeping historical energy data, licensing thermal power plants 50 megawatts or larger, promoting energy efficiency, supporting renewable energy by providing market support, and planning for and directing state response to energy emergencies. SB 1389 requires the California Energy Commission to conduct "assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices." The California Energy Commission reports the results of these assessments and forecasts every 2 years to the governor, the legislature, and the California public in the Integrated Energy Policy Report.

Title 20 and Title 24, California Code of Regulations

New buildings constructed in California must comply with the standards contained in Title 20, Public Utilities and Energy, and Title 24, Building Standards Code, of the California Code of Regulations. Title 20 contains standards ranging from power plant procedures and siting to energy efficiency

standards for appliances to ensuring reliable energy sources are provided and diversified through energy efficiency and renewable energy resources. The 2016 California Green Building Standards (24 CCR Part 11) contains green building principles and energy efficiency standards for site planning and building design of residential and nonresidential buildings based on a state mandate to reduce California's energy demand. Also known as CALGreen, it contains a number of energy efficiency measures that impact energy used for lighting, water heating, heating, and air conditioning, including the energy impact of the building envelope such as windows, doors, skylights, wall/floor/ceiling assemblies, attics, and roofs. Mandatory measures also include storm water pollution prevention, water conservation, and recycling and/or salvage of at least 50% of nonhazardous construction and demolition wastes. The City adopted CALGreen by reference, with specific amendments. Saratoga Municipal Code Chapter 17, Article 5.010.

3.16.3.3 Local

City of Saratoga General Plan

The Open Space and Conservation Element (City of Saratoga 2007a) and the Land Use Element (City of Saratoga 2007b) of the City's General Plan provides goals, policies, and implementation measures, including the following:

Open Space and Conservation Element

- **Policy OSC 9.2**: Concentrate development in those portions of the community least susceptible to soil erosion and minimize grading and the introduction of impervious surfaces. Where appropriate, consider the use of on-site detention or retention basins to minimize stormwater runoff from sites.
    - **OSC.9.a.** The City shall coordinate review of development projects adjacent to watercourses with the Santa Clara Valley Water District and other applicable agencies.

Goal OSC 10: Maximize efficiencies in the use of the City's water supply.

- **Policy OSC 10.1**: Implement water conservation provisions of the San Jose Water Company's Urban Water Management Plan.
    - **OSC.10.a.** The City shall inform applicants of water conservation provisions and require that all new development proposals be in compliance with the water conservation provisions of the San Jose Urban Water Management Plan.

Land Use Element

- ~~**LU.6.a.**: Amend the Zoning Ordinance and standard conditions of approval to require that development applications conform to stormwater pollution prevention best management practices.~~

- **Policy LU 6.3**: Continue to implement the City's Construction Materials Recycling Program to reduce the quantity of construction debris in local landfills.

3.16.4 Impacts

3.16.4.1 Thresholds of Significance

The significance criteria used to evaluate the proposed project's utilities and service system impacts are based on the recommendations provided in Appendix F and G of the CEQA Guidelines. In accordance of Appendix F and Appendix G of the CEQA Guidelines, the project would have a significant impact on utilities and service systems if it would do any of the following (14 CCR 15000 et seq.):

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal dry, and multiple dry years.
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- 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.
- ~~Not~~Fail to ~~Comply~~ comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

3.16.4.2 Impacts and Mitigation Measures

Impact 3.16-1, 2, 3: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Water Facilities and Service

SJWC's current water supply is dependent on imported supplies purchased from wholesalers and local groundwater; statewide and local conditions can impact the reliability of supplies. However, supply

sources are generally considered consistent sources, except during multiple-year droughts when supplies are decreased in proportion to wholesale supplies available. The UWMP of SJWC concluded that supplies for the normal year and single-dry year are reliable up to year 2035.

As described under Section 3.16.2, *Environmental Setting*, the SJWC provides water service to existing professional office buildings adjoining the project site via a water distribution line in Cox Avenue. The proposed project plan indicates that a new water line would connect to the water main in Saratoga Creek Drive and/or Village Drive to serve domestic and fire water to the facility buildings on the site. Section 3.9, *Hydrology and Water Quality*, notes that the proposed project does not involve a zoning change and would not involve a regional population increase sufficient to affect the growth assumptions or methodology of the SJWC's 2015 UWMP. Therefore, the proposed project is consistent with anticipated uses and growth in the City. In addition, based on the anticipated uses and consistent with demand in other jurisdictions that have adopted rate factors and thresholds (such as the City of Los Angeles), the proposed project is estimated to use approximately 6,338 gallons per day (gpd) of water[1] and SJWC indicates that the available water supply would be sufficient to serve the proposed project (City of LA 2006; SJWC 2018b). The conclusions of the UWMP regarding the sufficiency of future water supplies and the efficacy of water conservation programs and drought contingency planning would be unaffected by the proposed project. The new facilities would involve the installation of water-saving fixtures that would comply with City requirements for water conservation and contribute to achieving community sustainability objectives, a beneficial effect of the proposed project. Therefore, impacts to water facilities, services, and supply would be **less than significant**.

Wastewater Treatment

As described under Section 3.16.2, *Environmental Setting*, the WVSD provides wastewater service to the project site. An existing WVSD sewer line currently connects to a municipal sewer main in Cox Avenue. For the proposed project, a new sewer line would extend northward from the extension of Saratoga Creek Drive, connect with the existing main that connects with the sewer main in Cox Avenue. The new on-site wastewater collection facilities would connect with existing municipal sewer facilities and would not require the construction of new, expanded wastewater collection or treatment facilities.

Using the WVSD wastewater generation factor of 65 gallons ~~gpd~~ per capita per day, the proposed project would result in an estimated wastewater generation of approximately 5,070 gpd[2] (WVSD 2009). The WVSD has a fixed capacity allocation of 13.05 mgd at the RWF, which has a design capacity of 167 mgd. The project's estimated wastewater generation would be within the allocation of the WVSD and the existing wastewater capacity of the RWF. The wastewater demand of the proposed project could be accommodated within the existing WVSD

[1] Water demand estimate is based on 125% of wastewater generation rates (City of Los Angeles 2006).
[2] 65 gallons per capita per day x 78 beds = 5,070 gallons per day

infrastructure. Consequently, the project would have a **less-than-significant impact** on existing municipal wastewater facilities.

Electric Power and Natural Gas

The impact of the project on PG&E's electric power and natural gas facilities is analyzed in Section 3.5.4.3. Impacts to electricity and natural gas during construction and operation would be **less than significant.**

Impact 3.16-2: Would the project 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? Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

As noted in Section 3.16.2.4, the project would be served by the Guadalupe Landfill, which has the capacity to handle solid wastes generated by the operation and construction phases of the project. WVCR provides solid waste, recycling, and yard waste collection services. The project does not involve demolition of existing structures. According to CalRecycle, the City had disposal rates of 3.1 pounds per person per day and 13.9 pounds per employee per day in 2017 (CalRecycle 2019b). Using this disposal rate, the project's 79 residents and 30 employees would generate approximately 801 pounds of solid waste per day (or 146.2 tons per year). This solid waste volume (0.4005 tons per day) would be considered a negligible amount of the permitted daily capacity (1,300 tons) of the Guadalupe Landfill and its remaining capacity (11.055 million cubic yards).

The implementation of the City Municipal Code (Chapter 7, Health and Sanitation, Article 7-05 and 7-10; and Chapter 16-47 and 16-49, Green Building Regulations; Chapter 17-05.10 Greenhouse Gas Reduction Policies) for solid waste handling and disposal and recycling of construction and demolition debris would promote waste reduction and compliance with recycling regulations. Consequently, the project's impact on solid waste services would be **less than significant**.

Mitigation Measures

None required.

3.16.5 References

CalRecycle (California Department of Resources Recycling and Recovery). 2019a. "SWIS Facility Detail: Guadalupe Sanitary Landfill (43-AN-0015)." https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0015.

CalRecycle. 2019b. "Disposal Rate Calculator: Saratoga, 2017." Accessed May 2019.

https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/DisposalRateCalculator.

City of Los Angeles. 2006. *L.A. CEQA Thresholds Guide.* https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/A07.pdf

City of Saratoga. 2007a. *Open Space and Conservation Element 2007*. Adopted June 6, 2007. https://www.saratoga.ca.us/DocumentCenter/View/49/Open-Space-and-Conservation-Element-Dated-June-6-2007-PDF.

City of Saratoga. 2007b. *City of Saratoga General Plan: Land Use Element*. Adopted June 6, 2007.

Kennedy/Jenks Consultants. 2013. *San Francisco Bay Area Integrated Regional Water Management Plan*. Prepared by Kennedy/Jenks Consultants in association with Environmental Science Associates, Kearns & West, and Zentraal. September 2013. http://bayareairwmp.org/wp-content/uploads/2017/05/san-francisco-bay-area-irwmp-final_september-2013a.pdf.

San Jose Municipal Water System. 2016. *2015 Urban Water Management Plan, San Jose Municipal Water System.* Final Report. Prepared by ch2m. June 2016. https://www.sanjoseca.gov/home/showdocument?id=422.

SJWC (San Jose Water Company). 2016. 2015 Urban Water Management Plan San Jose Municipal Water System. June 2016. https://www.sanjoseca.gov/home/showdocument?id=422

SJWC ~~(San Jose Water Company)~~. 2018a. Annual Water Quality Report 2017. https://www.sjwater.com/sites/default/files/2018-05/SanJoseWaterReportv1r2_Web%20Final.pdf.

SJWC. 2018b. *Will Serve Letter* from Wanda Folk (Water Services Representative). August 20, 2018.

SJW Group. 2019. *2018 Annual Report*. https://sjwcorp.s3.amazonaws.com/files/documents/2018%20Annual%20Report%20Final.pdf.

Waste Management. 2015. “Milpitas Contract and Guadalupe Landfill Facts.” http://milpitas-odor.info/wp-content/uploads/2015/01/WM-fact-sheet.pdf.

WVSD (West Valley Sanitation District). 2018. *District Strategic Plan (FY 2018-19 to FY 2022-23).* April 4, 2018. http://www.westvalleysan.org/assets/uploads/docs/ssmp/A.2%20FY2018-19%20to%20FY2022-23%20Strategic%20Plan.pdf

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3.17 WILDFIRE

3.17.1 Introduction

This section of the EIR evaluates the potential impacts associated with wildfire for the proposed project. This section presents the environmental setting, regulatory framework, impacts of the proposed project on the environment, and proposed measures to mitigate any identified significant wildfire-related impacts.

3.17.2 Environmental Setting

The Saratoga Fire Protection District (District) and the Santa Clara County Fire Department (SCCFD) provide fire suppression, fire prevention, and emergency response for the City of Saratoga (City). The closest fire station to the project site, West Valley Fire Station, is located 0.8 miles from the project site at 19800 Cox Avenue. The California Department of Forestry and Fire Protection (CAL FIRE) mapped fire hazard severity zones in Santa Clara County based on fuels, terrain, weather, ember production, and other relevant factors (CAL FIRE 2008; Santa Clara County 2016). These zones, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), are classified by the CAL FIRE Director in accordance with Government Code, Sections 51175–51189, to assist responsible local agencies, and identify measures to reduce the potential for losses of life, property, and resources from wildland fire.

As shown in Figure 3.17-1, Fire Hazard Zones, the western and southwestern parts of the City are susceptible to wildland fires due to the steep topography, abundant fuel load, lack of adequate water supply, and climactic conditions. As noted by CAL FIRE, historic large fires in this region have occurred under the influence of strong north winds, humidity patterns, and low moisture levels (CAL FIRE 2018). The areas most susceptible to fire hazard are located west of the City, at Sunnyvale Road, Steven Canyon Road, and the Highway 9 and Highway 35 corridors southwest of the City. As a result of this condition, the City (in coordination with CAL FIRE) has established a Wildland–Urban Interface (WUI) zone, which covers a majority of the areas within the City that have moderate to very high fire hazard potential.

Fire hazards in the flat, urbanized areas of the City, where the project site is located, are relatively low. Although these areas are higher in population density than the hillside areas, excessive amounts of combustible vegetation are not present. The City's fire code and trash pickup service have contributed to the removal of a large portion of combustible vegetation and trash in the City's urban area. Response time for fire protection services are approximately 7 minutes to any of the City's more densely populated neighborhoods, depending on the type of call received (SCCFD 2018). All area fire departments cooperate in mutual aid agreements, which loosen the strict adherence to district boundaries when adjacent communities are in need (City of Saratoga 2013).

The summer fire season poses the greatest threat to residential areas in the City, particularly during periods of high temperatures accompanied by extremely dry vegetation.

The City and SCCFD are also supported by the Community Emergency Response Team (CERT), a volunteer service trained by SCCFD and managed by Saratoga's Emergency Operations Center. In times of disaster, CERT divisions assess damage in their neighborhoods, assist the injured, fight small fires, perform light search and rescue, and fulfill disaster related tasks as needed. The project site is located in the Quito CERT division (City of Saratoga 2019b).

3.17.3 Regulatory Setting

3.17.3.1 Federal Regulations

There are no federal regulations regarding the provision of local services in relation to wildfires.

National Fire Protection Association Codes, Standards, Practices, and Guides

National Fire Protection Association (NFPA) codes, standards, recommended practices, and guides ("NFPA Documents") are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. NFPA standards are recommended guidelines and nationally accepted good practices in fire protection but are not law or "codes" unless adopted as such or referenced as such by the California Fire Code (CFC) or a local fire agency.

3.17.3.2 State Regulations

California Fire Code

The CFC is Chapter 9 of Title 24 of the California Code of Regulations. It was created by the California Building Standards Commission and is based on the International Fire Code created by the International Code Council. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazards classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years. Chapter 16–20 (Fire Code) of the City's municipal code provide the City's adopted amendments to the 2016 CFC.

California Department of Forestry and Fire Protection

CAL FIRE is tasked with reducing wildfire-related impacts and enhancing California's resources. CAL FIRE responds to all types of emergencies including wildland fires and residential/commercial structure fires. In addition, CAL FIRE is responsible for the protection of approximately 31 million acres of private land within the state and, at the local level, is responsible for inspecting defensible space around private residences. CAL FIRE is responsible for enforcing State of California fire safety codes included in the California Code of Regulations and the California Public Resources Code (PRC). Title 14, Section 1254 of the California Code of Regulations identifies minimum clearance requirements required around utility poles.

California Strategic Fire Plan

In 2010, the State Board of Forestry and Fire Protection issued the California Strategic Fire Plan, a statewide fire plan developed in concert between the State Board of Forestry and Fire Protection and CAL FIRE. Goals included improved availability and use of information on hazard and risk assessment, land use planning, development of shared vision in plans such as Community Wildlife Protection Plans (CWPPs), establishment of fire resistance in assets at risk, shared vision among fire protection jurisdictions and agencies, levels of suppression, and post-fire recovery.

In support of this plan, several policies are noted, including creation of defensible space, improving home fire resistance, fuel hazard reduction that creates resilient landscapes and protects wildland and natural resources, adequate and appropriate fire suppression, and commitment by individuals and communities to wildfire prevention and protection through local planning.

The California Strategic Fire Plan's several objectives are as follows: the state will produce tools such as updates to the CAL FIRE VHFHSZ maps, fire history, and data on values and assets at risk; assist government bodies in the development of a comprehensive set of wildland and WUI protection policies; identify minimum key components necessary to achieve a fire safe community; coordinate CAL FIRE Unit Fire Plans with CWPPs; improve regulatory effectiveness, compliance monitoring, and reporting pursuant to PRC 4290 and 4291; and participate in public education efforts concerning regulation, prevention measures, and preplanning.

3.17.3.3 Local Regulations

City of Saratoga General Plan

The Safety Element (City of Saratoga 2013) and Open Space and Conservation Element (City of Saratoga 2007) of the Saratoga 2040 General Plan provide objectives, policies, and programs regarding land use, including the following:

Safety Element

Goal SAF-4: Reduce the danger of property damage and loss of life due to urban and wildfires.

- **Policy SAF-4.1:** The City shall require the installation of an early warning fire alarm system in each of the following cases:

  a. All new single-family dwellings and any existing single-family dwellings that are expanded by fifty percent or more in floor area, where such new or expanded dwellings are located within designated hazardous fire area.

  b. All new single-family dwellings having a gross floor area in excess of 5,000 square feet.

  c. Any existing single-family dwelling that is expanded by fifty percent or more in floor area which, after such expansion, will exceed 5,000 square feet in gross floor area.

  d. All new multi-family dwellings and other new structures having multiple sleeping units, such as hotels, motels, apartments, condominium or other community housing projects, townhouses and nursing homes.

  e. Any existing multi-family dwelling or other existing structure having multiple sleeping units as described in Paragraph (d) above, which is expanded by fifty percent or more in gross area.

    - **Implementation Measure SAF-4.1a:** Implement through continuation of existing subdivision, zoning and building regulations as contained in the City Code.

- **Policy SAF-4.3:** The Fire Chief, having jurisdiction, should be authorized to require the installation of an early warning fire alarm system in any new commercial structure or community facility, or expansion of an existing commercial structure by fifty percent or more in gross floor area, whenever the Fire Chief deems such requirement to be necessary or appropriate on the basis of facts and circumstances in each individual case.

  - **Implementation Measure SAF-4.3a:** Implement through continuation of existing subdivision, zoning and building regulations as contained in the City Code.

- **Policy SAF-4.4:** The City shall encourage all property owners to install an early warning fire alarm system on a voluntary basis where such owners are not otherwise required to do so.

  - **Implementation Measure SAF-4.4a:** Implement by continuation of existing provision in the building regulations allowing voluntary installation of the system and publicize the availability of the system for any property located within the City.

- **Policy SAF-4.5:** The City shall continue to enforce existing regulations pertaining to hazardous fire areas (wildland-urban interface), fire retardant construction and landscaping (fuel modification).

- **Policy SAF-4.6:** The City shall coordinate with the Santa Clara County Fire Department on the need for additional fire prevention regulations for the built up, populated areas of the City.
    - **Implementation Measure SAF-4.6a:** The City, in cooperation with the County of Santa Clara Fire Department, will review and modify, as necessary, existing building regulations to require Type A & B fire retardant roof materials in the densely populated flatlands of the City.

Open Space and Conservation Element

- **Policy OSC 13.3:** Fire safety shall be an important consideration when evaluating the preservation of native vegetation.

CAL FIRE Santa Clara Unit Fire Plan

The Santa Clara Unit of CAL FIRE provides fire protection to many areas within Santa Clara County, as well as to Contra Costa, Alameda, and the western portions of San Joaquin and Stanislaus counties. The 2018 CAL FIRE Santa Clara Unit Strategic Fire Plan uses the Seven Strategic Goals and Fire Plan Framework identified in the California Strategic Fire Plan and translates them into work to be done within its area of responsibility (CAL FIRE 2018). The Santa Clara Unit has an objective of keeping all wildland fires to 10 acres or less. Strategically, the primary goal of wildland fire protection in the unit is to safeguard the wide ranges of values found within the unit from the effects of wildfire.

The Santa Clara Unit employs multiple programs to accomplish this goal, including development of pre-fire management tactics, fire prevention, a defensible space inspection program for fire safe clearance around structures, information and education programs, and the Vegetation Management Program to reduce hazardous fuels and achieve natural resource management goals with within an State Responsibility Area.

Santa Clara County Community Wildfire Protection Plan

The Santa Clara County Community Wildfire Protection Plan (Santa Clara County 2016) is a countywide strategic plan with goals for creating a safer WUI community, accompanied by report annexes that address specific issues and projects by jurisdiction and stakeholder organizations to meet the strategic goals.

3.17.4 Impacts

3.17.4.1 Methods of Analysis

This impact analysis evaluates the ability of SCCFD and CAL FIRE to provide fire protection services to the project site and the wildfire risks associated with the proposed project. Information from the City's General Plan, CAL FIRE Strategic Plan, and Santa Clara County assessments were used.

3.17.4.2 Thresholds of Significance

The significance criteria used to evaluate the proposed project's wildfire impacts are based on the recommendations provided in Appendix G of the CEQA Guidelines. In accordance with Appendix G of the CEQA Guidelines, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, the project would have a significant impact on wildfire if it would do any of the following (14 CCR 15000 et seq.):

- Substantially impair an adopted emergency response plan or emergency evacuation plan.
- 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.
- 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.
- 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.

3.17.4.3 Impacts and Mitigation Measures

Impact 3.17-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Refer to Section 3.8, Impact 3.8-4 for information about emergency response/evacuation plans, including the City of Saratoga's Emergency Operations Plan (City of Saratoga, 2019c). There would be no temporary road closures associated with construction of the project. As streets would remain open to emergency vehicles at all times, construction of the proposed project would not impact emergency access and would minimally and temporarily impact emergency evacuation. The proposed project would not substantially impair the implementation of an adopted emergency response plan or emergency evacuation plan. Impacts related to impairment of an adopted emergency response plan or emergency evacuation plan would be **less than significant**.

Mitigation Measures

None required.

Impact 3.17-2: 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 wildfire?

As shown in Figure 3.17-1, CAL FIRE has determined that the project site is not located in or adjacent to a VHFHSZ. The project site is located in a highly urbanized area at a substantial distance from regional open space areas. Development of the project would have **no impacts** related to exposing project occupants to wildland fire hazards (pollutant concentrations or uncontrolled spread of wildfire).

Mitigation Measures

None required.

Impact 3.17-3: 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?

The proposed project would include installation of infrastructure to support the facility. This would include extending Saratoga Creek Drive by approximately ~~150~~ 140 feet, providing access to the project site~~ and secondary access to the vacant lots immediately south of the project site~~. The project includes a turnaround in front of Building 1 to allow improved access for emergency vehicles; the SCCFD approved the project plans and proposed emergency access (SCCFD 2018). The City requires that all new construction include an automatic fire sprinkler system and that community facilities with a floor area in excess of 5,000 square feet include an Early Warning Fire System. The Early Warning Fire System is administered by the SCCFD; it can quickly notify fire personnel of any fires, keeping response times low and allowing firefighters to suppress fire emergency situations quickly.

Access and parking for emergency vehicles and delays in response times are the significant public safety concerns for the SCCFD in this area. The infrastructure associated with the project would decrease potential fire hazard risk and would not result in temporary or ongoing impacts to the environment. Impacts related to the installation or maintenance of infrastructure that may exacerbate fire risk would be **less than significant**.

Mitigation Measures

None required.

Impact 3.17-4: 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?

Refer to Section 3.6, *Geology and Soils*, for information about landslides and Section 3.9, *Hydrology and Water Quality*, for information about flooding and drainage. The proposed project is a senior living facility located on a flat site that would not expose people or structures to significant risks associated with flooding or landslides as a result of runoff, or post-fire slope instability, or drainage changes. All proposed construction and operation activities would occur outside of a VHFHSZ. Impacts related to people or structures post-fire would be **less than significant**.

Mitigation Measures

None required.

3.17.5 References

CAL FIRE (California Department of Forestry and Fire Protection). 2008. "Very High Fire Hazard Severity Zones in LRA, As Recommended by CAL FIRE, Saratoga" [map]. 1:12,000. CAL FIRE Fire Hazard Severity Zones, FHSZL_c43_Saratoga. Sacramento, California: CAL FIRE. Accessed May 2019. https://www.fire.ca.gov/fire_prevention/fhsz_maps/FHSZ/santa_clara/Saratoga.pdf.

CAL FIRE. 2018. *2018 CAL FIRE Santa Clara Unit Strategic Fire Plan*. Revised July 2018. Accessed May 2019. http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf1619.pdf.

City of Saratoga. 2007. *Open Space and Conservation Element 2007*. Adopted June 6, 2007. https://www.saratoga.ca.us/DocumentCenter/View/49/Open-Space-and-Conservation-Element-Dated-June-6-2007-PDF.

City of Saratoga. 2013. *City of Saratoga General Plan: 2013 Safety Element*. Final Adopted Draft. February 20, 2013.

City of Saratoga. 2019a. Code of Ordinances. Supplement 45, Update 1. As updated February 6, 2019. Accessed May 2019. https://library.municode.com/ca/saratoga/codes/code_of_ordinances?nodeId=16616.

City of Saratoga. 2019b. Emergency Preparedness and Saratoga CERT. Saratoga CERT Program. Access May 2019. https://www.saratoga.ca.us/224/Emergency-Preparedness-and-CERT.

City of Saratoga. 2019c. *Emergency Operations Plan*. Final Adopted Draft. June 19, 2019

County of Santa Clara. 2016. *Santa Clara County Community Wildfire Protection Plan*. Prepared by SWCA Environmental Consultants. Half Moon Bay, California: SWCA Environmental Consultants. August 2016. Accessed May 2019. http://www.sccfd.org/images/documents/fire_prevention/CWPP/CWPP_Strategic_Countywide_Document_08_29_16.pdf.

County of Santa Clara. 2017. *Santa Clara Operational Area Hazard Mitigation Plan*. Vol. 2, Planning Partner Annexes. Prepared by Tetra Tech. Oakland, California: Tetra Tech. April 2017. SCCFD (Santa Clara County Fire Department). 2018. "Developmental Review Comments for Palm Villas Saratoga." November 4, 2018.

SCCFD. 2018. *2018 Annual Report*. Santa Clara County Fire Department. https://www.sccfd.org/images/annual-report/2018_SCCFD_Annual_Report.pdf

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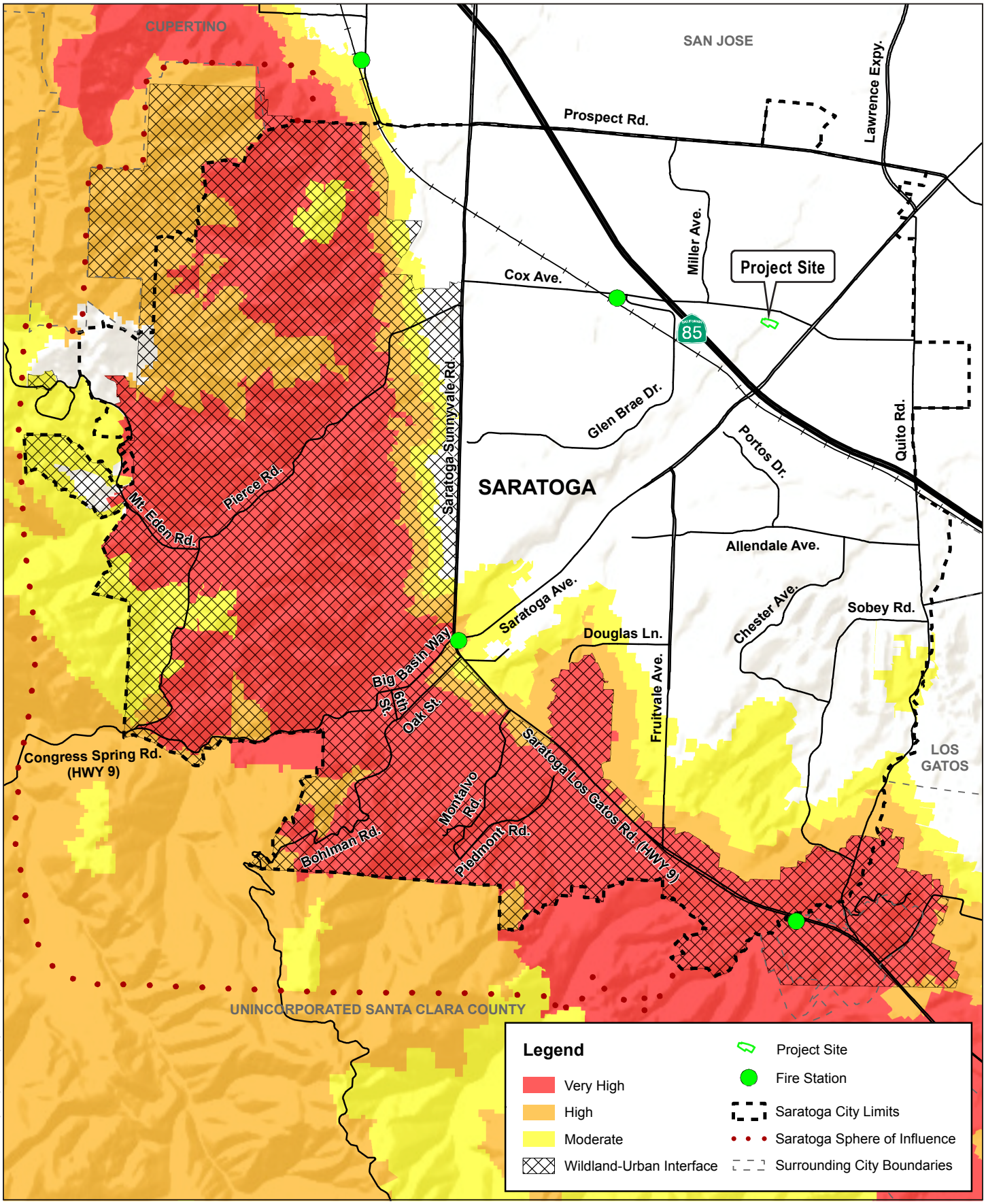

SOURCE: **Prepared by RBF Consulting** 12/04/2012: Sources: City of Saratoga - Zoning Map (2010) Wildland-Urban Interface Fire Area Map (2009) : ESRI Terrain Basemap County of Santa Clara - CityLimits (2010) StreetEdge (2009) : CA Dept of Forestry and Fire Protection (2007)

FIGURE 3.17-1

Fire Hazard Zones

Palm Villas Project

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CHAPTER 4
OTHER CEQA CONSIDERATIONS

INTRODUCTION

This chapter includes the following other discussions that are required in an environmental impact report (EIR):

- Cumulative Impacts
- Effects Not Found to be Significant
- Significant and Unavoidable Environmental Impacts
- Significant and Irreversible Environmental Effects
- Growth Inducement

CUMULATIVE IMPACTS

The California Environmental Quality Act (CEQA) requires that an EIR examine cumulative impacts. As discussed in CEQA Guidelines Section 15130(a)(1), a cumulative impact "consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." The analysis of cumulative impacts need not provide the level of detail required of the analysis of impacts from the project itself, but shall "reflect the severity of the impacts and their likelihood of occurrence" (CEQA Guidelines Section 15130[b]).

In order to assess cumulative impacts, an EIR must analyze either a list of past, present, and probable future projects or a summary of projections contained in an adopted general plan or related planning document. In this case, the City of Saratoga (City) has provided a list of "past, present, and probably future projects" that are summarized in Table 4-1 and illustrated in Figure 4-1. The geographic scope of the cumulative analysis varies depending on the specific issue area. As such, Table 4-2, provides the scope of the cumulative impact analysis for each of the environmental issues evaluated in Chapter 3 of this EIR, and discussion of each issue area follows.

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Table 4-1. Past, Present, and Reasonably Foreseeable Projects in the City of Saratoga

Map Letter	Project Name, Location, and Description	Approximate Distance from the Project Site	Type of Project	Project Stage	Other Information
A	**Quito Village Development Project** 18764 Cox Avenue The project would construct a mixed-use townhome project that would include 91 residential units in 17 buildings comprising 253,230 square feet, and 4,999 square feet of commercial uses in 1 building, and 76,529 square feet of open space. This project would also include 53 surface parking spaces and 182 garage spaces.	0.34 miles	Residential and commercial	Application submitted	N/A
B	**Marshall Lane Subdivision Project** 18500 and 18520 Marshall Lane The project proposes to subdivide two (2) properties into 9 new lots. A new road is proposed as a part of this project. In addition, the project requests a zoning change from Agricultural (A) to R-1-40,000.	1.5 miles	Re-zone from Ag (A) to Residential (R) Subdivision	Environmental Review has not started	Construction date unknown
C	**Saratoga Retirement Community Project** 14500 Fruitvale Avenue The project proposes to expand the existing campus to add 73 new Independent Senior Housing Units, a new Meeting Room, and a new small Fitness Facility. The project will also include 196 new structured parking spaces, most of which are underground.	1.7 miles	Residential Care Facility Elderly (RCFE) Zone Change, Community Master Plan Update	Environmental Review has not started	Construction date unknown
D	**Unnamed Project** 20640 Third Street The project is a three-story, 35 feet tall, 5,678 square foot mixed-use building on a vacant 2,527 square foot parcel at 20640 Third Street adjacent to the Sam Cloud Barn. The project also includes a request for variances to locate the site on a slope exceeding 30% and for the project to exceed the 80% maximum allowed building site coverage. The project will include first-floor commercial office space and two residential units on floors two and three. A basement level garage will provide parking for eight vehicles. Three protected trees would be removed.	2.3 miles	Mixed Use (Commercial/Residential)	CEQA Exempt	Construction date unknown
E	**John Henry House Project** 14630 Big Basin Way The project includes deconstructing, relocation, and reconstruction of the *John Henry House* to the southwestern corner of the site facing Sixth Street to make room for the construction of a 2,922-mixed-use commercial/office building. The detached garage constructed circa 1935 and not part of the original structure would not be rebuilt. The reconstructed *John Henry House* would be used as office space.	2.45 miles	Mixed Use (Commercial/Office)	MND	Construction date unknown
F	**Saratoga to the Sea Trail Project** The project would construct an approximately 3 mile public recreational trail connection from Saratoga Quarry Park to Sanborn County Park in western Santa Clara County. The proposed trail would occur on City-owned and privately-owned land within the project site. The trail is envisioned to eventually connect to existing County trails within Sanborn County Park and to serve as part of a trail system linking trails in Saratoga to the Skyline-to-the Sea Trail to form a Saratoga-to-the-Sea trail. The trail is included as a proposed trail in the City of Saratoga General Plan in Circulation and Scenic Highway Element and also in Open Space and Conservation Element.	3.05 miles	Trail and recreation	Mitigated Negative Declaration (MND)-Approved 7-3-19	N/A
G	**Mountain Winery Annexation Project** 14831 Pierce Road The project would consist of adjustments to the City of Saratoga's Urban Service Area (USA) and Sphere of Influence (SOI) boundaries to annex two (2) new parcels. It also includes General Plan (from Hillside [HS] to Regional Commercial [RC]) and Hillside Open Space [OS-H] and zoning ordinance amendments (from Hillside-d1 [HS-d1) and Hillside d1-Scenic Roads [HS-d1-sr] to Regional Commercial [RC]) and Residential Open Space [R-OS]), and adoption of a Precise Plan and development agreement. New uses could include a wine-tasting building, concessions, events, storage, ticket office, and terrace garden, as well as lodging (up to 300 rooms), a second water tank, and other infrastructure/utilities improvements. The project also includes annexation into the Cupertino Sanitary District to allow for the potential to connect to their system in the future. This project is subject to the review and approval of the Santa Clara Local Agency Formation Commission (LAFCo).	3.55 miles	Annexation, General Plan change to Regional Commercial (RC) and Hillside Open Space (OS-H) and Zoning change to Regional Commercial (RC) and Residential Open Space (R-OS).	Draft EIR released October 2019	~~No construction proposed at this time~~ Annexation was denied by the City

Source: City of Saratoga, 2020.

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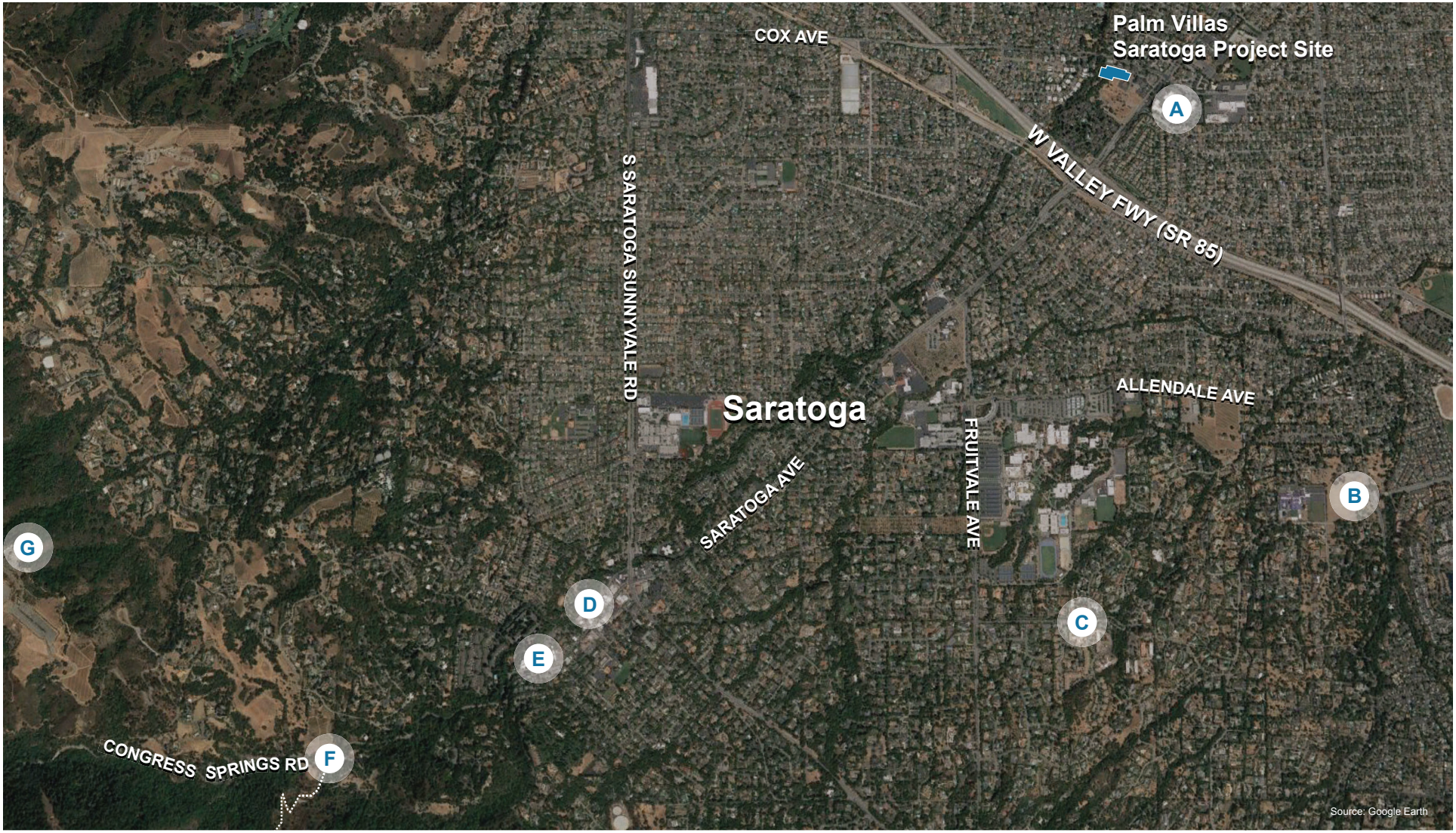

■ Project Site
A – Quito Village Project (18764 Cox Avenue)
B – Marshall Lane Subdivision (18500 and 18520 Marshall Lane)
C – Saratoga Retirement Community (14500 Fruitvale Ave)
D – Unnamed Project (20640 Third Street)
E – John Henry House (14630 Big Basin Way)
F – Saratoga to the Sea Trail Project (Saratoga Quarry Park to Sanborn County Park)
G – Mountain Winery Annexation Project (14831 Pierce Road)

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FIGURE 4-1
Map of Cumulative Projects
Palm Villas Saratoga Project

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Table 4-2. Scope of Cumulative Analysis

Environmental Topic Area	Scope of Cumulative Analysis
3.1 Aesthetics	Project site, view corridors, viewsheds, and scenic resources in the immediate vicinity.
3.2 Air Quality	San Francisco Bay Area Air Basin (SFBAAB).
3.3 Biological Resources	Project site, immediate vicinity, and City of Saratoga.
3.4 Cultural Resources	Project site, immediate vicinity, and City of Saratoga.
3.5 Energy	State of California.
3.6 Geology and Soils	Project site and immediate vicinity.
3.7 Greenhouse Gas Emissions	Global impact with emission levels and rates established at the statewide level.
3.8 Hazards and Hazardous Materials	Project site and immediate vicinity.
3.9 Hydrology/Water Quality	Saratoga Creek and San Tomas Aquinas Creek subwatersheds.
3.10 Land Use	City of Saratoga.
3.11 Noise and Vibration	Project site and immediate vicinity.
3.12 Public Services and Safety	City of Saratoga, immediate vicinity, and City of Saratoga.
3.13 Recreation	City of Saratoga.
3.14 Transportation	City of Saratoga.
3.15 Tribal Cultural Resources	Project site, immediate vicinity, and City of Saratoga.
3.16 Utilities and Service Systems	Project site, immediate vicinity, and City of Saratoga.
3.17 Wildfire	City of Saratoga.

Aesthetics

The geographic area for cumulative aesthetic impacts is the project site, and view corridors, viewsheds, and scenic resources in the immediate vicinity. Other projects listed in Table 4-1 would add new development within the City. Specifically, the Quito Village Development (mixed-use residential), the Saratoga Retirement Community (senior residential similar to the proposed project), the Unnamed Property on 20640 Third Street (up to three [3] stories of mixed-use), and the John Henry House (mixed-use) projects include demolition of existing buildings (if they exist) and construction of new buildings. However, none of the projects listed are actually visible from the project site, or within the same view corridors, viewshed or vicinity of the project site~~,~~, or near scenic resources. The closest project (refer to Figure 4-1) is the Quito Village Development project, which is 0.34 miles away and separated from the project site by Saratoga Avenue. Thus, the project in combination with the listed projects would not result in a cumulative aesthetic impact.

Although not included in the City's past, present, and probable future project list presented in Table 4-1, it should be noted that there are undeveloped lots immediately adjacent to the project site to the east and south (these lots have the same land use and zoning designations as the proposed project (designated for Professional Administrative [PA] and zoned for Professional & Administrative [PA]). Should these adjacent undeveloped lots be developed, it could result in potential cumulative aesthetic impacts, specifically related to creation of new sources of light and

glare. However, there are no active proposals/applications for development of these adjacent sites and if they were to be developed in the future, similar to the proposed project, they would be required to address their contribution to aesthetic light and glare impacts through discretionary CEQA review and adherence to the City's development standards and design review process and regulations that would ensure that lighting would be consistent with and not significantly adversely affect adjacent properties. Any new building projects would be subject to compliance with the Uniform Building Code (UBC) and the California Energy Code (Title 24, Part 6) which includes energy-conserving features to reduce light pollution, trespass, and glare.

Air Quality

The geographic area for cumulative air quality impacts is the San Francisco Bay Area Air Basin (SFBAAB). The San Francisco Bay Area Air Basin (SFBAAB) is designated as a nonattainment area for federal and state Ozone (O_3) and $PM_{2.5}$ standards. The SFBAAB is also designed as a nonattainment area for the state PM_{10} standards. The SFBAAB is designed as "unclassified" or "attainment" for all other criteria air pollutants.

Other projects listed in Table 4-1 would likely have similar air quality impacts (such as the mixed-use and residential developments) or lesser air quality impacts (such as the recreational trail, subdivision, and annexation projects) compared to the proposed project. The project in combination with the other projects listed would generate additional emissions of O3 precursors and particulate matter, which may adversely affect the ability of the region to achieve attainment with the applicable air quality standards. This is a significant cumulative impact.

As discussed in Section 3.2, *Air Quality*, the Bay Area Air Quality Management District (BAAQMD) maintains criteria pollutant significance thresholds (refer to Table 3.2-5) to maintain ambient air quality concentrations below state and federal standards. A project whose construction or operation emissions would not exceed significance thresholds would not be considered cumulatively considerable and would be less than significant.

Table 3.2-6 shows that the average daily unmitigated construction criteria air pollutant emissions from project construction (such as off-road construction equipment exhaust, on-road vehicle exhaust, and entrained road dust, paving and architectural coating activities) is below the BAAQMD thresholds for ROG, NOx, and particulate matter. Potential impacts related to fugitive dust would be reduced by implementation of required dust control measures.

For operation period impacts, air pollutant emissions could occur related to mobile sources, area sources, energy sources, and stationary sources. CalEEMod was used to estimate daily emissions from project-related operational sources shown in Table 3.2-7, and similar to construction-related air pollutant emissions, are also below BAAQMD thresholds for ROG, NOx, or particulate matter.

As such, with incorporation of MM-AQ-1 (to minimize construction-period CO health risks) and adherence to construction best management practices, the increase in construction- and operational-emissions from the project would be less than the BAAQMD significance thresholds (even without implementation of best management practices), therefore the project would have a less-than-significant impact in relation to regional emissions. Thus, the project's contribution to cumulative air quality impacts would not be considerable.

Biological Resources

The geographic area for cumulative biological resources impacts is the project site and City. Future development within Santa Clara County (County) and the City could result in the continued decline of native plant communities, and increased human presence within these areas would contribute to the distribution of non-native plant and wildlife species, which would further degrade the habitat and available niches for native species in the surrounding region. However, based on a review of the location of other projects listed in Table 4-1, with the exception of the Saratoga to the Sea Trail project which would have a minimal physical impact to areas already designated for recreational use, all are located in areas of existing development and within the City limits. Biological resources are very limited, and generally include planted landscaping and species associated with infill development. None of the other projects listed are immediately adjacent to an existing waterway. Thus, the project in combination with the listed projects would result in a less-than-significant cumulative biological resources impact.

As described in Section 3.2, *Biological Resources*, even absent project mitigation, the project's incremental impacts would not represent a considerable contribution to potentially significant impacts on biological resources.

Therefore, with incorporation of MM-BIO-1 through MM-BIO-8, the project's contribution to cumulative biological resources impacts would be less than considerable.

Cultural Resources

The geographic area for cumulative cultural resource impacts is the project site, immediate vicinity, and the surrounding City, as cultural resource impacts are typically localized and limited to the immediate area in which a given cultural resource is located. The closest project from Table 4-1 is 0.34 miles away and is not physically connected or visible from the project site. Furthermore, any other projects, would be required to undergo discretionary review and would be subject to the same resource protection requirements and CEQA review as the proposed project. Policies within the General Plan, including Land Use 12.9, require reconnaissance-level analyses of new development projects to ensure that no significant archaeological, prehistoric, paleontological, or Native American resources would be disturbed. If such resources are found, the City would require measures consistent with CEQA to protect these resources. Because all significant cultural resources and

human remains are unique and nonrenewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. Although unlikely, there is the potential that the proposed project in combination with the other listed projects could adversely affect cultural resources that are unique and nonrenewable members of finite classes if discovered. Thus, the project in combination with the listed projects could result in potentially significant cumulative impacts to known cultural resources.

To minimize potential impacts, the proposed project would implement MM-CUL-1 and MM-CUL-2 to provide procedures to follow in the event a resource is identified at the project site. The procedures require work be stopped in the event a resource is discovered and an archaeologist and/or Native American representative contacted to determine the appropriate course of action depending on the resource. Compliance with this measure, along with Section 5097.98 of the California PRC, Section 7050.5 of the California Health and Safety Code, and Section 15064.5(e) of the CEQA Guidelines, would ensure that potential project impacts to previously unidentified subsurface resources are mitigated to a less-than-significant level.

Thus, with incorporation of MM-CUL-1 and MM-CUL-2, the project's contribution to cumulative cultural resources impacts would be less than considerable.

Energy

The geographic area for cumulative energy impacts is the State of California. Cumulative projects that could exacerbate the proposed project's impacts include any projects that could result in wasteful, inefficient, or unnecessary use of energy. However, all projects in the City, including the ones identified in Table 4-1, are required to comply with Title 24 ensuring that long-term energy consumption would be reduced to minimize wasteful, inefficient use of energy to less–than-significant levels. Thus, the project in combination with the listed projects would result in less-than-significant cumulative energy impacts.

As described in Section 3.5-1, *Energy*, the proposed project would not result in wasteful, inefficient, or unnecessary use of energy and includes energy reduction/efficiency features to minimize energy consumption.

Therefore, the project's contribution to cumulative energy impacts would be less than considerable.

Geology and Soils

The geographic area for cumulative geology and soils impacts is generally the project site and immediate area. Geology and soils impacts are typically localized and limited to the immediate area in which typically a development is being constructed. As discussed in Section 3.6, *Geology and Soils*, the proposed project would have less-than significant impacts related to seismic

shaking, ground-failure, liquefaction, unstable geological units or soils resulting in lateral spreading, subsidence, liquefaction or collapse, nor would it be located on expansive soils or directly or indirectly destroy a known unique paleontological resource or site. The project, like all other new projects that include built structures, such as those included in Table 4-1, is required to comply with standard building codes and would undergo City plan review. Furthermore, to ensure that geology and soils impacts related to unknown paleontological resources affected by construction activities would be addressed, the project includes MM-GEO-1, which would reduce any impact to paleontological resources to a less-than-significant level.

The existing geology and soils conditions at the project site would not be affected by the project such that it would impact (or worsen) on- or off-site geology and soils conditions in the immediate area. Nor could it result in impacts in combination with other projects listed in Table 4-1. These projects would have their own unique geological conditions that they would be responsible to address.

Therefore, with incorporation of MM-GEO-1 and application of standard building codes, the project's contribution to cumulative geology and soils impacts would be less than significant, and the effects of the project would not be cumulatively considerable.

Greenhouse Gas Emissions

The geographic area for cumulative greenhouse (GHG) impacts is the world, and all past, present, and future projects contribute to increases in GHG that cause global climate change. GHG impacts are cumulative impacts not confined to a particular air basin (i.e., SFBAAB). Thus, assessment of significance is based on a determination of whether the GHG emissions from a project represent a cumulatively considerable contribution to the global atmosphere. If a project exceeds the identified significance thresholds, its contribution of GHG emissions would be cumulatively considerable, resulting in a cumulatively significant impact on climate change. As described in Section 3.7, *Greenhouse Gas Emissions*, the project is not anticipated to result in significant GHG impacts nor is it anticipated to conflict with an applicable plan, policy or regulations adopted for the purpose of reducing GHG emissions. Other projects, such as those identified in Table 4-1, would similarly be assessed.

Therefore, the project's contribution to cumulative GHG emissions impacts would be less than significant, and the effects of the project would not be cumulatively considerable.

Hazards and Hazardous Materials

The geographic area for hazards and hazardous materials is the project site and immediate vicinity. Hazards and Hazardous Materials impacts are typically localized. As described in Section 3.8, *Hazards and Hazardous Materials*, potential hazardous materials incidents or accidents could

occur as a result of construction and operation of the proposed project. However, the effect of such incidents would not likely be additive to effects from other, similar incidents occurring elsewhere. The proposed project and other projects in Table 4-1 would be required to comply with all applicable federal, state, and local regulations related to hazards and hazardous materials on a project-by-project basis. The closest cumulative project is 0.34 miles away and separated by Saratoga Avenue. Therefore, none of the listed projects would be physically contiguous with the proposed project site to contribute to a hazards or hazardous materials impact. Thus the project in combination with the listed projects would result in a less-than-significant cumulative hazards and hazardous materials impact.

The proposed project is not anticipated to result in significant hazard or hazardous materials impacts related to creating a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials, upset and accident conditions involving release of hazardous materials into the environment, be located on a Cortese List site, or impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Other projects would be required to comply with regulations related to hazards and hazardous materials. This may include preparation of Phase I Environmental Assessments (ESAs) for any property subject to sale or lease of land, compliance with regulations, particularly those related to the storage, transportation, and rehabilitation of hazardous substances. Impacts from other projects are also anticipated to be mitigated to less-than-significant levels.

Therefore, the project contribution to cumulative hazards and hazardous materials impacts would not be cumulatively considerable.

Hydrology and Water Quality

The geographic area for cumulative hydrology and water quality impacts is Saratoga Creek and San Tomas Aquinas Creek subwatersheds. As described in Section 3.9, *Hydrology and Water Quality*, stormwater discharges originating from this area could result in an increase in non-point source pollution discharging into area waterways. Such increases could result from a combination of construction activities, greater use intensity, increased coverage of impervious surfaces, and/or increased use of routine household cleaners and landscape chemicals.

The project in combination with other projects outlined in Table 4-1 could have the potential to generate cumulative impacts related to the violation of water quality standards, Basin Plan water quality objectives, and/or TMDLs established for the San Francisco Bay Area and/or urban creeks. However, none of the other projects listed on Table 4-1 are immediately adjacent to the project site. Similar to the project, compliance with State and regional regulations would reduce the rate of runoff and filter out pollutants in the same or similar manner as described in Section 3.9. Construction activities are required to comply with the SWRCB statewide NPDES stormwater permit program, the

Porter-Cologne Act's requirements for site-specific waste discharge, and local agency public works construction standards. In addition, the City's General Plan policies and existing City regulations would ensure protection of water quality, improve stormwater management, and reduce stormwater pollution. Increased impervious surface area as a result of the project in combination with other development projects in the watershed would be mitigated through application of the Construction General Permit and the Municipal Separate Storm Sewer System (MS4) Permit, which requires the capture and treatment of stormwater runoff. Areas within the cumulative context that are outside the jurisdictional boundary of the City would implement similar measures because the County requires development and redevelopment to implement the same standards.

As described in Section 3.9, *Hydrology and Water Quality*, because the project site is relatively flat and would be required to comply with applicable regulations and permits in accordance with the Basin Plan, all potential hydrology and water quality impacts, would be less than significant.

Therefore, the project's contribution to cumulative hydrology and water quality impacts would be less than significant, and the effects of the project would not be cumulatively considerable.

Land Use and Planning

The geographic area for cumulative land use impacts is the City. All development is subject to conformance with applicable land use plans, policies, and regulations for the purpose of avoiding or mitigating environmental impacts. Other projects outlined in Table 4-1, include residential, commercial, office, mixed-use, and recreation projects. Some of the listed projects propose changes to existing General Plan and zoning. However, none of the listed projects are immediately adjacent to the proposed project site and each would be subject to further site-specific environmental review to determine consistency with the City of Saratoga 2040 General Plan, the City of Saratoga Zoning Ordinance, and other regional plans and policies, as appropriate. Thus, the project in combination with the listed projects would not result in a cumulative impact on land use and planning. As previously described in Section 3.10, *Land Use*, the project would have no land use-related impacts.

Therefore, the project's contribution to cumulative land use impacts would not be cumulatively considerable.

Noise

The geographic area for cumulative construction noise and vibration impacts is the project site and immediate project vicinity. As described in Section 3.11, *Noise*, noise levels from construction operations decrease at a rate of approximately 6 dBA per doubling of distance from the source. Projects listed on Table 4-1 are not located in the immediate vicinity of the proposed project (the closest is 0.34 miles away and separated by Saratoga Avenue) nor are any scheduled to be

constructed on an overlapping timeframe. Therefore, no cumulative noise impacts would occur during the construction phase of the project. During project operations, the primary noise-related effect that most non-industrial projects produce is related to increases in traffic. Table 3.11-7 shows that modeled traffic noise from the project would not result in any perceptible noise increases under project and cumulative conditions (0 decibels increase when rounded to whole numbers). Thus, the project in combination with the listed projects would result in less-than-significant cumulative impacts to noise.

Compliance with the City's noise ordinance would reduce potentially significant construction noise impacts from the project to a less-than-significant level. Operation-period noise generated by the proposed project (from operational traffic, parking lot activity, related to emergency-response vehicles, and from equipment [e.g., heating, ventilation, and air conditioners and generators]) would not exceed noise standards, would represent a negligible change in noise levels, or be temporary and in response to emergencies only.

Therefore, the project's contribution to cumulative noise impacts would not be cumulatively considerable.

Public Services

The geographic area for cumulative public service impacts is the City. This includes the service areas for the Santa Clara County Fire Department (SCCFD) and Santa Clara County Sheriff's Office (SCCSO) for fire and law enforcement services. The service area for the SCCFD includes the 134 square miles of seven communities and unincorporated areas of the County. The service area for the West Valley Division of the SCCSO includes the cities of Saratoga, Cupertino, and Los Altos Hills, as well as the western unincorporated areas of the county from Summit Road to Moffett Field.

Other projects listed in Table 4-1 would result in an incremental increase in demand for fire, police, and other public services. However, all new development would individually be required to contribute to the City's tax revenues, which would assist in financing additional facilities, equipment, and/or personnel as needed to meet additional law enforcement requirements in the City, similar to the proposed project. Through assessments of the City's capital improvement needs and annual budget review process, the needs of SCCFD and SCCSO would be assessed, and budget allocations would be revised accordingly to ensure that adequate levels of fire protection and law enforcement services—including protection facilities, equipment, and/or personnel—are maintained throughout the City. Thus, the project in combination with the listed projects would have a less-than-significant impact on public services.

As discussed in Section 3.12, *Public Services*, the proposed project would not result in significant project-level impacts on fire, police, and other public services.

Therefore, the project's demand for public services would not be cumulatively considerable.

Recreation

The geographic area for cumulative recreation impacts is the City. Any projects generating new residents are required to comply with the City's requirements for parkland dedication. Other projects included in Table 4-1 include residential, mixed-use/commercial, and a recreation project. The projects that result in population increases would contribute to the existing need for additional recreation facilities, consistent with the City's General Plan goal (5 acres of developed municipal parkland per 1,000 residents). Each project would be required to individually address their increase to recreation impacts and measures to ensure that adequate parks and recreation facilities are available. The Saratoga Retirement Community project is similar to the proposed project in that it would provide onsite amenities, activities, and recreational facilities specifically for its residents. The Saratoga to the Sea Trail project would provide for additional recreational facilities in the City. However, proposed residential projects from Table 4-1 would generate new population, increasing the need for recreational facilities. Thus, the project in combination with the listed projects would result in potentially significant cumulative recreation impacts.

As discussed in Section 3.13, *Recreation*, this project would cater to residents in need of controlled care and would incrementally increase the residential population in the City. Future residents would be expected to largely come from the area and would not represent a substantial influx of population.

Therefore, the project's contribution to cumulative recreation impacts would not be cumulatively considerable.

Transportation

The geographic area for cumulative transportation resource impacts includes the project site and its surrounding areas as defined by the study intersections.

To inform cumulative analyses, traffic analyses for the project considered "approved but not yet built," "not occupied," and "pending" development projects (including other projects described in Table 4-1). Trip generation estimates from the pending development projects were based on rates published in the ITE Trip Generation Manual (10th Edition). Then the trips for each of the pending projects were assigned to the roadway network based on population and employment data, existing and estimated future travel patterns, and recent traffic analyses completed in the area. To account for growth not accounted for in the approved and pending developments, a 1 percent annual growth factor was applied to the existing volumes at the study intersections. Cumulative plus project level of service (LOS) is presented in Table 4-3, below.

Table 4-3. Cumulative No Project and Cumulative Plus Project Conditions Intersection Level of Service

	Intersection Name	Intersection Control	LOS Standard	Peak Hour	Cumulative		Cumulative Plus Project			
					Delay	*LOS*	*Delay*	*LOS*	*Change in Critical V/C*	*Change in Average Critical Delay*
1	Cox Ave/Saratoga Ave	SSSC	D	AM PM	25.3 20.4	D C	26.5 18.0	D C	+0.009 +0.010	+1.2 -2.4
2	Saratoga Ave/Cox Ave	Signal	D	AM PM	37.5 42.6	D+ D	37.6 43.0	D+ D	+0.005 +0.006	+0.1 +0.4
3	Saratoga Ave/ NB Ramps SR-85	Signal	C	AM PM	22.9 29.7	C+ C	22.9 29.8	C+ C	+0.001 +0.002	0.0 +0.1
4	Saratoga Ave/SB Ramp SR-85	Signal	C	AM PM	21.1 20.3	C+ C+	21.2 20.3	C+ C+	_0.001 +0.002	+0.1 0.0

Source: Fehr & Peers, April 2019.
Notes:
1 Signal = Signalized Intersection; SSSC = Side-Street Stop Controlled Intersection.
2 LOS Standard of intersection's jurisdiction.
3 AM = morning peak hour (between 7:00 and 9:00 AM), PM = evening peak hour (between 4:00 and 6:00 PM).
4 Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop control intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
5 LOS = Level of Service calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the 2000 HCM.
6 Change in critical volume-to-capacity ratio (V/C) between No Project and Plus Project Conditions.
7 Change in critical movement delay between No Project and Plus Project Conditions.

As shown in Table 4-3, all study intersections would operate at acceptable LOS (LOS D or better for City intersections and LOS C or better for Caltrans intersections) under cumulative plus project conditions during the AM and PM peak hours. The traffic analyses also concluded that under cumulative conditions, transit vehicle delay (Santa Clara Valley Transportation Authority [VTA] Route 58) on Saratoga Avenue would be less than one second, which is not considered significant. Thus, the project in combination with the listed projects would not result in a cumulative transportation impact.

As discussed in Section 3.14, *Transportation*, the proposed project would not result in significant project-level impacts to transportation and circulation.

Therefore, the project's contribution to cumulative transportation impacts would not be cumulatively considerable.

Tribal Cultural Resources

The geographic area for cumulative tribal cultural resources (TCR) is the project site. The importance of a TCR is revealed through both the resource's eligibility to be listed on the California Register of Historical Resources and based on culturally affiliated tribal review of a potential TCR's cultural value using criteria outlined in California Public Resources Code, Section 5024.1. As described in Section 3.15, *Tribal Cultural Resources*, with implementation of MM-TCR-1 (requiring notification and consultation with California Native American tribes in the event of a potential unanticipated TCR discovery), the project would have less-than-significant impacts related to adverse changes to a TCR.

Other projects included in Table 4-1 are too far from the project site to be of concern as it relates to TCRs. In the event that an unanticipated TCR is identified during project activities, a tribe should be provided the opportunity to consider the cultural value of this resource, to draw upon their recent and traditional cultural history, and to identify other similar TCRs that may have been impacted in the region.

Therefore, with implementation of MM-TCR-1, the project's contribution to cumulative tribal cultural resource impacts would be less than significant, and the effect of the project would not be cumulatively considerable.

Utilities and Service Systems

The geographic area for utilities and service systems is the City. As described in Section 3.16, *Utilities and Service Systems*, water is provided to the City by San Jose Water Company (SJWC), Wastewater services are provided by West Valley Sanitation District (WVSD), Solid Waste is provided by West Valley Collection & Recycling LLC (WVCR), and Pacific Gas & Electric (PG&E) provides electricity and gas. The project's demand for utilities and services was determined to be less-than-significant. These utilities and service systems would also serve projects included in Table 4-1, but are not in proximity to the project site (the closest projects is 0.34 miles away). Therefore, the proposed project would not likely connect to the same utility and service system main infrastructure and would individually need to examine what existing utilities are located in their vicinity and determine if additional infrastructure is necessary.

Therefore, the project's contribution to cumulative utilities and service system impacts would be less than significant, and the effect of the project would not be cumulatively considerable.

Wildfire

The geographic area for wildfire is the City. As described in Section 3.17, *Wildfire*, the proposed project is not located within a Very High Fire Hazard Severity Zone (VHFHSZ) and would not

interfere with an emergency response/evacuation plan or exacerbate wildfire risks. The project has been reviewed by the SCCFD and would comply with all requirements and policies established to reduce fire hazards. Although other projects such as those listed in Table 4-1 may have the potential to increase potential wildland fire risks, similar to the project, they must comply with all state wildlife fire policies of the California Fire Code, including the Requirements for Wildland-Urban Interface (WUI) Fire Areas. Furthermore, any projects located within a hazardous fire area must be reviewed by SCCFD to ensure that building materials, access, vegetative clearance from structures, fire flows, and water supplies are adequate for fire protection purposes and in conformance with the fire policies of the City General Plan.

Therefore, the project's contribution to cumulative wildfire impacts would be less than significant, and the effect of the project would not be cumulatively considerable.

EFFECTS NOT FOUND TO BE SIGNIFICANT

Section 15128 of the CEQA guidelines requires that an EIR briefly describe potential environmental effects that were determined not to be significant and therefore were not discussed in detail in the EIR. Based on the analysis provided in this EIR, the proposed project would not result in significant impacts related to the following topics, which are not further evaluated in the EIR:

- Agricultural and Forestry Resources
- Mineral Resources
- Population and Housing

Additional information and discussion regarding the effects found not to be significant can be found below.

Agricultural and Forestry Resources

The California Department of Conservation classifies the project site as Urban and Built-Up Land, which is not suitable for livestock grazing (Department of Conservation 2016). Furthermore, the project site is not zoned for agricultural use and is not under a Williamson Act contract. The project area contains no forest or timberland and is not zoned for forest land, timberland, or timberland production.

Therefore, the proposed project would have no impact on agricultural or forestry resources.

Mineral Resources

The project site does not contain any known mineral resources recognized by the state as being of value, nor is the site identified in the City's General Plan as a locally important mineral resource recovery site (City of Saratoga 2007). The Saratoga Open Space and Conservation Element of the

General Plan states there are no mines or quarries operating in the City or its Sphere of Influence. Development of the project site would have no impact on the loss of any known mineral resources.

Therefore, no impacts related to loss of mineral resources at the proposed project site would occur.

Population and Housing

Implementation of the project would result in an estimated residential population increase of up to 78 people. In terms of direct population growth, the 78-resident population is a statistically insignificant number compared to the overall City population.[1] According the City's Land Use Element and projections by the Association of Bay Area Governments, the City had a total population of 31,700 in 2010, 32,400 in 2015 and is projected to have a population of approximately 33,300 in 2020.

However, they City is undergoing a shift in demographics; there has been a proportional decline of younger and prime working age population groups and a proportional growth in older age groups. As described in the General Plan, the majority of the City's working age population, "Prime Working" (25-54 years) age, experienced a decrease from 41 percent of the population in 2000 to 37 percent in 2010. Conversely, the City's "Retirement" (55-64 years) age and "Senior Citizen" (65+ years) age populations increased within this decade. In 2000, "Retirement" and "Senior Citizen" age populations combined to make up 29 percent of the population; in 2010, they had grown to 35 percent of the population. The growing proportion of older residents and the decreasing proportion of younger residents was reflected in the higher median age in 2010 (47.8 years) compared with that of 2000 (43.2 years) (City of Saratoga 2007). The proposed project would serve this changing demographic as residents of the project may currently live in the City. Furthermore, the residents of the project would be seniors in need of assisted living, who are unlikely to work during peak hours or drive vehicles.

The project may result in indirect population growth, which could result from both the temporary construction related jobs generated by the project and new staffing or management. However, given the nature of the construction industry, project construction would be expected to employ workers already living and working in the San Francisco Bay Area (Bay Area). The project would include approximately 40 employees (including all shifts) with a maximum of 21 employees working at the busiest time. As the current area workforce is likely to be able to sufficiently staff the facility, no significant labor pool from outside the Bay Area would be expected to temporarily or permanently relocate as a result of the project. In addition, the site is vacant and undeveloped; thus the project would not displace existing housing or people, necessitating the construction of replacement housing elsewhere.

[1] The project's potential increase in residential population represents less than 1 percent of the City's population in 2010. 78/31,700 = 0.0024, or 0.2%.

Therefore, the proposed project is not anticipated to have a significant impact on population or housing.

SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

The environmental effects of the proposed project are identified and discussed in detail in Chapter 3 and are summarized in Table ES-1 in the Executive Summary. Implementation of the project-specific mitigation measures identified throughout the Chapter 3 analysis would reduce all significant impacts to less-than-significant levels.

Therefore, the proposed project would not result in any significant and unavoidable environmental impacts.

SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL EFFECTS

The CEQA Guidelines mandate that an EIR must address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (CEQA Guidelines, Section 15126(c)). An impact would fall into this category if:

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of the project would generally commit future generations to similar uses;
- The project involves uses in which irreversible damage could result from any potential environmental incidents associated with the project; and/or
- The proposed consumption of resources is not justified (e.g., the project results in wasteful use of energy).

Determining whether the project may result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed in such a way that there would be little possibility of restoring them.

The project would develop two buildings on a 1.3-acre project site in the City. The project would convert undeveloped land to a RCFE, which would permanently commit development to the project site. After the 50- to 75-year structural lifespan of the buildings is reached, it is improbable that the site would revert to its current use due to the large capital investment that would already have been committed. However, the vacant project site is zoned for development. The project would not convert land used for prime agriculture to residential and public uses, as no agricultural uses or farmland are present within or adjacent to the project site (see Effects Found Not to Be Significant). This commitment of land use on a 1.3 acre site would be less than significant on Citywide land uses.

No significant irreversible environmental damage, such as what could occur as a result of an accidental spill or explosion of hazardous materials, is anticipated due to implementation of the project. As outlined in Section 3.8, *Hazards and Hazardous Materials*, no use of hazardous materials, beyond standard construction supplies and household hazardous waste, is proposed. Furthermore, compliance with federal, State, and local regulations would reduce to a less-than significant level the possibility that hazardous substances within the project site could cause significant environmental damage.

The project would result in a permanent use of natural resources. Construction and long-term operation of the project would require the commitment and reduction of nonrenewable and/or slowly renewable resources, including petroleum fuels and natural gas (for vehicle emissions, construction, lighting, heating, and cooling of structures) and lumber, sand/gravel, steel, copper, lead, and other metals (for use in the building construction, piping, and roadway infrastructure). Since alternative energy sources such as solar and wind energy are not currently in widespread use and are not incorporated into project design, it is unlikely that any real savings in non-renewable energy supplies (e.g., oil and gas) would be realized in the immediate future. However, the scale of such consumption for the proposed uses would be typical for a “PA” development of this size. The project would incorporate energy-conserving features, as required by the UBC and the California Energy Code (Title 24, part 6). Overall, the proposed project would not result in significant and irreversible effects on the environment.

GROWTH INDUCEMENT

Consistent with section 15126.2(d) of the CEQA Guidelines, a project is considered growth-inducing within a surrounding community if it could directly or indirectly foster economic or population growth or the construction of additional housing. Examples of projects likely to have significant growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or industrial parks in areas that are currently sparsely developed or are undeveloped.

The proposed project is located in a developed area and would demand incremental increases in public services (police, fire, and emergency services) given the nature of the project. Utilities and service systems (water, wastewater, solid waste, electricity/gas/telecommunications) already operate in the project vicinity and existing utility and service system lines could be extended. However, the project would not require physical improvements that would necessitate new public services infrastructure (i.e., a new police or fire station) or an increase in utility and service system-wide capacity/ability (i.e., new utility main) to address project-specific demand. Based on public services and utilities and service systems described in Sections 3.12 and 3.16, no additional facilities/infrastructure beyond those already planned for in the area would be required as a result of the project to maintain desired levels of service.

In addition, the project site does not have existing roadway access. The construction of an extension of Saratoga Creek Drive would provide new access to the two adjacent parcels of the project site. This roadway, which was already planned as part of the prior subdivision of the project site, could also serve undeveloped parcels to the south of the project site that are zoned Professional and Administrative (PA), should they be developed with land uses in the future. The extension of this section of Saratoga Creek Drive would represent a further step towards infill development, but it would be urban growth within the context of the Saratoga General Plan and was already approved as part of the prior subdivision of the project site.

Therefore, the project is not anticipated to generate significant or adverse growth-inducing impacts.

References

City of Saratoga. 2007. *City of Saratoga General Plan: Land Use Element*. Adopted June 6, 2007.

City of Saratoga. 2007. *Open Space and Conservation Element 2007*. Adopted June 6, 2007. https://www.saratoga.ca.us/DocumentCenter/View/49/Open-Space-and-Conservation-Element-Dated-June-6-2007-PDF

California Department of Conservation. 2016. Farmland Mapping and Monitoring Program. *Santa Clara County Important Farmland Map 2016.* https://www.conservation.ca.gov/dlrp/fmmp/Pages/SantaClara.aspx

CHAPTER 5
ALTERNATIVES

INTRODUCTION

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, environmental impact reports (EIRs) are required to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives" (14 California Code of Regulations [CCR] 15126.6(a)). An EIR "must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation" (14 CCR 15126.6(a)). The alternatives discussion is required even if these alternatives "would impede to some degree the attainment of the project objectives, or would be more costly" (14 CCR 15126.6(b)).

The inclusion of an alternative in an EIR does not constitute definitive evidence that the alternative is in fact "feasible." The final decision regarding the feasibility of alternatives lies with the decision maker for a given project who must make the necessary findings addressing the feasibility of alternatives for avoiding or substantially reducing a project's significant environmental effects (California Public Resources Code Section 21081; see also 14 CCR 15091).

PROJECT OBJECTIVES

The primary objectives of the proposed project are set forth in Chapter 2, *Project Description*, of the EIR and consist of the following:

1. Provide a licensed Residential Care Facility for the Elderly[1] with a special designation for Alzheimer's/Dementia Memory Care (Memory Care facility) to assist in meeting the needs of the growing local aging population living with dementia in the City.
2. Fulfill the City's "Age-Friendly" goals for its significant aging population by adding to the diversity of local services for seniors, as a significant and growing population, so that local residents can remain in the community as they age.[2][3]

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[1] Residential Care Facilities for the Elderly are also sometimes referred to as "Assisted Living" or "Board and Care" facilities.

[2] The City of Saratoga 2015-2023 General Plan Housing Element indicates growth in the population of "retired and senior residents." Retired (55–64 years) and senior citizen (65+ years) were 35% of the City's population in 2012. (City of Saratoga. 2014. *2015–2023 Housing Element.* Adopted November 19, 2014.https://www.saratoga.ca.us/DocumentCenter/View/45/ Housing-Element-2015---2023-Dated-November-2014-PDF.

[3] Furthermore, the City is one of 10 cities that have been designated as age-friendly cities by the World Health Organization's Global Network of Age-Friendly Cities and Communities. Accessed November 8, 2019. https://www.agefriendlysiliconvalley.org/.

3. Implement the project sponsor's vision to build a new state-of-the-art Memory Care facility and operational model based on industry experience.
4. Establish a Memory Care facility with sufficient occupancy capacity to support operational functionality and economic viability.
5. Provide non-seasonal, assistance service employment in a high-quality environment, adding to the number and diversity of local jobs.

ALTERNATIVES CONSIDERED BUT REJECTED

An EIR must briefly describe the rationale for selection and rejection of alternatives. The lead agency may make an initial determination as to which alternatives are potentially feasible, and therefore merit in-depth consideration, and which are not feasible. Alternatives whose implementation is remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered (CEQA Guidelines, Section 15126.6(f)(3)). Factors that may be considered when addressing the feasibility of an alternative include site suitability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, economic viability, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site. Alternative selection should focus on alternatives that would avoid or substantially lessen any of the significant effects of the project (14 CCR 15126.6(a)).

Alternate Site

Analysis of alternative locations is generally most appropriate in the land use context where changes in zones or planning documents are contemplated. The proposed use is consistent with the current land use designation (Professional Administrative [PA]) and zoning (Professional and Administrative [PA] Office District). In the project area (proximate to State Route [SR] 85, Saratoga Avenue, and in the vicinity of similar administrative and professional [medical] uses and shown in Figure 2-2) it is not feasible for the sponsor to reasonably acquire another vacant parcel ideal for development as a RCFE; therefore, an alternate site alternative is not evaluated further in this EIR.

ALTERNATIVES ANALYSIS

This section discusses four (4) alternatives to the proposed project, including the No Project/No Build Alternative. The No Project/No Build Alternative is a required element of an EIR pursuant to Section 15126.6(e) of the CEQA Guidelines that examines the environmental effects if the project were not to proceed. The Reduced Project Alternative, Landscaping Alternative, and General Plan and Zoning Change Alternative are part of the "range of reasonable alternatives" that could result in a reduction in project impacts while achieving most of the basic objectives of the project. Each of these alternatives is described below.

Alternative 1 - No Project/No Build Alternative

Alternative 1 No Project/No Build Alternative considers the effects of foregoing the project entirely and leaving the project site in its current condition. Under this alternative, the construction and operation of a RCFE, including parking spaces, landscaping, utility connections, and an extension of Saratoga Creek Drive to the south by approximately ~~150~~ 140 feet, would not occur at the project site. The project site would continue to be vacant and undeveloped with no change to any aspect of the site.

Under the No Project/No Build Alternative, the site would remain in its existing condition, and there would be no grading, ground disturbance, construction, new activity or increase in outside visitors or employees to the project site. There would be no increase in impacts to any of the environmental topic areas discussed in Sections 3.1 through Section 3.17 of this EIR under this alternative. Specifically, there would be no visual change in the project area as nothing would be built. Since nothing would be built, there would be no construction or operational traffic that could increase or change existing traffic patterns. There would also be no corresponding change in air quality/greenhouse gas (GHG) emissions or noise typically associated with changes in traffic. This alternative would not result in any of the less-than-significant impacts identified for the project in this EIR. However, the No Project/No Build Alternative would also not achieve any of the project objectives.

Relationship to Proposed Project Objectives

The No Build/No Project Alternative would not meet any of the project objectives because it would not construct a RCFE or implement the project's sponsors vision for construction of a state-of-the-art Memory Care facility of sufficient occupational capacity to support operational functionality and economic viability. Furthermore, it would not fulfill the City's "Age Friendly" goals, nor would it provide new opportunities for service employment.

Alternative 2 - Reduced Project Alternative

Under Alternative 2 Reduced Project Alternative, the project site would be developed with the same building footprint as the proposed project (as shown in Figure 2-3, 2-4, and 2-5), but within the building a reduced number of ~~patient~~ resident beds would be provided. Therefore, fewer ~~patient~~ resident visitors are assumed. Building 2 would go from 30 to 22 beds (a reduction of 8 beds). Conservatively, no change in the number of employees is assumed although fewer would likely be necessary. This would be accomplished by reducing the number of double-occupancy rooms from 15 to 7, with 8 rooms remaining single-occupancy. Under this alternative, the square footage of Building 2 would remain the same, but no parking lifts would be included in the basement, reducing parking in the basement from ~~10~~ 11 to ~~6~~ 7 spaces, and overall at Building 2 from ~~25~~ 26 to ~~21~~ 22 spaces (a reduction of 4 parking spaces, which would still be consistent with

the City's Municipal Code)[4]. The parking lift change is the only physical development change proposed under this alternative in comparison to the proposed project. No changes to Building 1 are proposed under this alternative.

Implementation of this alternative would result in impacts identical to the project for aesthetics, biological resources, cultural resources, geology and soils, hydrology and water quality, land use, tribal cultural resources, and wildlife. All other topics would also be similar to, but likely incrementally less that the proposed project, as the anticipated ~~patient~~resident population would be reduced by up to 8 (corresponding to the reduced number of beds). Like the project, this alternative would be subject to the recommended mitigation measures described in this EIR and would result in similar but incrementally less, less-than significant impacts related to air quality, energy, GHG, hazards and hazardous materials, noise, public services, recreation, transportation, and utilities and service systems.

Construction traffic trips generated by this alternative would also be incrementally less than the proposed project due to the reduction in ~~patient~~resident beds and that a lift would no longer be constructed in the basement. The change in construction and operation traffic patterns under this alternative is anticipated to be negligible. Operation-period traffic would also be incrementally impacted by the reduction in ~~patient~~resident beds and ~~patient~~resident visitors, resulting in less vehicular trips. However, like the proposed project, this alternative is anticipated to result in a similar Level of Service (LOS) at the affected intersection as the proposed project. The modest reduction in impacts related to the number of ~~patient~~resident beds would also reduce the demand for energy (reduced demand for electricity and gas), hazards and hazardous materials (reduced potential for spills and exposure), public services (fewer police and fire calls for service), recreation services (reduced need for parks/recreation), and utilities and service systems (reduced demand for water, wastewater, and solid waste).

Relationship to Proposed Project Objectives

The Reduced Project Alternative would achieve most of the key objectives of the project, but to a lesser extent than the proposed project with respect to providing a RCFE with sufficient occupational capacity to support operational functionality and economic viability.

[4] City Municipal Code 15-35.030 "Schedule of off-street parking spaces" provides the ratio of required parking spaces for new development in the City. Specifically, one (1) parking space is required for every two (2) employees, and one (1) parking spaces is required for every three (3) guests or beds. Thus, the number of parking spaces for the proposed project exceeds the requirement by ~~10~~ 11 parking spaces, and the number of parking spaces for Alternative 2 exceeds the requirement by eight (8) parking spaces.

Alternative 3 - Landscaping Alternative

Under Alternative 3 Landscaping Alternative, the project site would revise the proposed project's site plan (currently planned to include trees, shrubbery, and groundcover) with additional landscaping and vegetation that would complement and augment the proposed development plan, specifically along the northern boundaries of Lot 1 and Lot 2 and eastern boundary of Lot 2 (refer to Figures 2-3, 2-3, and 2-4). Introduced landscaping/vegetation would be designed to screen truck deliveries and facility activities from public views from Saratoga Creek Drive (out to Cox Avenue) and Village Drive.

This alternative would further reduce the already less-than-significant impacts to visual character by screening deliveries and project activities from public view, minimizing the prominence of delivery vehicles, ~~patient~~resident drop-off/pick-up, and visitors. For all other environmental topics, this alternative would result in impacts identical to the proposed project. Like the project, the Landscaping Alternative would be subject to the recommended mitigation measures described in this EIR.

Relationship to Proposed Project Objectives

The Landscaping Alternative would achieve all of the key objectives of the project. This alternative~~It~~ would ~~perform slightly better than the proposed project for the objective of~~ create~~ing~~ a facility that is visually more harmonious with the existing character of the project site, since it would reduce the visibility of trucks, ~~patient~~resident pick-up/drop-off, and visitors.

Alternative 4 – General Plan and Zoning Change Alternative

Under Alternative 4 General Plan and Zoning Change Alternative, the project would add an additional story to Building 1 (creating a three-story building) and require approval of a General Plan Amendment to allow a three-story structure and a rezoning to allow for the height increase. This alternative would also reduce the overall building footprint of Building 1 to be further away from Saratoga Creek. Corresponding changes to the surrounding retaining wall, paving, and landscaping on the northwest side of Lot 1 would also be incorporated. No changes to the Building 2 basement, or overall number of beds or rooms, are assumed. No changes to Building 2 are proposed under this alternative.

For the purposes of environmental analysis, this alternative assumes that the building footprint of Building 1 would be reduced by approximately 1,200 square feet (from a first floor area of 7,537 square feet to 6,337 square feet, and a second story area of 7,677 square feet to 6,477 square feet) and addition of a third-story of up to 2,600 square feet would be added for a total building floor area of 15,414 (a net increase of 200 square feet).[5]

[5] This conceptual alternative conservatively assumed that the first and second floors of Building 1 would be reduced in size by 1,200 square feet (for a total reduction of 2,400 square feet), and up to 2,800 square feet (a net increase of 200 feet to account for square footage necessary to accommodate amenities such as elevator, stairs, and other building amenities required for additional stories) would

The General Plan and Zoning Change Alternative would further reduce the already less-than-significant impacts to biological resources by increasing the setback from Saratoga Creek by over 10 feet, and setting Building 1 further from the riparian area. It would also decrease the amount of impervious surface proposed. For all other environmental topics except aesthetics and land use, this alternative would result in impacts similar to the proposed project. Assuming the basement level would be the same square footage and in the same location as what is proposed by the project, ground disturbance at the site would be identical with respect to potential impacts on cultural resources, geology and soils, hazard and hazardous materials, and tribal cultural resources. If the basement-level square footage was reduced consistent with the building (and if basement parking was moved to surface-level to accommodate this reduction) the alternative could limit construction to locations further from the creek, reducing the potential for impacts to biological resources to a greater extent). Like the proposed project, this alternative would be subject to the recommended mitigation measures described in this EIR.

With respect to visual resources, the General Plan and Zoning Change Alternative would have increased impacts related to visual character and light and glare, as it would introduce a third-story into an area that is dominated by one- and two-story buildings. Also, as Building 1 would be taller, any exterior lighting would likely have a greater area of spillover although it would be, similar to the project, be required to face all lights downward. It should be noted that the amount of third-story square footage would be less than the footprint of Building 1's first and second floor and therefore it likely would be setback from the existing adjacent buildings with similar visual character (the other professional and administrative buildings to the north). Existing sensitive receptors views of the alternative would, similar to the proposed project, remain partially screened although a third-story may be more visible from some locations. Specifically, receptors to the west (across Saratoga Creek and along De Havilland Drive) would be separated by the creek and screened by existing riparian vegetation, receptors to the east would be at screened by Building 2, and receptors to the north would be separated by a parking lot and mature landscaping to the north. The area to the south and southeast are vacant.

With respect to land use and planning, the General Plan and Zoning Change Alternative would be inconsistent with existing zoning for the site. As currently zoned, structures cannot exceed 30 feet in height or two stories and thus, this alternative would not meet those requirements without a General Plan and zoning change.

be added to a third story. Per project plans, the northwestern side of Building 1 is 105.41 feet (105 feet and 5 inches), thus a reduction of 1,200 square feet from the building footprint could result in an increased setback to the southeast, by approximately 11.4 feet (1,200/105.41=11.38). This alternative would be subject to architectural review to finalize square footages, potential foundation changes, and to satisfy any building requirements.

Relationship to Proposed Project Objectives

The General Plan and Zoning Change Alternative would achieve all of the key objectives of the project. However, it would add an additional story compared to the proposed project, which does not exactly meet the planned vision of the project sponsor for a Memory Care facility in terms of operational functionality.

SUMMARY MATRIX

Table 5-1 provides a summary comparison of each alternative with the proposed project. The table also indicates whether the alternative meets the project objectives as defined in Chapter 2, Project Description.

Table 5-1
Summary of Impacts from Alternatives

Environmental Issue	Proposed Project Impacts Prior to Mitigation	Proposed Project Impacts w/Mitigation	No Project/ No Build Alternative	Reduced Project Alternative	Landscaping Alternative	General Plan and Zoning Change Alternative
Aesthetics	LTS	LTS	▼	—	▼	▲
Air Quality	LTS	LTS	▼	▼	—	—
Biological Resources	S	LTS	▼	—	▼	▼
Cultural Resources	S	LTS	▼	—	—	—
Energy	LTS	LTS	▼	▼	—	—
Geology and Soils	LTS	LTS	▼	—	—	—
Greenhouse Gas Emissions	LTS	LTS	▼	▼	—	—
Hazards and Hazardous Materials	LTS	LTS	▼	▼	—	—
Hydrology and Water Quality	LTS	LTS	▼	—	—	—
Land Use and Planning	LTS	LTS	▼	—	—	▲
Noise	LTS	LTS	▼	—	—	—
Public Services and Safety	LTS	LTS	▼	▼	—	—
Recreation	LTS	LTS	▼	▼	—	—
Transportation	~~S~~LTS	LTS	▼	▼	—	—
Tribal Cultural Resources	S	LTS	▼	—	—	—
Utilities and Service Systems	LTS	LTS	▼	▼	—	—

Table 5-1
Summary of Impacts from Alternatives

Environmental Issue	Proposed Project Impacts Prior to Mitigation	Proposed Project Impacts w/Mitigation	No Project/ No Build Alternative	Reduced Project Alternative	Landscaping Alternative	General Plan and Zoning Change Alternative
Wildfire	LTS	LTS	▬	▬	▬	▬
Meets Most Project Objectives?	Yes	Yes	No	Yes	Yes	Yes

▲ Alternative is likely to result in greater impacts to issue when compared to proposed project.
▬ Alternative is likely to result in similar impacts to issue when compared to proposed project.
▼ Alternative is likely to result in reduced impacts to issue when compared to proposed project.
LTS = Less-than-significant impact.
S = Significant impact.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As indicated in Table 5-1, the No Project/No Build Alternative would result in the least environmental impacts and would be the environmentally superior alternative. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the No Project/No Build Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. In this case, the environmentally superior alternative is the Reduced Project Alternative, since it would incrementally reduce impacts to air quality, energy, GHG emissions, hazards and hazardous materials, public services and safety, recreation, transportation, and utilities and service systems, when compared to the proposed project. However, it should be noted that the proposed project would not result in any significant impacts after implementation of the required mitigation measures.

The Reduced Project Alternative would be the environmentally superior alternative because it would include fewer ~~patient~~resident beds and generate less traffic, thereby resulting in incrementally fewer impacts related to air quality, GHG, and noise, as well as fewer service-driven demands, such as calls for public services and safety and utilities and service systems.

CHAPTER 6
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