Draft Environmental Impact Report

Village at San Antonio Center Phase II Project

State Clearinghouse #2013082054

Prepared by:
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Prepared for:
City of Mountain View

March 2014

DRAFT ENVIRONMENTAL IMPACT REPORT

THE VILLAGE AT SAN ANTONIO CENTER PHASE II PROJECT

STATE CLEARINGHOUSE #2013082054

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Acronyms and Abbreviations

$\mu g/m^3$	micrograms per cubic meter
AB	Assembly Bill
AB 939	Integrated Waste Management Act
ABAG	Association of Bay Area Governments
ACE	Adobe Creek East
ACM	asbestos-containing materials
ADT	average daily trips
ADWF	average dry weather flows
AFY	acre-feet per year
amsl	above mean sea level
APE	area of potential effects
APN	Assessor's Parcels Number
AR4	IPCC Fourth Assessment Report
ARB	Air Resources Board
AST	aboveground storage tank
B.P.	before present
BAAQMD	Bay Area Air Quality Management District
Basin Plan	San Francisco Bay Basin Water Quality Control Plan
BAT	best available technology
Bay	San Francisco Bay
BCT	best conventional pollutant control technology
bgs	below ground surface
BMPs	Best management practices
C_2H_3Cl	vinyl chloride
CAA	Clean Air Act
CAAA	Clean Air Act amendments
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
cal	calibrated
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Division of Occupational Safety and Health
Cal/EPA	California Environmental Protection Agency
CalARP	California Accidental Release Prevention
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CCAA	California Clean Air Act

CCAs	Community Choice Aggregations
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHRIS	California Historical Resources Information System
CIP	Capital Improvement Program
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society's
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent
COC	contaminants of concern
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Resources
CUBC	California Uniform Building Code
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
cy	cubic yards
Db	Decibel
dBA	A-Weighted Decibel
DFW	California Department of Fish and Wildlife
DOT	U.S. Department of Transportation
DPM	diesel particulate matter
DRC	Development Review Committee
DTSC	Department of Toxic Substances Control
DU	dwelling unit
EIR	Environmental Impact Report
EMT	Early Period-Middle Period Transition
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPC	Environmental Planning Commission
ERT	Emergency Response Team

ESA	federal Endangered Species Act
ESP	energy service provider
EV	electric vehicle
F	Fahrenheit
FAA	Federal Aviation Administration
FAR	Floor-to-Area Ratio
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FR	Federal Register
GED	Gallons per Employee per Day
General Plan	City's Mountain View 2030 General Plan
General Plan EIR	City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report
GGRP	Mountain View Greenhouse Gas Reduction Program
GHG	greenhouse gas
gpm	gallons per minute
GPUUIS	General Plan Update Utility Impact Study
GWP	global warming potential
GWR	gross vehicle weight rating
H_2S	hydrogen sulfide
HAP	hazardous air pollutant
HASP	Health and Safety Plan
HCD	California Department of Housing and Community Development
HCP	habitat conservation plans
HFC	hydrofluorocarbons
HI	hazard index
HMBP	Hazardous Materials Business Plan
HMCD	Hazardous Materials Compliance Division
HOV	high-occupancy vehicle
HP permit	Historic Preservation Permit
HRA	Health Risk Assessment
I-280	Interstate 280
ICF	ICF International
IEC	Infrastructure Engineering Corporation
IOUs	investor-owned utilities
IPCC	Intergovernmental Panel on Climate Change
LASD	Los Altos School District
LBP	lead-based paint

LCFS	low carbon fuel standard
L_{dn}	Day-Night Level
L_{eq}	Equivalent Sound Level
L_{eq} 1h	1-hour A-weighted equivalent sound level
LID	low impact development
LOP	Local Oversight Program
LOS	level of service
LUST	leaking underground storage tank
M	magnitude
MBTA	Migratory Bird Treaty Act
MEP	maximum extent practicable
mg/m^3	milligrams per cubic meter
mgd	million gallons per day
MLT	Middle/Late Transition
mph	miles per hour
MPO	metropolitan planning organization
MRP	Municipal Regional Stormwater Permit
MS4	Municipal Separate Storm Sewer Systems
MS4 Permit	General Permit for Municipal Separate Storm Sewer Systems
MTC	Metropolitan Transportation Commission
MUTCD	Manual of Uniform Traffic Control Devices
MVFD	Mountain View Fire Department
MVGBC	Mountain View Green Building Code
MVLA UHSD	Mountain View-Los Altos Union High School District
MVPD	City of Mountain View Police Department
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NAL	Numerical Action Level
NCCP	natural community conservation plans
NCP	National Contingency Plan
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide
NOI	notice of intent
NOP	Notice of Preparation
NO_X	nitrogen oxides

NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSR	New Source Review
O&M	Operation and Maintenance
ODS	ozone-depleting substances
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration
P District	Planned Community District
Parks and Open Space Plan	Mountain View Parks and Open Space Plan
Pb	lead
PC	Planned Community
PCBs	polychlorinated biphenyls
PCE	tetrachloroethylene
Peninsula	San Francisco Peninsula
PFC	perfluorinated carbons
Phase I ESA	Phase I Environmental Site Assessment
PM	particulate matter
PM10	PM 10 microns in diameter or less
PM2.5	PM 2.5 microns in diameter or less
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppb	parts per billion
pphm	parts per hundred million
ppm	parts per million
ppt	parts per trillion
PRC	Public Resource Code
PRD	Permit Registration Document
Precise Plan	San Antonio Center Precise Plan
Project	Village at San Antonio Center Phase II Project
PSD	Prevention of Significant Deterioration
Public Library	Mountain View Public Library
PV	photovoltaic
QA/QC	quality assurance/quality control
QSD	Qualified SWPPP Developer
RCNM	roadway construction noise model
RCRA	Resource Conservation and Recovery Act
RECs	recognized environmental conditions
RHNA	Regional Housing Needs Allocation
RMP	risk management plan
RPS	Renewable Portfolio Standard

RTPs	Regional Transportation Plans
RWQCB	regional water quality control boards
SAP	Sampling and Analysis Plan
SAR	Second Assessment Report
SB	Senate Bill
SCS	sustainable communities strategy
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SCVWD	Santa Clara Valley Water District
SDMP	Storm Drain Master Plan
sf	square feet
SF_6	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SFBRWQCB	San Francisco Bay RWQCB
SFPUC	San Francisco Public Utilities Commission
SIL	Significant Impact Level
SIP	state implementation plan
SLIC	spills, leaks, investigations, and cleanups
SMaRT	Sunnyvale Materials Recovery and Transfer Station
SMP	Site Mitigation Program
SO_2	sulfur dioxide
SO_4	sulfates
SR	State Route
SRI	Solar Reflectance Index
SSMP	Sewer System Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	Toxic air contaminants
TCE	trichloroethylene
TCMs	traffic control measures
TDM	Transportation Demand Management
TIA	traffic impact analysis
TMDL	total maximum daily load
TNM	traffic noise model
TSCA	Toxic Substances Control Act
U.S. EPA	United States Environmental Protection Agency
Unified Program	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program
USACE	U.S. Army Corps of Engineers
USC	United States Code

USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
V/C	volume-to-capacity
VCP	Voluntary Cleanup Program
VMT	vehicle miles traveled
VOC	volatile organic compounds
vphpl	vehicles per hour per lane
WBWG	Western Bat Working Group
WDRs	waste discharge requirements
WMP	Water Master Plan
WSA	water supply assessment
WUCOLS	Water Use Classifications of Landscape Species

Executive Summary

This Draft Environmental Impact Report (EIR) has been prepared in accordance with the provisions of the California Environmental Quality Act (CEQA) to evaluate the potential impacts of the proposed Village at San Antonio Center Phase II Project (Project). The Project site is located in a developed portion of the City of Mountain View (City), Santa Clara County, California. As required by Section 15123 of the CEQA Guidelines, this executive summary contains the following.

- Project Overview
- Project Goal and Objectives
- Project Impacts and Mitigation Measures
- Project Alternatives
- Potential Areas of Controversy and Issues to be Resolved

Project Overview

The proposed Village at San Antonio Center Phase II Project is an infill project that involves redeveloping an approximately 9.9-acre site (Project site) currently occupied by approximately 59,655 square feet (sf) of commercial and retail buildings with associated surface parking. The Project would develop office, commercial, hotel, retail, cinema, and restaurant uses in a configuration of six distinct development blocks. The Project includes one aboveground garage (with one floor of associated subterranean parking), one subterranean garage, and surface parking. The total amount of new and redeveloped uses proposed is approximately 1.2 million sf. Vehicular access to the Project site would be via Pacchetti Way, California Street, and San Antonio Road. A joint-use promenade would extend from north to south through the middle of the Project site from California Street to the Hetch-Hetchy Parkway. Construction activities would include the demolition of the existing commercial and retail buildings and surface parking lots, and removal of trees and vegetation that would be replaced in accordance with the Project's landscape plan. Refer to Chapter 2, *Project Description*, for a detailed description of the Project components.

Project Objectives

The following objectives have been identified for the Project.

- To support the existing demand for office, commercial, retail, hotel, cinema, and associated parking and open space in the City of Mountain View and the surrounding region.
- To locate job-generating uses close to existing residential uses so as to improve the jobs-housing balance and advance associated local and regional transportation objectives.
- To provide an intensity and range of uses that implements the visions of the City's General Plan for land use, urban form and density, economic development, and circulation.
- To promote and enhance a healthy and diverse economy in Mountain View.

- To address the existing lack of hotel space in the west-central portion of the City, an area with significant office and commercial uses that generate substantial local demand for lodging.
- To provide mutually supportive office, hotel, and retail uses in immediate proximity to one another and to substantial existing transit and transportation corridors, including Caltrain and El Camino Real.
- To construct a project that encourages further redevelopment of the overall 56-acre San Antonio regional retail center.
- To conserve land and resources, and reduce impacts on the City's infrastructure through the vertical orientation and density of development.

Project Impacts and Mitigation Measures

Summary of Project Impacts

The Project impacts are summarized in Table ES-1 (presented at the end of this summary). For potentially significant impacts, mitigation measures are identified where feasible to reduce the impact on the environmental resources to a less-than-significant-level. Refer to Chapter 3, *Setting, Impacts, and Mitigation Measures*, for a detailed discussion of Project impacts and detailed descriptions of the mitigation measures.

Significant and Unavoidable Impacts

Impacts related to the following topics would remain significant with the implementation of mitigation.

- Traffic and Circulation

Project Alternatives

CEQA Guidelines Section 15126.6 require an EIR to evaluate the No Project Alternative and a reasonable range of alternatives to the Project that would feasibly attain most of the Project's basic objectives, but that would avoid or substantially reduce any identified significant environmental impacts of the Project. The proposed Project would result in significant and unavoidable impacts on Traffic and Circulation; accordingly, Project alternatives present an option that could avoid or reduce a significant impact to a less-than-significant level.

The following three alternatives to the Project were analyzed in Chapter 5, *Alternatives*.

- **No Project Alternative**: The site would remain in its existing condition, but assumes the construction a 175,000-sf retail store with associated parking, as approved by *the Precise Plan Amendments and San Antonio Center Project EIR*. The existing retail uses on the Project site would remain operational.
- **Reduced Density (Existing Zoning) Alternative**: This alternative (referred to as the Existing Zoning Alternative) assumes that the existing uses would be demolished, and an office building with ground-floor retail and commercial uses would be constructed. The hotel and cinema associated with the Project would not be included as part of this Alternative.

- **Reduced Density (Residential Component) Alternative**: This alternative (referred to as the Residential Component Alternative) assumes that the existing uses would be demolished and a mix of office with ground-floor retail, commercial uses, a cinema, and a hotel would be constructed. In addition, unlike the Project, this alternative would include the construction of residential units at the Project site.

Table ES-2 (presented at the end of this summary, after Table ES-1) provides a comparison of the potential impacts among the No Project Alternative, the Existing Zoning Alternative, and the Residential Component Alternative to the Project by resource topic. The No Project Alternative would be the environmentally superior alternative because there would be fewer construction-related impacts and fewer impacts generated from increased service population at the site; however, there would be greater impacts on hydrology and water quality because more impervious surfaces would remain to create stormwater runoff and there would not be any additional bioretention facilities. When comparing the action alternatives (as required by CEQA when the No Action Alternative is environmentally superior), the impacts would be similar. Because the Existing Zoning Alternative would result in a 30 percent reduction of square footage, the impacts would be similar to but less than those under the proposed Project. Therefore, the Existing Zoning Alternative is considered the environmentally superior project alternative.

Potential Areas of Controversy/Issues to Be Resolved

On August 19, 2013, the City filed a Notice of Preparation (NOP) with the Governor's Office of Planning and Research. Three agencies, and organizations and individuals of the public submitted written comments regarding the scope and content of the Draft EIR during the 30-day comment period (which ended September 20, 2013). Additionally, a scoping session on the Draft EIR was held on August 28, 2013 at Mountain View City Hall. All written and oral comments received during the comment period and scoping session were considered in the preparation of this Draft EIR. A copy of the NOP and all comments are provided in Appendix A. Following is a summary of the environmental comments received.

- Caltrans provided guidance on the approach to the traffic analysis, including recommendations on vehicle trip reduction, traffic impact fees, regional impacts fees, permits, mitigation reporting guidelines, and a transportation management plan.
- The Santa Clara Valley Transportation Authority (VTA) provided guidance on its requirements, including the preparation of a Traffic Impact Analysis (TIA) report providing trip generation assumptions, trip reductions, freeway analysis, a Transportation Demand Management (TDM) Program, transit incentives, land uses, pedestrian and bicycle accommodations and access to transit, and recommended improvements to the bus stops along San Antonio Road adjacent to the Project site.
- The City of Palo Alto provided suggestions on intersections and corridors to include in the traffic analysis and recommendations on mitigation measures, TDM, analysis for effects of an onsite transit facility for the Project, and consideration of enhanced connections to the San Antonio Caltrain Station. Additionally, the City of Palo Alto provided suggestions on impacts to be analyzed regarding aesthetics and construction.

- Organizations and individuals of the public provided comments regarding impacts from the Project due to traffic, noise, light, building/site plans, cumulative projects, parking, and the movie theater.

The City has not identified any areas of controversy or issues to be resolved.

Table ES-1. Summary of Project Impacts and Mitigation Measures

Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
Aesthetics			
AES-1: Change the existing visual character or quality of the site and its surroundings.	Less than Significant	None required	–
AES-2: Result in a new source of light or glare from Project.	Less than Significant	None required	–
Air Quality			
AQ-1: Conflict with or obstruct implementation of an applicable air quality plan.	Less than Significant	None required	–
AQ-2a: Violation of a BAAQMD air quality standard or substantial contribution to an existing or projected air quality violation during Project construction.	Significant	AQ-MM-2a: Implement BAAQMD basic construction mitigation measures to reduce construction-related NO_X emissions. AQ-MM-2b: Implement BAAQMD additional control measures to control construction-related NO_X emissions. AQ-MM-2c: Use clean diesel-powered equipment during construction to control NO_X emissions. AQ-MM-2d: Use Modern Fleet for On-Road Haul Trucks to control construction-related NO_X emissions.	Less than Significant
AQ-2b: Violation of a BAAQMD air quality standard or substantial contribution to an existing or projected air quality violation from Project operation.	Less than Significant	None required	–
AQ-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment.	Significant	AQ-MM-2a: Implement BAAQMD basic construction mitigation measures to reduce construction-related NO_X emissions. AQ-MM-2b: Implement BAAQMD additional control measures to control construction-related NO_X emissions. AQ-MM-2c: Use clean diesel-powered equipment during construction to control construction related NO_X emissions.	Less than Significant

Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
		AQ-MM-2d: Use modern fleet for on-road haul trucks to control construction-related NO_X emissions.	
AQ-4a: Exposure of existing sensitive receptors to substantial pollutant concentrations during construction.	Less than Significant	None required	–
AQ-4b: Exposure of existing and new sensitive receptors to substantial pollutant concentrations from Project operation.	Less than Significant	None required	–
AQ-5: Creation of objectionable odors affecting a substantial number of people.	Less than Significant	None required	–
Biological Resources			
BIO-1: Disturbance of nesting migratory bird species if construction activities begin during the nesting season (February 1 to August 31)	Less than Significant	None required	–
BIO-2: Removal of trees regulated by the City of Mountain View	Less than Significant	None required	–
Cultural Resources			
CUL-1: Potential adverse change on a historic architectural resource.	Less than Significant	None required	–
CUL-2: Potential discovery and adverse effect on unknown prehistoric and historic archaeological resources during construction.	Less than Significant	None required	–
CUL-3: Potential discovery and damage to unknown paleontological or unique geologic features during construction.	Significant	CUL-MM-3: Stop work if paleontological or unique geologic features are encountered during ground-disturbing activities.	Less than Significant
CUL-4: Potential disturbance of human remains, including those interred outside of formal cemeteries, during construction.	Less than Significant	None required	–
Geology and Soils			
GEO-1a: Increased exposure of people or structures to safety risks due to surface fault rupture resulting from seismic activity.	Less than Significant	None required	–

Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
GEO-1b: Increased exposure of people or structures to strong seismically induced groundshaking.	Less than Significant	None required	–
GEO-1c: Increased exposure of people or structures to the effects of seismic-related ground failure including liquefaction.	Less than Significant	None required	–
GEO-2a: Accelerated erosion during Project construction and operation.	Less than Significant	None required	–
GEO-2b: Loss of topsoil during Project construction.	Significant	GEO-MM-2: Stockpile topsoil removed during construction and reuse stockpiled topsoil during revegetation.	Less than Significant
GEO-3: Increased risk of landslide, liquefaction, lateral spread, subsidence, or collapse, as a result of Project location on an unstable geologic unit or soil.	Less than Significant	None required	–
GEO-4: Increased risk of damage to Project structures as a result of Project location on expansive soils.	Less than Significant	None required	–
Greenhouse Gas Emissions and Climate Change			
GHG-1a: Generate GHG emissions during Project construction.	Less than Significant	None required	–
GHG-1b: Generate GHG emissions during Project operation.	Less than Significant	None required	–
GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less than Significant	None required	–
GHG-3: Expose property and persons to the physical effects of climate change, including but not limited to flooding, public health, wildfire risk, or other impacts resulting from climate change.	Less than Significant	None required	–
Hazards and Hazardous Materials			
HAZ-1: Create a public or environmental hazard from the routine transport, use, or disposal of hazardous materials during Project construction or from Project operation	Less than Significant	None required	–

Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
HAZ-2: Create a public or environmental hazard from reasonably foreseeable upset and accident conditions involving the release of hazardous materials from historic land uses into the environment during Project construction and operation.	Less than Significant	None required	–
HAZ-3: Emission or handling of hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Less than Significant	None required	–
HAZ-4: Interference with adopted emergency response plan or emergency evacuation plan.	Less than Significant	None required	–
Hydrology and Water Quality			
HWQ-1: Degradation of water quality and potential violation of water quality standards or waste discharge requirements.	Significant	HWQ-MM-1: Implement provisions for construction dewatering and long-term structural dewatering, if required.	Less than Significant
HWQ-2a: Construction-related depletion of groundwater supplies or interference with groundwater recharge.	Less than Significant	None required	–
HWQ-2b: Operation-related depletion of groundwater supplies or interference with groundwater recharge.	Significant	HWQ-MM-2: Implement measures to maintain groundwater levels.	Less than Significant
HWQ-3: Alteration of stormwater drainage patterns.	Less than Significant	None required	–
Land Use and Planning			
LUP-1a: Physically divide an established community.	Less than Significant	None required	–
LUP-1b: Consistency with applicable general plan policies.	Less than Significant	None required	–
LUP-1c: Conflict with the existing zoning of the Project site.	Less than Significant	None required	–
Noise			
NOI-1: Expose adjacent residential uses to increased noise levels during Project construction.	Less than Significant	None required	–
NOI-2 Expose adjacent residential uses to increased noise levels from onsite Project operation.	Less than Significant	None required	—

Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
NOI-3: Expose nearby neighborhoods along major Project traffic access roadways to substantial noise increase from Project traffic.	Less than Significant	None required	–
NOI-4: Expose new onsite outdoor common areas to excessive noise.	Less than Significant	None required	–
NOI-5: Expose residential uses to groundborne vibration or groundborne noise levels during construction.	Less than Significant	None required	–
Population and Housing			
POP-1a: Create new employment opportunities which would indirectly induce population growth.	Less than Significant	None required	–
POP-1b: Induce indirect population growth due to jobs created by Project construction and utility extension during Project operation.	Less than Significant	None required	–
Public Services and Recreation			
PSR-1a: Reduced service ratios and response times for fire protection and emergency medical services during construction.	Significant	TRA-MM-8: Develop and implement a construction traffic control plan.	Less than Significant
PSR-1b: Reduced service ratios and response times for fire protection and emergency medical services during operation.	Less than Significant	None required	–
PSR-2a: Reduced service ratios and response times for police protection during construction.	Significant	TRA-MM-8: Develop and implement a construction traffic control plan.	Less than Significant
PSR-2b: Reduced service ratios and response times for police protection during operation.	Less than Significant	None required	–
PSR-3: Substantial increase in student enrollment resulting in adverse physical impacts.	Less than Significant	None required	–
PSR-4: Reduced use or level of service at parks resulting in adverse physical impacts.	Less than Significant	None required	–
PSR-5: Reduced use or level of service at other public service and community facilities.	Less than Significant	None required	–

Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
Transportation and Circulation			
TRA-1: Substantial increase in vehicle delay or deterioration of traffic operation at study intersections under the Existing plus Project Condition.	Less than Significant	None required	–
TRA-2: Substantial increase in vehicle delay or deterioration of traffic operation at study intersections under the Background plus Project Condition.	Less than Significant	None required	–
TRA-3: Substantial deterioration of traffic operation on freeway segments during Project operation.	Less than Significant	None required	–
TRA-4: Substantial increase in vehicle delay or deterioration of traffic operation at study intersections under the Cumulative Condition.	Significant	TRA-MM-4: Pay a fair share contribution towards the future improvement at the San Antonio Road/El Camino Real intersection.	Significant and unavoidable
TRA-5: Potential conflict with transit services and facilities and policies and plans related to the services during Project operation.	Less than Significant	None required	–
TRA-6: Potential conflict with local pedestrian and bicycle facilities and policies and plans regarding the facilities during Project operation.	Less than Significant	None required	–
TRA-7: Impacts resulting from inadequate parking supply during Project operation.	Less than Significant	None required	–
TRA-8: Potential construction impacts on traffic operation and circulation, transit service, nonmotorized transportation facilities, and emergency access.	Significant	TRA-MM-8: Develop and implement a construction traffic control plan.	Less than Significant
Utilities and Service Systems			
UTL-1: Increased demand for water supply at the Project site.	Less than Significant	None required	–
UTL-2: Increased generation of wastewater at the Project site.	Significant	UTL-MM-2: Pay fair-share contribution to upsizing specific wastewater pipelines or construct new pipelines in the system.	Less than Significant
UTL-3: Alteration of stormwater drainage patterns.	Less than Significant	None required	–
UTL-4: Sufficient permitted capacity to accommodate the Project's solid waste disposal needs at the Kirby Canyon Landfill.	Less than Significant	None required	–

Table ES-2. Comparison of Project Alternatives to the Project

		Impact Compared to Project		
Environmental Topic Area	Level of Project Impact	No Project Alternative	Existing Zoning Alternative	Residential Component Alternative
Aesthetics	Less than Significant	Less	Similar but slightly less	Similar but slightly less
Air Quality	Less than Significant with Mitigation	Less	Similar but slightly less	Similar but slightly less
Biological Resources	Less than Significant	Less	Similar	Similar
Cultural Resources	Less than Significant with Mitigation	Less	Similar	Similar
Geology and Soils	Less than Significant with Mitigation	Less	Similar	Similar
Greenhouse Gas Emissions and Climate Change	Less than Significant	Less	Similar but slightly less	Similar but slightly less
Hazards and Hazardous Materials	Less than Significant with Mitigation	Less	Similar	Similar
Hydrology and Water Quality	Less than Significant with Mitigation	Less	Similar	Similar
Land Use and Planning	Less than Significant	Similar	Similar but slightly less	Similar
Noise	Less than Significant	Less	Similar but slightly less	Similar but slightly less
Population and Housing	Less than Significant	Similar	Similar	Similar
Public Services and Recreation	Less than Significant with Mitigation	Less	Similar but slightly less	Similar
Transportation and Circulation	Significant and Unavoidable	Less	Similar but slightly less	Similar but slightly less
Utilities and Service Systems	Less than Significant with Mitigation	Less	Less	Similar

Note: Although the Existing Zoning Alternative and the Residential Component Alternative may result in lesser or greater impacts compared to the Project, the difference is incremental and does not change the significance conclusion or requirement for mitigation.

Chapter 1
Introduction

The proposed Village at San Antonio Center Phase II Project (Project) is an infill project that involves developing an approximately 9.9-acre site currently occupied by approximately 59,655 square feet (sf) of commercial and retail buildings with associated surface parking. The Project would develop office, commercial, hotel, retail, cinema, and restaurant uses in a configuration of six distinct development blocks. The Project includes one aboveground garage with one floor of associated subterranean parking, one subterranean garage, and surface parking. The total amount of new and redeveloped uses would be approximately 1.2 million sf. A detailed description of the Project is provided in Chapter 2, *Project Description*.

This document is in compliance with the California Environmental Quality Act (CEQA). The City of Mountain View (City) is the CEQA Lead Agency for the Project and has prepared this Environmental Impact Report (EIR) to evaluate potential impacts and identify required mitigation to avoid or reduce potentially significant impacts. The Project applicant is Merlone Geier Partners.

1.1 Environmental Review Process

1.1.1 California Environmental Quality Act

CEQA applies to all discretionary activities proposed to be implemented by California public agencies, including state, regional, county, and local agencies (California Public Resources Code Section 21000 et seq.). CEQA requires agencies to estimate and evaluate the environmental impacts of their actions, avoid or reduce significant environmental impacts when feasible, and to consider the environmental implications of their actions prior to making a decision. CEQA also requires agencies to inform the public and other relevant agencies and consider their comments in the evaluation and decision-making process. The State CEQA Guidelines are the primary source of rules and interpretation of CEQA (California Public Resources Code sections 21000 et seq.; 14 CCR 15000 et seq.).

One of the purposes of CEQA is to establish opportunities for the public and relevant agencies to review and comment on projects that might affect the environment. CEQA requires public participation through publication of the Notice of Preparation (NOP) as part of the EIR scoping process. Public participation is also achieved by notice and review of the Draft EIR whereby the public and agencies have 45 days to review the EIR and submit written comments. The public review period for this Draft EIR is from March 14, 2014 to April 28, 2014.

1.1.2 Purpose of EIR

The purpose of the EIR is to provide the information necessary for the City to make an informed decision about the Project, and to supply the information necessary to support related permit applications and review processes.

This Draft EIR has been prepared in compliance with CEQA to achieve the following goals.

- Identify potential direct, indirect, and cumulative environmental impacts associated with the Project.
- Describe feasible mitigation measures intended to avoid or reduce potentially significant impacts to a less-than-significant level.
- Disclose the environmental analysis, including the potential Project impacts and proposed mitigation measures, for public and agency review and comment.
- Discuss potential alternatives to the Project that avoid or reduce identified significant Project impacts.

Once the public review period is complete, the City will prepare a Final EIR that includes all the comments received on the Draft EIR, responses to comments, and any necessary revisions to the Draft EIR. CEQA requires the City's decision-making body to review and consider the information in the EIR before making a decision on the Project.

1.1.3 Scope and Content of EIR

Scoping refers to the process used to assist the Lead Agency in determining the focus and content of an EIR. Scoping solicits input on the potential topics to be addressed in an EIR, the range of project alternatives, and possible mitigation measures. Scoping is also helpful in establishing methods of assessment and in selecting the environmental effects to be considered in detail.

1.1.3.1 NOP and Scoping Meeting

The scoping process for this EIR was formally initiated on August 19, 2013, when the City submitted the NOP to the California State Clearinghouse for distribution to state agencies and to the County Clerk for public posting. The purpose of the NOP is to solicit participation from relevant agencies and from the public in determining the scope of an EIR. The scoping period ended on September 20, 2013.

A public scoping meeting was held on August 28, 2013, at Mountain View City Hall to provide an opportunity for attendees to comment on environmental issues of concern.

Written and verbal comments received during the scoping process are on file at the City of Mountain View Community Development Department offices (500 Castro Street, Mountain View, CA) and provided in Appendix A.

1.1.3.2 Resource Topics

Consistent with Appendix G of the State CEQA Guidelines, this Draft EIR evaluates the potential impacts of the Project on the following resource areas.

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils

- Greenhouse Gas Emissions and Climate Change
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation and Circulation
- Utilities and Service Systems

The following topics are also analyzed in this Draft EIR.

- Significant unavoidable impacts
- Significant irreversible changes in the environment
- Growth inducement
- Cumulative impacts
- Alternatives to the proposed Project

Although agricultural and mineral resources are identified in Appendix G of the State CEQA Guidelines, this EIR analysis does not include these topics because there would be no impact, as described below.

- **Agricultural Resources**. There are no farmlands within or near the Project area that would be affected by the proposed Project. There are no prime farmlands or farmland of statewide importance within the City of Mountain View. Therefore, there would be no impact on agricultural resources.
- **Mineral Resources**. The *Mountain View 2030 General Plan* (General Plan) does not identify mineral resources within the City, and there are no known mineral resources at the Project site. The proposed Project would not result in the loss of availability of known mineral resources of regional or statewide importance. Therefore, there would be no impact on mineral resources.

1.2 EIR Organization

This Draft EIR is organized as described in the chapters and appendices listed below.

- Chapter 1, *Introduction*, includes a brief overview of the Project; an overview of the environmental review process; and the scope, content, and organization of the Draft EIR.
- Chapter 2, *Project Description*, includes a comprehensive description of the proposed Project.
- Chapter 3, *Setting, Impacts, and Mitigation Measures*, includes an evaluation of the resource topics outlined in Section 1.1.3, *Scope and Content of EIR*. Each resource-specific section discusses the environmental setting, impacts, and mitigation measures.

- Chapter 4, *Other CEQA-Required Sections*, includes a discussion of significant environmental impacts that cannot be avoided, growth-inducing impacts, and cumulative impacts.
- Chapter 5, *Alternatives*, includes a description of the Project alternatives considered, an evaluation of the No Project Alternative, and one Reduced-Density Alternative.
- Chapter 6, *Report Preparation*, includes a list of staff who contributed to preparation of the EIR.
- Chapter 7, *References*, includes a list of the printed references and personal communications cited in the EIR.
- Appendices

  A. NOP and Scoping Comments

  B. Air Quality and Greenhouse Gas Analysis Details

  C. Arborist Report

  D. Biological Resources Technical Data

  E. Cultural Resources Memo and DPR Records

  F. Geotechnical Investigation, The Village at San Antonio Center North, Mountain View, California

  G. Phase I Environmental Site Assessment, Machado Property

  H. CEQA Storm Drainage Analysis Memorandum

  I. Noise Analysis

  J. Transportation Impact Analysis

  K. Water Supply Assessment Study

  L. Water and Sewer Hydraulic Capacity Study for San Antonio Center Phase II Project

  M. Conditions of Approval

Chapter 2
Project Description

2.1 Project Overview

The proposed Village at San Antonio Center Phase II Project (Project) is an infill project that involves redeveloping an approximately 9.9-acre site (Project site) located at San Antonio Road and California Street in Mountain View, California. The Project site is currently occupied by approximately 59,655 square feet (sf) of commercial and retail buildings with associated surface parking. The Project would be developed with office, commercial, hotel, retail, cinema, and restaurant uses in a configuration of six distinct development blocks. The Project includes one aboveground garage (with one floor of associated subterranean parking), one subterranean garage, and surface parking. The total amount of new and redeveloped uses proposed is approximately 1.2 million sf. Vehicular access to the Project site would be via Pacchetti Way, California Street, and San Antonio Road. A joint-use promenade would extend from north to south through the middle of the Project site from California Street to the Hetch-Hetchy Parkway. Construction activities would include the demolition of the existing commercial and retail buildings and surface parking lots, and removal of trees and vegetation that would be replaced in accordance with the Project's landscape plan.

2.2 Project Objectives

Section 15124(b) of the CEQA Guidelines requires that the project description within an EIR include a statement of the project objectives. The applicant has identified the following objectives for the Project.

- To support the existing demand for office, commercial, retail, hotel, cinema, and associated parking and open space in the City of Mountain View and the surrounding region.
- To locate job-generating uses close to existing residential uses so as to improve the jobs-housing balance and advance associated local and regional transportation objectives.
- To provide an intensity and range of uses that implements the visions of the City's General Plan for land use, urban form and density, economic development, and circulation.
- To promote and enhance a healthy and diverse economy in Mountain View.
- To address the existing lack of hotel space in the west-central portion of the City, an area with significant office and commercial uses that generate substantial local demand for lodging.
- To provide mutually supportive office, hotel, and retail uses in immediate proximity to one another and to substantial existing transit and transportation corridors, including Caltrain and El Camino Real.
- To construct a project that encourages further redevelopment of the overall 56-acre San Antonio regional retail center.
- To conserve land and resources, and reduce impacts on the City's infrastructure through the vertical orientation and density of development.

2.3 Project Location

The 9.9-acre Project site is located at 402–423 San Antonio Road in a mixed-use area of the City Mountain View (City), Santa Clara County, California in the western portion of the city (Figures 2-1 and 2-2). The Project site is at the southeast corner of the intersection of California Street and San Antonio Road at the northwestern corner of the existing San Antonio Shopping Center. The Project site is situated north of State Route (SR) 82 (West El Camino Real), approximately 2.29 miles west of SR 85, and 1.6 miles south of US 101. The Project site is bound by Pacchetti Way to east, the Hetch-Hetchy Parkway to the south, San Antonio Road to the west, and California Street to the north. There are three existing buildings and surface parking at the corner of California Street and San Antonio Road that are not included in the Project site.

The Project site comprises four Assessor's Parcel Numbers (APN): 148-22-002, 148-22-003, 148-22-004, and 014-22-008.

2.4 Existing Site Conditions and Surrounding Uses

2.4.1 Project Site Land Uses

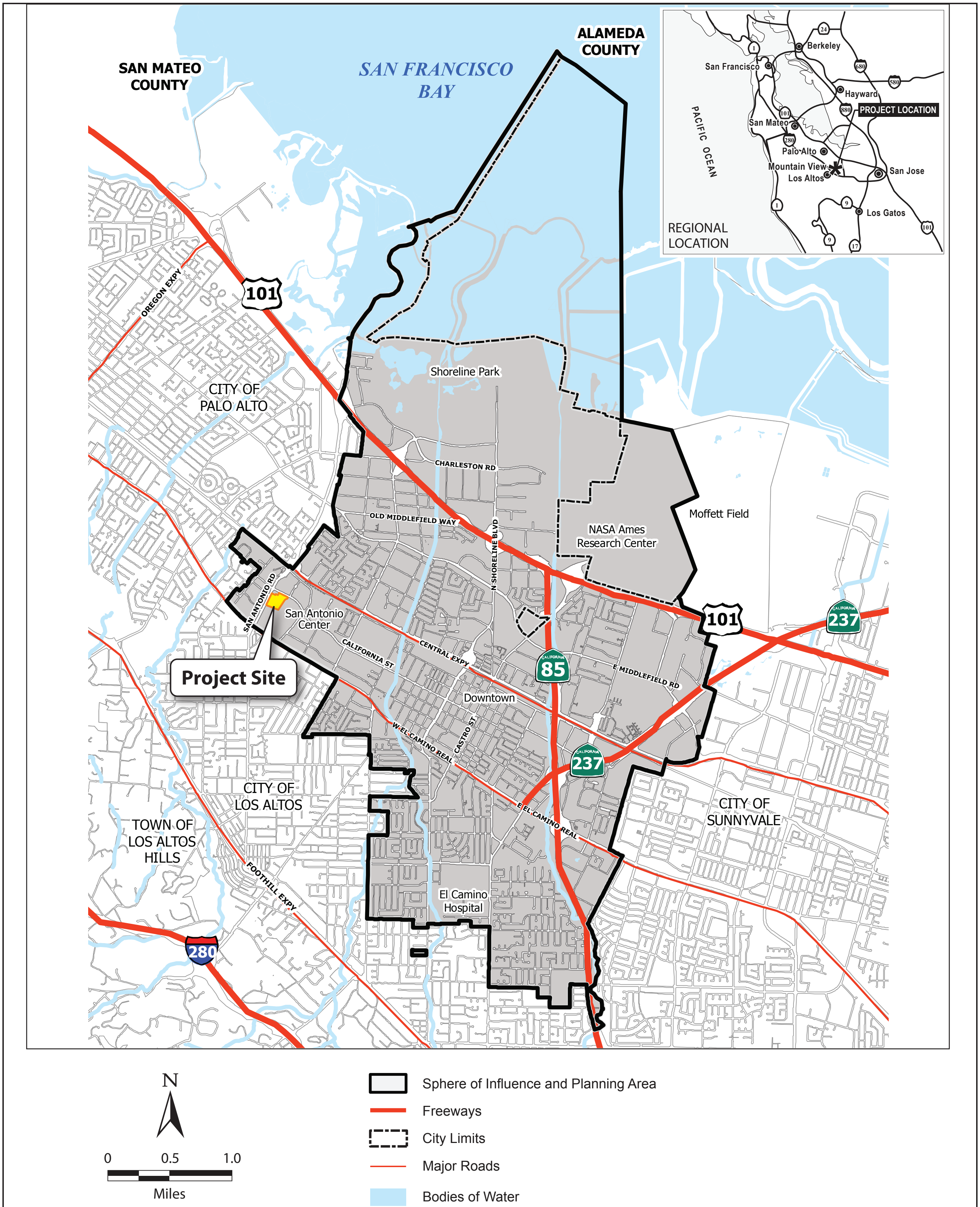
The existing site comprises 59,655 sf of commercial and retail buildings and 683 surface parking spaces. The existing retail businesses include Ross Dress for Less, BevMo!, Barron Park Supply Company, International Market, Fantastic Hair & Nail Salon, and Kumon Math & Reading Center. These businesses employ a total of approximately 43 employees per day. There are a total of 75 existing trees, including seven Heritage Trees, on the Project site.

The existing access points to the site are from San Antonio Road, California Street, and Pacchetti Way. The topography of the site is generally flat. The Project site is approximately 49–53 feet above mean sea level (amsl) and gently slopes towards California Street. The Project site was originally developed in the 1940s, and is mostly paved, with some landscaping in the northern parking area. There are no stormwater treatment features currently in place on the Project site.

2.4.2 Land Use Designation and Zoning

The City of Mountain View is organized into several geographic areas called planning areas. The Project site is located within the San Antonio Planning Area. The San Antonio Planning Area is defined by its diverse mix of commercial and residential uses. The *Mountain View 2030 General Plan* also defines several change areas. Change areas are areas within the City that could significantly change over the life of the General Plan. The *Mountain View 2030 General Plan* identifies new land uses and intensities for change areas, primarily in commercial and industrial zoned areas along corridors and in commercial locations. The Project site is located within the San Antonio Change Area.

The *Mountain View 2030 General Plan* designates the Project site as Mixed-Use Center, which promotes pedestrian-oriented mixed-use centers with integrated, complementary uses such as entertainment, restaurants, department stores and other retail, office, hotels, convention/assembly and/or civic uses, and public spaces that draw visitors from surrounding neighborhoods and the region.



SOURCE: City of Mountain View General Plan 2011.

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Figure 2-1
Project Location
The Village at San Antonio Center Phase II

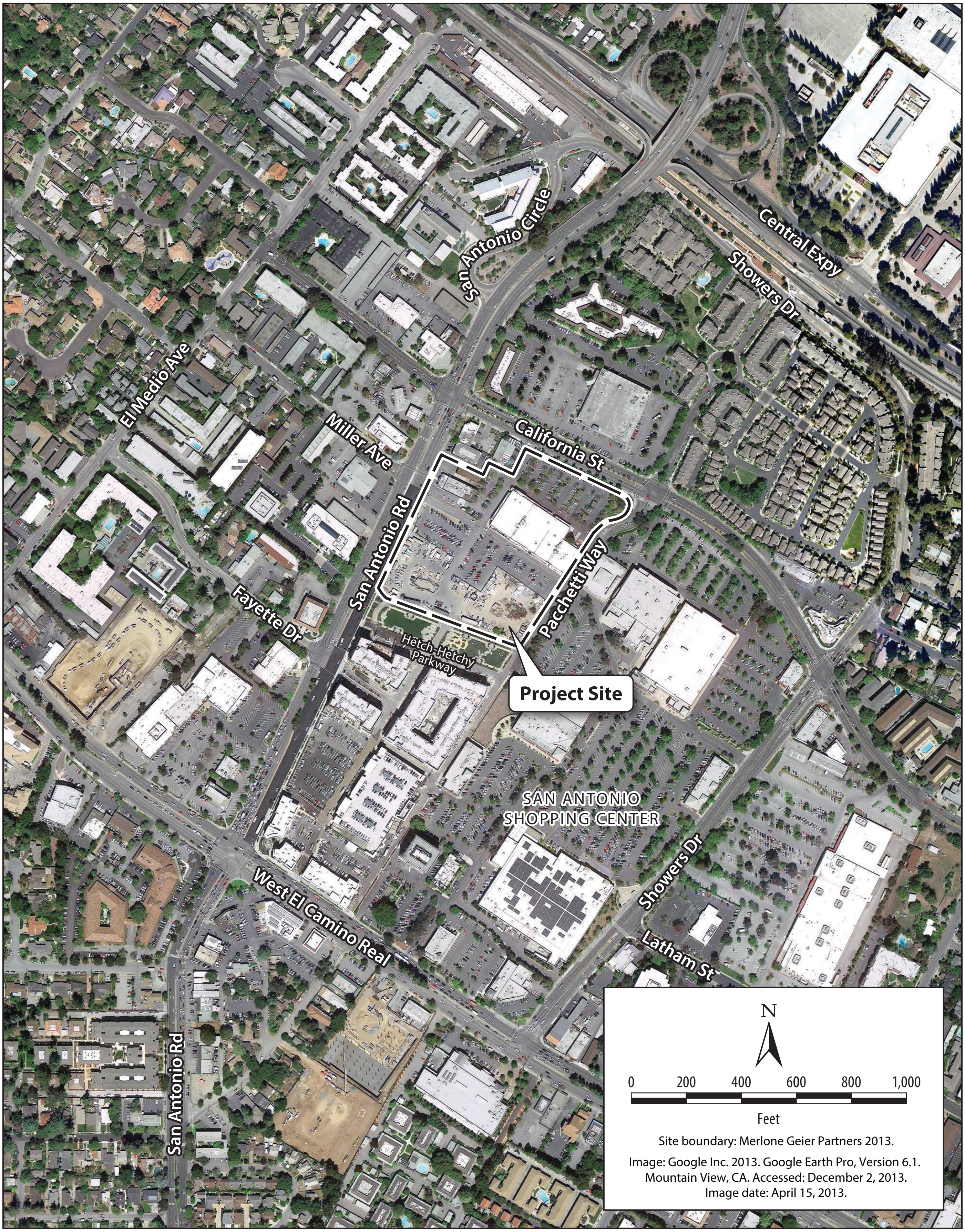

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Figure 2-2
Project Site
The Village at San Antonio Center Phase II

The Project site is zoned as a Planned Community Precise Plan (P-9) district. The San Antonio Center Precise Plan describes the permitted uses on the site, which include a broad range of large-scale retail businesses, medium and small-scale retail businesses and personal services establishments, and restaurants. Other uses such as offices and hotels may be permitted subject to City review.

2.4.3 Surrounding Land Uses

The Project site is bound by two major roadways, California Street to the north and San Antonio Road to the west. Surrounding land uses include mixed-use to the north and west and the existing San Antonio Shopping Center to the east. At the northeast intersection of California Street and San Antonio Road are existing retail uses. The Project is immediately north of the San Antonio Village Center Phase 1 Project (Phase 1). Phase 1 is a mixed-use development project that comprises retail, restaurant, commercial, and residential uses and subterranean, rooftop, mezzanine, and surface parking on an approximately 11-acre site south of the Hetch-Hetchy Parkway. As of Fall 2013, Phase 1 was approximately 75 percent constructed.

2.4.4 Transit

The Project site is located along Santa Clara Valley Transportation Authority (VTA) bus routes 32, 34 and 35. Bus routes 32 and 35 operate along California Street and bus route 34 operates along San Antonio Road. The nearest bus stops are adjacent to the Project site at the intersection of California Street and San Antonio Road.

The nearest Caltrain Station is the San Antonio Station, approximately 0.20 miles north of the Project site. The nearest VTA Light Rail stop (Mountain View) is approximately 2 miles east of the Project site.

There is an existing bicycle lane on California Street, along the Project frontage. There is also an existing bicycle lane along San Antonio Road in Los Altos; it currently ends at El Camino Real and does not continue north along the Project site. There is an existing bicycle lane on Showers Drive, which is located east of the Project site, on the far side of the San Antonio Shopping Center.

Figure 2-3a and 2-3b show the existing transit options and bicycle lanes, respectively, in the Project vicinity.

2.5 Proposed Project

The Project would consist of office, commercial, retail, hotel, cinema, and restaurant uses with parking in six blocks (Block 1 through Block 6) on the 9.9-acre Project site. As shown on Figure 2-4, Blocks 1, 2, and 3 would be located on the west side of the Project site, adjacent to San Antonio Road. Blocks 4, 5, and 6 would be located on the east side of the Project site, adjacent to Pacchetti Way. The Project elements are summarized in Table 2-1 and further described below.

Table 2-1. Project Features

Proposed Use	Square Footage[1]
Office	392,853
Commercial[2]	28,502
Hotel	142,084 (167 rooms)
Retail	54,186
Cinema	67,280 (1,710 seats)
Restaurant	35,358

[1] The total Project development, including parking garages, would be approximately 1.2 million sf.

[2] Commercial designation allows for flexibility in uses such as office, professional office, restaurant, or retail.

Source: Merlone Geier 2013.

2.5.1 Site Plan

The description of the Project's uses, including the summary information above and detailed information below, is based on the current plans (Figure 2-4). These plans are subject to minor refinements as they are reviewed by the Development Review Committee, Zoning Administrator, Environmental Planning Commission (EPC), and ultimately considered by the City Council.

2.5.1.1 Block 1

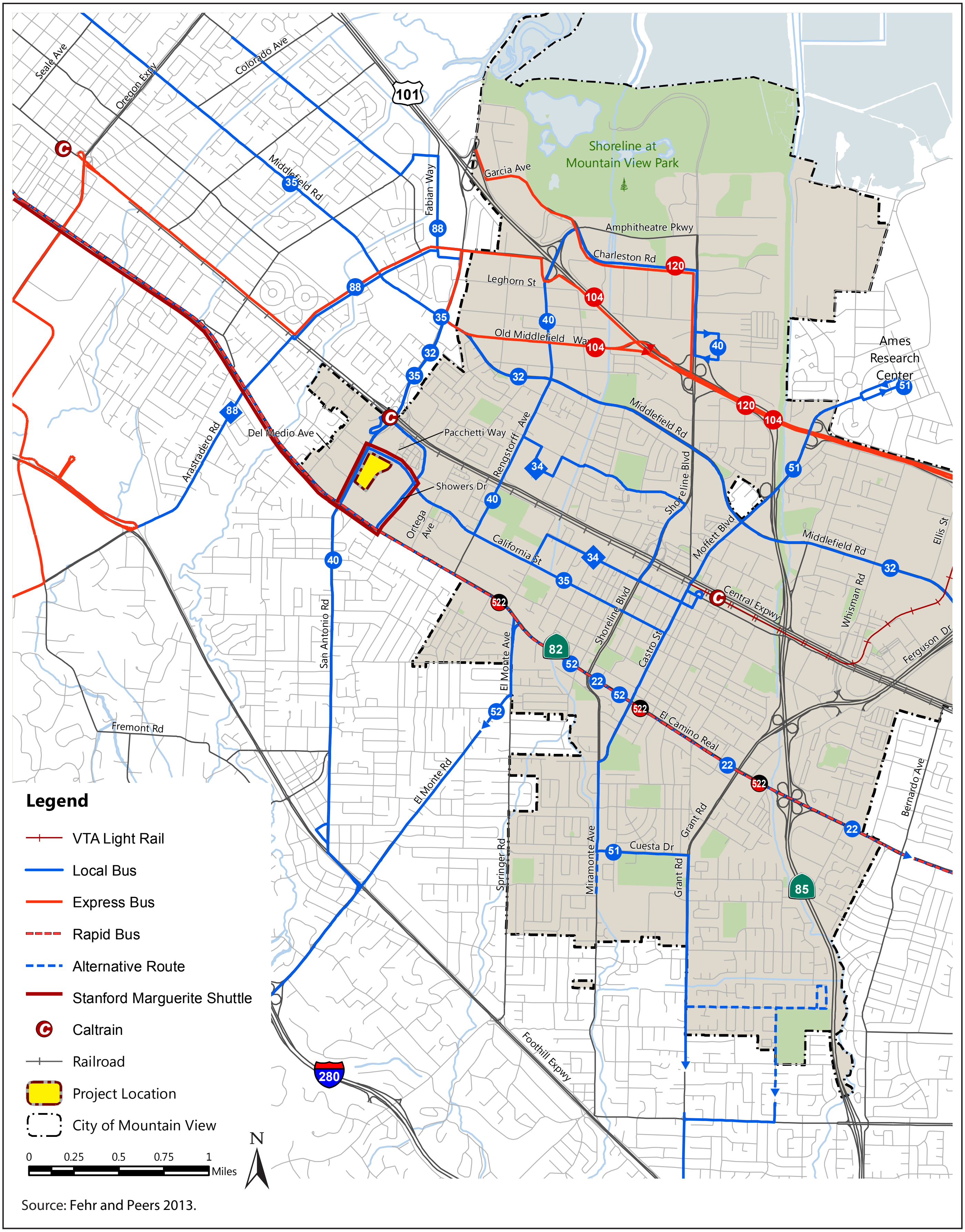
Block 1 would be located on the southwest corner of the Project site. Block 1 would contain one 6-story building. The ground floor would consist of retail and restaurant space and a lobby for the office space on floors 2 through 6. On the north side of Block 1, there would be a vehicular ramp down to a subterranean parking garage. The maximum height of Block 1 would be approximately 88 feet. The parking garage is described in further detail in Section 2.5.4, *Access and Parking*.

The architecture of Block 1 would feature contemporary materials and detailing, including various curtain wall and glazing systems with high performance clear glass, precast concrete, stone, and architectural metal panels. The building mass would be terraced to create a stepped effect from the building perimeter. Retail spaces would be at the lower levels (generally 1 or 2 stories).

Lighting would be designed to minimize unnecessary light pollution at the site. Interior lighting in the office buildings would be shielded from direct line of sight to openings in the envelope, or reduced in power during non-working hours. Exterior lighting would be designed with the intent of minimizing light pollution at the site boundary and to the night sky, by selecting fixtures which emit light at a maximum of 90 degrees from nadir (straight down).

2.5.1.2 Block 2

Block 2 would be located on the west side of the Project site between Blocks 1 and 3, along San Antonio Road (see Figure 2-5). Block 2 would contain one 6-story building. The ground floor would consist of commercial space and a lobby for the office space on floors 2 through 6. On the north side of Block 2 would be a vehicular ramp down to a subterranean parking garage. The parking garage is described in further detail in Section 2.5.4, *Access and Parking*. The maximum building height would



Source: Fehr and Peers 2013.

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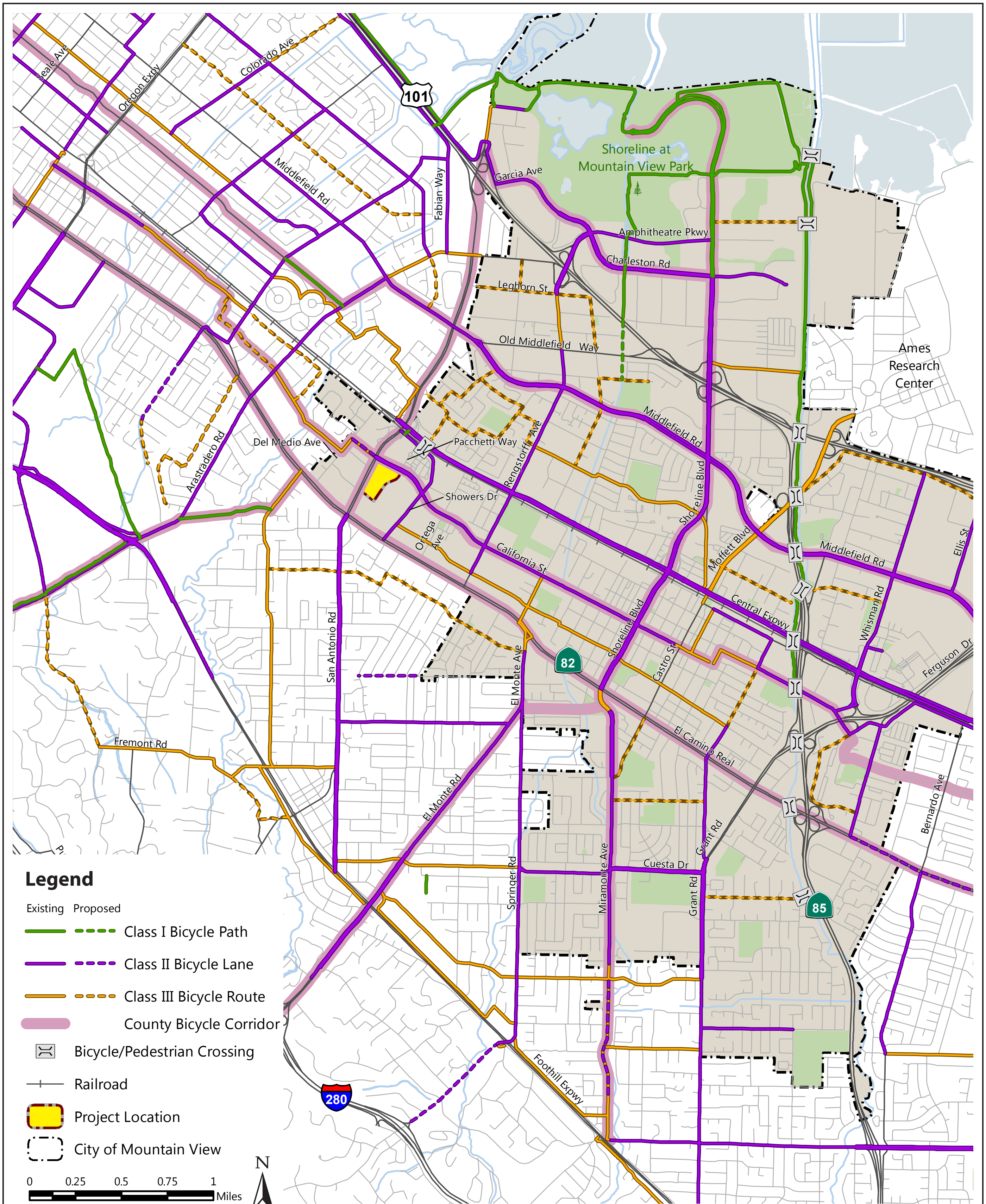
Figure 2-3a
Existing Transit Facilities
The Village at San Antonio Center Phase II



Source: Fehr and Peers 2013.

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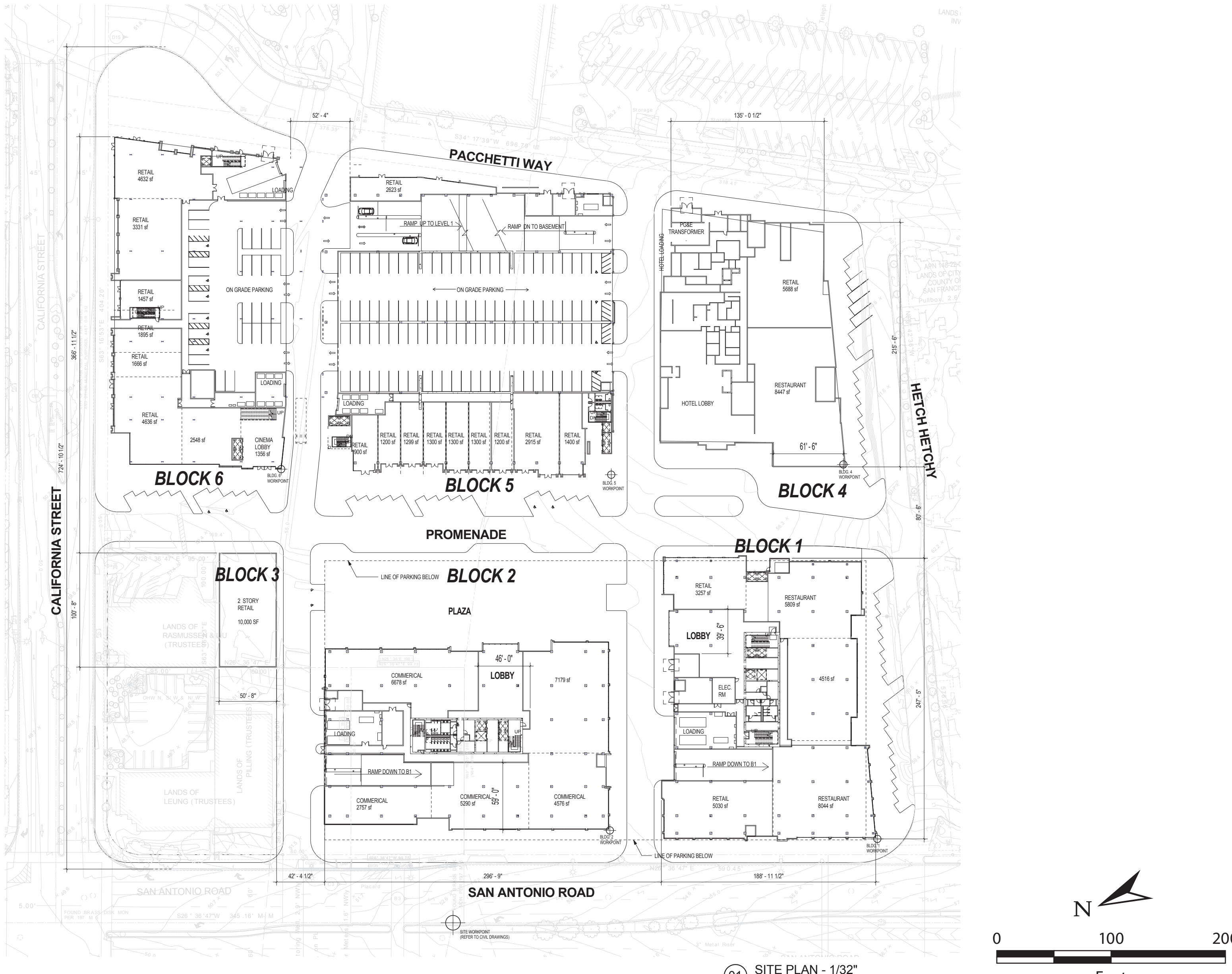
Figure 2-3b
Existing Bicycle Facilities
The Village at San Antonio Center Phase II



Source: Merlone Geier Partners 2013.

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Figure 2-4
Site Plan
The Village at San Antonio Center Phase II

Source: Merlone Geier Partners 2013.

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Figure 2-5
View of Block 2 from San Antonio Road
The Village at San Antonio Center Phase II

be approximately 88 feet. There would be an outdoor plaza on the east side of the building that would contain landscaping, fountains, and seating areas. A monument commemorating the Project site as the "Birthplace of Silicon Valley" would be located on the west side of the building along San Antonio Road. Architecture and lighting would be consistent with Block 1.

2.5.1.3 Block 3

Block 3 would be located on the northwest corner of the Project site, inbound of neighboring properties at the southeast intersection of California Street and San Antonio Road. The majority of this block has existing commercial and retail uses that are not part of the Project. The southeast portion of this block would be redeveloped with 10,000 sf of retail in a 2-story building. The maximum height of Block 3 would be approximately 41 feet.

The architecture would be in contemporary style with glass and natural stone or similar materials, similar to Blocks 1 and 2. Lighting would be designed to minimize unwanted light onto neighboring property.

2.5.1.4 Block 4

Block 4 would be located on the southeast corner of the Project site. Block 4 would have one 6-story building with retail space, a restaurant, and a hotel. The retail and restaurant uses would be on the ground floor. The hotel would have 167 rooms located on floors 2 through 6. The hotel lobby would be on the ground floor. The maximum height of Block 4 would be approximately 88 feet.

The architecture for Block 4 would be complementary to Blocks 1, 2, and 3; however the hotel use would allow for greater articulation of facades and a U-shaped massing of the second through sixth floor plates, allowing natural light and views to all of the hotel rooms. This U-shaped massing of hotel rooms would sit on a large podium deck with a pool, spa, and other hotel amenities. Below the podium deck, adjacent to the Hetch-Hetchy Parkway, would be lower-floor retail uses.

2.5.1.5 Block 5

Block 5 would be located on the east side of the Project site, between Blocks 4 and 6. Block 5 would consist of an 8-level parking garage (one subterranean level and seven at-grade and aboveground levels) and retail uses on the ground floor along the Promenade. The roof of the parking garage would have a photovoltaic (PV) array. In addition to reducing electricity needs for the Project, the PV array would provide shade for the vehicles parked on the roof. The maximum height of Block 5 would be approximately 74 feet.

The façade would be a latticework of architectural metal panels and meshes to shield visibility of parking areas from the exterior, while allowing natural ventilation to maintain energy efficiency. Retail uses would be located on the lower floors.

Lighting in the garage would be designed to maintain safe lighting levels in parking areas while shielding direct line of site to the exterior wherever possible. Exterior lighting would be designed to minimize unnecessary light pollution.

2.5.1.6 Block 6

Block 6 would be located on the northeast corner of the Project site with frontage along California Street (see Figure 2-6). The ground floor of Block 6 would have retail uses, at-grade parking, and a lobby to the cinema. The cinema would be on the second story of Block 6. The maximum height of Block 6 would be approximately 89 feet.

The architecture would consist of articulated massing and varied height throughout the building, including one tower at the northwest corner providing a formal gateway for the Village at San Antonio. Retail uses would be located on the lower levels. Building materials would consist of glass, natural stone, and architectural metal panels.

Lighting would be designed to minimize unnecessary light pollution to neighboring properties and the night sky.

2.5.2 Promenade and New Roads

The Project would include a promenade between the east and west blocks that would extend from California Street to the existing Hetch-Hetchy Parkway. The promenade would be open to vehicles and would have head-in parking on the west sides of Blocks 5 and 6, and parallel parking on the east side of Block 2. On weekend evenings, the promenade would be for pedestrian use only between Blocks 2 and 5. The Promenade would be lined with potted trees and there would be monument dedicated to the Birthplace of Silicon Valley within the open plaza area of the Promenade. A second monument to the Birthplace of Silicon Valley would be located on the west side of Block 2.

As shown in Figure 2-7, the Project would include two new private parallel roads, Silicon Way and Disk Drive, that would extend between San Antonio Road and Pacchetti Way. Silicon Way would be to the north of Disk Drive between Blocks 2 and 3 and Blocks 5 and 6. Disk Drive would be located between Blocks 1 and 2 and Blocks 4 and 5.

2.5.3 Rezoning

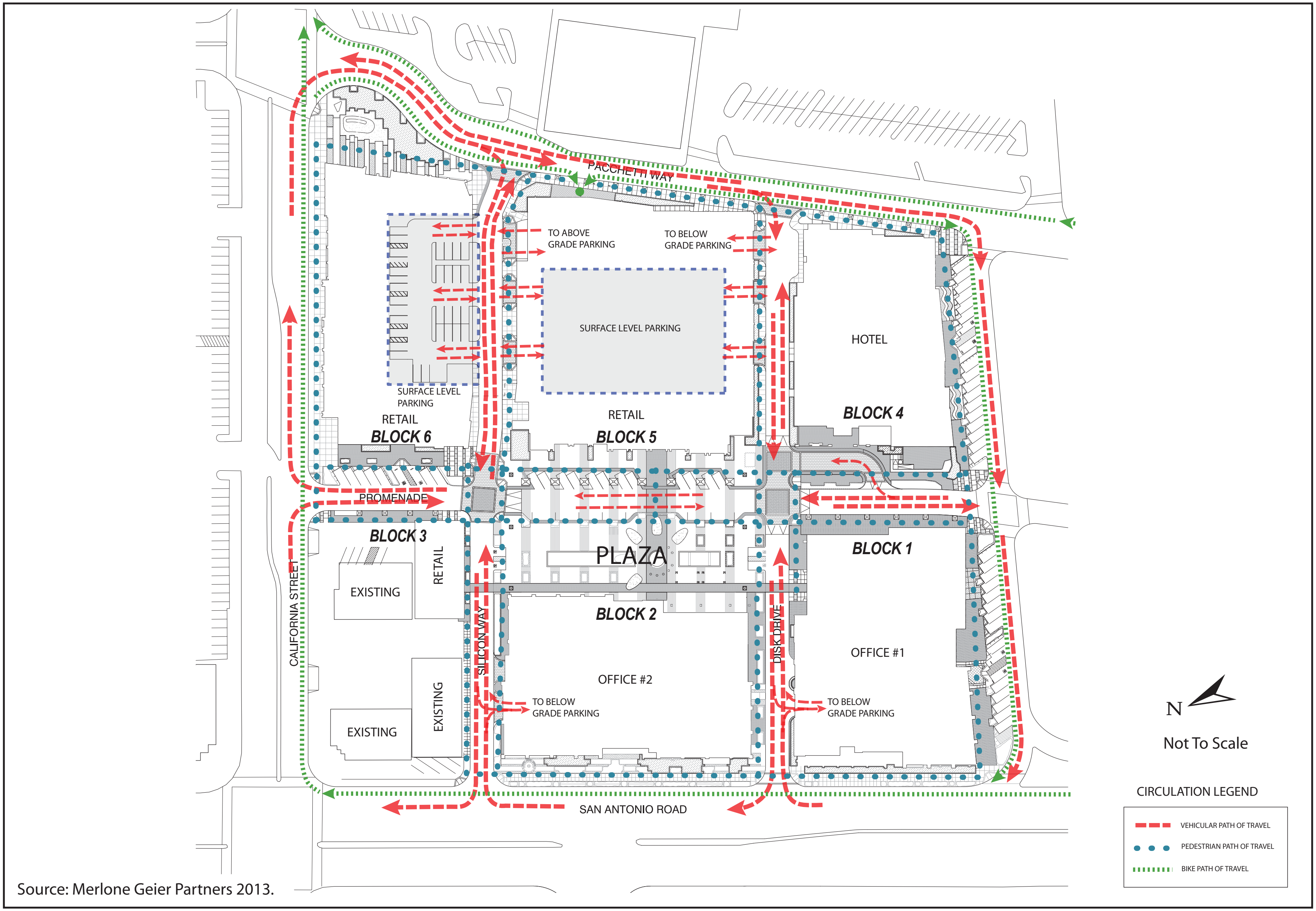
The Project proposes adoption of a new Planned Community ("P") Zoning District consisting of the Project site, and a Zoning Map Amendment reflecting both the new P District and removal of the Project site from the San Antonio Center Precise Plan. Permitted land uses, densities, and maximum building heights within the new P District are described in Section 2.5.1, *Site Plan*. A Planned Community Permit reflecting the development pattern described in Table 2-1 and Sections 2.5.1 and 2.5.2 is proposed to be processed and approved concurrently with the adoption of the new P District and the Zoning Map Amendment. Subdivision of the Project site is proposed in order to allow for the separate sale, leasing, or financing of various Project elements (e.g., office component, retail components, and hotel component) over time. Additional required approvals from the City and other agencies are identified in Section 2.7, *Required Permits and Approvals*, Table 2-2.

2.5.4 Access and Parking

As shown on Figure 2-7, vehicular access to the Project site would be provided from Pacchetti Way, California Street, and San Antonio Road. From these roadways, vehicles could access the onsite parking from Silicon Way or Disk Drive. The Project would include subterranean parking, surface parking, and aboveground parking with a total of 2,596 parking spaces.

Source: Merlone Geier Partners 2013.

Figure 2-6
View of Block 6 from California Street
The Village at San Antonio Center Phase II



Source: Merlone Geier Partners 2013.

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Figure 2-7
Internal Circulation
The Village at San Antonio Center Phase II

2.5.4.1 Blocks 1 and 2

A 4-level subterranean parking garage would extend from the south end of Block 1 to the north end of Block 2. This garage would have two ingress/egress ramps: from Silicon Way on the north side of Block 2 and from Disk Drive on the north side of Block 1. There would be 1,142 parking spaces in this subterranean parking structure dedicated to the office uses in Blocks 1 and 2.

There would be seven parallel surface parking spots on the south side of Block 1 and six parallel plus two head-in parking spots on east side of Block 2, east of the outdoor plaza.

2.5.4.2 Block 3

There would be no parking associated with Block 3.

2.5.4.3 Block 4

There would be eight parallel surface parking spots on the south side of Block 4.

2.5.4.4 Block 5

The majority of Block 5 would be a parking garage that would include one level of subterranean parking, one level of at-grade parking, and six levels of aboveground parking. Access to the subterranean parking would be from Disk Drive on the south side of Block 5. The at-grade parking would be accessible from two entrances on Disk Drive at the south side of Block 5 and two entrances from Silicon Way on the north side of Block 5. Access to the aboveground parking would be from Silicon Way on the north side of Block 5. Parking on Block 5 would be for the hotel, restaurants, cinema, and retail uses on the Project site. There would be a total of 1,383 parking spaces within this parking garage.

There would be 14 head-in surface parking spots on the west side of Block 5.

2.5.4.5 Block 6

There would be eight head-in surface parking spots on the east side of Block 6 and 26 ground-level parking spots under cover of the building, contiguous with the ground level of the Block 5 parking garage.

2.5.4.6 Bicycle Access

The Project would include the construction of bicycle lanes on both sides of San Antonio Road from California Street to West El Camino Real. These bicycle lanes would connect to the existing bicycle lanes on San Antonio Road in Los Altos. In order to accommodate the new bicycle lanes, the Project would restripe the lanes in San Antonio Road, move the existing median, and dedicate right-of-way along San Antonio Road. Bicycle parking would be distributed throughout the Project site.

2.5.5 Landscaping and Heritage Trees

The Project includes a landscape plan to compensate for the removal of existing trees and vegetation and to enhance the development. Figure 2-8 shows the type and location of the proposed landscaping elements for the Project.

An arborist report was prepared by Mayne Tree Expert Company, Inc. to evaluate the trees to be removed (refer to Appendix C, *Arborist Report*). There are 75 existing trees on the Project site. Of these, seven meet the City's criteria for Heritage Trees. The Project would require the removal of all the trees on the Project site, including the seven Heritage Trees.

The Project would include new landscaping along the perimeter of the Project site and along the central promenade. The Project would plant approximately 165 trees in addition to several palms, shrubs, vines, grasses, ferns, and other ground cover. As required by the City, the majority of trees proposed would be Low Water Use, in accordance with the Water Use Classifications of Landscape Species (WUCOLS). Many of the trees would be evergreen, allowing for year-round shade and screening of the Project site. All planted areas would be watered with an approved automatic underground irrigation system to make efficient use of water through conservation techniques, and would comply with the City's Water Conservation in Landscaping Regulations adopted in July 2010 and Green Building Code adopted in March 2011.

2.5.6 Utilities and Stormwater Quality Management

The Project would connect to existing City utilities.

2.5.6.1 Water

There is an existing 10-inch water line in California Street and a 12-inch water line in San Antonio Road.

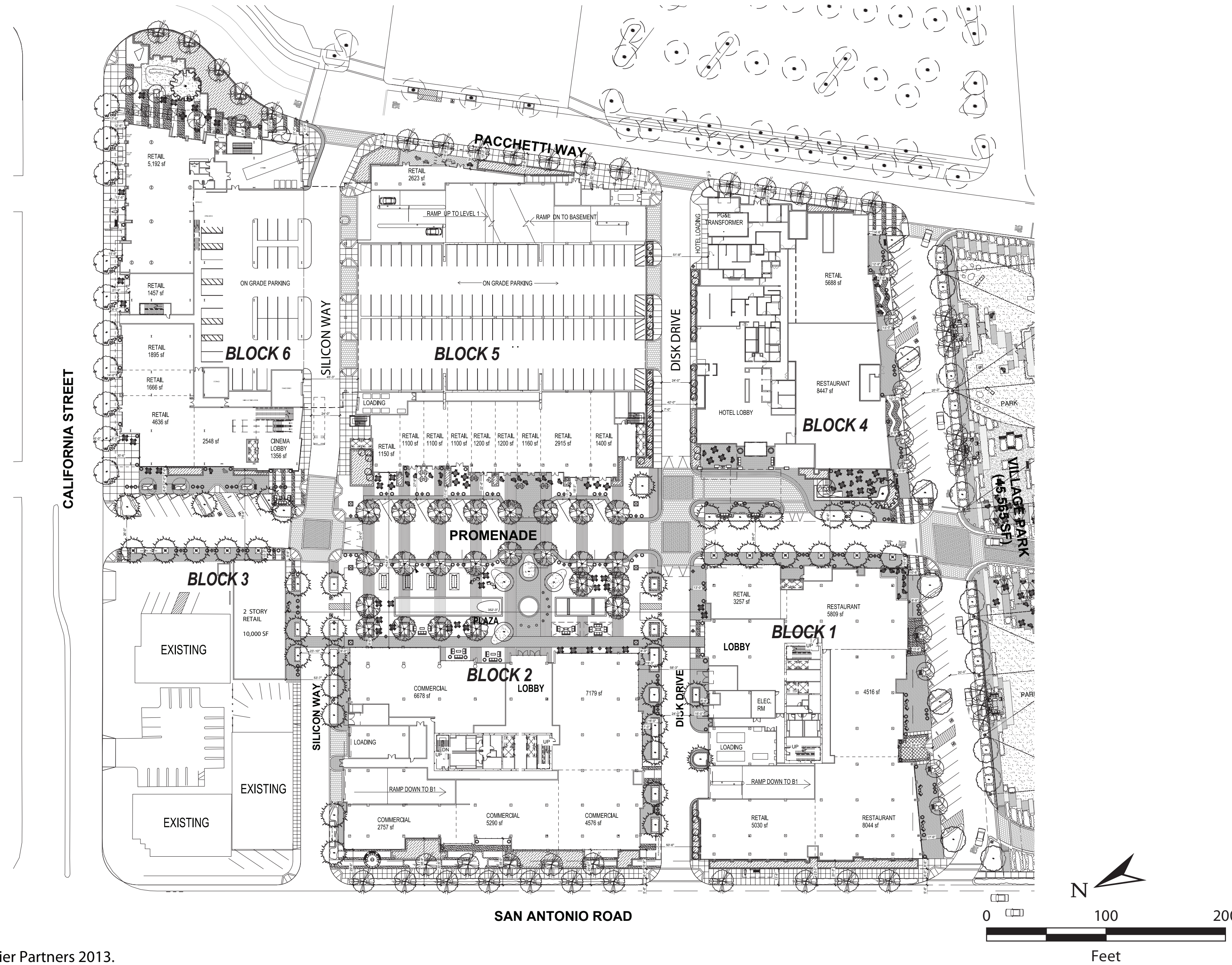
The Project would install a 10-inch fire-water line in Pacchetti Way that would connect to the existing 10-inch water line in California Street. The 10-inch fire-water line would turn west at the Hetch-Hetchy Parkway and would continue east to connect to the existing 12-inch water line in San Antonio Road. The Project would also provide an 8-inch fire-water line that would connect to the 10-inch fire-water line in Pacchetti Way and would continue along Silicon Way to the Promenade. At the Promenade, the 8-inch fire-water line would extend south to connect with the 10-inch fire-water line along the Hetch-Hetchy Parkway.

2.5.6.2 Wastewater

There is an existing 8-inch sanitary sewer line in California Street. The Project would connect to the 8-inch line in California Street and install a new 8-inch sewer line that would run down the Promenade. The Project would also install a 6-inch sewer line that would connect to the 8-inch line in the Promenade and extend east in Disk Drive. The Project would include several 4- and 6-inch laterals that would connect buildings to the new sewer lines.

2.5.6.3 Stormwater

There is an existing 27–30-inch storm drain line in California Street, a 36-inch storm drain line in San Antonio Road, a 12-inch storm drain line in Pacchetti Way, and an 18-inch storm drain line just north of the Hetch-Hetchy Parkway. The Project would connect to the 30-inch line in California Street with the installation of a 24-inch storm drain in the Promenade. The Project would also include a 24-inch storm drain line that would connect to the 24-inch line in the Promenade and extend east in Disk Drive. There would be several 6-, 8-, 10-, and 12-inch connections to the storm drain lines in San Antonio Road, California Street, and Pacchetti Way.



Source: Merlone Geier Partners 2013.

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Figure 2-8
Landscape Plan
The Village at San Antonio Center Phase II

The Project would be required to comply with the Clean Water Act (CWA) Section 402 National Pollutant Discharge Elimination System (NPDES) Program. Per CWA Section 402, the Project would be required to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) under the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit). CWA Section 402 also requires the Project to comply with the San Francisco Bay Municipal Regional Stormwater Permit (MRP) under the NPDES Municipal Stormwater (MS4) Program. The MRP (under Provision C.3) requires that permanent water quality control devices treat all stormwater to the maximum extent practicable (MEP). Provision C.3 is for New Development and Redevelopment source control, site design, and stormwater treatment measures to address stormwater runoff pollutant discharges. This goal is accomplished through low impact development (LID) techniques, including rainwater harvest, infiltration, and biotreatment. The current MRP regulates stormwater treatment for new development, but recognizes that certain urban infill, higher density, and transit-oriented developments have some inherent environmental benefits and challenges. These types of projects, known as "Special Projects," are allowed to use specific types of non-LID treatment measures to treat a certain percentage of the site's runoff. Based on the current regulations and the density and proximity to an existing transit hub, the Project is eligible for a 90 percent LID Treatment Reduction Credit, which means that 10 percent of the project would be required to be treated using LID based treatment and the remaining 90 percent could be treated using a media filter vault or other approved device.

The Project would have 29 biofiltration systems to treat the stormwater runoff. There would be 25 planter boxes and 4 modular wetland systems. The planter boxes would treat stormwater flows from the buildings and the modular wetlands would treat all surface runoff. Treated runoff would discharge to the existing storm drains.

2.5.7 Green Building Practices, Energy Efficiency Measures, and Transportation Demand Management Features

The City of Mountain View requires new nonresidential development projects greater than 25,000 sf to meet the intent of LEED Gold and comply with certain CalGreen Requirements. The Project would include the following features to fulfill these requirements.

- California Energy Code requirements based on 2008 Energy Efficiency Standards requirements would be exceeded by at least 15 percent.
- Construction waste generated at the Project site would be diverted to recycle or salvage, meeting a goal of 50 percent reduction.
- Installation of a photovoltaic (PV) array on the roof of the parking garage is anticipated to reduce electricity needs by 25–30 percent.
- Stormwater treatment and filtration.
- Low intensity/energy-efficient lighting.
- Low-flow lavatory faucets, water closets, and urinals to minimize water use.
- Roofing systems with high Solar Reflectance Index (SRI) and high R-value ceiling and wall insulation would be incorporated to reduce cooling costs and energy requirements.
- Tenants will be required to recycle waste.

At minimum, the Project would include the following Transportation Demand Management (TDM) features, which would reduce peak-hour traffic by approximately 30 percent.

- Six electric vehicle (EV) charging stations with Type II chargers.
- Ten pre-wired parking spaces for future EV chargers.
- Preferred parking for carpool and hybrid/electric vehicles.
- Proximity to transit and bike routes.
- Storage lockers and employee shower facilities to reduce dependency on automobile.
- Bike share program.
- Web portal for carpooling.
- Public transit subsidy or passes to be provided to tenants.
- Shuttles to public transit.

2.6 Construction

Construction of the proposed project is scheduled to commence July 2014 and end November 2016, lasting approximately 28 months. First, the existing structures and parking lot on the project site would be demolished and the existing trees would be removed. Then, the subterranean parking garages, foundations, and buildings would be constructed. Following is a brief description of the construction methods. Additional detail for construction (equipment, workers, hours, etc.) is provided as needed in the technical analyses in Chapter 3, *Setting, Impacts, and Mitigation Measures.*

2.6.1 Demolition and Excavation

The existing structures on the site would be demolished. Before beginning demolition activities at the site, a comprehensive building materials survey would be performed for asbestos-containing materials, lead-based paint, electrical equipment containing polychlorinated biphenyls (PCBs), and fluorescent tubes containing mercury vapors and lights. If found, construction worker health and safety regulations and materials removal and disposal would be implemented in accordance with applicable federal and state standards, including the California Division of Occupational Safety and Health (Cal/OSHA) and the Bay Area Air Quality Management District (BAAQMD) regulations.

Construction of the subterranean parking garages and their foundations would require excavation of soils. The Project would excavate to approximately 47 feet below ground surface. Excavation and activities would generate 185,000 cubic yards (cy) of cut and 5,000 cy of fill, resulting in a net export of 180,000 cy of soil. Demolition activities would generate approximately 4,480 cy of demolished material, trees, concrete, and asphalt and an additional 12,444 cy of recyclable materials that would be exported from the Project site. Demolition debris and removed trees would be transported to Zanker Disposal and Recycling in San Jose. Demolished concrete and asphalt would be transported to Stevens Creek Quarry in Cupertino. Demolished materials from grading and paving activities would be transported to the Brisbane Landfill in Brisbane and materials from garage excavation and miscellaneous grading activities would be transported to either Brisbane Landfill or Dumbarton Quarry.

Additionally, there would be trenching in the City's right-of-way in California Street and San Antonio Road. There would be some temporary lane closures during the construction of sewer and water lines and the bicycle lane along San Antonio Road.

2.6.2 Construction Security and Staging

Construction activities would be contained with a chain-link fence around the entire site. Construction materials and equipment would be entirely staged onsite on blocks that are not under construction.

2.6.3 Construction Hours

Project construction would comply with Section 8.70.1 of the City of Mountain View City Code, which includes regulations related to noise generated by construction and stipulates that no construction activity would commence prior to 7:00 a.m. or continue later than 6:00 p.m. Monday through Friday. Additionally, no noise-generating work shall be permitted on Saturdays, Sundays, or holidays unless prior written approval is granted by the Chief Building Official.

2.7 Required Permits and Approvals

Table 2-2 lists the anticipated permits and approvals that would be required for the Project.

Table 2-2. Required Permits and Approvals

Agency	Permit/Review Required
City of Mountain View	• Site and Architectural Plan Review • Approval of a Demolition Permit • Heritage Tree Removal Permit • Rezoning to a Planned Community • Approval of a Planned Community Permit/Development Review Permit • Tentative Subdivision Map • Ministerial Approvals: o Approval of a Grading Permit o Approval of a Building Permit o Approval of off-site improvement plans o Public Works approval for work within the right-of-way
California Regional Water Quality Control Board (RWQCB)	• CWA Section 402 National Pollutant Discharge Elimination System (NPDES) General Construction Stormwater Permit

Chapter 3
Setting, Impacts, and Mitigation Measures

This chapter provides environmental analyses of the physical impacts that could occur as a result of implementing the project. There is a separate section for each resource analyzed, as listed below. Each section presents a description of the environmental and regulatory setting for that resource, significance criteria and methodology used in the impact analysis, and the potential impacts requiring mitigation measures.

This chapter comprises the following sections.

- 3.1, *Aesthetics*
- 3.2, *Air Quality*
- 3.3, *Biological Resources*
- 3.4, *Cultural Resources*
- 3.5, *Geology and Soils*
- 3.6, *Greenhouse Gas Emissions and Climate Change*
- 3.7, *Hazards and Hazardous Materials*
- 3.8, *Hydrology and Water Quality*
- 3.9, *Land Use and Planning*
- 3.10, *Noise*
- 3.11, *Population and Housing*
- 3.12, *Public Services and Recreation*
- 3.13, *Transportation and Circulation*
- 3.14, *Utilities and Service Systems*

3.1 Aesthetics

This section describes the environmental and regulatory setting for aesthetics. It also describes impacts on aesthetics that would result from implementation of the Project and mitigation for significant impacts where feasible and appropriate. A summary of impacts and mitigation measures is presented at the end in Section 3.1.4.4, *Summary of Aesthetics Impacts*.

3.1.1 Introduction

Aesthetics or visual resources are generally defined as the natural and built features of the landscape that can be seen. *Natural landscape features* are the combination of landform, water, and vegetation patterns that define an area's visual character, and the *built features* are those elements in the landscape that reflect human or cultural modifications, such as buildings, roads, utility structures, and ornamental plantings. These natural and built landscape features together, the *visual or aesthetic resources* of the area, contribute to the public's experience and appreciation of the environment. Depending on the extent to which a project's presence would alter the perceived visual character and quality of the environment, aesthetic impacts may occur. The Project site and surrounding area comprise built features and no natural landscape features, although there is limited urban landscaping on the Project site and surrounding area.

3.1.2 Environmental Setting

This section provides a discussion of the existing conditions related to aesthetics on the Project site and surrounding area.

3.1.2.1 Regional Character

Mountain View is a 12-square-mile municipality situated approximately 35 miles south of San Francisco and 10 miles north of San Jose. The City, which is named for its vista of the Santa Cruz Mountains to the west, is located at the southern end of the San Francisco Peninsula (Peninsula) where it meets the Santa Clara Valley. Mountain View is one of over a dozen cities located on the flatter portions of the western margin of the San Francisco Bay (Bay), east of the San Andreas Fault zone. The City is bordered by the Bay on the north, Palo Alto on the northwest, Los Altos on the south/southwest, and Sunnyvale to the east (Figure 2-1).

The Bay and its natural features are key visual components in the eastern and northern portions of the City. The principal topographic feature visible from the City is the Santa Cruz Mountain Range, which runs the length of the Peninsula and forms a barrier between the Pacific Ocean and the Bay. The mountain range is visible from adjacent cities and the majority of Mountain View.

Urban development within the region is largely concentrated between the Bay and the Interstate 280 (I-280) corridor. In general, the Peninsula is developed with low-density uses within distinct neighborhoods that include commercial, retail, and residential buildings. Larger-scale development, such as office parks and industrial buildings, tend to be located between the Bay and US 101. Some high-rise office, apartment, and hospital buildings are located between US 101 and I-280; however, these buildings are mainly concentrated along the US 101 and El Camino Real corridors. The Mountain View Parks Division is responsible for the protection and maintenance of 35 urban parks throughout the City and 5 miles of bicycle and pedestrian trails along Stevens Creek, Permanente Creek, and the Hetch-Hetchy Right-of-Way.

3.1.2.2 Site Characteristics

The 9.9-acre Project site is located in a mixed-use area in the western portion of Mountain View. The Project site is situated north of State Route (SR) 82 (West El Camino Real), approximately 2.3 miles west of SR 85, and 1.6 miles south of US 101. The Project Site is bound by Pacchetti Way to the east, the newly developed Hetch-Hetchy Parkway to the south, San Antonio Road to the west, and California Street to the north. Two driveways off of California Street and one driveway off of San Antonio Road serve the Project site. The Project site is generally flat with a gentle slope towards California Street.

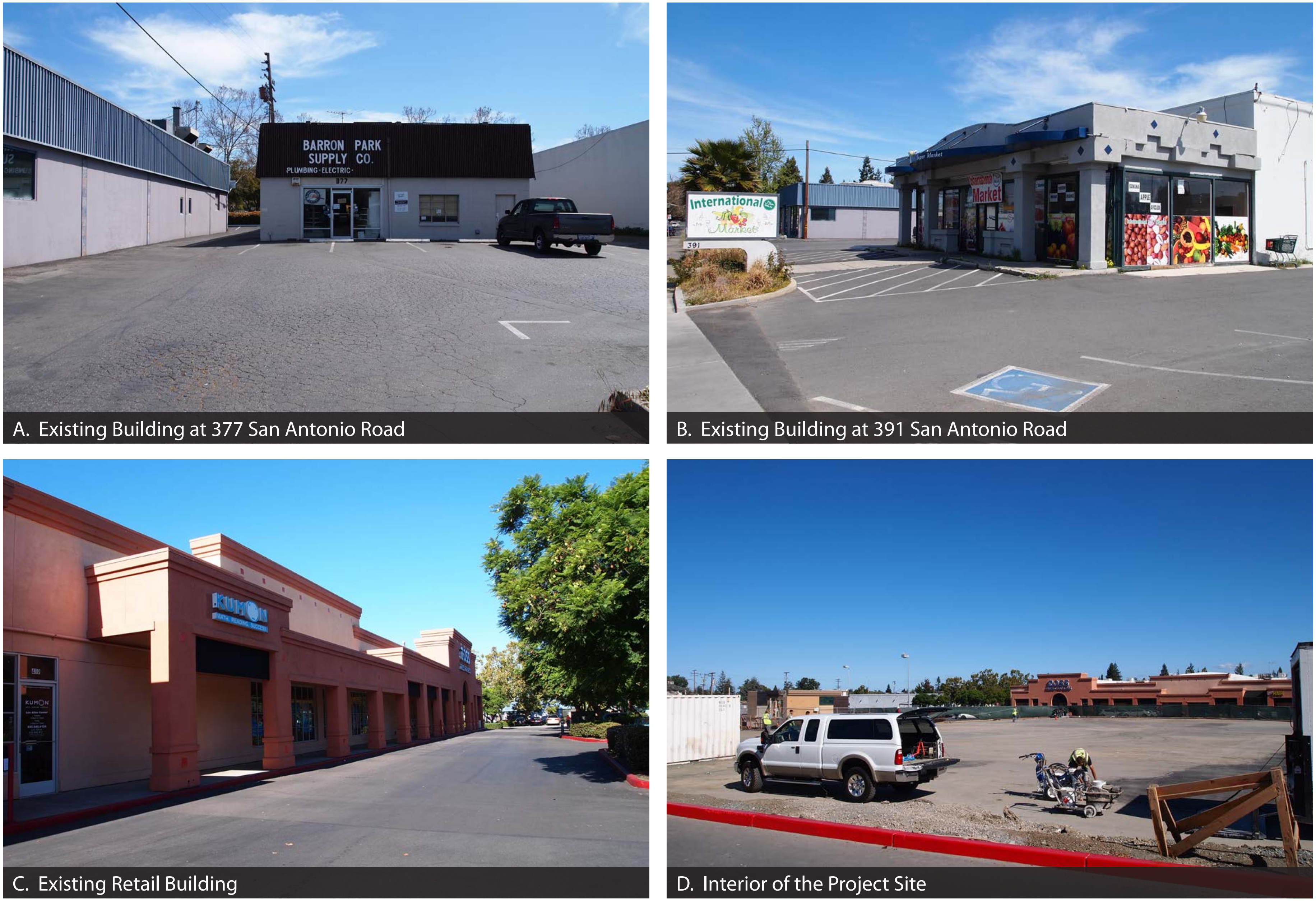
The Project site is part of an aging regional commercial shopping center that was first developed in the 1940s. Three 1- and 2-story structures totaling 56,655 square feet (sf) are located at the Project site. Two of the existing buildings, both constructed in 1964, front onto San Antonio Road. The single-story building at 377 San Antonio Road is set back from the street by a surface parking lot and consists of limited architectural features, as depicted in Figure 3.1-1 (Photo A). The building to the south is located at 391 San Antonio Road and is also surrounded by surface parking and impervious surfaces. As shown in Figure 3.1-1 (Photo B), this single-story building includes a glass façade, rectangular columns, a blue awning, and decorative tiles. Both buildings are currently vacant.

The northeastern portion of the Project site includes a large multi-tenant retail structure surrounded by paved surface parking lots (Figure 3.1-1, Photo C). This building is approximately 2 stories (including mezzanines) and has a glass and stucco-type façade with informational signage above the retail entrances. Sidewalks run in front of the northern and southern building facades and are covered by concrete roofs supported by rectangular columns. The rest of the Project site, as depicted in Figure 3.1-1 (Photo D), consists of approximately 683 parking spaces and a construction staging area for the Village at San Antonio Center Project (Phase I).

Light sources throughout the site illuminate interior driveways, parking lots, and pedestrian pathways. Parking lots feature pole-mounted luminaires and mounted light fixtures are provided at building entrances. In addition, at night, the commercial signs attached to the building facades are illuminated. Within the interior of the Project site and along California Street, all utility wires are underground and therefore not visible. However, overhead wires traverse San Antonio Road and connect to the two Project site buildings along San Antonio Road.

Sidewalks are provided along the exterior of the Project site along San Antonio Road and California Street and around the building frontages. However, there is no continuous sidewalk system within the shopping center, requiring pedestrians travelling within the center to walk across parking lots and long roadways. Landscaping within the Project site is generally limited to ornamental landscaping along exterior roadways and trees within the parking lots along California Street. In total, the Project site has approximately 75 existing trees, seven of which are considered Heritage Trees.

Since the Project site is on relatively flat topography, views to and from the Project site are limited to the immediate vicinity. The buildings at the Project site are generally set back from the California Street frontages and are relatively screened from offsite viewers by dense trees and other onsite landscaping in the parking lots and around the perimeter. This vegetation creates a visual border and emphasizes the separation between the adjacent streets and onsite buildings. However, along San Antonio Road, the three buildings and surface parking lots are highly visible with no perimeter landscaping or trees.



A. Existing Building at 377 San Antonio Road

B. Existing Building at 391 San Antonio Road

C. Existing Retail Building

D. Interior of the Project Site

Figure 3.1-1
Existing Conditions at the Project Site
The Village at San Antonio Center Phase II

The majority of views from the Project site are of adjacent development. As shown in Figure 3.1-2 (Photo A), views facing north consist of dense vegetation in the surface parking lot and along California Street with channelized views of the retail center farther to the north. Buildings that are part of the San Antonio Shopping Center are visible across Pacchetti Way to the east. Views of the Santa Cruz Mountain Range are available intermittently throughout the site facing south, but full views of the mountains are blocked by the intervening 5-story Phase I buildings and mature trees (Figure 3.1-2, Photo B). Foreground views facing west, as shown in Figure 3.1-2 (Photo C), are of the onsite surface parking lot, buildings, lighting poles, and telephone wires along San Antonio Road. Middleground views include mature trees to the west of San Antonio Road in the adjacent neighborhoods. No background views are visible to the north, east, or west.

3.1.2.3 Scenic Resources

There are no designated scenic resources in the City's *Mountain View 2030 General Plan* (General Plan). In addition, no designated state scenic highways are located in the City or the surrounding area. I-280 through Santa Clara County is an eligible state scenic highway, but is not officially designated. The only designated state scenic highway in Santa Clara County is SR 9 from the Santa Cruz County line to the Los Gatos city limits (Caltrans 2011). The Project site is approximately 10 miles north of SR 9. Given this distance, no views of the Project site can be seen from any portion of SR 9.

3.1.2.4 Sensitive Viewers

Sensitive viewers are generally people or large groups of people viewing a scenic resource or area of high aesthetic quality from or within a public place. The Project site does not include sensitive viewers. The majority of views from the Project site are of adjacent development, which can either be characterized as "big box" retail stores or small "strip-mall" type commercial buildings. The newly developed San Antonio Center Project, which includes residential units, is also visible to the south.

In general, nearby residents with views of an adjacent project site are considered to have moderate sensitivity. Excluding the Phase I Project, the closest residential neighborhood is approximately 240 feet northeast of the Project site. The Project site is visible from the residential units along Pacchetti Way; due to distance and intervening structures and vegetation, the Project site is not visible from other nearby neighborhoods. Views of the Project site from California Street are interspersed with trees along the Project site frontage, while the San Antonio Road frontage has no landscaping, allowing unobstructed views of the Project site from this street. No recreational paths are located in the immediate Project vicinity, and drivers, bicyclists, and pedestrians along the adjacent streets are considered low-sensitivity viewers because they are commuters and non-recreational travelers.

The Project site is not visible from any public parks, which can be considered as sensitive viewer locations. Rengstorff Park (0.6 mile) and Klein Mini Park (0.34 mile) to the east and Del Medio Park (0.2 mile) and Monroe Park (0.34 mile) to the west are separated from the Project site by flat terrain, distance, vegetation, and an urbanized environment. However, as depicted in Figure 3.1-2 (Photo D), the Project site is visible from the newly developed Hetch-Hetchy Parkway, which is part of the Phase I Project.

3.1.3 Regulatory Setting

3.1.3.1 Federal

There are no relevant federal regulations for aesthetics.

3.1.3.2 State

There are no relevant state regulations for aesthetics.

3.1.3.3 Local

City of Mountain View 2030 General Plan

The General Plan includes the following goals and policies related to the preservation of aesthetic/visual resources in the City of Mountain View (City of Mountain View 2012).

Goal LUD-6: Distinctive neighborhoods that preserve and enhance the quality of life for residents.

Policy LUD 6.1: Respect neighborhood character. Ensure that new development in or near residential neighborhoods is compatible with existing neighborhood character.

Policy LUD 6.3: Street presence. Encourage building facades and frontages that create a presence at the street and along interior pedestrian paseos or pathways.

Goal LUD-9: Buildings that enhance the public realm and integrate with the surrounding neighborhood.

Policy LUD 9.1: Height and setback transitions. Ensure that new development includes sensitive height and setback transitions to adjacent structures and surrounding neighborhoods.

Policy LUD 9.3: Enhanced public space. Ensure that development enhances public spaces through these measures:

Applicable Measures:

- Locate buildings in near the edge of the sidewalk.
- Encourage design compatibility with surrounding uses.
- Encourage building articulation and use of special materials to provide visual interest.
- Promote and regulate high-quality sign materials, colors, and design that are compatible with site and building design.
- Encourage attractive water-efficient landscaping on the ground level.

Goal LUD-10: High-quality, sustainable and healthful building design and development.

Policy LUD 10.2: Low-impact development. Encourage development to minimize or avoid disturbing natural resources and ecologically significant land features.

Policy LUD 10.7: Beneficial landscaping options. Promote landscaping options that conserve water, support the natural environment, and provide shade and food.

A. View From Project Site Facing North

B. View From Project Site Facing South

C. View From Project Site Facing West

D. View of Project Site From Hetch-Hetchy Parkway Facing North

Graphics...00396.13 Mtn View-Village at SanAntonio Center/EIR (11-14-2013) SS

Figure 3.1-2
Existing Conditions at the Project Site
The Village at San Antonio Center Phase II

The following goal and related policies are specific to the San Antonio Change Area where the Project is located.

Goal LUD-21: A gateway neighborhood with diverse land uses, public amenities, and strong connections to surrounding areas.

Policy LUD 22.3: Gathering spaces. Encourage new plazas, open space and other gathering spaces in the San Antonio Center.

Policy LUD 22.4: Pedestrian-oriented design elements. Ensure that developments include pedestrian-oriented design elements such as accessible building entrances, visible storefronts and landscaping.

3.1.4 Impact Analysis

3.1.4.1 Criteria for Determining Significance

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing aesthetics.

An impact would be considered significant if construction or operation of the proposed Project would cause any of the following.

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

The Project would not damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. SR 82 is not designated as a state scenic highway by Caltrans. As discussed above, the closest designated scenic highway is SR 9, which is approximately 10 miles south of the Project site, and no views of the Project site can be seen from any portion of SR 9. Therefore, although the Project would remove trees, no impacts related to scenic resources within a state scenic highway would occur. This issue is not discussed further.

In addition, there are no scenic vistas or sensitive viewer locations on the Project site or within the Project vicinity. Although portions of the Project site are visible from nearby streets, the Project site is not visible in its entirety from a single, ground-level vantage point due to its large size, flat topography, and surrounding buildings. Increased development and heights associated with the Project could result in blocked views of the Santa Cruz Mountain Range to the south; however, this view is currently largely already obstructed by vegetation and development and no sensitive viewers are located along California Street. Rengstorff Park, Klein Mini Park, Del Medio Park, and Monroe Park are in the vicinity of the Project site; however, these areas have no views of the Project site due to topography, distance, and intervening structures and vegetation. Therefore, the proposed buildings would not block significant views of the Santa Cruz Mountains from these locations. Accordingly, the Project would not result in impacts associated with scenic vistas and this topic is not analyzed further.

3.1.4.2 Methods

Identifying the project area's visual character or quality involves the following steps.

- Identify the visual features (visual resources) of the landscape.
- Assess the character and quality of the visual features relative to the surrounding area.
- Determine viewer sensitivity (i.e., importance of the view to people and public vantage points).
- Identify the change to visual features and the viewer response.
- Determine if the change constitutes substantial degradation of the existing visual character and quality considering viewer sensitivity.

A site survey was conducted on September 25, 2013 to evaluate visual resources in the Project area. Photographic documentation was compiled during this site survey.

3.1.4.3 Impacts and Mitigation Measures

This section provides a discussion of each impact as it corresponds to the significance criteria presented in Section 3.1.4.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.1.4.4, *Summary of Aesthetics Impacts*.

Impact AES-1	Change the existing visual character or quality of the site and its surroundings.
Level of Impact	Less than Significant

Discussion

Construction

Project construction would include demolition, excavation, and construction activities on the Project site over an approximately 28-month period. These activities would temporarily degrade the existing visual character of the Project site and the surrounding area. A chain-link fence around the entire Project site would contain construction activities. Construction materials and equipment would be entirely staged onsite on blocks that are not under construction.

Principal viewer groups include motorists along California Street and San Antonio Road and nearby residences to the northeast and south (Phase I). The surrounding streets are highly-traveled; however, motorists only have fleeting views of the Project site, due to the speeds permitted and the fact that drivers on these streets typically direct their attention to the road ahead rather than to views. Accordingly, motorists are not considered sensitive viewers. The adjacent residents along Pacchetti Way are considered to have moderate sensitivity; however, most views are not direct due to the intervening structures, roadways, and mature vegetation. The construction fencing and existing landscaping that would remain along California Street would provide visual screening. Construction activities would be highly visible to the Phase I residents to the south, but would be screened as feasible. In addition, construction and associated visual degradation would be short-term and temporary. Accordingly, this impact would be less than significant and no mitigation would be required.

Operation

As described above, the existing Project site consists of three 1- to 2-story retail buildings surrounded by surface parking for approximately 683 vehicles. Approximately 75 trees are located within the parking lot. The Project would demolish the retail center and replace it with six blocks of office, commercial, retail, hotel, cinema, restaurant, and parking uses. The new 2- to 6-story buildings would feature clear glass, natural stone, and architectural metal panels. In addition, the Project site would include a promenade between the east and west blocks that would extend from California Street to the existing Hetch-Hetchy Parkway. The tree-lined promenade would include parking, monument signage, sidewalks, planters, a plaza, benches, outdoor dining tables, lounge chairs/sofas, and cabanas.

The proposed buildings would range in height from 2 stories (Block 3 at approximately 41 feet) to 6 stories (Blocks 1, 2, and 4 at approximately 88 feet). The seven-level parking garage on Block 5 would be approximately 74 feet tall, and the cinema building with parking on Block 6 would be approximately 89 feet tall. This substantial increase in building height and mass over existing conditions would alter the visual character of the Project site and vicinity. However, as discussed above, there are no viewers in this area that would be sensitive to this increase.

As shown in Figure 2-6, Block 6 along California Street, would be setback from the street with retail frontages, a 6-foot-wide planted buffer, and an 8- to 10-foot-wide pedestrian sidewalk. The mixed-use buildings along San Antonio Road (Blocks 1 and 2) would be designed to minimize building masses to reduce height impacts on San Antonio Road and the Hetch-Hetchy Parkway. Building mass would be scaled by staggering three different components to create a smaller-scaled rhythm on all four sides of the building. The office entry massing would include glass boxes, the retail massing would include dark stone, and the office massing would include light stone. The building mass would be further broken down with retail components of varying heights in order to visually connect the pedestrian scale to office building massing. The office lobby/entries would be designed with taller masses that would face the interior plaza, rather than public locations such as San Antonio Road. As shown in Figure 2-5, the buildings along San Antonio Road would be set back by a 5.5-foot-wide planted buffer and an 8- to 36-foot-wide pedestrian zone.

To accommodate the Project, approximately 75 existing trees would need to be removed, seven of which are Heritage Trees. However, the landscape plan for the Project includes new landscaping along the interior streets and the center promenade, along the perimeter of the Project site and buildings, and within the setback areas (Figure 2-8). The Project would plant approximately 165 trees to replace the ones to be removed and would add several palms, shrubs, vines, grasses, ferns, and other ground cover. Many of the trees would be evergreen, allowing for year-round shade and screening of the Project site. In addition, the cinema on Block 6 would be set back from the corner of California Street and Pacchetti Way by extensive landscaping consisting of large trees, pervious surfaces, and plazas. These features would provide a visual buffer between the proposed buildings and the residential neighborhood across California Street to the northeast.

Currently, there are three aging 1- to 2-story retail buildings at the Project site surrounded by surface parking and staging areas. While there would be landscaping and a narrow setback incorporated into the buildings along San Antonio Road, the new 6-story buildings would intensify the development in this area and would be visible from adjacent locations such as the residential units in the Phase I development. However, this change in intensity would not be considered a significant impact since the Project site is not currently a visual asset to the area. The proposed mixed-use buildings would incorporate landscaping, walkways, and street trees, which would provide for a more cohesive design and would be consistent with the Phase I Project and other commercial corridors within the City. In addition, based on the location of sensitive viewers and existing intervening development, the proposed buildings would not block existing views of the Santa Cruz Mountain Range among any sensitive viewers.

The City of Mountain View's Planning Division has a design review process to ensure conformance with City plans, ordinances, and policies related to urban design. This design review process includes review of preliminary plans and consideration of public input (City of Mountain View 2013). The Project would be generally compatible with surrounding uses, would be obscured by proposed landscaping and setbacks, would be subject to the City's design review process, and would result in the net increase of approximately 90 trees. Accordingly, the Project would not substantially degrade the existing visual character or quality of the Project site or its surroundings, resulting in a less-than-significant impact. No mitigation is required.

Impact AES-2	Result in a new source of light or glare
Level of Impact	Less than Significant

Discussion

Construction

The approximately 28-month construction period would introduce construction equipment and vehicles that could create glare from the sun reflecting off the metal and glass. Views of the site from the nearby residences to the northeast are partially screened by mature trees along both sides and within the medians of California Street and Pacchetti Way. Glare from construction equipment at the Project site could occur along San Antonio Road, which does not feature street trees, and at the residential units to the south; however, this glare would be temporary and is not considered substantial enough to affect daytime views.

There would be no new sources of light during construction because, in compliance with Section 8.70.1 of the City of Mountain View City Code, no construction activity can commence prior to 7:00 a.m. or continue later than 6:00 p.m., Monday through Friday. Therefore, the Project would not include nighttime construction lighting. Accordingly, short-term impacts related to new sources of substantial light or glare during Project construction are expected to be less than significant. No mitigation is required.

Operation

When compared to the existing 1- to 2-story buildings and associated lighting on the Project site, the proposed 2- to 6-story buildings would create an increased source of light and glare that could adversely affect daytime and nighttime views in the area. Permanent features such as windows and building surfaces would introduce new sources of glare, affecting daytime views. Building materials would include low-E insulated glazing,[1] aluminum composite panels, glass curtain walls with Kynar[2] coat finishing, corrugated metal panels, precast concrete panels, perforated metal surfaces, and limestone along the retail facades. These surfaces could potentially be reflective.

[1] Low-E glass is coated with a thin layer of metal for insulation purposes.

[2] Kynar is a finish for colorful metal buildings. Kynar is used for painted aluminum areas such as windows, storefronts, and metal curtain walls for tall buildings (Arkema, 2013).

The Project would likely include accent lighting at the entrances to buildings, in the surface parking lots, and along the promenade. Pedestrian-scale lighting fixtures and parking lot lights would likely be mounted on poles and bollard lights would be installed along the promenade. Although lighting fixtures are currently present at the Project site, the Project would increase the amount of ambient light radiating into the night sky from the Project.

The Project would be subject to the City's development approval process prior to submittal of construction drawings. This review and approval process includes a Development Review Committee (DRC) public hearing to receive recommendations on the design and public hearings before the Environmental Planning Commission (EPC) and City Council (Mountain View 2013). These reviews would ensure that the proposed design, construction materials, and lighting would be consistent with the City's community standards for commercial development and would not adversely affect the visual quality of the area or create a substantial new source of light or glare. At the time of final design review, the DRC would review a lighting plan to assure that lighting is directed downward and would not spill over to the adjacent properties or otherwise be highly visible. For these reasons, impacts from light and glare would be less than significant and no mitigation is required.

3.1.4.4 Summary of Aesthetics Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
AES-1: Change the existing visual character or quality of the site and its surroundings.	Less than Significant	None required	–
AES-2: Result in a new source of light or glare from Project.	Less than Significant	None required	–

3.2 Air Quality

This section describes the environmental and regulatory setting for air quality. It also describes impacts on air quality that would result from implementation of the Project and mitigation for significant impacts where feasible and appropriate. A summary of impacts and mitigation measures is presented at the end in Section 3.2.3.4, *Summary of Air Quality Impacts*.

3.2.1 Environmental Setting

This section provides a discussion of the existing conditions related to air quality in the study area. Information below is drawn from the relevant oversight agencies, which are the Bay Area Air Quality Management District (BAAQMD), the California Air Resources Board (ARB), and the U.S. Environmental Protection Agency (EPA).

3.2.1.1 Climate and Atmospheric Conditions

Although the primary factors that determine air quality are the locations of air pollutant sources and the quantity of pollutants emitted from those sources, meteorological conditions and topography are also important factors. Atmospheric conditions, such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. Unique geographic features throughout the state define 15 air basins with distinctive regional climates. The Project site is located within the Santa Clara Valley, and the air quality study area for the Project is the San Francisco Bay Area Air Basin (SFBAAB).

The Santa Clara Valley has high potential to accumulate air pollutants. High summer temperatures, stable air, and mountains surrounding the valley combine to promote ozone formation. In addition to the many local sources of pollution, ozone precursors from San Francisco, San Mateo, and Alameda Counties are carried by prevailing winds to the Santa Clara Valley. The shape of the valley tends to channel pollutants to the southeast. In addition, on summer days with low-level temperature inversions, ozone 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 carbon monoxide (CO) and particulate matter (PM). This movement of the air up and down the valley increases the impact of the pollutants significantly (Bay Area Air Quality Management District 2011).

3.2.1.2 Criteria and Other Air Pollutants of Concern

The federal and state governments have established national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS), respectively, for six criteria pollutants: ozone, CO, lead (Pb), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and PM, which consists of PM that is 10 microns in diameter or less (PM10) and PM that is 2.5 microns in diameter or less (PM2.5).

Ozone and NO_2 are considered regional pollutants because they (or their precursors) affect air quality on a regional scale; NO_2 reacts photochemically with reactive organic gases (ROGs) to form ozone, and this reaction occurs at some distance downwind of the source of pollutants. Pollutants such as CO, SO_2, and Pb are considered to be local pollutants that tend to accumulate in the air locally. Particulate matter is considered to be a local as well as a regional pollutant.

The primary pollutants of concern in the study area are ozone (including nitrogen oxides), CO, and PM. Principal characteristics of these pollutants are discussed below. Toxic air contaminants (TACs) are also discussed, although no air quality standards exist for these pollutants.

Ozone

Ozone is a respiratory irritant that can cause severe ear, nose, and throat irritation and increases susceptibility to respiratory infections. It is also an oxidant that causes extensive damage to plants through leaf discoloration and cell damage. It can cause substantial damage to other materials as well, such as synthetic rubber and textiles.

Ozone is not emitted directly into the air but is formed by a photochemical reaction in the atmosphere. Ozone precursors—ROG and nitrogen oxides (NO_X)—react in the atmosphere in the presence of sunlight to form ozone. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem. The ozone precursors, ROG and NO_X, are mainly emitted by mobile sources and by stationary combustion equipment.

Hydrocarbons

Hydrocarbons are organic gases that are made up of hydrogen and carbon atoms. There are several subsets of organic gases, including ROGs and volatile organic compounds (VOCs). ROGs are defined by state rules and regulations; VOCs are defined by federal rules and regulations. For the purposes of this assessment, hydrocarbons are classified and referred to as ROGs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels, or as a product of chemical processes. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry-cleaning solutions, and paint (through evaporation).

The health effects of hydrocarbons result from the formation of ozone. High levels of hydrocarbons in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen though displacement. Carcinogenic forms of hydrocarbons are considered TACs. There are no separate health standards for ROGs, although some are also toxic; an example is benzene, which is both an ROG and a carcinogen.

Nitrogen Oxides

Nitrogen oxides are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone, and react in the atmosphere to form acid rain. Nitrogen dioxide, often used interchangeably with NO_X, is a brownish, highly reactive gas that is present in all urban environments. The major human sources of NO_2 are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2 (U.S. Environmental Protection Agency 2012a). The combined emissions of NO and NO_2 are referred to as NO_X and reported as equivalent NO_2. Because NO_2 is formed and depleted by reactions associated with ozone, the NO_2 concentration in a particular geographical area may not be representative of local NO_X emission sources.

Inhalation is the most common route of exposure to NO_2. Because NO_2 has relatively low solubility in water, the principal site of toxicity is in the lower respiratory tract. The severity of the adverse health effects primarily depends on the concentration inhaled rather than the duration of exposure.

At atmospheric concentration, NO_2 is only potentially irritating. In high concentrations, the result is a brownish-red cast to the atmosphere and reduced visibility. An individual may experience a variety of acute symptoms, such as coughing, difficulty breathing, vomiting, headache, and eye irritation during or shortly after exposure. After a period of approximately 4–12 hours, an exposed individual may experience chemical pneumonitis or pulmonary edema with breathing abnormalities, cough, cyanosis, chest pain, and rapid heartbeat. Severe symptomatic NO_2 intoxication after acute exposure has been linked to prolonged respiratory impairment, with such symptoms as chronic bronchitis and decreased lung function (U.S. Environmental Protection Agency 2012a). There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 parts per million (ppm).

Carbon Monoxide

CO has little effect on plants and materials, but it can have significant effects on human health. CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. Effects range from slight headaches to nausea to death.

Motor vehicles are the primary source of CO emissions in most areas. In the Project area, high CO levels are of greatest concern during the winter, when periods of light winds combine with the formation of ground-level temperature inversions from evening through early morning. These conditions trap pollutants near the ground, reducing the dispersion of vehicle emissions. Moreover, motor vehicles exhibit increased CO emission rates at low air temperatures. Dramatic reductions in CO levels across California, including a 50 percent decrease in statewide peak CO levels between 1980 and 2004, have occurred during the past several decades. These reductions are primarily a result of ARB requirements for cleaner vehicles, equipment, and fuels (California Air Resources Board 2004).

Particulate Matter

Particulate matter pollution consists of very small liquid and solid particles floating in the air; these can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. Particulate matter less than 10 microns in diameter, about one-seventh the thickness of a human hair, is referred to as PM10. Particulate matter that is 2.5 microns or less in diameter, roughly one-twenty-eighth the diameter of a human hair, is referred to as PM2.5. Major sources of PM10 include motor vehicles; 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. PM2.5 results from fuel combustion (from motor vehicles, power generation, and industrial facilities), residential fireplaces, and wood stoves. In addition, PM10 and PM2.5 can be formed in the atmosphere from gases such as SO_2, NO_X, and VOCs.

PM10 and PM2.5 pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM10 and PM2.5 can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates, can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body;

they can also transport absorbed gases such as chlorides or ammonium into the lungs and cause injury. Whereas particles 2.5 to 10 microns in diameter tend to collect in the upper portion of the respiratory system, particles 2.5 microns or less are so tiny that they can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, contribute to haze, and reduce regional visibility.

Toxic Air Contaminants

TACs are pollutants that may result in an increase in mortality or serious illness, or that may pose a present or potential hazard to human health. Health effects of TACs include cancer, birth defects, neurological damage, damage to the body's natural defense system, and diseases that lead to death. In 1998, following a 10-year scientific assessment process, the ARB identified PM from diesel-fueled engines—commonly called diesel particulate matter (DPM)—as a TAC. Compared to other air toxics ARB has identified, DPM emissions are estimated to be responsible for about 70 percent of the total ambient air toxics risk (California Air Resources Board 2000).

3.2.1.3 Air Quality Conditions

Air quality conditions in the study area can be characterized by monitoring data collected in the region. The air quality monitoring station closest to the Project site is the Cupertino Voss Avenue station, which is approximately 6.3 miles south-southeast of the Project site. Recent air quality monitoring results from the Cupertino Voss Avenue station are summarized in Table 3.2-1. The data represent air quality monitoring for the last 3 years for which a complete dataset is available (2010–2012). As indicated in Table 3.2-1, the Cupertino Voss Avenue monitoring station has experienced few violations of state and federal air quality standards during this time period.

Local monitoring data (Table 3.2-1) are used to designate areas as nonattainment, maintenance, attainment, or unclassified for the NAAQS and CAAQS. The four designations are defined as follows.

- Nonattainment—assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- Maintenance—assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
- Attainment—assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.
- Unclassified—assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

Table 3.2-2 summarizes the attainment status of the Santa Clara County with regard to the NAAQS and CAAQS.

Table 3.2-1. Ambient Air Quality Monitoring Data from Cupertino Voss Avenue Monitoring Station[a]

Pollutant Standards	2010	2011	2012
Ozone (O_3)			
Maximum 1-hour concentration (ppm)	0.127	0.086	0.083
Maximum 8-hour concentration (ppm)	0.092	0.067	0.067
Number of days standard exceeded[a]			
CAAQS 1-hour (>0.09 ppm)	1	0	0
CAAQS 8-hour (>0.070 ppm)	3	0	0
NAAQS 8-hour (>0.075 ppm)	1	0	0
Carbon Monoxide (CO)			
Maximum 8-hour concentration (ppm)	0.93	0.95	0.73
Maximum 1-hour concentration (ppm)[b]	1.5	1.2	1.9
Number of days standard exceeded[a]			
NAAQS 8-hour (≥9 ppm)	0	0	0
CAAQS 8-hour (≥9.0 ppm)	0	0	0
NAAQS 1-hour (≥35 ppm)[b]	0	0	0
CAAQS 1-hour (≥20 ppm) [b]	–	–	–
Nitrogen Dioxide (NO_2)			
State maximum 1-hour concentration (ppm)	0.049	0.043	0.042
State second-highest 1-hour concentration (ppm)	0.048	0.040	0.040
Annual average concentration (ppm)	–	0.009	–
Number of days standard exceeded			
CAAQS 1-hour (0.18 ppm)	0	0	0
Particulate Matter (PM10)[c]			
National[d] maximum 24-hour concentration (μg/m^3)	27.9	28.3	39.1
National[d] second-highest 24-hour concentration (μg/m^3)	26.2	27.4	33.2
State[e] maximum 24-hour concentration (μg/m^3)	27.4	28.9	41.5
State[e] second-highest 24-hour concentration (μg/m^3)	26.5	28.6	33.4
National annual average concentration (μg/m^3)	10.3	13.9	13.1
State annual average concentration (μg/m^3)[f]	–	14.2	13.5
Number of days standard exceeded[a]			
NAAQS 24-hour (>150 μg/m^3)[g]	–	0	0
CAAQS 24-hour (>50 μg/m^3)[g]	–	0	0
Particulate Matter (PM2.5)			
National[d] maximum 24-hour concentration (μg/m^3)	–	–	–
National[d] second-highest 24-hour concentration (μg/m^3)	–	–	–
State[e] maximum 24-hour concentration (μg/m^3)	25.0	30.5	27.5
State[e] second-highest 24-hour concentration (μg/m^3)	19.7	30.1	26.6
National annual average concentration (μg/m^3)	–	–	–
State annual average concentration (μg/m^3)[f]	–	–	–
Number of days standard exceeded[a]			
NAAQS 24-hour (>35 μg/m^3)	–	–	–

Notes for Table 3.2-1

Source: California Air Resources Board 2013a; U.S. Environmental Protection Agency 2012b.
Notes:
ppm = parts per million
NAAQS = National Ambient Air Quality Standards
CAAQS = California Ambient Air Quality Standards
µg/m3 = micrograms per cubic meter
mg/m3 = milligrams per cubic meter
– = data not available

[a.] An exceedance is not necessarily a violation.
[b.] National statistics are based on standard conditions data and samplers using federal reference or equivalent methods.
[c.] State statistics are based on local conditions data for which statistics are based on standard conditions data. In addition, state statistics are based on California approved samplers.
[d.] Measurements usually are collected every 6 days.
[e.] State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
[f.] Mathematical estimate of how many days the concentrations would have been measured as higher than the level of the standard, if each day had been monitored. Values have been rounded.

Table 3.2-2. Federal and State Attainment Status for Santa Clara County

Criteria Pollutant	Federal Designation	State Designation
O_3 (1-hour)	–[a]	Nonattainment
O_3 (8-hour)	Marginal Nonattainment	Nonattainment
CO	Maintenance	Attainment
PM10	Attainment	Nonattainment
PM2.5	Nonattainment (2006)	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment (2008)	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassified
Visibility	(No federal standard)	Unclassified

Source: California Air Resources Board 2013b; U.S. Environmental Protection Agency 2013.
Notes:
O_3 = ozone
CO = carbon monoxide
PM10 = particulate matter less than or equal to 10 microns
PM2.5 = particulate matter less than or equal to 2.5 microns
NO_2 = nitrogen dioxide
SO_2 = sulfur dioxide

[a] The federal 1-hour standard of 12 parts per hundred million (pphm) was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in the state implementation plans.

3.2.1.4 Sensitive Receptors in the Study Area

The NAAQS and CAAQS apply at publicly accessible areas, regardless of whether those areas are populated. For the purposes of this air quality analysis, sensitive land uses are defined as locations where human populations, especially children, seniors, and sick persons, are located and where there is reasonable expectation of continuous human exposure according to the averaging period for the air quality standards (e.g., 24-hour, 8-hour, and 1-hour). Typical sensitive receptors include residences, hospitals, and schools. Sensitive receptors located within 1,000 feet of the Project site include the residences approximately 300 feet to the northeast (on the north side of California Street) and 250 feet to the south (on the south side of Hetch-Hetchy Parkway). Additionally, Hetch-Hetchy Parkway is located immediately south of the Project site. These sensitive receptors are shown in Figure 3.2-1.

3.2.2 Regulatory Setting

This section summarizes federal, state, and local regulations that apply to air quality. The air quality management agencies of direct importance in the county are the EPA, ARB, and BAAQMD. EPA has established federal air quality standards for which ARB and BAAQMD have primary implementation responsibility. ARB and BAAQMD are also responsible for ensuring that state air quality standards are met.

3.2.2.1 Federal

Clean Air Act and National Ambient Air Quality Standards

The federal Clean Air Act (CAA), promulgated in 1963 and amended several times thereafter, including the 1990 Clean Air Act amendments (CAAA), establishes the framework for modern air pollution control. The act directs EPA to establish NAAQS for the six criteria pollutants (discussed in Section 3.2.1.2). The NAAQS are divided into primary and secondary standards; the former are set to protect human health within an adequate margin of safety, and the latter to protect environmental values, such as plant and animal life. Table 3.2-3 summarizes the NAAQS.

The CAA requires states to submit a state implementation plan (SIP) for areas in nonattainment for federal standards. The SIP, which is reviewed and approved by EPA, must demonstrate how the federal standards would be achieved. Failing to submit a plan or secure approval can lead to denial of federal funding and permits. In cases where the SIP is submitted by the state but fails to demonstrate achievement of the standards, EPA is directed to prepare a federal implementation plan.

3.2.2.2 State

California Clean Air Act and California Ambient Air Quality Standards

In 1988, the state legislature adopted the California Clean Air Act (CCAA), which established a statewide air pollution control program. CCAA requires all air districts in the state to endeavor to meet the CAAQS by the earliest practical date. Unlike the federal CAA, the CCAA does not set precise attainment deadlines. Instead, the CCAA establishes increasingly stringent requirements for areas that will require more time to achieve the standards. CAAQS are generally more stringent than the NAAQS and incorporate additional standards for sulfates (SO_4), hydrogen sulfide (H_2S), vinyl chloride (C_2H_3Cl), and visibility-reducing particles. The CAAQS and NAAQS are listed together in Table 3.2-3.

Table 3.2-3. National and State Ambient Air Quality Standards

Criteria Pollutant	Average Time	California Standards	National Standards* Primary	National Standards* Secondary
Ozone	1-hour	0.09 ppm	None	None
	8-hour	0.070 ppm	0.075 ppm	0.075 ppm
Particulate Matter (PM10)	24-hour	50 μg/m³	150 μg/m³	150 μg/m³
	Annual mean	20 μg/m³	None	None
Fine Particulate Matter (PM2.5)	24-hour	None	35 μg/m³	35 μg/m³
	Annual mean	12 μg/m³	12.0 μg/m³	15 μg/m³
Carbon Monoxide	8-hour	9.0 ppm	9 ppm	None
	1-hour	20 ppm	35 ppm	None
Nitrogen Dioxide	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1-hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide	Annual mean	None	0.030 ppm	None
	24-hour	0.04 ppm	0.014 ppm	None
	3-hour	None	None	0.5 ppm
	1-hour	0.25 ppm	0.075 ppm	None
Lead	30-day average	1.5 μg/m³	None	None
	Calendar quarter	None	1.5 μg/m³	1.5 μg/m³
	3-month average	None	0.15 μg/m³	0.15 μg/m³
Sulfates	24-hour	25 μg/m³	None	None
Hydrogen Sulfide	1-hour	0.03 ppm	None	None
Vinyl Chloride	24-hour	0.01 ppm	None	None

Sources: California Air Resources Board 2013c.

Notes: μg/m³ = micrograms per cubic meter
Ppm = parts per million

*National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

ARB and local air districts bear responsibility for achieving California's air quality standards, which are to be achieved through district-level air quality management plans that would be incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to ARB, which, in turn, has delegated that authority to individual air districts. ARB traditionally has established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving SIPs.

The CCAA substantially adds to the authority and responsibilities of air districts. The CCAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The CCAA also emphasizes the control of "indirect and area-wide sources" of air pollutant emissions. The CCAA gives local air pollution control districts explicit authority to regulate indirect sources of air pollution and to establish traffic control measures (TCMs).

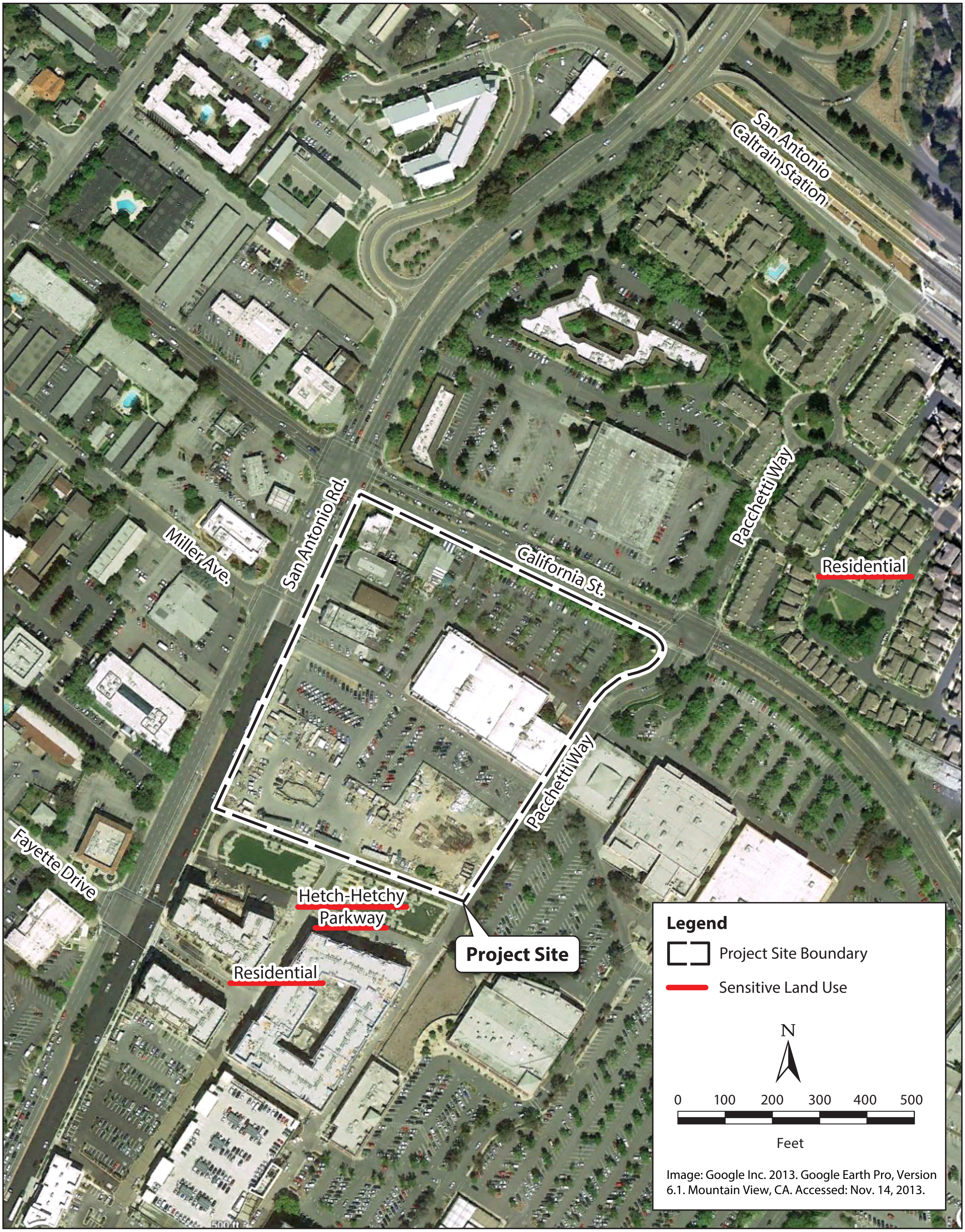


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Figure 3.2-1
Sensitive Receptors to Air Quality
The Village at San Antonio Center Phase II

Statewide Truck and Bus Regulation

Originally adopted in 2005, the on-road truck and bus regulation requires heavy trucks to be retrofitted with PM filters. The regulation applies to privately and federally owned diesel-fueled trucks with a gross vehicle weight rating (GWR) greater than 14,000 pounds. Compliance with the regulation can be reached through one of two paths: (1) vehicle retrofits according to engine year, or (2) phase-in schedule. Compliance paths ensure that by January 2023, nearly all trucks and buses will have 2010 model year engines or newer.

State Tailpipe Emission Standards

To reduce emissions from off-road diesel equipment, on-road diesel trucks, and harbor craft, ARB established a series of increasingly strict emission standards for new engines. New construction equipment used for the Project, including heavy duty trucks and off-road construction equipment, would be required to comply with the standards.

Toxic Air Contaminant Regulation

California regulates TACs primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588; Hot Spots Act). In the early 1980s, ARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Toxic Air Contaminant Identification and Control Act (AB 1807) created California's program to reduce exposure to air toxics. AB 2588 supplements the AB 1807 program by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

In August 1998, ARB identified particulate emissions from diesel-fueled engines as TACs. In September 2000, ARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles (California Air Resources Board 2000). The goal of the plan is to reduce diesel PM10 (respirable particulate matter) emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. The plan identifies 14 measures that target new and existing on-road vehicles (e.g., heavy-duty trucks and buses), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps), and stationary engines (e.g., stand-by power generators). Because the ARB measures were enacted before any phase of construction, the Project would be required to comply with applicable diesel control measures.

The Tanner Air Toxics Act sets forth a formal procedure for ARB to designate substances as TACs. This includes research, public participation, and scientific peer review before ARB designates a substance as a TAC. To date, ARB has identified 21 TACs, and has also adopted EPA's list of hazardous air pollutants (HAPs) as TACs. In August 1998, DPM was added to the ARB list of TACs (California Air Resources Board 1998).

The Hot Spots Act requires that existing facilities that emit toxic substances above specified levels complete the following.

- Prepare a toxic emissions inventory.
- Prepare a risk assessment if emissions are significant (i.e., 10 tons per year or on BAAQMD's Health Risk Assessment [HRA] list).
- Notify the public of significant risk levels.
- Prepare and implement risk reduction measures.

ARB has adopted several regulations that will reduce diesel emissions from in-use vehicles and engines throughout California. For example, ARB adopted an idling regulation for on-road diesel-fueled commercial vehicles in July 2004, which was updated in October 2005. The regulation applies to public and privately owned trucks with a GWR greater than 10,000 pounds. Vehicles subject to the regulation are prohibited from idling for more than 5 minutes in any one location. ARB also adopted a regulation for diesel-powered construction and mining vehicles operation. Fleet owners are subject to retrofit or accelerated replacement/repower requirements for which ARB must obtain authorization from EPA prior to enforcement. The regulation also imposes a 5-minute idling limitation on owners, operators, and renters or lessees of off-road diesel vehicles. In some cases, the particulate matter reduction strategies also reduce smog-forming emissions such as NO_X. As an ongoing process, ARB reviews air contaminants and identifies those that are classified as TACs. ARB also continues to establish new programs and regulations for the control of TACs, including DPMs, as appropriate.

3.2.2.3 Local

Bay Area Air Quality Management District/2010 Clean Air Plan

BAAQMD has local air quality jurisdiction over projects in Santa Clara County. BAAQMD's responsibilities include overseeing stationary-source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality–related sections of environmental documents required by CEQA. The air quality districts are also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws and for ensuring that NAAQS and CAAQS are met.

BAAQMD (2011) has adopted advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project's emissions, which are outlined in its *California Environmental Quality Act Air Quality Guidelines* (CEQA Guidelines). BAAQMD has also adopted air quality plans to improve air quality, protect public health, and protect the climate. The Bay Area 2001 Ozone Attainment Plan was adopted to reduce ozone and achieve the NAAQS ozone standard; and the 2010 Clean Air Plan was adopted to provide an integrated control strategy for ozone, PM, TACs, and greenhouse gas (GHG) emissions. BAAQMD also adopted a redesignation plan for CO in 1994. The redesignation plan includes strategies to ensure the continuing attainment of the NAAQS for CO in the SFBAAB.

The Project may be subject to the following BAAQMD rules. This list of rules may not be all encompassing, as additional BAAQMD rules may apply to the Project as specific components are identified.

- Regulation 2, Rule 2 (New Source Review). This regulation contains requirements for Best Available Control Technology and emission offsets.
- Regulation 2, Rule 5 (New Source Review of Toxic Air Contaminates). This regulation outlines guidance for evaluating TAC emissions and their potential health risks.
- Regulation 6, Rule 1 (Particulate Matter). This regulation restricts emissions of PM darker than No. 1 on the Ringlemann Chart to less than 3 minutes in any 1 hour.
- Regulation 7 (Odorous Substances): This regulation establishes general odor limitations on odorous substances and specific emission limitations on certain odorous compounds.

- Regulation 8, Rule 3 (Architectural Coatings): This regulation limits the quantity of VOCs in architectural coatings.
- Regulation 9, Rule 6 (Nitrogen oxides emission from natural gas-fired boilers and water heaters). This regulation limits emissions of NO_X generated by natural gas-fired boilers.
- Regulation 9, Rule 8 (Stationary Internal Combustion Engines). This regulation limits emissions of NO_X and CO from stationary internal combustion engines of more than 50 horsepower.

3.2.3 Impact Analysis

3.2.3.1 Criteria for Determining Significance

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing air quality. A project impact would be considered significant if construction or operation of the project would cause any of the following.

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

According to the State CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make significance determinations for potential impacts on environmental resources. As discussed above, BAAQMD is responsible for ensuring that state and federal ambient air quality standards are not violated within the SFBAAB. Analysis requirements for construction- and operation-related pollutant emissions are contained in the BAAQMD's (2011) *CEQA Guidelines*. BAAQMD's *CEQA Guidelines* also contain thresholds of significance for ozone, CO, PM2.5, PM10, TACs, and odors; these thresholds are presented in Table 3.2-4.

In August 2013, a California court of Appeal reversed a Superior Court ruling decision holding that BAAQMD was required to comply with CEQA prior to adopting 2010 *CEQA Guidelines* and significance thresholds and ordering BAAQMD to set aside its thresholds and until it has complied with CEQA. The Court of Appeal ruled that adoption of guidelines and thresholds is not considered a project subject to CEQA review, and adoption of the significance thresholds was not arbitrary and capricious. As of November 2013, the BAAQMD has yet to formally readopt its Guidelines and significance thresholds for use by local agencies.

Table 3.2-4. BAAQMD Project-Level Criteria Pollutant Emissions Thresholds

Pollutant	Construction	Operations
ROG	54 lbs/day	54 lbs/day or 10 tons/year
NO_X	54 lbs/day	54 lbs/day or 10 tons/year
CO	–	Violation of CAAQS
PM10 (total)	–	–
PM10 (exhaust)	82 lbs/day	82 lbs/day or 15 tons/year
PM2.5 (exhaust)	54 lbs/day	54 lbs/day or 10 tons/year
PM10 /PM2.5 (fugitive dust)	Best management practices (BMPs)	–
TACs (Project-level)	Increased cancer risk of 10 in 1 million; increased non-cancer risk of greater than 1.0 (hazard index [HI]); PM2.5 increase of greater than 0.3 micrograms per cubic meter	Same as construction
TACs (cumulative)	Increased cancer risk of 100 in 1 million; increased non-cancer risk of greater than 10.0; PM2.5 increase of greater than 0.8 microgram per cubic meter at receptors within 1,000 feet	Same as construction
Odors	–	Five complaints per year averaged over 3 years

Source: Bay Area Air Quality Management District 2011.

While BAAQMD is not recommending its significance thresholds for use by local agencies at this time, the City of Mountain View (City) has independently reviewed the BAAQMD proposed thresholds and determined that they are supported on substantial evidence and are appropriate for use to determine significance in the environmental review of this Project. Specifically, the City has determined that the BAAQMD thresholds are well-grounded on air quality regulations, scientific evidence, and scientific reasoning concerning air quality and GHG emissions. Using these thresholds for the Project also allows a rigorous standardized approach to determining whether the Project would cause a significant air quality impact. BAAQMD's Justification Report explains the agency's reasoning for adopting the thresholds (Bay Area Air Quality Management District 2009). Below is a summary of the basis upon which the BAAQMD's thresholds were developed.

Criteria Air Pollutants

The significance thresholds shown in Table 3.2-4 for criteria pollutants (ROG, NO_X, PM10, and PM2.5) are based on the stationary source emission limits of the federal CAA and the BAAQMD Regulation 2, Rule 2. The federal New Source Review (NSR) program, created by the federal CAA, set the emissions limits to ensure that stationary sources of air pollution are constructed in a manner that is consistent with attainment of NAAQS. Similarly, to ensure that new stationary sources do not cause or contribute to a violation of an NAAQS, BAAQMD Regulation 2, Rule 2 requires any new source that emits criteria air pollutants above specified emissions limits to offset those emissions. Although the emission limits are adopted in the regulation to control stationary source emissions, when addressing public health impacts of regional criteria pollutants, the amount of emissions is the key determining factor, regardless of source. Thus, the emission limits are appropriate for the evaluation of land use development and construction activities as well as for stationary sources. Those projects that result in emissions below the thresholds would not be considered to contribute to an existing or projected air quality violation or result in a considerable net increase in criteria pollutant emissions. The federal NSR emission limits and BAAQMD's offset limits are identified in the regulation on an annual basis (in tons per year). For construction activities, the limits are converted to average daily emissions (in pounds per day), as shown in Table 3.2-4, because of the short-term intermittent nature of construction activities and, if emissions would not exceed the average daily emission limits, the Project would also not exceed the annual levels.

Toxic Air Contaminants

Similar to the criteria pollutant thresholds, the health risk impact thresholds are developed based on the cancer and non-cancer risk limits for new and modified sources adopted in BAAQMD Regulation 2, Rule 5 and the EPA Significant Impact Level (SIL) for PM2.5 emissions. The EPA SIL is a measure of whether a source may cause or contribute to a violation of NAAQS. Health risks due to toxic emissions from construction, though temporary, can still result in substantial public health impacts due to increased cancer and non-cancer risks. Applying quantitative thresholds allows a rigorous standardized method of determining when a construction project will cause a significant increase in cancer and non-cancer risks. The cumulative health risk thresholds are based on EPA guidance for conducting air toxics analyses and making risk management decisions at the facility and community-scale level. The thresholds are also consistent with the ambient cancer risk in the most pristine portions of the Bay Area based on BAAQMD's recent regional modeling analysis and the non-cancer Air Toxics Hot Spots mandatory risk-reduction levels.

Odors

The odor threshold is consistent with BAAQMD Regulation 7 for Odorous Substances and reflects the most stringent standards derived from the air district rule.

3.2.3.2 Methods

Air quality impacts associated with construction and operation of the Project were assessed and quantified using standard and accepted software tools, techniques, and emission factors. A summary of the methodology is provided below. A full list of assumptions can be found in Appendix B, *Air Quality and Greenhouse Gas Analysis Details*.

Construction

Project construction would generate short-term emissions of ROG, NO_X, CO, PM10, and PM2.5. Emissions would originate from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, fugitive dust from excavation/grading and building demolition, and off-gassing from the asphalt paving and architectural coatings. Project construction is expected to consist of four major phases (Demolition, Parking Structure Excavation and Site Grading, Building Construction, and Site Paving and Utilities) occurring between July 2014 and November 2016 (please refer to Appendix B for a description of the phases). Construction would result in the export of approximately 180,000 cubic yards (cy) of soil, 12,444 cy of recycled material, 4,488 cy of demolished material; and would result in the paving of approximately 3.5 acres.

Mass daily criteria pollutant and TAC emissions generated by construction activities were estimated using the CalEEMod (version 2013.2.2) emissions inventory model and construction information provided by the Project applicant. A detailed description of construction modeling methods and inputs is provided in Appendix B.

Exposure to construction-related DPM was assessed by predicting the health risks in terms of excess cancer, non-cancer hazard impacts, and elevated PM2.5 concentrations. A screening-level HRA was performed according to the following steps.

1. Evaluate increased DPM cancer risk and the DPM non-cancer hazard impact based on the mass emissions of PM10 and PM2.5 exhaust estimated with construction analysis (see above and Appendix B).
2. Use EPA's AERSCREEN model, which is the screening-level model for AERMOD, to predict PM10 and PM2.5 hourly concentrations at sensitive land uses based on the maximum daily exhaust emissions for each construction period.
3. Calculate the project-level cancer risk, non-cancer HI, and annual PM2.5 concentrations for each project phase based on the AERSCREEN hourly concentrations and the construction durations using BAAQMD-approved methodology.
4. Identify background sources within 1,000 feet of the Project site that contribute to existing cancer and non-cancer risk. The following background sources were identified and included in the analysis.
    a. **Stationary**: Google Earth map files provided by BAAQMD indicate there are two permitted stationary sources within 1,000 feet of the Project site: San Antonio Cleaners (PlantNo 11312) and San Antonio Gas & Service (PlantNo G914) (Bay Area Air Quality Management District 2013).
    b. **Roadways**: State Route (SR) 82 (West El Camino Real) is located approximately 1,000 feet south of the Project boundary (Bay Area Air Quality Management District 2013).
    c. **Transit Facilities**: As described in Section 3.13, *Transportation and Circulation*, the project site is served by VTA local, express, and rapid transit bus routes; Caltrain; and the Stanford University Marguerite Shuttle (refer to Section 3.13.1.4, Figure 3.13-3, and Table 3.13-6). The VTA light rail system extends as far north as the Downtown Mountain View Transit Center, located approximately 2.5 miles southeast of the Project site and accessible by VTA bus service. The San Antonio Caltrain station is located approximately 950 feet north of the Project boundary (Figure 3.2-1). DPM emissions associated with existing Caltrain locomotives were quantified using daily schedule information (Caltrain 2012) and emissions factors provided by EPA (2009). DPM emissions associated with the VTA bus system were quantified using daily schedule information (Santa Clara Valley Transportation Authority 2013) and idling emission factors obtained from ARB's EMFAC2011. Mass emissions associated with the Caltrain station were translated to PM10 and PM2.5 hourly concentrations using EPA's AERSCREEN model. Cancer risk, non-cancer HI, and annual PM2.5 concentrations were then calculated using BAAQMD-approved methodology.
5. Calculate the cumulative health risks by adding the background health risks sources identified in step 4 to the project-level health risk and hazard impacts estimated in step 3.

Operation

The existing project site includes approximately 59,655 sf of commercial and retail buildings with associated surface parking, which currently generates ROG, NO_X, CO, PM10, and PM2.5 associated with mobile, area, and stationary sources. The project would replace these existing uses with approximately 1.2 million sf of office, commercial, hotel, retail, cinema, restaurant, and parking uses within six distinct development blocks, which would generate long-term emissions of ROG, NO_X, CO, PM10, and PM2.5 associated with mobile, area, and stationary sources but in different quantities than existing conditions. Mobile sources include those sources of emissions associated with motor vehicle trips to the Project site. Area sources include emissions from natural gas combustion for heating requirements, landscaping activities, consumer products, and periodic paint emissions from facility upkeep.

Operational emissions associated with existing uses would be effectively eliminated and replaced with operational emissions associated with the proposed Project uses, which would be greater than existing uses. The difference in operational emissions between the Project and the existing uses represents the net impact of the Project analyzed in this EIR.

Mass daily criteria pollutant and TAC emissions generated by operation of existing and Project land uses were estimated using the CalEEMod (version 2013.2.2) emissions inventory model, operational data provided by the Project applicant, and trip generation rates provided by the traffic analysis (Appendix J). The Project itself is not expected to represent a significant source of operational DPM because DPM generating equipment and activities, such as heavy-duty equipment, are not associated with Project operations. Accordingly, an analysis of project-level operational DPM health risks using the BAAQMD's project-level HRA thresholds is not discussed further. Pollutant concentrations at nearby congested intersections were analyzed consistent with BAAQMD's screening criteria for CO impacts (Bay Area Air Quality Management District 2011).

3.2.3.3 Impacts and Mitigation Measures

This section includes a discussion of each impact as it corresponds to the significance criteria presented in Section 3.2.3.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.2.3.4, *Summary of Air Quality Impacts*.

Impact AQ-1	Conflict with or obstruct implementation of an applicable air quality plan.
Level of Impact	Less than Significant

Discussion

Santa Clara County is currently designated a nonattainment area for federal ozone and PM2.5 standards, a maintenance area for the federal CO standard, and nonattainment for state ozone, PM10, and PM2.5 standards (Table 3.2-2).The most recent federal attainment plans are the 2001 Ozone Attainment Plan and the 1994 CO Redesignation Request and Maintenance Plan. The most recent state air quality plan is the 2010 Clean Air Plan, which provides an integrated strategy to control ozone, PM, TACs, and GHG emissions. The BAAQMD plans estimate future emissions in the SFBAAB and determine strategies necessary for emissions reductions through regulatory controls. Emissions projections are based on population, vehicle, and land use trends typically developed by the BAAQMD, Metropolitan Transportation Commission (MTC), and Association of Bay Area Governments (ABAG).

A project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds estimates used to develop applicable air quality plans. Projects that propose development consistent with the growth anticipated by the relevant land use plans would be consistent with the current BAAQMD air quality plans. Likewise, projects that propose development that is less dense than anticipated within a general plan (or other governing land use document) would be consistent with the air quality plans because emissions would be less than estimated for the region. If a project proposes development that is greater than that anticipated growth projections, the project would be in conflict with the BAAQMD air quality plans, and might have a potentially significant impact on air quality because emissions would exceed those estimated for the region. This situation would warrant further analysis to determine if a proposed project and surrounding projects would exceed the growth projections used in the BAAQMD air quality plans for a specific subregional area.

The most relevant land use plan for the Project site is the *Mountain View 2030 General Plan* and related documents. As discussed in Section 3.9, *Land Use and Planning*, the Project site is located within the San Antonio Change Area with a general plan land use designation of Mixed-Use Center, which allows for office, retail and personal services, lodging, entertainment, parks and plazas; and multi-family residential land uses.

As discussed in Section 3.11, *Population and Housing*, the Project would generate approximately 2,500 new jobs, which would be a net increase of 2,457 jobs over existing conditions. This would be within ABAG's city and county-wide job projections. The Project would not result in substantial indirect growth because the Project site and surrounding sites are already developed with commercial or residential uses. Accordingly, the Project would be consistent with recent growth projections for the region.

The Project would redevelop an existing commercial land use, which supports the City's long-term goal to encourage infill and spur neighborhood reinvestment. The Project is consistent with the BAAQMD's 2010 Clean Air Plan (CAP) strategies (Bay Area Air Quality Management District 2010), including TCM-C-1 (Voluntary Employer-Based Trip Reduction Programs), TCM-C-3 (Promote Rideshare Services and Incentives), and TCM D-3 (Local Land Use Strategies). TCM-C-1 supports voluntary efforts by Bay Area employers to encourage their employees to use alternative commute modes, such as transit, ridesharing, bicycling, walking, and telecommuting. TCM-C-3 supports voluntary employer trip-reduction programs through rideshare and shuttle programs. TCM D-3 supports and promotes land use patterns, policies, and infrastructure investments that support higher density mixed-use, residential, and employment development near transit in order to facilitate walking, bicycling and transit use. The Project also includes numerous energy conservation measures, including adherence to Mountain View Green Building Code, TDM measures, and energy efficient building design in pursuit of LEED Gold certification (including rooftop solar on the parking garage). Project measures would act to reduce Project-related area and mobile source emissions relative to traditional office uses. While emissions would be generated during construction and operation (discussed below), these emissions are neither expected to exceed BAAQMD significance thresholds nor impede attainment or maintenance of the NAAQS or CAAQS after mitigation.

Because the Project would not conflict with any applicable land use plan or policy, is consistent with recent growth projections for the region, contributes to the City's long-term vision for sustainable growth, is consistent with measures in BAAQMD's 2010 CAP, and project emissions would not exceed BAAQMD's significance threshold (see Impacts AQ-2a and AQ-2b), it would not conflict with or obstruct implementation of the current BAAQMD air quality plans. Accordingly, the impact would be less than significant. No mitigation is required.

Impact AQ-2a	Violation of a BAAQMD air quality standard or substantial contribution to an existing or projected air quality violation during Project construction.
Level of Impact	Significant
Mitigation Measure AQ-MM-2a	Implement BAAQMD basic construction mitigation measures to control construction-related NO_X emissions.
Mitigation Measure AQ-MM-2b	Implement BAAQMD additional control measures to control construction-related NO_X emissions.
Mitigation Measure AQ-MM-2c	Use clean diesel-powered equipment during construction to control construction related NO_X emissions.
Mitigation Measure AQ-MM-2d	Use modern fleet for on-road haul trucks to control construction-related NO_X emissions.
Level of Impact after Mitigation	Less than Significant

Discussion

Project construction has the potential to create air quality impacts through the use of heavy-duty construction equipment, construction worker vehicle trips, truck hauling trips, and off-gassing from paving and coatings. In addition, fugitive dust emissions would result from demolition of existing structures, excavation, and grading. Mass criteria pollutant emissions generated by these sources were quantified using emission factors and methodologies within CalEEMod (version 2013.2.2), EMFAC 2011, road dust methodology from the EPA, and information provided by the Project applicant.

Estimated construction emissions are summarized in Table 3.2-5. Maximum daily emissions for each year of construction are due to overlapping activities, based on the project schedule and phasing information provided by the Project applicant. Detailed information on emissions modeling and quantification methods may be found in Appendix B, *Air Quality and Greenhouse Gas Analysis Details*.

Table 3.2-5. Estimated Unmitigated Construction Emissions (pounds per day)

				PM10		PM2.5	
Construction Phase	ROG	NO_X	CO	Dust	Exhaust	Dust	Exhaust
Year 2014							
Demolition	1.8	22.9	14.4	3.5	0.6	0.6	0.5
Grading/Excavation	7.3	90.8	71.6	4.0	2.2	1.1	2.0
Building Construction	3.8	27.5	40.5	3.2	1.3	0.8	1.2
2014 Maximum Daily Emissions[1]	*11.1*	***118.2***	*112.0*	*7.2*	*3.5*	*1.9*	*3.2*
Year 2015							
Grading/Excavation	6.3	80.0	66.2	26.7	1.8	6.6	1.7
Building Construction	3.5	25.6	37.6	3.2	1.2	0.8	1.1
Paving/ Utilities	2.5	26.6	13.5	0.3	1.1	0.1	1.0
2015 Maximum Daily Emission[2]	*9.8*	***105.6***	*103.8*	*29.9*	*3.0*	*7.5*	*2.8*

Construction Phase	ROG	NO_X	CO	PM10 Dust	PM10 Exhaust	PM2.5 Dust	PM2.5 Exhaust
Year 2016							
Building Construction	3.2	23.3	35.2	3.2	1.0	0.8	1.0
Paving/ Utilities	2.3	24.6	13.0	0.3	1.0	0.1	1.0
2016 Maximum Daily Emissions[3]	*5.5*	*47.9*	*48.2*	*3.4*	*2.1*	*0.9*	*1.9*
BAAQMD Thresholds	54	54	–	BMPs	82	BMPs	54
Exceed Thresholds?	*No*	***Yes***	–	–	*No*	–	*No*

Source: Appendix B

Notes:

Bold numbers indicate a BAAQMD threshold exceedance.

Values may not add due to rounding.

1 Maximum daily emissions in 2014 occur when the grading/excavation and building construction phases are anticipated to overlap.

2 Maximum daily emissions in 2015 occur when the grading/excavation and building construction phases are anticipated to overlap.

3 Maximum daily emissions in 2016 occur when the building construction and paving/utilities phases are anticipated to overlap.

As shown in Table 3.2-5, construction of the project would generate NO_X (during 2014 and 2015) in excess of BAAQMD's numeric thresholds because two large construction phases involving multiple pieces of equipment and a large number of heavy-duty truck hauling trips (for soil export) would occur concurrently on a given day. Mitigation is required to reduce NO_X emissions. Note that the BAAQMD CEQA Guidelines consider dust impacts to be less than significant through the application of best management practices (BMPs). The City has standard conditions of approval regarding the implementation of BMPs to reduce construction related PM10 and PM2.5 dust (PL-94: Basic Air Quality Construction Measures). For the full text of condition PL-94, see Appendix M. These conditions of approval will ensure that construction-related fugitive dust emissions are less than significant. Implementation of **Mitigation Measures AQ-MM-2a**, **AQ-MM-2b, AQ-MM-2c,** and **AQ-MM-2d** would reduce construction-related NO_X exhaust emissions to ensure that this impact is less than significant. Note that even with Mitigation Measure AQ-MM-2b, NO_X emissions would remain in excess of BAAQMD thresholds. Therefore, Mitigation Measure AQ-MM-2c is proposed in addition to mitigate NO_X exhaust emissions from heavy duty off-road construction equipment. As shown in Table 3.2-6, implementation of **Mitigation Measures AQ-MM-2a** through **AQ-MM-2d** would reduce construction-related NO_X emissions to below BAAQMD's numeric thresholds. Accordingly, this impact would be less than significant with mitigation.

Table 3.2-6. Estimated Mitigated Construction Emissions (pounds per day)

				PM10		PM2.5	
Construction Phase	ROG	NO_X	CO	Dust	Exhaust	Dust	Exhaust
Year 2014							
Demolition	1.8	14.6	14.4	3.5	0.5	0.6	0.5
Grading/Excavation	7.3	36.6	71.6	4.0	2.0	1.1	1.9
Building Construction	3.8	16.4	40.5	3.2	1.0	0.8	1.0
2014 Maximum Daily Emissions[1]	*11.1*	*53.1*	*112.0*	*7.2*	*3.1*	*1.9*	*2.8*
Year 2015							
Grading/Excavation	6.3	34.8	66.2	26.7	1.8	6.6	1.7
Building Construction	3.5	15.6	37.6	3.2	1.2	0.8	1.1
Paving/ Utilities	2.5	8.6	13.5	0.3	1.1	0.1	1.0
2015 Maximum Daily Emission[2]	*9.8*	*50.4*	*103.8*	*29.9*	*3.0*	*7.5*	*2.8*
Year 2016							
Building Construction	3.2	14.9	35.2	3.2	1.0	0.8	1.0
Paving/ Utilities	2.3	8.5	13.0	0.3	1.0	0.1	1.0
2016 Maximum Daily Emissions[3]	*5.5*	*23.4*	*48.2*	*3.4*	*2.1*	*0.9*	*1.9*
BAAQMD Thresholds	54	54	–	BMPs	82	BMPs	54
Exceed Thresholds?	*No*	*No*	–	–	*No*	–	*No*

Source: Appendix B

Notes:

Bold numbers indicate a BAAQMD threshold exceedance.

Values may not add due to rounding.

[1] Maximum daily emissions in 2014 occur when the grading/excavation and building construction phases are anticipated to overlap.

[2] Maximum daily emissions in 2015 occur when the grading/excavation and building construction phases are anticipated to overlap.

[3] Maximum daily emissions in 2016 occur when the building construction and paving/utilities phases are anticipated to overlap.

Mitigation Measure AQ-MM-2a: Implement BAAQMD Basic Construction Mitigation Measures to Control Construction-Related NO_X Emissions.

The Project applicant will implement the following BAAQMD-recommended basic control measures to reduce NO_X emissions from construction equipment.

- Idling times will be minimized by shutting off equipment when it is not in use or by reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure of California Code of Regulations [CCR] Title 13, Section 2485). Clear signage will be provided for construction workers at all access points.
- All construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation.

Mitigation Measure AQ-MM-2b: Implement BAAQMD Additional Control Measures to Control Construction-Related NO_X Emissions.

The Project applicant will implement the following BAAQMD-recommended additional control measures to reduce NO_X emissions from construction equipment below BAAQMD thresholds.

- Minimize the idling time of diesel powered construction equipment to 2 minutes.
- The Project applicant will develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a Project-wide fleet-average 20 percent NO_X reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.

Mitigation Measure AQ-MM-2c: Use Clean Diesel-Powered Equipment during Construction to Control Construction-Related NO_X Emissions.

The Project applicant will ensure that all off-road diesel-powered equipment used during construction will be equipped with an EPA Tier 4 Interim engine, except for specialized construction equipment for which an EPA Tier 4 Interim engine is not available. The use of Tier 4 Interim engines will reduce NO_X, ROG, and PM emissions from construction equipment.

Mitigation Measure AQ-MM-2d: Use Modern Fleet for On-Road Haul Trucks to Control Construction-Related NO_X Emissions.

The Project applicant will ensure that all on-road heavy-duty diesel trucks with a GWR of 19,500 pounds or greater used at the Project site will comply with EPA 2007 on-road emission standards for PM10 and NO_X (0.01 g/bhp-hr and 0.20 g/bhp-hr, respectively). These PM10 and NO_X standards were phased in through the 2007 and 2010 model years on a percent of sales basis (50% of sales in 2007 to 2009 and 100% percent of sales in 2010). This mitigation measure assumes that all on-road heavy-duty diesel trucks will be model year 2010 and newer, with all trucks compliant with EPA 2007 on-road emission standards.

Impact AQ-2b	Violation of a BAAQMD air quality standard or substantial contribution to an existing or projected air quality violation from Project operation.
Level of Impact	Less than Significant

Discussion

Long-term operational emissions associated with both existing and proposed Project uses were quantified using the most recent version of CalEEMod (version 2013.2.2), operational information provided by the Project applicant, and traffic data provided in the transportation impact analysis (Appendix J). A thorough discussion of the methodology is included in Section 3.2.3.2 above and Appendix J.

Estimated operational emissions under both existing and Project conditions are summarized in Table 3.2-7. The difference in operational emissions between the Project and the existing commercial and retail uses represents the net impact of the Project. Note that operational emissions associated with the Project include emissions reductions from site design (internal capture), energy-efficient design, and TDM measures (see Chapter 2, *Project Description*, Section 2.5.7).

Table 3.2-7. Estimated Operational Emissions (pounds per day)

Condition/Source	ROG	NO_X	CO	PM10	PM2.5
Existing Conditions (2013) [a]					
Area Sources [b]	1.4	0.0	0.0	0.0	0.0
Energy	0.0	0.0	0.0	0.0	0.0
Mobile	8.0	16.4	77.9	7.9	2.3
Total Existing Emissions [a]	*9.5*	*16.5*	*78.0*	*7.9*	*2.3*
Project Conditions (2017) [c]					
Area Sources [b]	*16.7*	0.0	0.5	0.0	0.0
Energy	0.7	6.0	5.1	0.5	0.5
Mobile	28.9	55.0	271.5	37.4	10.4
Total Project Emissions	*46.3*	*61.0*	*277.1*	*37.8*	*10.9*
Net Emissions (Project minus Existing) [d]	36.8	44.5	199.1	30.0	8.6
BAAQMD Thresholds	*54*	*54*	–	*82*	*54*
Exceed Thresholds?	*No*	*No*	–	*No*	*No*

Source: Appendix B

Notes:

[a] Represents emissions associated with uses currently operating on the Project site. Emissions from the existing office facilities will cease with implementation of the Project.

[b] Sources consist of consumer products and off-gassing during the reapplication of architectural coatings.

[c] Represents emissions associated with the Project. Emissions are modeled for the first operational year of 2017.

[d] Represents the net Project impact, or the change in emissions relative to existing conditions.

As shown in Table 3.2-7, Project operation is expected to result in an increase in all criteria pollutant emissions over existing conditions, but these increases would all be below applicable BAAQMD significance thresholds. Therefore, the operational impact is considered less than significant. No mitigation is required.

Impact AQ-3	Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment.
Level of Impact	Significant
Mitigation Measure AQ-MM-2a	Implement BAAQMD basic construction mitigation measures to control construction-related NO_X emissions.
Mitigation Measure AQ-MM-2b	Implement BAAQMD additional control measures to control construction-related NO_X emissions.
Mitigation Measure AQ-MM-2c	Use clean diesel-powered equipment during construction to control construction related NO_X emissions.
Mitigation AQ-MM-2d	Use modern fleet for on-road haul trucks to control construction-related NO_X emissions.
Level of Impact after Mitigation	Less than Significant

Discussion

BAAQMD has identified project-level thresholds to evaluate criteria pollutant impacts (see Table 3.2-4). In developing these thresholds, BAAQMD considered levels at which project emissions would be cumulatively considerable, as noted below from their *CEQA Guidelines* (BAAQMD 2011).

> 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 cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is unnecessary.

Accordingly, the criteria pollutant thresholds presented in Table 3.2-4 represent the maximum emissions the proposed Project may generate before contributing to a cumulative impact on regional air quality. Consequently, exceedances of the Project-level thresholds would be a considerable contribution to significant cumulative impact. As discussed in Impact AQ-2a and Impact AQ-2b, construction and operational emissions associated with the proposed project are not expected to exceed BAAQMD's quantitative thresholds after implementation of mitigation. Pursuant to BAAQMD regulations, the BAAQMD BMPs are required to reduce construction-related fugitive dust emissions to a less-than-significant level. The BAAQMD BMPs are required by the City's standard conditions of approval. Implementation of **Mitigation Measures AQ-MM-2a, AQ-MM-2b, AQ-MM-2c,** and **AQ-MM-2d** are required to reduce construction-related NO_X emissions to a less-than-significant level. Therefore, this impact is considered less than significant after mitigation.

A full discussion of cumulative effects is contained in Chapter 4, *Other CEQA-Required Sections*.

Impact AQ-4a	Exposure of existing sensitive receptors to substantial pollutant concentrations during construction.
Level of Impact	Less than Significant

Discussion

Diesel-powered equipment use during Project construction would generate DPM, resulting in the exposure of nearby existing sensitive receptors (residences) to both Project-level and cumulative DPM concentrations.

Diesel-fueled engines, which generate DPM, would be used during Project construction. BAAQMD considers PM2.5 to be the DPM of greatest health concern. Cancer health risks associated with exposure to diesel exhaust are typically associated with chronic exposure, in which a 70-year exposure period is assumed. In addition, DPM concentrations, and thus cancer health risks, dissipate as a function of distance from the emissions source. Guidance from the BAAQMD recommends evaluating health risks for receptors located within 1,000 feet of construction activities. Multiple sensitive receptors, including two residential areas and Hetch-Hetchy Parkway, are located within 1,000 feet of the Project site, with the nearest offsite receptors within 250 feet to the south and 300 feet to the north of the Project boundary (refer to Figure 3.2-1). Therefore, health effects related to exposure of nearby sensitive receptors to Project-related DPM emissions were assessed by predicting the health risks in terms of excess cancer, non-cancer hazard impacts, and elevated DPM (PM2.5) concentrations.

A screening-level HRA was performed using the AERSCREEN dispersion model and estimated PM10 and PM2.5 exhaust emissions (see Table 3.2-5). The results of the HRA are summarized in Table 3.2-

8 and are compared to BAAQMD's project-level DPM thresholds. For a conservative estimate, Table 3.2-8 presents the maximum health risks associated with the Project at the closest nearby receptors, which are the multi-family residences approximately 300 feet northeast of the Project fence line and the apartments 250 feet south of the Project fence line. The DPM emissions used for the HRA herein includes reductions associated with implementation of **Mitigation Measures AQ-MM-2a, AQ-MM-2b, AQ-MM-2c,** and **AQ-MM-2d**, which would act to reduce onsite PM exhaust emissions during construction. Detailed information on emissions modeling and quantification methods may be found in Appendix B, *Air Quality and Greenhouse Gas Analysis Details*.

Table 3.2-8. Maximum Project-Level Health Risks during Construction

	Maximum Project Health Risks during Construction		
Construction Year (Phase)	Non-Cancer Hazard Index	Increased Cancer Risk (per million)	Annual PM2.5 Concentration (µg/m3)
Year 2014 (Demolition, Grading/Excavation, Building Construction)	0.04	1.3	0.20
Year 2015 (Grading/Excavation, Building Construction, Paving/ Utilities)	0.06	2.0	0.30
Year 2016 (Building Construction, Paving/ Utilities)	0.06	1.2	0.26
BAAQMD Thresholds	*1*	*10*	*0.3*
Exceed Thresholds?	*No*	*No*	*No*
Source: Appendix B			

As shown in Table 3.2-8, Project-related DPM emissions would not result in significant increases of the non-cancer HI, cancer risk, or annual PM2.5 concentration. Therefore, the Project-level impact is considered less than significant. No mitigation is required.

Cumulative exposure associated with the combined effects of project construction and background emission sources is contained in Chapter 4, *Other CEQA-Required Sections*.

Impact AQ-4b	Exposure of existing and new sensitive receptors to substantial pollutant concentrations from Project operation.
Level of Impact	Less than Significant

Discussion

The Project itself is not expected to represent a significant source of operational DPM because Project operation does not require substantial use of DPM-generating equipment and activities, such as heavy-duty equipment. Emissions associated with service vehicles for trash pickup and retail deliveries is unknown but is likely to be minimal (a few trips per week). Idling at loading docks and trash pickup locations within the Project site would be limited to 5 minutes per trip, as required by the California airborne toxics control measure CCR Title 13, Section 2485. The Project itself also would not introduce new sensitive receptors to the Project site, as commercial and retail uses are not considered sensitive receptors by BAAQMD. The commercial and retail land uses associated with the Project would not introduce new long-term sources of DPM or new TAC emission sources that could expose nearby sensitive receptors to substantial pollutant concentrations. Therefore, no TAC analysis is required.

With respect to pollutant concentrations of CO at nearby roadways, the BAAQMD has established screening criteria for evaluating CO concentrations. According to BAAQMD's (2011) *CEQA Guidelines*, a project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met.

1. 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).

Traffic generated by the Project would not have the potential to create CO hot spots at nearby roadways and intersections. According to the *Transportation Impact Analysis* (Appendix J), the highest peak-hour volumes at nearby roadways during future year with Project conditions are estimated at 6,450 average daily trips (ADT) at the El Camino Real and Arastradero Road intersection during the PM peak hour. These volumes are far below the BAAQMD's screening criteria of 24,000 and 44,000 vehicles per hour. Therefore, the screening criteria are met, no further analysis is warranted, and no CO hot spots are anticipated to result from the Project. This impact is less than significant. No mitigation is required.

Impact AQ-5	Creation of objectionable odors affecting a substantial number of people.
Level of Impact	Less than Significant

Discussion

Although offensive odors rarely cause any physical harm, they can be unpleasant and lead to considerable distress among the public. This distress may generate citizen complaints to local governments and air districts. Any project with the potential to frequently expose the public to objectionable odors would be deemed as having a significant impact.

According to ARB's (2005) *Air Quality and Land Use Handbook*, land uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, and manufacturing. Odor impacts on residential areas and other sensitive receptors, such as hospitals, daycare centers, and schools, warrant the closest scrutiny; but consideration should also be given to other land uses where people may congregate, such as recreational facilities, work sites, and commercial areas.

Potential odor sources during construction include diesel exhaust from heavy-duty equipment and the use of architectural coatings and asphalt. Construction-related operations near existing receptors would be temporary, and construction activities would not be likely to result in nuisance odors that would violate BAAQMD Regulation 7 (Odorous Substances).

Potential odor sources during Project operations would include diesel exhaust from ongoing trash pick-up and vendor deliveries, the use of architectural coatings, and limited odors from retail uses that involve cooking. However, odor impacts associated with the Project would be limited.

Accordingly, operation of the Project is not expected to result in odor impacts that would exceed BAAQMD's odor thresholds (see Table 3.2-4). This impact is considered less than significant. No mitigation is required.

3.2.3.4 Summary of Air Quality Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
AQ-1: Conflict with or obstruct implementation of an applicable air quality plan.	Less than Significant	None required	–
AQ-2a: Violation of a BAAQMD air quality standard or substantial contribution to an existing or projected air quality violation during Project construction.	Significant	AQ-MM-2a: Implement BAAQMD basic construction mitigation measures to reduce construction-related NO_X emissions. AQ-MM-2b: Implement BAAQMD additional control measures to control construction-related NO_X emissions AQ-MM-2c: Use clean diesel-powered equipment during construction to control $_X$ emissions. AQ-MM-2d: Use Modern Fleet for On-Road Haul Trucks to control construction-related NO_X emissions	Less than Significant
AQ-2b: Violation of a BAAQMD air quality standard or substantial contribution to an existing or projected air quality violation from Project operation.	Less than Significant	None required	–
AQ-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment.	Significant	AQ-MM-2a: Implement BAAQMD basic construction mitigation measures to reduce construction-related NO_X emissions. AQ-MM-2b: Implement BAAQMD additional control measures to control construction-related NO_X Emissions AQ-MM-2c: use clean diesel-powered equipment during construction to control construction related NO_X emissions.	Less than Significant

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
		AQ-MM-2d: Use modern fleet for on-road haul trucks to control construction-related NO_X emissions	
AQ-4a: Exposure of existing sensitive receptors to substantial pollutant concentrations during construction.	Less than Significant	None required	–
AQ-4b: Exposure of existing and new sensitive receptors to substantial pollutant concentrations from Project operation.	Less than Significant	None required	–
AQ-5: Creation of objectionable odors affecting a substantial number of people.	Less than Significant	None required	–

3.3 Biological Resources

This section describes the environmental and regulatory setting for biological resources. It also describes impacts on biological resources that would result from implementation of the Project and mitigation for significant impacts where feasible and appropriate. A summary of impacts and mitigation measures is presented at the end in Section 3.3.3.5, *Summary of Biological Resources Impacts*.

3.3.1 Environmental Setting

This section provides a discussion of the existing conditions related to biological resources on the Project site[1] and immediately surrounding Project area.[2]

The Project site consists of developed land containing commercial and retail buildings and surface parking lots. The Project site is surrounded by sidewalks, paved roads (San Antonio Road, California Street, Pacchetti Way, and Hetch-Hetchy Parkway), and residential and commercial land uses. The *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report* (LSA Associates, Inc. 2012) classifies this area as Developed.[3] ICF biologist Sarah Perrin conducted a survey of the land cover within the Project site on September 25, 2013. Vegetation in the developed areas consists of landscaped ornamental plants and trees as well as ruderal species including Mexican fan palm (*Washingtonia robusta*) and field bindweed (*Convolvulus arvensis*). A total of 75 trees, including seven Heritage Trees, are present on the Project site (refer to Figure 3.3-1 and Appendix C, *Arborist Report*). Wildlife species observed in the Project site include American crow (*Corvus brachyrhynchos*) and California gull (*Larus californicus*), which are common species. The trees on or adjacent to the Project site could provide nesting substrate for numerous bird species. Common urban bird species that are expected to utilize ornamental trees or features on or adjacent to commercial buildings include mourning dove (*Zenaida macroura*), rock pigeon (*Columba livia*), American crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*), house finch (*Carpodacus mexicanus*), and house sparrow (*Passer domesticus*) (LSA Associates, Inc. 2012). No special-status wildlife or plant species were observed in the Project site. No wetlands, streams, or other aquatic features are present in the Project site.

The determination rationale for the potential of special-status species to occur within the study area[4] is discussed in Section 3.3.3.3, *Methods.*

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[1] The Project site is defined as the Project footprint and is described in Chapter 2, *Project Description*.

[2] The Project area is defined as the area immediately surrounding the Project site that can be directly affected by Project activities.

[3] Developed habitat types include residential neighborhoods; commercial and industrial buildings; roads; schools; golf courses; and urban parks and associated landscaping consisting of lawns, ornamental trees, and ornamental shrubs (LSA Associates, Inc. 2012).

[4] The study area is defined as the area within a 5-mile radius of the Project site.

3.3.2 Regulatory Setting

3.3.2.1 Federal

Endangered Species Act

The federal Endangered Species Act (ESA) (42 USC 4321 et seq.) and subsequent amendments provide guidance for conserving federally listed species and the ecosystems upon which they depend.

Section 7 (Interagency Consultation and Biological Assessments)

Section 7 requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS), as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat.

Section 9 (Prohibited Acts)

Section 9 prohibits the take of any plant, fish, or wildlife species listed under the federal ESA as endangered, unless otherwise authorized by federal regulations.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 USC 702-712) (MBTA) protects selected species of birds that cross international boundaries (i.e., species that occur in more than one country at some point during their annual life cycle). The law applies to the removal of nests, eggs, and feathers.

Protection of Migratory Bird Populations

Executive Order 13186 directs each federal agency taking actions that have or may have adverse impacts on migratory bird populations to work with USFWS to develop a memorandum of understanding that will promote the conservation of migratory bird populations.

3.3.2.2 State

California Endangered Species Act

California Endangered Species Act (CESA) (Sections 2050 to 2085) mandates that state agencies not approve a project that would jeopardize the continued existence of these species if reasonable and prudent alternatives are available that would avoid a jeopardy finding.

California Fish and Game Code

Sections 3503 and 3503.5 (Bird Nesting Protections)

Sections 3503 and 3503.3 state that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the code or any regulation made pursuant thereto.

Source: Mayne Tree Expert Company, Inc. 2013.

Figure 3.3-1
Existing Trees on the Project Site
The Village at San Antonio Center Phase II

Sections 3511, 4700, 5050, and 5515 (Fully Protected Species)

These sections list 37 fully protected species and prohibit take or possession at any time of the species listed, with few exceptions.

California Native Plant Protection Act

The California Native Plant Protection Act (Sections 1900 to 1913) requires all state agencies to use their authority to carry out programs to conserve endangered and rare native plants. It gives the California Department of Fish and Wildlife (CDFW) the power to designate native plants as endangered or rare and to protect endangered and rare plants from take.

3.3.2.3 Local

City of Mountain View Heritage Trees

Chapter 32 of the City of Mountain View municipal code regulates *Heritage Trees*, which are defined as trees of any species with a trunk circumference of 48 inches or more measured at 54 inches above natural grade. Trees with multiple trunks are measured immediately below the first major trunk fork. Three species—oak (*Quercus* spp.), redwood (*Sequoia* spp.), and cedar (*Cedrus* spp.)—are considered Heritage Trees if they have a circumference of 12 inches measured at 54 inches above natural grade.

Policy POS 12.1, *Heritage Trees*, of the Mountain View 2030 General Plan (City of Mountain View 2012) indicates the City's intention to "protect trees as an ecological and biological resource."

3.3.3 Impact Analysis

3.3.3.1 Criteria for Determining Significance

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing biological resources.

A Project impact would be considered significant if construction or operation of the proposed Project would cause any of the following.

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The Project area is completely developed, and implementation of the Project would not have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS; federally protected wetlands as defined by Section 404 of the Clean Water Act; or established native resident or migratory wildlife corridors or access to native wildlife nursery sites. Therefore, there would be no impacts on riparian habitat or other sensitive natural communities, federally protected wetlands, or migratory wildlife or native wildlife nursery sites; and these topics are not analyzed further.

The Project site is developed and lacks habitat and potential to support sensitive and special-status species. Consequently, implementation of 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. Therefore, potential conflicts with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan are not analyzed further.

3.3.3.2 Identification of Special-Status Species

Special-status species are defined as plants and animals that are protected under the federal ESA, CESA, or other regulations, and species that are considered sufficiently rare by the scientific community to qualify for such listing. Special-status plants, animals, and fish are species in the following categories.

- Species listed or proposed for listing as threatened or endangered under the federal ESA (50 CFR 17.12 [listed plants], 50 CFR 17.11 [listed animals]) and various notices in the Federal Register (FR) (proposed species).
- Species that are candidates for possible future listing as threatened or endangered under the ESA, including federal species of concern (61 FR 40 7596–7613, February 28, 1996).
- Species listed or proposed for listing by the State of California as threatened or endangered under CESA (14 California Code of Regulations [CCR] 670.5).
- Species that meet the definitions of rare or endangered under CEQA (State CEQA Guidelines, Section 15380).
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.).
- Plants considered to be “rare, threatened, or endangered in California” (California Rare Plant Rank 1B and 2 in California Native Plant Society 2013).
- Animal species of special concern to CDFW as identified in the Special Animals list (California Department of Fish and Game 2011).
- Bird species that are CDFW first- and second-category species of special concern. Third-priority species are not included because, as stated in the CDFW list, they “are not in any present danger of extirpation and their populations within most of their range do not appear to be declining seriously; however, simply by virtue of their small populations in California, they are vulnerable to extirpation should a threat materialize.”

- Animals fully protected in California (California Fish and Game Code, Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).
- Bat species designated as high or medium priority by the Western Bat Working Group (WBWG). The WBWG is a partner in the Coalition of North American Bat Working Groups. The WBWG is composed of bat experts from agencies, organizations, and research groups interested in bat research, management, and conservation from 13 western states and the provinces of British Columbia and Alberta. High-priority bat species are those species that, based on available information on distribution, status, ecology, and known threats, should be considered the highest priority for funding, planning, and conservation actions. These species are imperiled or are at high risk of imperilment. Medium-priority species are those species that are considered to warrant closer evaluation of both the species and possible threats; more research; and conservation actions (Western Bat Working Group 2007).

3.3.3.3 Methods

Potential adverse effects on special-status species in the study area were evaluated based on a review of the available literature regarding the status and known distribution of the special-status species within the study area, and data collected from a survey of the Project site conducted by an ICF biologist on September 25, 2013. The following principal sources were consulted during analysis.

- USFWS list of endangered and threatened species that may occur in or be affected by projects in the U.S. Geological Survey's (USGS's) 7.5-minute quadrangles of Mountain View and Palo Alto, current as of September 18, 2011 (Appendix D.1) (U.S. Fish and Wildlife Service 2013).
- CDFW's Natural Diversity Database query results for the USGS's 7.5-minute quadrangles of Mountain View and Palo Alto, current as of October 1, 2013 (CNDDB) (Appendix D.2) (California Department of Fish and Wildlife 2013).
- The California Native Plant Society's (CNPS) Electronic Inventory query results for the USGS's 7.5-minute quadrangles of Mountain View and Palo Alto, current as of October 22, 2013 (Appendix D.3) (California Native Plant Society 2013).
- The Project's Arborist Report (Appendix C).

After review of all data sources, a final list of candidate, sensitive, and special-status species with moderate or greater potential to occur in the study area was compiled, and each of the species was evaluated for presence on or absence from the Project area. The presence of suitable habitat was also evaluated. Candidate, sensitive, and special-status plant species that might occur in the Project area are presented in Table 3.3-1. Candidate, sensitive, and special-status wildlife species are presented in Table 3.3-2. These tables also include, for informational purposes, species with no or low potential to occur within the Project area. CNDDB records within the study area are shown in Figure 3.3-2 for plants and Figure 3.3-3 for wildlife.

In order to refine the list of species potentially affected by Project construction, species in Tables 3.3-1 and 3.3-2 were evaluated for their potential to occur in the Project area.

- Species rated as having "no potential to occur" have no suitable habitat in the Project area or are thought to have been extirpated from the region.

- Species rated as having "low potential to occur" include species whose known distribution does not include the Project area; species for which little appropriate habitat or only marginal habitat is present in the Project area; and species that have not been observed during recent surveys.
- Species rated as having "moderate or high potential to occur" include those species for which suitable habitat characteristics are present in the Project area, even though the species was not detected during focused surveys.
- Species rated as "known to occur" have been observed in the Project area.

Species rated as having "moderate or high potential to occur" or "known to occur" in the Project area and migratory bird nests were considered in the impact analysis. Where impacts are significant, mitigation measures are identified to reduce these impacts to a less than-significant level.

Based on Tables 3.3-1 and 3.3-2, no special-status species have potential to occur at the Project site. Therefore, migratory bird nests were the only wildlife resources considered in this impact analysis.

3.3.3.4 Impacts and Mitigation Measures

This section provides a discussion of each impact as it corresponds to the significance criteria presented in Section 3.3.3.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.3.3.5, *Summary of Biological Resources Impacts*.

Impact BIO-1	Disturbance of nesting migratory bird species if construction activities begin during the nesting season (February 1 to August 31).
Level of Impact	Less than Significant

Discussion

Migratory bird species, such as American crow, could use the trees on and adjacent to the Project site for nesting. Active migratory bird nests are regulated by Sections 3503 and 3503.5 of the California Department of Fish and Game Code. If construction were to begin during the bird nesting season (February 1 to August 31), construction activities could disturb active migratory bird nests in the Project area. Affecting an active nest would be a significant impact; however, such an impact would be avoided. The City has standard conditions of approval regarding nesting bird surveys (PL-98: Preconstruction Nesting Bird Survey) that will be applied to the Project. For the full text of condition PL-98, see Appendix M. The Project would be required to conduct vegetation removal outside of the nesting season (September 1 to January 31) or to retain a qualified biologist to conduct a preconstruction nesting bird survey if the vegetation removal occurs during the nesting season (February 1 to August 31). If active nests are observed on either the Project site or the surrounding area, the Project applicant, in coordination with a qualified biologist as appropriate, will establish no-disturbance buffer zones around the nests, with the size also to be determined in consultation with a qualified biologist (usually 100 feet for perching birds and 300 feet for raptors). The no-disturbance buffer will remain in place until the biologist determines the nest is no longer active. If construction ceases for 3 days or more and then resumes during the nesting season, an additional survey will be necessary to avoid impacts on active bird nests that may be present. This condition of approval will ensure that the Project will not disturb any active nests during construction. Therefore, this impact would be less than significant and no mitigation is required.

Table 3.3-1. Special-Status Plants Known to Occur or that May Occur in the Project Area

Species	Status[a] Federal/State/CRPR	California Distribution	Habitats	Blooming Period	Likelihood to Occur in Project Area[b]
Acanthomintha duttonii San Mateo thorn-mint	E/E/1B.1	Central Coast, San Francisco Bay area: two occurrences in San Mateo County	Annual grassland and open areas in chaparral and coastal scrub, on serpentinite vertisol clay soil, below 900 feet above mean sea level (MSL)	Apr–Jun	None; there is no suitable habitat within the Project area.
Allium peninsulare var. franciscanum Franciscan onion	–/–/1B.2	Central Coast, San Francisco Bay region: Santa Clara, San Mateo, and Sonoma Counties	Clay and often serpentinite soils in cismontane woodland, valley and foothill grassland, below 1,000 feet above MSL	May–Jun	None; there is no suitable habitat within the Project area
Arctostaphylos andersonii Anderson's manzanita	–/–/1B.2	Santa Cruz Mountains in Santa Clara, Santa Cruz, and San Mateo Counties	Openings and edges of chaparral, broadleaved upland forest and north coast coniferous forest; 200–2,300 feet above MSL	Nov–May	None; there is no suitable habitat within the Project area
Arctostaphylos regismontana Kings Mountain manzanita	–/–/1B.2	Western San Francisco Bay region, northern Santa Cruz Mountains: Santa Cruz and San Mateo Counties	Broadleaved upland forest, chaparral, North Coast coniferous forest, on granitic or sandstone	Jan–Apr	None; there is no suitable habitat within the Project area
Astragalus tener var. *tener* Alkali milk-vetch	–/–/1B.2	Southern Sacramento Valley, northern San Joaquin Valley, east San Francisco Bay Area	Playas, on adobe clay in valley and foothill grassland, vernal pools on alkaline soils, annual grassland on alkaline soil, seasonal wetlands; below 200 feet above MSL	Mar–Jun	None; there is no suitable habitat within the Project area
Centromadia parryi ssp. *congdonii* Congdon's tarplant	–/–/1B.1	Eastern San Francisco Bay Area, Salinas Valley, and Los Osos Valley	Alkaline soils in annual grassland, on lower slopes, flats, and swales, sometimes on saline soils; below 755 feet above MSL	May–Oct (Nov)	None; there is no suitable habitat within the Project area
Chloropyron maritimum ssp. *palustre* (*Cordylanthus maritimus* ssp. *palustris*) Point Reyes bird's-beak	–/–/1B.2	Coastal northern California, from Humboldt to Santa Clara County; Oregon	Coastal salt marsh; below 30 feet above MSL	Jun–Oct	None; there is no suitable habitat within the Project area
Cirsium fontinale var. *fontinale* Fountain thistle	E/E/1B.1	Endemic to San Mateo County	Seeps in chaparral and grassland, on serpentinite	Jun–Oct	None; there is no suitable habitat within the Project area

Species	Status[a] Federal/State/CRPR	California Distribution	Habitats	Blooming Period	Likelihood to Occur in Project Area[b]
Collinsia multicolor San Francisco collinsia	–/–/1B.2	Coastal California from San Francisco to Monterey County	Closed-cone coniferous forest, coastal scrub	Mar–May	None; there is no suitable habitat within the Project area
Dirca occidentalis Western leatherwood	–/–/1B.2	San Francisco Bay region, Alameda, Contra Costa, Marin, Santa Clara, San Mateo, and Sonoma Counties	Moist areas in broadleaved upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland, 80–1,395 feet above MSL	Jan–Apr	None; there is no suitable habitat within the Project area
Eryngium aristulatum var. *hooveri* Hoover's button-celery	–/–/1B.1	South San Francisco Bay area, South Coast Ranges in Alameda, San Benito, Santa Clara, and San Luis Obispo Counties	Vernal pool; 10–150 feet above MSL	July	None; there is no suitable habitat within the Project area
Fritillaria liliacea Fragrant fritillary	–/–/1B.2	Coast Ranges from Marin County to San Benito County	Adobe soils of interior foothills, coastal prairie, coastal scrub, annual grassland, often on serpentinite, below 1,350 feet above MSL	Feb–Apr	None; there is no suitable habitat within the Project area
Hesperolinon congestum Marin western flax	T/T/1B.1	Marin, San Francisco, and San Mateo Counties	Chaparral, serpentinite grassland	Apr–Jul	None; there is no suitable habitat within the Project area
Malacothamnus arcuatus Arcuate bush-mallow	–/–/1B.2	Santa Clara, Santa Cruz, and San Mateo Counties	Chaparral, between 50 and 1,165 feet above MSL	Apr–Sep	None; there is no suitable habitat within the Project area
Malacothamnus davidsonii Davidson's bush-mallow	–/–/1B.2	Los Angeles, Monterey, and San Luis Obispo Counties	Coastal scrub, chaparral, and riparian woodland in sandy washes, 900–2,800 feet above MSL	Jun–Sep	None; there is no suitable habitat within the Project area
Monolopia gracilens woodland woollythreads	–/–/1B.2	Contra Costa, Alameda (reported), Santa Clara, San Mateo, Santa Cruz, Monterey, San Luis Obispo Counties	Cismontane woodland, openings in broadleaved forest, openings in north coast coniferous forest, openings in chaparral, and serpentine valley and foothill grassland; 330–3,940 feet above MSL	Mar–Jun (Feb)	None; there is no suitable habitat within the Project area

Species	Status[a] Federal/State/ CRPR	California Distribution	Habitats	Blooming Period	Likelihood to Occur in Project Area[b]
Stuckenia filiformis (*Potamogeton filiformis*) Slender-leaved pondweed	–/–/2.2	Scattered locations in California: Contra Costa, El Dorado, Lassen, Merced, Mono, Modoc, Mariposa, Placer, and Sierra Counties; Arizona, Nevada, Oregon, Washington. Presumed extirpated in Santa Clara County	Freshwater marsh, shallow emergent wetlands and freshwater lakes, drainage channels; 985–7,055 feet above MSL	May–July	None; there is no suitable habitat within the Project area.
Suaeda californica California seablite	E/–/1B.1	Morro Bay, San Luis Obispo County, historically found in the south San Francisco Bay	Margins of tidal salt marsh; below 50 feet above MSL	Jul–Oct	None; there is no suitable habitat within the Project area.
Tropidocarpum capparideum caper fruited tropidocarpum	–/–/1B.2	Historically known from the northwest San Joaquin Valley and adjacent Coast Range foothills	Grasslands in alkaline hills; below 1,493 feet above MSL	Mar–Apr	None; there is no suitable habitat within the Project area.

[a] Status explanations:

Federal

E = listed as endangered under the ESA

– = no listing

State

E = listed as endangered under the CESA

– = no listing

California Rare Plant Rank (CRPR)

1B = List 1B species: rare, threatened, or endangered in California and elsewhere

2 = List 2 species: rare, threatened, or endangered in California but more common elsewhere

CRPR Code Extensions:

0.1 = seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat

0.2 = fairly endangered in California (20%–80% of occurrences threatened)

[b] Definitions of levels of occurrence likelihood:

Moderate: Plant known to occur in the region from the CNDDB, or other documents in the vicinity of the project, or habitat conditions are of suitable quality.

Low: Plant not known to occur in the region from the CNDDB or other documents in the vicinity of the project; or habitat conditions are of poor quality.

None: Plant not known to occur in the region from the CNDDB or other documents in the vicinity of the project; or suitable habitat is not present in any condition.

Table 3.3-2. Special-Status Wildlife Species with Potential to Occur in the Project Area

Species	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Invertebrates				
Euphydryas editha bayensis Bay checkerspot butterfly	T/–	Disjunct occurrences in San Mateo and Santa Clara Counties	Associated with specific host plants that typically grow on serpentine soils	None; there is no suitable habitat within the Project area
Lepidurus packardi Vernal pool tadpole shrimp	E/–	Shasta County south to Merced County	Vernal pools and ephemeral stock ponds	None; there is no suitable habitat within the Project area
Fish				
Acipenser medirostris Green sturgeon	T/SSC	From Mexico to Alaska in marine waters. Bays and estuaries along the west coast of North America, from British Columbia south to San Luis Obispo	Ocean water, bays, and estuaries while not spawning. Spawn in the mainstem of freshwater rivers with connection to marine habitat and suitable deep pools	None; there is no suitable habitat within the Project area
Hypomesus transpacificus Delta smelt	T/T	Primarily in the Sacramento–San Joaquin Estuary, but has been found as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River; range extends downstream to San Pablo Bay	Occurs in estuary habitat in the Delta where fresh and brackish water mix in the salinity range of 2–7 parts per thousand (Moyle 2002)	None; there is no suitable habitat within the Project area
Oncorhynchus kisutch Central California coast coho salmon	E (central coast)/–	Pacific Ocean and rivers and creeks from Punta Gorda to the San Lorenzo River	Occur in coastal streams with water temperatures < 15°C. Need cool, clear water with instream cover. Spawn in tributaries to large rivers or streams directly connected to the ocean (Moyle 2002)	None; there is no suitable habitat within the Project area
Oncorhynchus mykiss Central California coast steelhead	T/–	Coastal drainages along the central California coast	Cold, clear water with clean gravel of appropriate size for spawning. Most spawning occurs in headwater streams. Steelhead migrate to the ocean to feed and grow until sexually mature	None; there is no suitable habitat within the Project area
Oncorhynchus mykiss Central Valley steelhead	T/–	Sacramento and San Joaquin River and their tributaries	Occurs in well-oxygenated, cool, riverine habitat with water temperatures from 7.8 to 18°C (Moyle 2002). Habitat types are riffles, runs, and pools.	None; there is no suitable habitat within the Project area

Species	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Oncorhynchus tshawytscha Central Valley and Sacramento River Chinook salmon	T (spring run)/- E (winter run)/- C (fall)/-	Sacramento and San Joaquin River and their tributaries	Occurs in well-oxygenated, cool, riverine habitat with water temperatures from 8.0 to 12.5°C. Habitat types are riffles, runs, and pools (Moyle 2002)	None; there is no suitable habitat within the Project area
Spirinchus thaleichthys Longfin smelt	–/T, SSC	Within California, mostly in the Sacramento–San Joaquin River Delta, but also in Humboldt Bay, Eel River estuary, and Klamath River estuary. Also found in South San Francisco Bay and sloughs in Coyote Creek, Alviso Slough, and nearby salt ponds (Rosenfield 2007)	Salt or brackish estuary waters with freshwater inputs for spawning.	None; there is no suitable habitat within the Project area
Amphibians				
Ambystoma californiense California tiger salamander	T/T, SSC	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Sonoma County south to Santa Barbara County	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy	None; there is no suitable habitat within the Project area
Rana draytonii California red-legged frog	T/SSC	Found along the coast and coastal mountain ranges of California from Mendocino County to San Diego County and in the Sierra Nevada from Butte County to Stanislaus County	Permanent and semipermanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation; may aestivate in rodent burrows or cracks during dry periods	None; there is no suitable habitat within the Project area
Reptiles				
Emys marmorata Western pond turtle	–/SSC	Occurs from the Oregon border of Del Norte and Siskiyou Counties south along the coast to San Francisco Bay, inland through the Sacramento Valley, and on the western slope of Sierra Nevada.	Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies or other aquatic vegetation in woodlands, grasslands, and open forests	None; there is no suitable habitat within the Project area

Species	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Thamnophis sirtalis tetrataenia San Francisco garter snake	E/E, FP	Northern San Mateo County southward along the coast and the eastern slope of the Santa Cruz Mountains to the Santa Clara County line	Favors ponds, lakes, slow moving streams and marshy areas containing abundant vegetation, which it uses for cover; nearby upland habitat is important during fall and winter	None; there is no suitable habitat within the Project area
Mammals				
Antrozous pallidus Pallid bat	–/SSC*	Widespread throughout California	Roosts in fissures in caves, tunnels, mines, hollow trees, and locations with stable temperatures	None; there is no suitable habitat within the Project area
Lasiurus cinereus Hoary bat	–/–*	Widespread throughout California	Roosts in trees, typically within forests	None; there is no suitable habitat within the Project area
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	–/SSC	West side of Mount Diablo to coast and San Francisco Bay	Present in chaparral habitat and in forest habitats with a moderate understory	None; there is no suitable habitat within the Project area
Reithrodontomys raviventris Salt marsh harvest mouse	E/E, FP	The San Francisco Bay Estuary and Suisun Marsh	Saline to brackish salt marsh habitat	None; there is no suitable habitat within the Project area
Sorex vagrans halicoetes Salt-marsh wandering shrew	–/SSC	Southern arm of the San Francisco Bay in San Mateo, Santa Clara, Alameda, and Contra Costa Counties	Salt marshes from 6 to 9 feet above mean sea level (MSL)	None; there is no suitable habitat within the Project area
Taxidea taxus American badger	–/SSC	Uncommon, permanent resident found throughout most of California except in the northern North Coast area.	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils.	None; there is no suitable habitat within the Project area
Birds				
Athene cunicularia hypugaea Western burrowing owl	–/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows	None; there is no suitable habitat within the Project area
Brachyramphus marmoratus Marbled murrelet	T/E	Nesting sites from the Oregon border to Eureka and between Santa Cruz and Half Moon Bay; winters in nearshore and offshore waters along the entire California coastline	Mature, coastal coniferous forests for nesting; nearby coastal water for foraging; nests in conifer stands greater than 150 years old and may be found up to 35 miles inland; winters on subtidal and pelagic waters often well offshore	None; there is no suitable habitat within the Project area

Species	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Charadrius alexandrines nivosus Western snowy plover	T/SSC	Population defined as those birds that nest adjacent to or near tidal waters, including all nests along the mainland coast, peninsulas, offshore islands, and adjacent bays and estuaries. Twenty breeding sites are known in California from Del Norte to Diego County	Coastal beaches above the normal high tide limit in flat, open areas with sandy or saline substrates; vegetation and driftwood are usually sparse or absent	None; there is no suitable habitat within the Project area
Circus cyaneus Northern harrier	–/SSC	Occurs throughout lowland California. Has been recorded in fall at high elevations	Grasslands, meadows, marshes, and seasonal and agricultural wetlands	None; there is no suitable habitat within the Project area
Geothlypis trichas sinuosa Saltmarsh common yellowthroat	–/SSC	Found only in the San Francisco Bay Area in Marin, Napa, Sonoma, Solano, San Francisco, San Mateo, Santa Clara, and Alameda Counties	Freshwater marshes in summer and salt or brackish marshes in fall and winter; requires tall grasses, tules, and willow thickets for nesting and cover	None; there is no suitable habitat within the Project area
Laterallus jamaicensis conturniculus California black rail	–/T, FP	Permanent resident in the San Francisco Bay and east-ward through the Delta into Sacramento and San Joaquin Counties; small populations in Marin, Santa Cruz, San Luis Obispo, Orange, Riverside, and Imperial Counties	Tidal salt marshes associated with heavy growth of pickleweed; also occurs in brackish marshes or freshwater marshes at low elevations	None; there is no suitable habitat within the Project area
Melospiza melodia pusillula Alameda song sparrow	–/SSC	Found only in marshes along the southern portion of the San Francisco Bay	Brackish marshes associated with pickleweed; may nest in tall vegetation or among the pickleweed	None; there is no suitable habitat within the Project area.
Pelecanus occidentalis californicus California brown pelican	D/E	The Pacific coast from Canada through Mexico	Coastal areas. Nests on islands. Occasionally along Arizona's lakes and rivers	None; there is no suitable habitat within the Project area.
Rallus longirostris obsoletus California clapper rail	E/E, FP	Found along the Pacific Coast in Monterey and San Luis Obispo Counties	From tidal mudflats to tidal sloughs	None; there is no suitable habitat within the Project area.
Sternula antillarum browni California least tern	E/E, FP	Found along the Pacific Coast of California from San Francisco to Baja California	Nest on open beaches kept free of vegetation by natural scouring from tidal action	None; there is no suitable habitat within the Project area.

Species	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area

Notes:

Status explanations:

Federal

E	=	listed as endangered under the ESA
T	=	listed as threatened under the ESA
PT	=	proposed for federal listing as threatened under the ESA
C	=	species for which USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded
D	=	delisted
–	=	no listing

State

E	=	listed as endangered under CESA
T	=	listed as threatened under CESA
FP	=	fully protected under the California Fish and Game Code
SSC	=	species of special concern in California
D	=	delisted
–	=	no listing

*Pallid bat and hoary bat have additional status listing designations by the Western Bat Working Group (WBWG) of H (high priority) and M (medium priority), respectively. These listings are conservation priorities based on available information on species distribution, status, ecology, and known threats.

Potential Occurrence in the Project Area

High:	Known occurrences of the species within the Project area, or CNDDB, or other documents, records the occurrence of the species within a 5-mile radius of the Project area; suitable habitat is present within the Project area
Moderate:	CNDDB, or other documents, records the known occurrence of the species within a 5-mile radius of the Project area; poor quality suitable habitat is present within the Project area
Low:	CNDDB, or other documents, does not record the occurrence of the species within a 5-mile radius of the Project area; suitable habitat is present within the Project area
None:	CNDDB, or other documents, does not record the occurrence of the species within a 5-mile radius of the Project area; suitable habitat is not present within the Project area

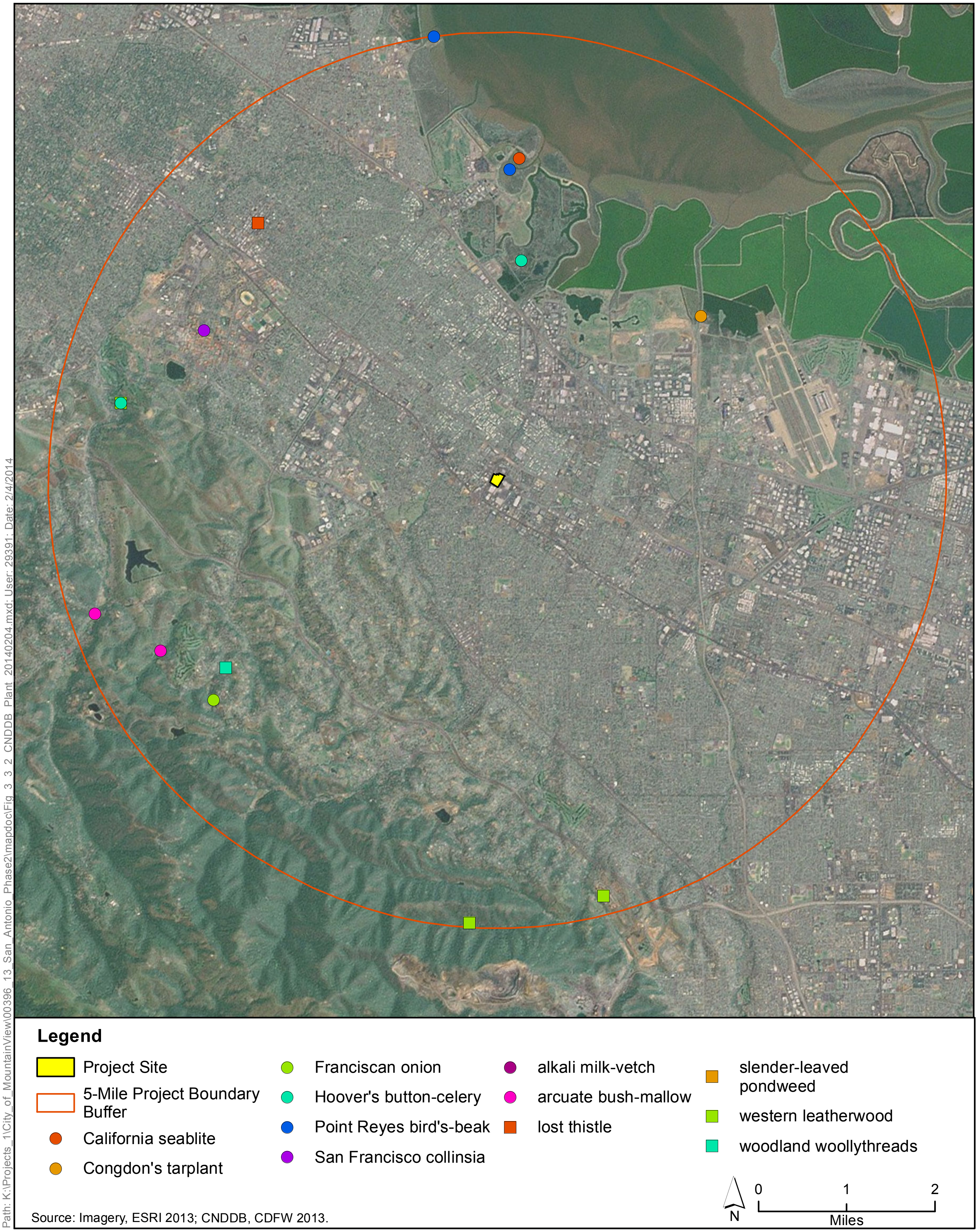
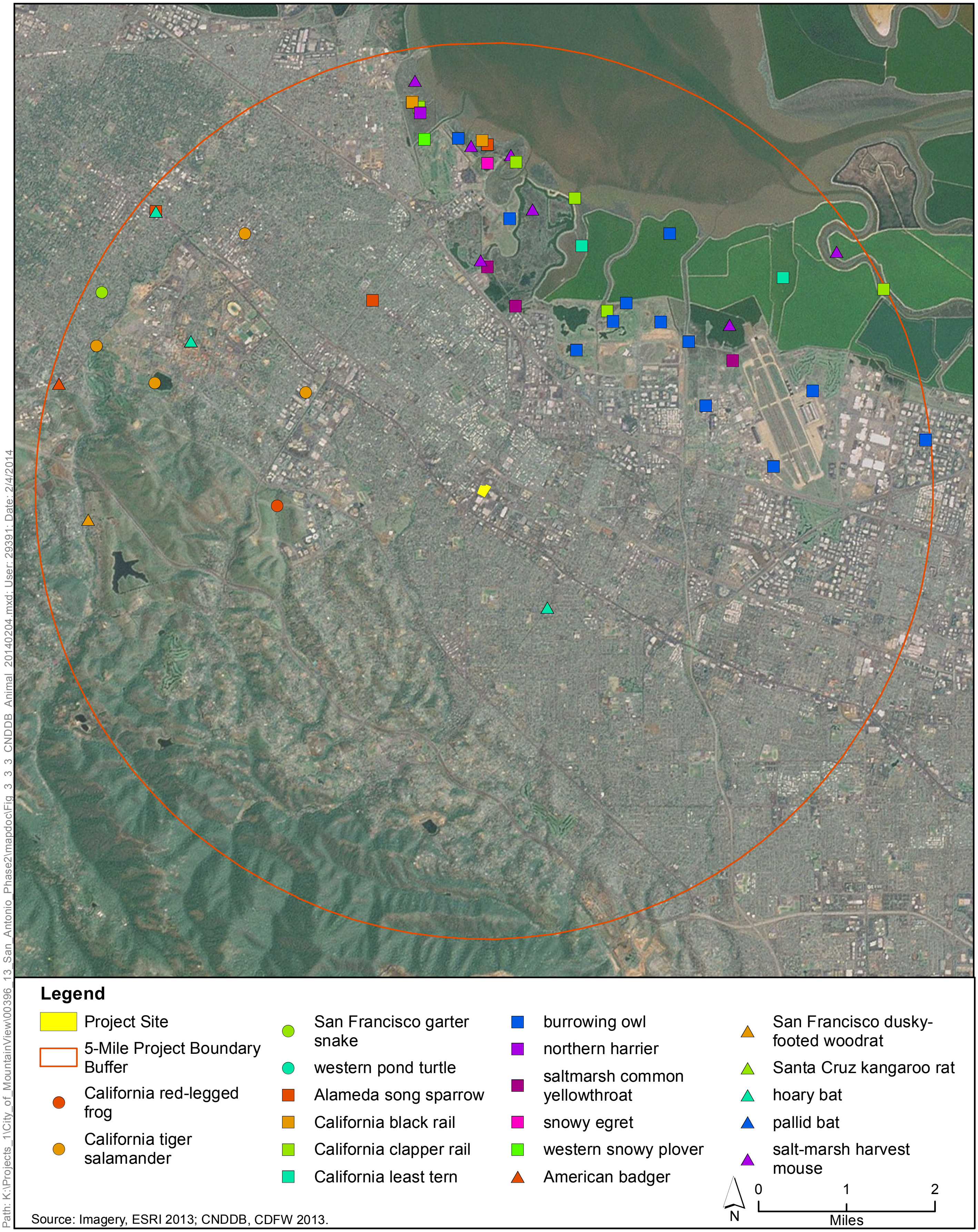


Figure 3.3-2
CNDDB Plant and Community Occurrences
The Village at San Antonio Center Phase II Project



ICF INTERNATIONAL

Figure 3.3-3
CNDDB Wildlife Occurrences
The Village at San Antonio Center Phase II Project

Impact BIO-2	Removal of trees regulated by the City of Mountain View.
Level of Impact	Less than Significant

Discussion

The arborist report prepared for the Project identifies 75 total trees (of which seven are Heritage Trees) regulated by the City of Mountain View that would be affected by construction of the Project (refer to Figure 3.3-1 and Appendix C, *Arborist Report*). Specifically, the Project proposes to remove all 75 trees (including the seven Heritage Trees) on the Project site. The Project landscape plan includes 165 trees, resulting in a net increase of 90 trees. The Project includes a request for a Heritage Tree Removal Permit, which is subject to City review and approval with conditions. The Heritage Tree Removal Permit will include objectives (e.g., promote a healthy tree environment including preservation of mature, healthy trees, and planting younger trees for a diverse ecosystem) and will refer to the Arborist Report for rationale behind the tree removals (e.g., a combination of health, tree type, and construction impacts). The Heritage Tree Removal Permit will also describe the conditions for protection, relocation, and replacement, in accordance with City standards. Because a Heritage Tree Removal Permit is part of the Project application and would be approved pursuant to the policies and objectives set forth in the City's ordinance regulating Heritage Trees, the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Accordingly, this impact would be less than significant.

3.3.3.5 Summary of Biological Resources Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
BIO-1: Disturbance of nesting migratory bird species if construction activities begin during the nesting season (February 1 to August 31)	Less than Significant	None required	–
BIO-2: Removal of trees regulated by the City of Mountain View	Less than Significant	None required	–

3.4 Cultural Resources

This section describes the environmental and regulatory setting for cultural resources. It also describes impacts on cultural resources that would result from implementation of the Project and mitigation for significant impacts where feasible and appropriate. A summary of impacts and mitigation measures is presented at the end in Section 3.4.3.4, *Summary of Cultural Resources Impacts*.

3.4.1 Environmental Setting

This section provides a discussion of the existing conditions, as well as relevant prehistorical and historical conditions, related to cultural resources on the Project site and immediately surrounding Project area.

3.4.1.1 Current Conditions

The Project site consists of developed and disturbed land containing commercial and retail buildings and surface parking lots. Based on the field survey conducted September 25, 2013, the Project site is surrounded by sidewalks, paved roads (San Antonio Road, California Street, Pacchetti Way, and Hetch-Hetchy Parkway), and residential and commercial land uses. No natural ground surfaces are visible at the Project site. Research on Google Earth determined that three buildings at the Project site were constructed in or before 1964; these were evaluated for their historic significance and were not found to be historic resources for the purposes of the California Environmental Quality Act (CEQA). As described further below, these buildings do not appear to be eligible for listing individually or as part of a historic district in the National Register of Historic Places (NRHP) or the California Register of Historic Resources (CRHR). A records search of the California Historical Resources Information System (CHRIS) and literature review did not identify any previously recorded archaeological or historical resources within the Project site, or within 0.5 mile of the Project site. (Refer to Section 3.4.3.2, *Methods*, for additional information on the research conducted.)

The City of Mountain View is located entirely on the alluvial plains from the Quaternary period (1.8 million years before present [B.P.] to present) adjacent to San Francisco Bay. This alluvial plain consists mainly of unconsolidated gravel, sand, silt, and clay deposits from the Santa Cruz Mountains, deposited by Adobe, Permanente, and Stevens Creeks; and estuarine deposits created by these creeks and San Francisco Bay. This alluvium has been subject to redistribution by fluvial (stream) processes. Ages and sediment sizes for this alluvium range from oldest and largest in the south to youngest and smallest in the north. According to a study conducted for the *Mountain View 2030 General Plan*, local Late Pleistocene alluvium (126,000 to 10,000 B.P.) contains fossils of invertebrates and extinct vertebrates (LSA Associates 2012).

The Franciscan Complex is the basement rock underlying the alluvium at depth. The Franciscan Complex consists of volcanic and metavolcanic rocks, metamorphosed and unmetamorphosed sandstone, shale, conglomerate, chert, greenstone, and graywacke from the Middle and Upper Jurassic to the Lower Cretaceous (175 million to 100 million years B.P.). Marine fossils occur in the unmetamorphosed rocks of this complex (LSA Associates 2012).

3.4.1.2 Prehistory, Ethnography, and History

Prehistory

Milliken et al. (2007) present a series of culture changes in the San Francisco Bay Area. Between 11,500 and 8000 calibrated (cal) B.C., Clovis big-game hunters, then initial Holocene gatherers, probably lived in the area. This time period lacks evidence, presumably because most of it has been washed away by stream action, buried under more recent alluvium, or submerged on the continental shelf (Rosenthal and Meyer 2004:1).

The Early Holocene (Lower Archaic), 8000–3500 cal B.C.

Between 8000 and 3500 cal B.C., the Bay Area was occupied by a widespread, but sparse, hunter-gatherer population. The millingslab, handstone, and a variety of large projectile points all emerged during this period (Milliken et al. 2007:114). The Metcalf Creek Site (SCL-178), a deeply stratified deposit in the southern Santa Clara Valley, yielded cultural materials as deep as 9 meters below the surface (Hildebrandt 1983), and radiocarbon determinations from a feature and an *Olivella biplicata* spire-lopped bead indicate the presence of cultural materials dating as early as 7500 cal B.C. (Fitzgerald and Porcasi 2003; Fitzgerald et al. 2005).

The Early Period (Middle Archaic), 3500–500 cal B.C.

Several technological and social developments characterize this period in the Bay Area. The mortar and pestle were first documented in the Bay Area shortly after 4000 B.C., and by 1500 cal B.C., cobble mortars and pestles were widespread. The earliest cut bead horizon, the *Olivella* grooved rectangle (Vellanoweth 2001), bracketed 3400 to 2500 cal B.C., is represented by a single bead from the San Bruno Mound (Clark 1998:127, 156). Double-perforated *Haliotis* rectangle beads were first documented at the 5,590-year-old Sunnyvale Red Burial (SCL-832), which exhibited preinterment burning (Cartier 2002).

Lower Middle Period (Initial Upper Archaic), 500 cal B.C. to cal A.D. 430

During this period, rectangular shell beads disappeared from the Bay Area, and a whole new suite of decorative and presumed religious objects appeared during the Early Period-Middle Period Transition (EMT) (Elsasser 1978), which corresponds to the beginning of this period. Bead horizon M1 of the Middle Period (Upper Archaic, 200 cal B.C. to cal A.D. 430), which developed out of the EMT, marked the first of a series of bead horizons that marked central California bead trade until cal A.D. 1000 (Groza 2002). In the South Bay, the millingslab-/handstone-oriented forager economy continued along the Pacific Coast of San Mateo County (Hylkema 2002:261).

Upper Middle Period (Late Upper Archaic), cal A.D. 430 to 1050

Around 430 A.D., the *Olivella* saucer bead trade network collapsed, and over half of the known bead horizon M1 sites were abandoned, while the remaining sites saw a large increase in sea otter bones. Additionally, the Meganos extended burial mortuary pattern began to spread in the interior East Bay (Bennyhoff 1994a, 1994b). In the South Bay, the Meganos mortuary complex spread from the interior into the Santa Clara Valley at Wade Ranch (SCL-302) (Milliken et al. 2007:116).

Initial Late Period (Lower Emergent), cal A.D. 1050 to 1550

Fredrickson (1973) coined the term "emergent" to describe this period, characterized by a new level of sedentism, status ascription, and ceremonial integration in lowland central California. During the Middle/Late Transition (MLT) bead horizon, which likely occurred around cal A.D. 1000 (Milliken et al. 2007:116), elaborate burial objects and initial markers of the Augustine Pattern, such as new *Olivella* bead types and *Haliotis* ornaments, appeared for the first time. In the San Jose and Point Año Nuevo Localities, local Franciscan chert remained the primary production material for debitage and casual tools, and Napa Valley obsidian remained the primary production material for projectile points (Bellifemine 1997:124–136; Clark and Reynolds 2003:8; Hylkema 2002:250).

Terminal Late Period: Protohistoric Ambiguities

Changes in artifact types and mortuary objects characterized cal A.D. 1500–1650. The signature *Olivella* sequin and cup beads of the central California L1 bead horizon abruptly disappeared. Until around cal A.D. 1650, the only beads found in South Bay and Central Bay mortuaries were *Olivella* lipped and spire-lopped beads, which occurred less frequently (Milliken and Bennyhoff 1993:392). Desert side-notched points spread into the South Bay from the Central Coast (see Hylkema 2002; Jackson 1986, 1989; Jurmain 1983).

Another upward cycle of regional integration was likely commencing when it was interrupted by Spanish settlement in the Bay Area beginning in 1776. Such regional integration was a continuing characteristic of the Augustine Pattern, most likely brought to the Bay Area by Patwin speakers from Oregon, who introduced new tools (such as the bow) and traits (such as preinterment grave pit burning) into central California. Perhaps the Augustine Pattern, with its inferred shared regional religious and ceremonial organization, was developed as a means of overcoming insularity, not in the core area of one language group but in an area where many neighboring language groups were in contact (Milliken et al. 2007:118).

Ethnography

Mountain View is situated within territory once-occupied by Costanoan (also commonly referred to as Ohlone) language groups. Eight Ohlone languages were spoken in the area from the southern edge of the Carquinez Strait to portions of the Big Sur and Salinas rivers south of Monterey Bay and approximately 50 miles inland from the coast. Mountain View lies on the approximate ethnolinguistic boundary between the Tamyen and Ramaytush languages. Tamyen, or Santa Clara Costanoan, was spoken around the south end of San Francisco Bay and in the lower Santa Clara Valley and seems to have had about 1,200 speakers. Ramaytush, or San Francisco Costanoan, was spoken by about 1,400 people in San Mateo and San Francisco Counties (Levy 1978:485).

Ohlone territories were composed of one or more land-holding groups that anthropologists refer to as *tribelets*. The tribelet consisted of a principal village occupied year-round, with a series of smaller hamlets and resource gathering and processing locations occupied intermittently or seasonally (Kroeber 1955: 303–314). The closest known tribelet settlements to Mountain View are believed to be the *puyson* (Arroyo de San Francisco), San Jose Cupertino, and Santa Clara (King 1978:437–438; Levy 1978:485, Figure 1). Milliken has also noted that the *Puichon* tribelet lived on the west shore of San Francisco Bay between lower San Francisquito Creek and lower Stevens Creek, now the areas of Menlo Park, Palo Alto, and Mountain View (Milliken 1995:252).

Seven Spanish missions were founded in Ohlone territory between 1776 and 1797. While living within the mission system, the Ohlone commingled with other groups, including the Yokuts, Miwok, and Patwin. Mission life was devastating to the Ohlone population (Milliken 1995). When the first mission was established in Ohlone territory in 1776, the Ohlone population was estimated to be 10,000. By 1832, the Ohlone numbered less than 2,000 as a result of introduced disease, harsh living conditions, and reduced birth rates (Cook 1943a, 1943b in Levy 1978:486).

Ohlone recognition and assertion began to move to the forefront during the early twentieth century, enforced by legal suits brought against the United States government by Indians of California (1928–1964) for reparation due them for the loss of traditional lands. The Ohlone participated in the formation of political advocacy groups, which brought focus upon the community and reevaluation of rights due its members (Bean 1994:xxiv). In recent years, the Ohlone have become increasingly organized as a political unit and have developed an active interest in preserving their ancestral heritage. Many Ohlones are active in maintaining their traditions and advocating for Native American issues.

History

Spanish explorers in the late 1760s and 1770s were the first Europeans to traverse the Santa Clara Valley. In 1777, Mission Santa Clara and Pueblo San Jose de Guadalupe were established and became the first Spanish settlements in the valley. During the Mexican Period (1822–1846), vast tracts of land were granted to individuals, including former mission lands that had reverted to public domain (LSA Associates 2012).

Mountain View is situated within what was the Rancho Pastoria de las Borregas and “open,” ungranted lands. Old Mountain View, which was situated along El Camino Real, began as a stage stop. However, it deteriorated as a commercial center upon the arrival of the San Francisco-San Jose Railroad.

The population of the Santa Clara Valley expanded as a result of the Gold Rush (1848), the construction of the railroad to San Francisco (1854), and the completion of the transcontinental railroad (1869). The agricultural land use of Mountain View and the surrounding area established during the Spanish-Mexican period was reinforced in the American period and persisted until the post-World War II urban development. When Mountain View as incorporated in 1904, it was an agricultural community with a small downtown business and residential center surrounded by orchards and farms. Throughout the nineteenth and mid-twentieth centuries, the Santa Clara Valley thrived as a center for horticulture and fruit production (LSA Associates 2012).

After World War II, much of the agricultural land was replaced by dense urban housing and military and high technology facilities such as Moffett Federal Airfield, the NASA Ames Research Center, and the Lockheed Missile and Space Company. Like much of the surrounding area, Mountain View experienced major growth after World War II. Between 1950 and 1965, the population increased from 10,000 to 50,000 (City of Mountain View 1992:12). As a result, the area was transformed with the addition of homes, businesses, light industry, and high technology.

Since the 1960s, new commercial centers and the electronics industry steadily developed in Mountain View and the greater Santa Clara Valley. Development patterns were solidly established by the mid-1980s. Industrial and office park districts were located to the north in Mountain View, older residential areas and the commercial downtown were in the center, large commercial development occurred along El Camino Real and San Antonio Road, and large single-family neighborhoods were established south of El Camino Real (City of Mountain View 1992:13).

A review of historic aerial photographs taken in 1948, 1956, 1968, and 1980 reveal that in the decades following World War II, the properties in the Project area, along with their neighbors fronting San Antonio Road, were subdivided from small and large agricultural properties to dense residential and commercial development.

3.4.2 Regulatory Setting

This section summarizes federal, state, and local regulations that apply to cultural resources.

3.4.2.1 Federal

National Environmental Policy Act (42 USC 4321 et seq.)

Federal regulations for cultural resources are primarily governed by Section 106 of the National Historic Preservation Act (NHPA) of 1966, which applies to actions taken by federal agencies. The goal of the Section 106 review process is to offer a measure of protection to sites that are determined eligible for listing in the National Register of Historic Places (NRHP). The criteria for determining NRHP eligibility are found in 36 Code of Federal Regulations (CFR) Part 60. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and affords the federal Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in 36 CFR Part 800. The NRHP criteria (contained in 36 CFR 60.4) are used to evaluate resources when complying with NHPA Section 106. Those criteria state that eligible resources comprise districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

a. Are associated with events that have made a significant contribution to the broad patterns of our history;

b. Are associated with the lives of persons significant in our past;

c. Embody the distinctive characteristics of a type, period, or method of construction, or that possess high artistic values, or that represent a significant distinguishable entity whose components may lack individual distinction; or

d. Have yielded or may be likely to yield, information important to history or prehistory.

Archaeological site evaluation assesses the potential of each site to meet one or more of the criteria for NRHP eligibility based upon visual surface and subsurface evidence (if available) at each site location, information gathered during the literature and records searches, and the researcher's knowledge of and familiarity with the historic or prehistoric context associated with each site.

3.4.2.2 State

California Public Resources Code

California Public Resource Code (PRC) Section 5024.1, which established the California Register of Historic Resources (CRHR), protects historical resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet NRHP listing criteria.

California PRC Section 5097.5 prohibits removing, destroying, injuring, or defacing any vertebrate paleontological site, including fossilized footprints, or any other paleontological feature as well as items of archeological and historic interest that are situated on public lands, except with permission of the public agency with jurisdiction.

A historical resource may be eligible for inclusion in the CRHR if it meets any of the following conditions.

1. The resource is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. The resource is associated with the lives of persons important in our past.
3. The resource 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. The resource has yielded, or may be likely to yield, information important in prehistory or history.

California Code of Regulations, Title 14, Division 3, Chapter 1, Sections 4307 and 4309

The CCR prohibits the destruction, disturbance, or removal of earth, rocks, and paleontological features.

California Health and Safety Code—Treatment of Human Remains

Under Section 8100 of the California Health and Safety Code, six or more human burials at one location constitute a cemetery. Disturbance of Native American cemeteries is a felony (Health and Safety Code Section 7052).

Section 7050.5 of the Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must then contact the Native American Heritage Commission (NAHC), which has jurisdiction pursuant to Section 5097 of the California PRC.

When human remains are discovered or recognized in any location other than a dedicated cemetery, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains may take place until the county coroner has been informed and has determined that no investigation of the cause of death is required, and, if the remains are of Native American origin, either:

- The descendants of the deceased Native American(s) have made a recommendation to the landowner or the person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98; or
- The NAHC was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission.

3.4.2.3 Local

Mountain View City Code

The City's Zoning Ordinance (Chapter 36 of the City Code) includes a process for recognizing, preserving, and protecting historical resources at Section A36.78*, Designation and Preservation of Historic Resources* (City of Mountain View 2011). Section A36.78 established the Mountain View Register of Historic Resources (Mountain View Register) as the City's official list of historically significant buildings, structures, sites, or other improvements that are considered during the permit-development review process. The Mountain View Register has similar criteria for listing as the CRHR and consists of historical resources that meet one or more of the following criteria.

1. Is strongly identified with a person who, or an organization which, significantly contributed to the culture, history, or development of the City of Mountain View;
2. Is the site of a significant historic event in the City's past;
3. Embodies distinctive characteristics significant to the City in terms of a type, period, region, or method of construction or representative of the work of a master or possession of high artistic value; or
4. Has yielded, or may be likely to yield, information important to the City's prehistory or history.

Under Section A36.78.080 of the Zoning Ordinance, persons are prohibited from making significant alterations, redeveloping, or relocating a property listed in the Mountain View Register without first obtaining a Historic Preservation Permit (HP permit) from the City's zoning administrator. An HP Permit is granted if the City finds that (1) the proposed significant alteration will not result in a substantial adverse change in the significance of the historic resource, and (2) the proposed significant alteration maintains and enhances the appearance of the community. The provisions of Section A36.78.080 also apply to properties that are eligible for listing in the NRHP and the CRHR, with the added requirements of City Council approval for an HP Permit and compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties for alterations done to NRHP and CRHR properties (LSA Associates 2012). None of the buildings at the Project site are listed on the Mountain View Register or are eligible for listing on the NRHP or the CRHR.

3.4.2.4 Other

The Society of Vertebrate Paleontology, in response to a recognized need for standard guidance, published a set of standard guidelines for protecting paleontological resources from project impacts (Society of Vertebrate Paleontology Conformable Impact Mitigation Guidelines 1995) that are now widely followed. The guidelines provide some standardization in evaluating a project area's paleontological sensitivity. The guidelines also provide a working definition for *significance* as applied to paleontological resources. According to the Society of Vertebrate Paleontology, significant paleontological resources are those that fulfill one or more of the following criteria (Society of Vertebrate Paleontology Conformable Impact Mitigation Guidelines Committee 1995).

- Provides important information, shedding light on evolutionary trends and/or helping to relate living organisms to extinct organisms.
- Provides important information regarding the development of biological communities.
- Demonstrates unusual circumstances in the history of life.

- Represents a rare taxon or a rare or unique occurrence (i.e., is in short supply and in danger of being destroyed or depleted).
- Has a special and particular quality, such as being the oldest of its type or the best available of its type.
- Provides important information used to correlate strata for which it may be difficult to obtain other types of age dates.

Significant paleontological resources may include vertebrate fossils and their associated taphonomic and environmental indicators, invertebrate fossils, and/or plant fossils.

3.4.3 Impact Analysis

3.4.3.1 Criteria for Determining Significance

The California Environmental Quality Act (CEQA) Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing cultural resources.

A Project impact would be considered significant if construction or operation of the proposed Project would do any of the following.

1. Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5.
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5.
3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
4. Disturb any human remains, including those interred outside of formal cemeteries.

3.4.3.2 Methods

Bibliographic references, previous survey reports, historic maps, and archaeological site records pertaining to the study area were compiled through a records search of CHRIS to identify prior studies and known cultural resources within a 0.5-mile radius of the proposed Project's area of potential effects (APE). As discussed under Section 3.4.1.1, *Current Conditions*, the records search and literature review did not identify any previously recorded archaeological resources within the Project area, or within 0.5 mile of the Project site.

A total of 20 reports address the area within 0.5 mile of the Project site. Of those 20 reports, two reports covered the Project site. *Cultural Resources Assessment for the 1990 General Plan Update, City of Mountain View, Santa Clara County* (Garaventa et al. 1990), S-12528, provided a general overview of cultural resources within the City of Mountain View. *Cultural Resources Study for the San Antonio Center Project and Precise Plan Amendments, Mountain View, Santa Clara County* (Jones 2010), S-38029, investigated the Project site between El Camino Real, San Antonio Road, California Street, and Showers Drive.

The remaining 18 reports included regional overviews, site-specific studies, and archaeological surveys for a variety of projects, mainly related to transportation and fiber-optics, throughout Mountain View and Santa Clara County, including several studies along the Guadalupe Corridor. None of these studies identified any cultural resources in the vicinity of the Project site.

ICF contacted the California NAHC on October 16, 2013, to identify any areas of concern within the Project area that may be listed in NAHC's Sacred Lands File. The NAHC responded on October 23, 2013, stating that a search of the files failed to indicate the presence of Native American cultural resources in the immediate Project area.

A site survey was conducted on September 25, 2013 to evaluate cultural resources in the Project area. Photographic documentation was compiled during this site survey.

Three buildings within the project area were constructed in or before 1964 as shown in Table 3.4-1. Due to their age, these buildings were evaluated for historic significance by ICF. None of the buildings appear to meet the criteria for listing in the NRHP. Similarly, none of these buildings or structures appear to be a historical resource for the purposes of CEQA.

Table 3.4-1. Buildings within Project Site

Resource	Built	CRHR Eligibility	NRHP Eligibility	Impact
391 San Antonio Rd (Shockley Semiconductor Laboratory)	1951	Not Eligible	Not Eligible	No Impact
405 San Antonio Rd	1958	Not Eligible	Not Eligible	No Impact
377 San Antonio Rd	1960	Not Eligible	Not Eligible	No Impact

The above properties have been recorded in California Department of Parks and Recreation Forms 523A (DPR forms) and evaluations are provided in Section 3.4.3.2, *Methods*. These buildings were not found to be historic resources, therefore, none of the above criteria for determining significance apply to architectural resources within the Project site and no impact would occur on historical resources.

No other historical resources were identified in the Project area or within a 0.5-mile radius. The proposed Project would not affect historic properties or cause a substantial adverse change to historical resources (historic architectural/engineering resources).

3.4.3.3 Impacts and Mitigation Measures

This section provides a discussion of each impact as it corresponds to the significance criteria presented in Section 3.4.3.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.4.3.4, *Summary of Cultural Resources Impacts*.

Impact CUL-1	Potential adverse change on a historic architectural resource.
Level of Impact	Less than Significant

Discussion

ICF International architectural historian Aisha Fike conducted an architectural resources analysis of the Project site. In accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code, properties built in or before 1964 have been recorded and evaluated for their potential for historic significance. The properties at 391 San Antonio Road, 377 San Antonio Road, and 405 San Antonio Road do not appear to meet the criteria for listing in the NRHP and the CRHR. A record of these properties can be found in DPR 523A forms in Appendix E.

391 San Antonio Road

The property at 391 San Antonio Road does not appear to meet the criteria for listing in the NRHP and CRHR. A County Assessor parcel search through Google Earth Pro indicates that the property was constructed in 1951. The property was leased to Shockley Semiconductor Laboratory in 1955, which employed talented engineers and scientists who went on to design the silicon transistor for computers that contributed to revolutionizing the Silicon Valley (Computer History Museum, 2007). Although the property is representative of the suburbanization of agricultural land during Mountain View and Santa Clara County's postwar period, as well as being the site of the creation of the silicon transistor, the property itself has experienced substantial alterations including a new façade and rear extension. The property does not retain sufficient integrity to convey its association with the early events surrounding the developments in the Silicon Valley. Therefore, the property does not appear to meet Criterion A of the NRHP or Criterion 1 of the CRHR.

The Shockley Semiconductor Laboratory at the subject property was found by William Shockley and Arnold Beckman. Shockley and a few of his staff shared the Nobel Prize in physics for inventing the transistor in 1956. Although this subject property is the site of the creation of the transistor, the credit for the transistor is not given to Shockley alone. His colleagues who shared the credit resigned in 1957 and continued elsewhere in further groundbreaking work in high technology that laid the foundations for the Silicon Valley. Although the property does appear to be associated with Shockley's important historic work, the façade, interior, and rear addition significantly undermine the historic integrity of the building, rendering it unable to convey an historical association with Shockley or his work. Therefore, the property does not appear eligible for the NRHP under Criterion B or the CRHR under Criterion 2.

Architecturally, the building is a common utilitarian design found among commercial properties of the mid-twentieth century. Due to the completely new stucco and fenestration treatments to the façade in the 1990s, the building resembles a common retail type found in the Santa Clara Valley in the late twentieth century. It is not an exceptional example of the style, nor is it the work of a master architect. In addition, historic aerial images as well as an historic photograph of the building in the 1960s (available from the Computer History Museum) confirm field observation of substantial alterations to the original design of the building. The barrel roof on the rear portion as well as the rear portion of the building itself was removed or hidden by alterations after 1980 and replaced with a flat roof. The original main façade and bay consisted of concrete block and appeared to be designed in the Moderne style, indicated by the curved corners and use of glass block. These Moderne style features are no longer present. These modifications have altered the original materials, workmanship, design, and feeling of the property. Consequently the property lacks historic integrity. Even before these changes, the original design of the building did not appear to be a significant and artistic representation of its style. The property, therefore, does not appear eligible for listing in the NRHP under Criterion C or CRHR under Criterion 3.

The property is not significant under Criterion D of the NRHP or Criterion 4 of the CRHR as a source, or likely source, of important historical information, nor does it appear likely to yield important information about Shockley's work on semiconductors, historic construction methods, materials, or technologies.

Lacking significance and historic integrity, the property located at 391 San Antonio Road does not appear eligible for listing in the NRHP or the CRHR individually or as part of a district.

377 San Antonio Road

The property at 377 San Antonio Road does not appear to meet the criteria for listing in the NRHP and CRHR. County Assessor parcel search through Google Earth Pro indicates that the property was constructed in 1960. Although the property is representative of the suburbanization of agricultural land during Mountain View and Santa Clara County's postwar period, it is not known to be directly associated with events that have made a significant contribution to the history of the City of Mountain View, Santa Clara County, the state of California, or the nation. Therefore, the property does not appear to meet Criterion A of the NRHP or Criterion 1 of the CRHR.

Online research did not provide a listing of past owners of the property. The property does not appear to be associated with any individual's important historic work and therefore does not appear eligible for the NRHP under Criterion B or the CRHR under Criterion 2.

Architecturally, the building is of a modest utilitarian design commonly found among commercial properties in the Santa Clara Valley. The wood-clad deck roof and concrete block construction are characteristic features of such buildings. However, it is not an exceptional example of the style, nor is it the work of a master architect. The property does not appear eligible for listing in the NRHP under Criterion C or CRHR under Criterion 3.

The property is not significant under Criterion D of the NRHP or Criterion 4 of the CRHR as a source, or likely source, of important historical information nor does it appear likely to yield important information about historic construction methods, materials, or technologies.

Lacking historic significance and historic integrity, the property located at 377 San Antonio Road does not appear eligible for listing in the NRHP or the CRHR individually or as part of a district.

405 San Antonio Road

The property at 405 San Antonio Road does not appear to meet the criteria for listing in the NRHP and CRHR. County Assessor parcel search through Google Earth Pro indicates that the property was constructed in 1958. Although the property is representative of the suburbanization of agricultural land during Mountain View and Santa Clara County's postwar period, it is not known to be directly associated with events that have made a significant contribution to the history of the City of Mountain View, Santa Clara County, the state of California, or the nation. Therefore, the property does not appear to meet Criterion A of the NRHP or Criterion 1 of the CRHR.

Online research did not provide a listing of past owners of the property. The property does not appear associated with any individual's important historic work and therefore does not appear eligible for the NRHP under Criterion B or the CRHR under Criterion 2.

Architecturally, this type of sprawling retail strip mall structure designed in the Commercial Modern style is one of many found in the Santa Clara area as well as the greater Santa Clara Valley and the state of California. Although the building, constructed in 1958, retains its original massing, the façade and windows do not appear to be original, significantly altering the design, materials, and workmanship of the property. The property lacks historic integrity and is not a rare, distinctive, significant, or early example of its style type. It also does not appear to be associated with the work of a modern master architect. Therefore, the subject property does not appear to meet the Criterion C of the NRHP or Criterion 3 of the CRHR.

The property is not significant under Criterion D of the NRHP or Criterion 4 of the CRHR as a source, or likely source, of important historical information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies.

Lacking historic significance, the property located at 405 San Antonio Road does not appear eligible for listing in the NRHP or the CRHR individually or as part of a district.

Impacts on architectural resources are less than significant.

Impact CUL-2	Potential discovery and adverse effect on unknown prehistoric and historic archaeological resources during construction.
Level of Impact	Less than Significant

Discussion

Although no cultural resources were identified either through the background records search or during the Project site survey, the potential always exists for previously undiscovered prehistoric or historic archaeological resources to be encountered during construction of various elements of the proposed Project. Adherence to the City's conditions of approval would ensure this impact remains less than significant. Specifically, condition of approval PL-96 (Discovery of Archaeological Resources) requires that work be halted if prehistoric or historic-period cultural materials are unearthed during ground-disturbing activities. For the full text of condition PL-96, see Appendix M. All work within 100 feet of the find will be halted until a qualified archaeologist and Native American representative can assess the significance of the find. Prehistoric materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or tool making debris; culturally darkened soil ("midden") containing heat-affected rocks and artifacts; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered-stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the find is determined to be potentially significant, the archaeologist, in consultation with the Native American representative, will develop a treatment plan that could include site avoidance, capping, or data recovery.

Impact CUL-3	Potential discovery and damage to unknown paleontological or unique geologic features during construction.
Level of Impact	Significant
Mitigation Measure CUL-MM-3	Stop work if paleontological or unique geologic features are encountered during ground-disturbing activities.
Level of Impact after Mitigation	Less than Significant

Discussion

Excavation and grading during construction have the possibility to unearth and damage previously unknown paleontological resources or unique geologic features. Although there is no evidence to consider the site sensitive or to have a high probability to contain paleontological and unique geological features, this unanticipated impact is considered potentially significant. The impact would be reduced to a less-than-significant level by implementing **Mitigation Measure CUL-MM-3**.

Mitigation Measure CUL-MM-3: Stop work if paleontological or unique geologic features are encountered during ground-disturbing activities.

The applicant will ensure the construction specifications include a stop-work order if substantial fossil remains are discovered during Project construction. All work will stop until a registered professional geologist or qualified professional paleontologist can assess the nature and importance of the find and recommend appropriate treatment. The City of Mountain View or the appropriate agency will be responsible for ensuring that recommendations regarding treatment and reporting are implemented. Adherence to this environmental commitment will minimize likelihood of damage to paleontological resources, should they be discovered.

Impact CUL-4	Potential disturbance of human remains, including those interred outside of formal cemeteries, during construction.
Level of Impact	Less than Significant

Discussion

Although no cultural resources were identified either through the background records search or during the Project site survey, the potential always exists for previously undiscovered human remains to be encountered during Project construction. Buried deposits may be eligible for listing in the CRHR. Adherence to the City's standard conditions of approval would ensure that this impact remains less than significant. Specifically, condition of approval PL-97 (Discovery of Human Remains) requires that no further excavation or disturbance of the site occur if human remains are discovered during construction or demolition. For the full text of condition PL-97, see Appendix M. The Santa Clara County coroner will be notified and will make a determination as to whether the remains are Native American. If the coroner determines that the remains are not subject to his authority, he will notify the Native American Heritage Commission who will attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this state law, then the landowner will re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance. A final report will be submitted to the City of Mountain View's community development director prior to release of a certificate of occupancy. This report will contain a description of the mitigation program and its results, including a description of the monitoring and testing resources analysis methodology and conclusions, and a description of the disposition/curation of the resources. The report will verify completion of the mitigation program to the satisfaction of the City's community development director.

3.4.3.4 Summary of Cultural Resources Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
CUL-1: Potential adverse change on a historic architectural resource.	Less than Significant	None required	–
CUL-2: Potential discovery and adverse effect on unknown prehistoric and historic archaeological resources during construction.	Less than Significant	None required	–
CUL-3: Potential discovery and damage to unknown paleontological or unique geologic features during construction.	Significant	CUL-MM-3: Stop work if paleontological or unique geologic features are encountered during ground-disturbing activities.	Less than Significant
CUL-4: Potential disturbance of human remains, including those interred outside of formal cemeteries, during construction.	Less than Significant	None required	–

3.5 Geology and Soils

This section describes the environmental and regulatory setting for geology and soils. It also describes impacts associated with geology and soils that would result from implementation of the Project and mitigation for significant impacts where feasible and appropriate. A summary of impacts and mitigation measures is presented at the end in Section 3.5.3.4, *Summary of Geology and Soils Impacts*. Geologic information in this section is based primarily on the geotechnical report prepared by Treadwell & Rollo in October 2013 (Appendix F, *Geotechnical Report*).

3.5.1 Environmental Setting

This section provides a discussion of the existing conditions related to geology and soils, including topography and seismic conditions.

3.5.1.1 Geology

Mountain View is situated in the Santa Clara Valley between the Central California Coast Ranges (Santa Cruz Mountains) and San Francisco Bay. The Coast Ranges' geomorphic province is characterized by northwest to southeast trending valleys and ridges. Santa Clara Valley is composed of folded and faulted sedimentary and volcanic rocks and more recent alluvial and Bay deposits in lower valley areas (Santa Clara County 1994).The Santa Clara Valley is underlain by Quaternary-age alluvial deposits, which are up to several hundred feet deep, and by recent Bay deposits at the extreme northern end of the valley. The Santa Cruz Mountains are composed primarily of Franciscan Assemblage sandstone, shale, chert, and serpentine, with lesser amounts of Santa Clara, Purisima, San Lorenzo, Monterey, and Vaqueros formations of Tertiary age also occurring.

Mountain View is located entirely on the alluvial plains adjacent San Francisco Bay. This alluvial plain consists mainly of unconsolidated gravel, sand, silt, and clay deposits that have been subject to redistribution by fluvial (stream) processes.

3.5.1.2 Topography

Mountain View has relatively varied topographic relief, starting at approximately mean sea level[1] at the San Francisco Bay and rising to approximately 200 feet above mean sea level near the southern edge of the City. The Project site, which is approximately 65 feet above mean sea level, is relatively flat and currently developed with little topographic variation.

3.5.1.3 Seismic Conditions

The characteristic northwest to southeast valleys and ridges of the Coast Ranges geomorphic province were created from the collision of the Farallon and North American plates. Movements along this plate boundary in the Northern California region occur along the San Andreas fault system, causing seismic activity. Table 3.5-1 includes relevant terminology for discussing seismic conditions.

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[1] Mean sea level (MSL) is a datum representing the average height of the ocean's surface (such as the halfway point between the mean high tide and the mean low tide); used as a standard in reckoning land elevation.

Table 3.5-1. Terminology and Definitions for Seismic Conditions

Earthquake	An earthquake is the result of a sudden release of energy in the Earth's crust, caused mostly by rupture of geological faults, that creates seismic waves. The *seismicity* or *seismic activity* of an area refers to the frequency, type and size of earthquakes experienced over time.
Maximum Magnitude and Moment Magnitude	An earthquake is classified by the magnitude of wave movement (related to the amount of energy released), which traditionally has been quantified using the Richter scale and *Maximum Magnitude*. This is a logarithmic scale, wherein each whole number increase in magnitude (M) represents a tenfold increase in the wave magnitude generated by an earthquake. An M8.0 earthquake is not twice as large as an M4.0 earthquake; it is 10,000 times larger (i.e., 10^4, or 10 x 10 x 10 x 10). Structure damage typically begins at M5.0. A limitation of the Richter magnitude scale is that at the upper limit large earthquakes have about the same magnitude. As a result, the *Moment Magnitude* scale[1], which does not have an upper limit magnitude, was introduced in 1979 and is often used for earthquakes greater than M3.5. Moment magnitude is an energy-based scale and provides a physically meaningful measure of the size of a faulting event. Specifically, the seismic moment is a measure of the size of an earthquake based on the area of fault rupture, the average amount of slip, and the force that was required to overcome the friction sticking together the rocks that were offset by faulting[2]. Earthquakes of M6.0 to 6.9 are typically classified as moderate; those between M7.0 and M7.9 are classified as major; and those of M8.0 or greater are classified as great.
Lateral Spreading	*Lateral spreading* can occur when *liquefaction* transforms a subsurface layer into a fluid-like mass, and then gravity causes the mass to move downslope. Lateral spreading most commonly occurs on gentle slopes that range from 0.3 to 3 degrees. It can displace the ground surface for many feet, potentially damaging pipelines, utilities, bridges, roads, and other structures. Lateral spreading propensity is typically evaluated using a method incorporating the thickness of the liquefiable layer, the fines content and mean grain-size diameter of the liquefiable soil, the relative density of the liquefiable soil, the magnitude and distance of an earthquake from a site, the slope of the ground surface, and boundary conditions.
Liquefaction	Soil *liquefaction* is a phenomenon in which saturated soils experience sudden and nearly complete loss of strength during seismic events. If not confined, the soil acquires sufficient mobility to allow for horizontal and vertical movements. Liquefaction can result in shallow foundation failures, boiling, severe settlement, and failure of fill supported on liquefiable soils. The magnitude of liquefaction-induced settlement depends on the thickness and relative density of the liquefiable soils and on the intensity of ground shaking. Soils most susceptible to liquefaction are loose, uniformly graded, fine-grained sands. Saturated silty and clayey sands may also liquefy during strong ground shaking, although clayey sands liquefy only if the clay content is quite low.
Subsidence	*Subsidence* is the phenomenon in which the soils and other earth materials underlying a site settle or compress, resulting in a lower ground surface elevation. Fill and native materials beneath a site can be water saturated, and a net decrease in the pore pressure and contained water will allow the soil grains to pack closer together. This closer grain packing results in less volume and the lowering of the ground surface.

[1] http://earthquake.usgs.gov/learn/glossary/?term=seismic%20moment
[2] USGS Earthquakes Hazards Program 2012

Faults and Risk of Surface Fault Rupture

The San Francisco Bay Area in particular is a seismically active region and has been subjected to numerous earthquake events. The U.S. Geological Survey (USGS), which organized a working group to study earthquakes in the Bay Area, estimates there is a 70 percent chance of at least one magnitude 6.7 or greater earthquake affecting the San Francisco Bay region in the next 30 years. The major active fault that could impact the Project area is the San Andreas Fault, which extends roughly north-south along the San Francisco Peninsula, approximately 5.9 miles southwest of the Project site. Other major active faults in the vicinity that could cause seismic events in the proposed Project vicinity are the Hayward, Calaveras, and San Gregorio Faults. Table 3.5-2 summarizes fault segment distances and direction from Project site, and provides the estimated Maximum Moment Magnitude (refer to Table 3.5-1 for definition).

Table 3.5-2. Regional Zoned Faults

Fault Segment	Approximate Distance from Site (miles)	Direction from Site	Maximum Moment Magnitude[1]
Monte Vista-Shannon	3.4	Southwest	6.5
North San Andreas – Peninsula	5.9	Southwest	7.2
North San Andreas (1906 event)	5.9	Southwest	8.1
Hayward	13.1	Northeast	7.0
Hayward-Rodgers Creek	13.1	Northeast	7.3
Calaveras	16.8	East	7.0
North San Andreas – Santa Cruz	16.8	Southeast	7.1
San Gregorio Connected	17.4	West	7.5
Zayante—Vergeles	23.0	Southeast	7.0
Mount Diablo Thrust	27.3	Northeast	6.7
Greenville	30.5	East	7.0
Source: USGS Earthquakes Hazards Program 2012 and Appendix F			

Published fault maps also show a trace of the Stanford fault approximately 1.2 miles southwest of the Project site. The Stanford fault is within the Frontal thrust fault system, which is a deformation zone adjacent to and east of the San Andreas fault and may be connected with the Monte Vista fault Zone that lies approximately 3.4 miles southwest of the Project site (U.S. Geological Survey 2012). The faults within this system are largely concealed by alluvial deposits. At this time there are no known specific fault studies in the near vicinity of the Project site. Therefore, the accuracy of the trace mapped near the Project site is unknown.

The Stanford fault is not zoned *active* by the California Geological Survey (Rockridge Geotechnical 2012), as defined under the discussion for the *Alquist-Priolo Earthquake Fault Zoning Act* (California Geological Survey 2010; U.S. Geological Survey 2012), in Section 3.5.2., *Regulatory Setting*. However, some studies suggest that the Stanford fault is potentially active, that the fault could produce a seismic event in the magnitude range of 6.2 to 6.6, and that the most recent evidence of deformation is from between 4,600 to 14,500 years ago (Bullard et al. 2004a, 2004b).

The Project site is not located within an Alquist-Priolo Earthquake Fault Zoning Act area, and no known active faults cross the Project site. Therefore, the risk of surface fault rupture and consequent secondary ground failure from unknown faults is considered to be low.

Other Risks from Seismic Activity

Although no known active faults cross the Project site and thus the risk of surface fault rupture is low, the Project site would be subject to other risks from seismic activity along any of the known active faults (U.S. Geological Survey 2012). The primary risk is strong groundshaking. Other risks include seismic-related ground failure, including liquefaction, lateral spreading, and subsidence (refer to Table 3.5-2).

The Project site is located within a “Moderate” liquefaction susceptibility area, and there are potentially liquefiable soil layers on the Project site (U.S. Geological Survey 2006). However, the potentially liquefiable layers at the Project site are relatively thin, deep (generally less than 5 feet thick and below a depth of 15 feet below ground surface), isolated, and discontinuous. Therefore, the potential for surface manifestations of liquefaction and the potential for lateral spreading beneath the site are low (Appendix F).

The Project site is located above the Santa Clara Valley Groundwater basin where land subsidence has been a problem in the past, and an extensive annual monitoring program has been set up within the basin to evaluate changes in an effort to maintain land subsidence at less than 0.01 feet per year (California Department of Water Resources 2003).

The Project site is relatively flat, and there are no known landslide risks in the Project area (California Geological Survey 2006a, 2006b).

3.5.1.4 Soils

Soils at the Project site are classified as Urban land-Flaskan complex, 0 to 2 percent slopes and Urbanland-Clear Lake complex, 0 to 2 percent slopes (U.S. Department of Agriculture 2013).

The Urban land-Flaskan complex, 0 to 2 percent slopes is composed of approximately 70 percent urban land, 20 percent Flaskan, and 10 percent minor components, distributed in small areas not individually mapped (Natural Resources Conservation Service n.d.).

The Urbanland-Clear Lake complex, 0 to 2 percent slopes is composed of approximately 65 percent Urbanland, 20 percent Clear Lake, and 10 percent minor components, distributed in small areas not individually mapped (Natural Resources Conservation Service n.d.).

The Project site is underlain by alluvial deposits with varying degrees of clay content. There are interbedded layers of stiff to hard clay with variable sand and gravel content, medium dense to very dense sand with variable clay, silt, and gravel content, and medium dense to very dense gravel with variable clay and sand content (Appendix F).

Fine-grained soils (silts and clays) may contain variable amounts of expansive minerals; that is, the soils may expand when they get wet and shrink as they dry out. Upward pressure can increase when these expansive soils swell, resulting in harmful effects on structures and surface improvements.

The near-surface soils at the Project site have moderate to high expansion potential.

3.5.2 Regulatory Setting

3.5.2.1 Federal

There are no relevant federal regulations for geology and soils other than Section 402 of the Clean Water Act, which is discussed in Section 3.8, *Hydrology and Water Quality*.

3.5.2.2 State

Alquist-Priolo Earthquake Fault Zoning Act

California's Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code [PRC] Section 2621 et seq.), originally enacted in 1972 as the Alquist-Priolo Special Studies Zones Act and renamed in 1994, is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy[2] across the traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active faults, giving legal weight to terms such as *active*, and establishes a process for reviewing building proposals in and adjacent to earthquake fault zones.

Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are "sufficiently active" and "well defined." A fault is considered *sufficiently active* if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for purposes of the act as referring to approximately the last 11,000 years). A fault is considered *well defined* if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Hart and Bryant 2007).

Seismic Hazards Mapping Act

Similar to the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong groundshaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act: the state is charged with identifying and mapping areas at risk of strong groundshaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped seismic hazard zones.

Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites within seismic hazard zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

[2] With reference to the Alquist-Priolo Act, a *structure for human occupancy* is defined as one "used or intended for supporting or sheltering any use or occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year" (California Code of Regulations, Title 14, Division 2, Section 3601[e]).

California Uniform Building Code

The major state regulations regarding geo-seismic hazards other than surface faulting are contained in Title 24, Part 2, California Uniform Building Code (CUBC). The CUBC applies to public building and a large percentage of private building in the state. It is based on the current federal Uniform Building Code, but contains additional amendments, and repeals that are specific to building conditions and structural requirements in the state of California. Local codes are permitted to be more restrictive than Title 24 but are required to be no less restrictive. Chapter 23 of the CUBC deals with general design requirements, including (but not limited to) regulations governing seismically resistant construction. Chapters 29 and 70 deal with excavations, foundations, retaining walls, and grading including (but not limited to) requirements for seismically resistant design, foundation investigations, stable cut and fill slopes, and drainage and erosion control.

3.5.2.3 Local

City of Mountain View

General Plan

The Public Safety Element of the *Mountain View 2030 General Plan* (City of Mountain View 2012a) establishes policies to protect the community from risks associated with earthquakes and other geological and soil-related hazards. The following goals, policies, and actions are relevant to potential geology and soils impacts that could result from Project construction or implementation.

Goal PSA-4: A well-prepared community that has developed plans to minimize risks from environmental and human-induced disasters.

Policy PSA 4.2: Natural disasters. Minimize impacts of natural disasters.

Actions to implement Policy PSA-4.2 include enforcing building code and developing a Local Hazard Mitigation Plan (LSA Associates 2011).

Goal PSA-5: The protection of life and property from seismic hazards.

Policy PSA 5.1: New Development. Ensure new development addresses seismically induced geologic hazards.

Actions to implement Policy PSA-5.1 include reviewing development projects in seismically active areas "to ensure that geotechnical investigations are prepared following state guidelines and relevant local codes" (LSA Associates 2011). Site-specific geotechnical reports should address all potential geohazards, not only seismic hazards (LSA Associates 2011).

Policy PSA 5.2: Alquist-Priolo Zones. Development shall comply with the Alquist-Priolo Earthquake Fault Zoning Act.

Policy PSA 5.4: Utility Design. Ensure new underground utilities, particularly water and natural gas lines, are designed to meet current seismic standards.

The City also has an Office of Emergency Services, an Emergency Response Plan, and a Community Emergency Response Team (City of Mountain View 2012a). The Office of Emergency Services is responsible for "helping city employees, residents, businesses and schools prepare for, respond to and recover from emergencies and disasters, both natural and man-made" (City of Mountain View 2012b).

The Emergency Response Plan includes “standardized processes, protocols and procedures” that City government emergency responders will follow in case of disaster (City of Mountain View 2012a), including natural disasters related to seismic activity or other geology- or soils-related events. The Community Emergency Response Team provides training for City residents in basic disaster response skills, so that they will be able to help others in case of disaster when emergency personnel are not immediately available (City of Mountain View 2012a).

Ordinances

Chapter 8 of the City of Mountain View Code of Ordinances requires adherence to the California Building Code, 2010 edition. This edition of the California Building Code incorporates, by adoption, the 2009 edition of the International Building Code of the International Code Council, with California amendments (City of Mountain View 2012a). This code specifies designs for structural integrity, including in a seismically active area.

Section 35.32.10.1(T) of the Mountain View City Code requires that stormwater pollutant control measures be installed at construction sites year-round. Measures listed in the ordinance include erosion control, runoff control, sediment control, and non-stormwater management through all phases of construction until the site is stabilized with landscaping or permanent erosion control.

Association of Bay Area Governments

The City of Mountain View is an “actively participating jurisdiction” in the Association of Bay Area Governments (ABAG) Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area (Association of Bay Area Governments 2010). The plan, which was released in 2005 and updated in 2010, was approved by the Federal Emergency Management Agency (FEMA) on March 24, 2011. The plan is a joint effort among many jurisdictions in the Bay Area to “build a more disaster-resistant region.” Local governments adhere to the plan when they adopt a formal resolution to support the plan’s eight commitment areas: infrastructure, health, housing, economy, government services, education, environment, and land use. The plan lays out strategies that will help local jurisdictions set priorities as they allocate resources for hazard mitigation so that their approaches are mutually supporting. Local governments that adopt a hazard mitigation plan may be eligible for certain benefits, including points under the National Flood Insurance Program community rating system, and waiver of the local match requirement for public assistance moneys after a disaster (Association of Bay Area Governments 2010).

The City of Mountain View’s mitigation strategy priorities related to geologic hazards include the following (Association of Bay Area Governments 2010).

- Requiring site geological technical investigations for structures to be built in areas known to be in or near seismic hazard zones.
- Accelerating retrofit of unreinforced masonry structures.
- Requiring new commercial and industrial structures to comply with the most recently adopted California Building Code.
- Providing technical assistance for reinforcing certain building types.
- Assessing the vulnerability of the City’s infrastructure to geologic hazards.

3.5.3 Impact Analysis

3.5.3.1 Criteria for Determining Significance

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing geology and soils.

A Project impact would be considered significant if construction or operation of the proposed Project would cause any of the following.

1. Expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving:
    a. 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.
    b. Strong seismic groundshaking.
    c. Seismic-related ground failure, including liquefaction.
    d. Landslides.
2. Result in substantial soil erosion or the loss of topsoil.
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse.
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Analysis of the Mountain View Quadrangle Map in the Seismic Hazards Zone Official Map shows that no known landslide zones exist on or near the Project site. There would be no impact. Therefore, impacts associated with seismically induced landslides are not analyzed further.

The Project does not include septic tanks or alternative wastewater disposal systems. Therefore, potential impacts resulting from performance of septic tanks or alternative wastewater disposal systems are not analyzed further.

3.5.3.2 Methods

The information derived for these impacts was taken from California Geological Survey Seismic Hazard Zones map and report, the U.S. Geological Survey fault and fold database, and the Natural Resources Conservation Service Web Soil Survey (U.S. Department of Agriculture 2013).

3.5.3.3 Impacts and Mitigation Measures

This section provides a discussion of each impact as it corresponds to the significance criteria presented in Section 3.5.3.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.5.3.4, *Summary of Geology and Soils Impacts*.

Impact GEO-1a	Increased exposure of people or structures to safety risks due to surface fault rupture resulting from seismic activity.
Level of Impact	Less than Significant

Discussion

As described above, the Project site is not located within an Alquist-Priolo Earthquake Fault Zone as designated by the California Geological Society, and no known active or potentially active faults exist on the site. The nearest fault is the Stanford fault, located approximately 1.2 miles to the southwest of the Project site. The Stanford fault is not zoned as *active* under the Alquist-Priolo Act, nor does it bisect the Project site. Therefore, the risk of surface fault rupture at the site is low.

Although this is the case, the proposed Project is located in a seismically active area and, while unlikely, there is a possibility of future faulting in areas where no active faults previously existed; however, the risk of surface faulting and consequent secondary ground failure from unknown faults is considered to be low. Furthermore, the proposed Project would comply with requirements set in the California Building Code to withstand settlement and forces associated with the maximum credible earthquake. The California Building Code provides standards intended to permit structures to withstand seismic hazards. To this end, the code sets standards for excavation, grading, construction earthwork, fill embankments, expansive soils, foundation investigations, liquefaction potential, and soil strength loss. Accordingly, this impact would be less than significant. No mitigation is required.

Impact GEO-1b	Increased exposure of people or structures to strong seismically induced groundshaking.
Level of Impact	Less than Significant

Discussion

The Project is located in a seismically active area surrounded by numerous faults. A list of faults is provided in Table 3.5-2. Seismically induced groundshaking at the Project site would depend on a number of factors.

- Size of the earthquake (magnitude).
- Distance from the site to the fault source.
- Directivity (focusing of earthquake energy along the fault in the direction of the rupture).
- Subsurface conditions.

Based on the Project site's proximity (approximately 5.9 miles) to the San Andreas fault and other faults capable of producing a large earthquake, the potential exists for a large earthquake to induce strong to very strong groundshaking at the site during the life of the Project.

The Project would be designed and constructed to meet or exceed standards set forth by the City of Mountain View and California Building Code requirements. These codes are designed to reduce major structural damage and avoid major injury and loss of life in the event of an earthquake. The seismic performance goals generally expect that some property damage would be incurred in a moderate to large earthquake, but the damage would generally be reparable and not life threatening. Furthermore, the City has standard conditions of approval regarding impacts on geology and soils, which will be applied to the Project. The conditions of approval will require that the recommendations in the Project's Geotechnical Report (Appendix F) be implemented. Adherence to these recommendations will address and mitigate geologic hazards in accordance with the specification of California Geological Survey (CGS) Special Publication 117, *Guidelines for Evaluating and Mitigating Seismic Hazards*, and the requirement of the Seismic Hazards Mapping Act (PL-99: Geotechnical Report). For the full text of condition PL-99, see Appendix M. Because the Project will comply with City of Mountain View standard conditions of approval and California Building Code requirements, and because the City will require the applicant to implement recommendations in the Geotechnical Report, this impact would be less than significant. No mitigation is required.

Impact GEO-1c	Increased exposure of people or structures to the effects of seismically induced ground failure, including liquefaction.
Level of Impact	Less than Significant.

Discussion

As described above, the Project site is susceptible to seismically induced liquefaction. According to data obtained in the geotechnical report, the potentially liquefiable soil layers encountered on the Project site are relatively thin and deep. The study concluded that the potential for surface manifestations of liquefaction is low under the current site conditions.

Furthermore, the City requires the Project be designed and constructed to meet or exceed standards set forth by the City of Mountain View, as well as current California Building Code requirements. The City has standard conditions of approval regarding impacts on geology and soils, which will be applied to the Project. The conditions of approval will that the recommendations in the Project's Geotechnical Report (Appendix F) be implemented. Adherence to these recommendations will address and mitigate geologic hazards in accordance with the specification of CGS Special Publication 117, *Guidelines for Evaluating and Mitigating Seismic Hazards*, and the requirement of the Seismic Hazards Mapping Act (PL-99: Geotechnical Report). For the full text of condition PL-99, see Appendix M. Because the Project will comply with City of Mountain View standard conditions of approval and California Building Code requirements, and will implement recommendations provided in the geotechnical report, this impact would be less than significant. No mitigation is required.

Impact GEO-2a	Accelerated erosion during Project construction and operation.
Level of Impact	Less than Significant.

Discussion

Construction

Soils on the Project site and surrounding the site are fully developed. Construction activities include demolition, excavation, and grading, which would expose soils and could result in accelerated erosion during Project construction. As discussed in Chapter 2, *Project Description*, demolition activities are expected to generate approximately 4,480 cubic yards of demolished material, trees, concrete, and asphalt. Removal of concrete and asphalt would expose previously sheltered soils to the elements, and expose soils to construction activities on site, all of which can accelerate erosion rates. However, as described in Section 3.8, *Hydrology and Water Quality*, the Project would be required to include best management practices (BMPs) stipulated in the stormwater pollution prevention plan (SWPPP) in accordance with the state Stormwater NPDES Construction Permit and in Section 35.32.10.1(T) of the Mountain View City Code. The SWPPP and BMPs would minimize erosion and runoff during construction. These BMPs could include, but would not be limited to, using drainage swales or lined ditches to control stormwater flow and protecting storm drain inlets (with gravel bags or catch basin inserts).

Operation

Project operation would not result in increased rates or quantities of erosion. As described in Section 3.8, *Hydrology and Water Quality*, the Project would reduce the amount of impervious surface area. Furthermore, the Project would include stormwater treatment controls. As described in Chapter 2, *Project Description* (Section 2.5.6, *Utilities and Stormwater Quality Management*), the biofiltration systems include 25 planter boxes and four modular wetland systems. The planter boxes would treat stormwater flows from the buildings and the modular wetlands would treat all surface runoff. These systems would reduce the amount of erosion. This impact would be less than significant. No mitigation is required.

Impact GEO-2b	Loss of topsoil as a result of Project construction.
Level of Impact	Significant
Mitigation Measure GEO-MM-2	Stockpile topsoil removed during construction and reuse stockpiled topsoil during revegetation.
Level of Impact after Mitigation	Less than Significant

Discussion

The Project site is currently completely developed. Construction of the Project would include demolition, excavation, and grading, which could result in loss of topsoil. As described in Chapter 2, *Project Description*, excavation activities would generate approximately 185,000 cubic yards (cy) of cut and 5,000 cy of fill, resulting in a net export of 180,000 cy of soil. This could result in a substantial loss of topsoil. Implementation of **Mitigation Measure GEO-MM-2** would minimize the amount of topsoil that could be lost through removal during Project construction, and reduce this impact to a less than significant level.

Project operation would not result in the potential for a substantial loss of topsoil because the entire Project site would be developed or landscaped.

Mitigation Measure GEO-MM-2: Stockpile topsoil removed during construction and reuse stockpiled topsoil during revegetation.

The contractor(s) retained for construction and revegetation of the Project will stockpile excavated topsoil so that it can be reused for revegetation on the Project site as needed. To ensure maximum topsoil recovery, topsoil will be stockpiled separately from other excavated materials and covered. Revegetation and landscaping will use stockpiled topsoil.

Impact GEO-3	Increased risk of liquefaction, lateral spreading, subsidence, or collapse, as a result of Project location on an unstable geologic unit or soil.
Level of Impact	Less than Significant.

Discussion

The Project site is located within a "Moderate" liquefaction susceptibility area, and according to the geotechnical study conducted, potentially liquefiable soil layers encountered on the proposed Project area were relatively thin and deep (Appendix F). It was determined that the potential for liquefaction is low under current site conditions. Also, potentially liquefiable layers encountered during the geotechnical study were characterized as being isolated and discontinuous, making the potential for lateral spreading beneath the site low as well.

Furthermore, the geotechnical study determined that subsidence could occur as a result of dewatering activities suggested as part of the proposed Project. This could cause instability in the soils found in the proposed Project area and have deleterious effects on structures. Recommendations included monitoring of groundwater levels outside excavation areas while dewatering is in progress. Upon dewatering, wet, disturbed subgrade soil may require stabilization prior to placement of improvements. As mentioned in the geotechnical study, stabilization of subgrade soil can consist of, but is not limited to, the following methods.

- Overexcavating the disturbed material and replacing it with a lean concrete rat slab.
- Replacing removed soil with a layer of reinforcement geotextile and crushed rock.

Soil collapse is associated with subterranean voids such as tunnels or mine shafts or with excessive loading. There are no known mine shafts in Mountain View (ICF 2013).

To reduce potential impacts from subsidence and liquefaction, the Project would be designed and constructed to meet or exceed standards set forth by City of Mountain View, as well as current California Building Code requirements. Furthermore, the City has standard conditions of approval regarding impacts on geology and soils, which will be applied to the Project. The conditions of approval require that the recommendations in the Project's Geotechnical Report (Appendix F) be implemented. Adherence to these recommendations will address and mitigate geologic hazards in accordance with the specification of CGS Special Publication 117, *Guidelines for Evaluating and Mitigating Seismic Hazards*, and the requirement of the Seismic Hazards Mapping Act (PL-99: Geotechnical Report). For the full text of condition PL-99, see Appendix M. Because the Project will comply with City of Mountain View standard conditions of approval and California Building Code requirements, and will implement recommendations provided in the geotechnical report, this impact would be less than significant. No mitigation is required.

Impact GEO-4	Increased risk of damage to Project structures as a result of Project location on expansive soils.
Level of Impact	Less than Significant

Discussion

The Project site is underlain with moderately to highly expansive near-surface soil. To reduce impacts from potentially expansive soils, the Project would be designed and constructed to meet or exceed standards set forth by the City of Mountain View, as well as current California Building Code requirements. Furthermore, the City has standard conditions of approval regarding impacts on geology and soils, which will be applied to the Project. The conditions of approval require that the recommendations in the Project's Geotechnical Report (Appendix F) be implemented. Adherence to these recommendations will address and mitigate geologic hazards in accordance with the specification of CGS Special Publication 117, *Guidelines for Evaluating and Mitigating Seismic Hazards*, and the requirement of the Seismic Hazards Mapping Act (PL-99: Geotechnical Report). For the full text of condition PL-99, see Appendix M. Because the Project will comply with City of Mountain View standard conditions of approval and California Building Code requirements, and will implement recommendations provided in the geotechnical report, this impact would be less than significant. No mitigation is required.

3.5.3.4 Summary of Geology and Soils Impacts

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
GEO-1a: Increased exposure of people or structures to safety risks due to surface fault rupture resulting from seismic activity.	Less than Significant	None required	–
GEO-1b: Increased exposure of people or structures to strong seismically induced groundshaking.	Less than Significant	None required	–
GEO-1c: Increased exposure of people or structures to the effects of seismic-related ground failure including liquefaction.	Less than Significant	None required	–
GEO-2a: Accelerated erosion during Project construction and operation.	Less than Significant	None required	–
GEO-2b: Loss of topsoil during Project construction.	Significant	GEO-MM-2: Stockpile topsoil removed during construction and reuse stockpiled topsoil during revegetation.	Less than Significant
GEO-3: Increased risk of landslide, liquefaction, lateral spread, subsidence, or collapse, as a result of Project location on an unstable geologic unit or soil.	Less than Significant	None required	–
GEO-4: Increased risk of damage to Project structures as a result of Project location on expansive soils.	Less than Significant	None required	–

3.6 Greenhouse Gas Emissions and Climate Change

This section describes the environmental and regulatory setting for greenhouse gas emissions and climate change. It also describes impacts from GHG emissions that would result from implementation of the Project and mitigation for significant impacts where feasible and appropriate. A summary of impacts and mitigation measures is presented at the end in Section 3.6.4.4, *Summary of Greenhouse Gas Emissions and Climate Change Impacts*.

3.6.1 Introduction

Following is a brief description of the terminology and concepts used in this section.

- **Greenhouse Gas**. *Greenhouse gases* (GHGs) encompass the following six gases which are present in the Earth's lower atmosphere: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), perfluorcarbons (PFCs), sulfur hexafluoride (SF_6), and hydrofluorocarbons (HFCs).
- **Greenhouse Effect**. The phenomenon known as the *greenhouse effect* keeps the atmosphere near the Earth's surface warm enough for habitation by humans and other life forms. Visible sunlight passes through the atmosphere without being absorbed. Some of the sunlight striking the Earth is absorbed and converted to heat, which warms the surface. The surface emits infrared radiation to the atmosphere, where some of it is absorbed by GHGs and re-emitted toward the surface; some of the heat is not trapped by GHGs and escapes into space. 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 amplifying the warming of the Earth (Center for Climate and Energy Solutions 2011). Thus, the GHGs play a critical role in maintaining the Earth's temperature.
- **Global Warming and Climate Change**. Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution. Rising atmospheric concentrations of GHGs in excess of natural levels enhance the greenhouse effect, which contributes to *global warming* of the Earth's lower atmosphere and may induce large-scale changes in ocean circulation patterns, precipitation patterns, global ice cover, biological distributions, and other changes to the Earth system that are collectively referred to as *climate change*. The Intergovernmental Panel on Climate Change (IPCC) has been established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation.

3.6.2 Environmental Setting

The unique chemical properties of GHGs enable them to become well-mixed within the atmosphere and transported over long distances. Consequently, unlike other resource areas that are primarily concerned with localized Project impacts (e.g., within 1,000 feet of the Project site), the global nature of climate change requires a broader analytic approach. While this section focuses on GHG emissions generated at the Project site as a result of construction and operation, the analysis considers potential regional and global GHG impacts.

3.6.2.1 Greenhouse Gases

The primary GHGs include CO_2, CH_4, N_2O, PFCs, SF_6, and HFCs, as defined by California law and identified in the State CEQA Guidelines (Health and Safety Code 38505(g); CCR, title 14, section 15364.5). Each of these gases is discussed in detail below except PFCs, which are primarily generated by industrial processes and are not anticipated to be generated by the Project.

To simplify reporting and analysis, methods have been set forth to describe emissions of GHGs in terms of a single gas. The most commonly accepted method to compare GHG emissions is the global warming potential (GWP) methodology defined in the IPCC Fourth Assessment Report (AR4) reference documents (Intergovernmental Panel on Climate Change 2007a). The IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO_2 equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2 (CO_2 has a global warming potential of 1 by definition). Note that the California Air Resources Board (ARB) is currently transitioning from the GWP values within the Second Assessment Report (SAR) (Intergovernmental Panel on Climate Change 1996) to the more recent AR4 GWPs (Intergovernmental Panel on Climate Change 2007a), as it develops estimates of GHG emissions and potential emission reductions for the AB 32 Scoping Plan Update. Therefore, this analysis uses GWP methods from the AR4.

Table 3.6-1 lists the global warming potential of CO_2, CH_4, N_2O, HFCs, and SF_6, their lifetimes, and abundances in the atmosphere.

Table 3.6-1. Global Warming Potentials, Lifetimes, and Atmospheric Concentrations of Principal Greenhouse Gases

Greenhouse Gases	Global Warming Potential (100 years)	Lifetime (years)	Current Atmospheric Abundance
CO_2 (ppm)[a]	1	50–200	394
CH_4 (ppb)	25	9–15	1,874
N_2O (ppb)	298	120	324
HFC-23 (ppt)	11,700	264	18
HFC-134a (ppt)	1,430	14	68
HFC-152a (ppt)	140	1.5	3.9
SF_6 (ppt)[a]	22,800	3,200	7.5

Sources: Intergovernmental Panel on Climate Change 1996, 2001:388–390; National Oceanic and Atmospheric Administration 2013; Blasing 2013.

[a] HFC = hydrofluorocarbons
CH_4 = methane
CO_2 = carbon dioxide
N_2O = nitrous oxide
ppb = parts per billion
ppm = parts per million
ppt = parts per trillion
SF_6 = sulfur hexafluoride

Carbon Dioxide

CO_2 is the most important anthropogenic GHG and accounts for more than 75 percent of all GHG emissions caused by humans. Its atmospheric lifetime of approximately 50–200 years ensures that atmospheric concentrations of CO_2 will remain elevated for decades even after mitigation efforts to reduce GHG concentrations are promulgated (Intergovernmental Panel on Climate Change 2007a). The primary sources of anthropogenic CO_2 in the atmosphere include the burning of fossil fuels (including motor vehicles), gas flaring, cement production, and land use changes (e.g., deforestation, oxidation of elemental carbon). CO_2 can be removed from the atmosphere by photosynthetic organisms.

Atmospheric CO_2 has increased from a pre-industrial concentration of 280 parts per billion (ppb) to approximately 394 parts per million (ppm) as of October 2013 (Intergovernmental Panel on Climate Change 2007b; National Oceanic and Atmospheric Administration 2013).

Methane

CH_4, the main component of natural gas, is the second most abundant GHG and has a GWP of 25 (Intergovernmental Panel on Climate Change 2007a). Sources of anthropogenic emissions of CH_4 include growing rice, raising cattle, using natural gas, landfill outgassing, and mining coal (National Oceanic and Atmospheric Administration 2005). Certain land uses also function as a both a source and a sink for CH_4. For example, the primary terrestrial source of CH_4 is wetlands, whereas undisturbed, aerobic soils act as a CH_4 sink (i.e., they remove CH_4 from the atmosphere).

Atmospheric CH_4 has increased from a pre-industrial concentration of 715 ppb to 1,874 ppb (Intergovernmental Panel on Climate Change 2007b; Blasing 2013).

Nitrous Oxide

N_2O is a powerful GHG, with a GWP of 298 (Intergovernmental Panel on Climate Change 2007a). Anthropogenic sources of N_2O include agricultural processes (e.g., fertilizer application), nylon production, fuel-fired power plants, nitric acid production, and vehicle emissions. N_2O also is used in rocket engines, racecars, and as an aerosol spray propellant. Natural processes, such as nitrification and denitrification, can also produce N_2O that can be released to the atmosphere by diffusion. In the U.S. more than 70 percent of N_2O emissions are related to agricultural soil management practices, particularly fertilizer application.

N_2O concentrations in the atmosphere have increased 18 percent from pre-industrial levels of 270 ppb to 324 ppb (Intergovernmental Panel on Climate Change 2007b; Blasing 2013).

Hydrofluorocarbons

HFCs are anthropogenic chemicals used in commercial, industrial, and consumer products and have high GWPs (U.S. Environmental Protection Agency 2013). HFCs are generally used as substitutes for ozone-depleting substances (ODS) in automobile air conditioners and refrigerants. As seen in Table 3.6-1, the most abundant HFCs, in descending order, are HFC-134a, HFC-23, and HFC-152a.

HFC concentrations in the atmosphere have risen from 0 to more than 64 (HFC-134a) parts per trillion (ppt) since pre-industrial times (Intergovernmental Panel on Climate Change 2007b; National Oceanic and Atmospheric Administration 2013).

Sulfur Hexafluoride

SF_6, a human-made chemical, is used as an electrical insulating fluid for power distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer chemical for the study of oceanic and atmospheric processes (U.S. Environmental Protection Agency 2013). Atmospheric concentrations of SF_6 are currently 7.5 ppt and steadily increasing in the atmosphere. SF_6 is the most powerful of all GHGs listed in IPCC studies, with a GWP of 22,800 (Intergovernmental Panel on Climate Change 2007a).

SF_6 concentrations in the atmosphere have risen from 0 to more than 7.4 ppt since pre-industrial times.

Greenhouse Gas Emissions Inventories

A GHG inventory is a quantification of all GHG emissions and sinks within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (i.e., for global and national entities) or on a small scale (i.e., for a particular building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources.

Table 3.6-2 outlines the most recent global, national, statewide, and local GHG inventories to help contextualize the magnitude of potential Project-related emissions.

Table 3.6-2. Global, National, State, and Local GHG Emissions Inventories

Emissions Inventory	CO_2e (metric tons)
2004 IPCC Global GHG Emissions Inventory	49,000,000,000
2011 EPA National GHG Emissions Inventory	6,708,300,000
2011 ARB State GHG Emissions Inventory	448,110,000
2007 SFBAAB GHG Emissions Inventory	95,800,000
2005 City of Mountain View GHG Emissions Inventory	793,987

Sources:
Intergovernmental Panel on Climate Change 2007a; U.S. Environmental Protection Agency 2013; California Air Resources Board 2013; Bay Area Air Quality Management District 2010; LSA Associates 2011.
CO_2e = carbon dioxide equivalent

3.6.2.2 Climate Change

Climate change is a complex phenomenon that has the potential to alter local climatic patterns and meteorology. The IPCC estimates that the average global temperature rise between the years 2000 and 2100 could range from 34° Fahrenheit (F), with no increase in GHG emissions above year 2000 levels, to 43.5° F, with substantial increase in GHG emissions (Intergovernmental Panel on Climate Change 2007b). Large increases in global temperatures could have substantial adverse effects on the natural and human environments on the planet and in California.

Although modeling indicates that climate change will result in global and regional changes in sea level rise, climate, and rainfall, among other effects, there remains uncertainty in characterizing precise *local* climate characteristics and predicting precisely how various ecological and social systems will react to any changes in the existing climate at the local level. Regardless of this uncertainty in predictions, it is widely understood that substantial climate change is expected to occur in the future, although the precise extent will take further research to define.

Consequently, the City of Mountain View, including the Project site, will be affected by changing climatic conditions. Research efforts coordinated through ARB, the California Energy Commission (CEC), California Environmental Protection Agency (Cal/EPA), the University of California system, and others are examining the specific changes to California's climate that will occur as the Earth's surface warms. Climate change could affect the natural environment in California in the following ways, among others.

- Rising sea levels along the California coastline, particularly in San Francisco and the San Joaquin Delta due to ocean expansion.
- Extreme-heat conditions, such as heat waves and very high temperatures, which could last longer and become more frequent.
- An increase in heat-related human deaths and infectious diseases, and a higher risk of respiratory problems caused by deteriorating air quality.
- Reduced snow pack and stream flow in the Sierra Nevada Mountains, affecting water supplies and winter recreation.
- Potential increase in the severity of winter storms, affecting peak stream flows and flooding.
- Changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield.
- Changes in distribution of plant and wildlife species due to changes in temperature, competition from colonizing species, changes in hydrologic cycles, changes in sea levels, and other climate-related effects.

With respect to central-western California, including the Project site, climate change effects will be similar to those California-wide, and are expected to include the following conditions (PRBO Conservation Science 2011).

- Hotter and drier climate, with average annual temperatures increasing 1.6–1.9°F by 2070 and mean annual rainfall decreasing by 2.4–7.4 inches.
- Sea level rise by 3.4–5 inches by 2020–2050 and by 7.6–16 inches by 2070–2099, potentially affecting or inundating coastal development.
- More frequent and intense wildfires, with the area burned projected to increase by an estimated 10–50 percent by 2070–2090.
- Decreases in chaparral/coastal scrub (19–43 percent by 2070) and blue oak woodland/foothill pine (44–55 percent by 2070); increases in grassland (85–140 percent by 2070).
- Increased salinity in the San Francisco Bay, with salinity increasing by 1–3 practical salinity units during dry years.
- Increase in estuarine flows into the San Francisco Bay estuary, with winter gains approximately balancing spring-summer losses.
- Increased heat and decreased air quality, with the result that public health will be placed at risk, native plant and animal species may be lost, and there will be an estimated 60 percent growth in electricity consumption.

3.6.3 Regulatory Setting

This section summarizes federal, state, and local regulations related to GHG emissions and climate change that are applicable to the Project.

3.6.3.1 Federal

Update to Corporate Average Fuel Economy Standards (2009)

The new Corporate Average Fuel Economy (CAFE) standards incorporate stricter fuel economy standards promulgated by the State of California into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016.

The federal Environmental Protection Agency (EPA), National Highway Traffic Safety Administration (NHTSA), and ARB released an Interim Joint Technical Assessment Report for the standards and evaluated four potential future standards ranging from 47 to 62 miles per gallon in 2025. The official proposal was released by both EPA and NHTSA on December 1, 2011. The final environmental document for the new CAFE standards was released by NHTSA and EPA on July 9, 2012. On August 28, 2012, NHTSA issued the Final Rule for CAFE Standards for Model Years 2017 and Beyond (National Highway Traffic Safety Administration 2012).

Environmental Protection Agency Endangerment and Cause and Contribute Findings (2009)

On December 7, 2009, EPA signed the Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act (CAA). Under the Endangerment Finding, EPA finds that the current and projected concentrations of the six key well-mixed GHGs—CO_2, CH_4, N_2O, PFCs, SF_6, and HFCs—in the atmosphere threaten the public health and welfare of current and future generations. Under the Cause or Contribute Finding, EPA finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action was a prerequisite to finalizing EPA's proposed new CAFE standards for light-duty vehicles, which EPA proposed in a joint proposal that included the Department of Transportation's proposed CAFE standards (see above).

United States Environmental Protection Agency Regulation of GHG Emissions under the Clean Air Act (2010–2012, ongoing)

Under the authority of the CAA, EPA is beginning to regulate GHG emissions, starting with large stationary sources. In 2010, EPA set GHG thresholds to define when permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities. In 2012, EPA proposed a carbon pollution standard for new power plants.

3.6.3.2 State

Executive Order S-3-05 (2005) and Executive Order B-16-2012 (2012)

Signed by Governor Arnold Schwarzenegger on June 1, 2005, Executive Order (EO) S-3-05 asserts that California is vulnerable to the effects of climate change. To combat this concern, EO S-3-05 established the following GHG emissions reduction targets for state agencies.

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

Executive orders are binding only on state agencies. Accordingly, EO S-03-05 will guide state agencies' efforts to control and regulate GHG emissions but will have no direct binding effect on local government or private actions. The Secretary of Cal/EPA is required to report to the Governor and state Legislature biannually on the impacts of global warming on California, mitigation and adaptation plans, and progress made toward reducing GHG emissions to meet the targets established in this executive order. Further, EO B-16-2012 establishes benchmarks for reducing transportation-related GHG emissions. It requires agencies to implement the Plug-in Electric Vehicle Collaborative and California Fuel Cell Partnership by 2015 and sets forth targets specific to the transportation sector, including the goal of reducing transportation-related GHG emissions to 80 percent less than 1990 levels.

Senate Bills 1078/107/X 1-2 and Executive Order S-14-08—Renewable Portfolio Standard and Renewable Energy Resources Act (2002, 2006, 2011)

Senate Bills (SBs) 1078 and 107, California's Renewable Portfolio Standard (RPS), obligated investor-owned utilities (IOUs), energy service providers (ESPs), and Community Choice Aggregations (CCAs) to procure an additional 1 percent of retail sales per year from eligible renewable sources until 20 percent is reached by no later than 2010. The California Public Utilities Commission (CPUC) and CEC are jointly responsible for implementing the program. Executive Order S-14-08 set forth a longer-range target of procuring 33 percent of retail sales by 2020. SB X 1-2, called the California Renewable Energy Resources Act, obligates all California electricity providers to obtain at least 33 percent of their energy from renewable resources by the year 2020.

Assembly Bill 1493—Pavley Rules (2002, Amendments 2009)

Known as "Pavley I," AB 1493 standards are the nation's first GHG standards for automobiles. AB 1493 requires ARB to adopt vehicle standards that will lower GHG emissions from new light-duty autos to the maximum extent feasible beginning in 2009. Additional strengthening of the Pavley standards (referred to previously as "Pavley II," now referred to as the "Advanced Clean Cars" measure) has been proposed for vehicle model years 2017–2020. Together, the two standards are expected to increase average fuel economy to roughly 43 miles per gallon by 2020 and reduce GHG emissions from the transportation sector in California by approximately 14 percent. In June 2009, the EPA granted California's waiver request enabling the state to enforce its GHG emissions standards for new motor vehicles beginning with the current model year.

Assembly Bill 32, California Global Warming Solutions Act (2006)

AB 32 codified the state's GHG emissions target by requiring that the state's global warming emissions be reduced to 1990 levels by 2020. Since being adopted, ARB, CEC, CPUC, and the Building Standards Commission have been developing regulations that will help meet the goals of AB 32 and Executive Order S-03-05. The Scoping Plan for AB 32 identifies specific measures to reduce GHG emissions to 1990 levels by 2020, and requires ARB and other state agencies to develop and enforce regulations and other initiatives for reducing GHGs. Specifically, the Scoping Plan articulates a key role for local governments, recommending they establish GHG reduction goals for both their municipal operations and the community, consistent with those of the state.

Executive Order S-01-07, Low Carbon Fuel Standard (2007)

Executive Order S-01-07 mandates (1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, and (2) that a low carbon fuel standard (LCFS) for transportation fuels be established in California. The executive order initiates a research and regulatory process at ARB. Based on an implementation plan developed by CEC, ARB will be responsible for implementing the LCFS. On December 29, 2011, a federal judge issued a preliminary injunction blocking enforcement of the LCFS, ruling that the LCFS violates the interstate commerce clause (Georgetown Climate Center 2012). On July 15, 2013, the Fifth District Court of Appeals ruled to allow LCFS regulations to remain operative while the ARB analyzes the smog-related impacts of LCFS implementation, including formulation of appropriate enforceable mitigation measures, and subsequently completes full CEQA review, so long as the ARB attempts to meet its statutory requirements in good faith (see *Poet, LLC, et al. v. California Air Resources Board, et al.*)

Senate Bill 375—Sustainable Communities Strategy (2008)

SB 375 provides for a new planning process that coordinates land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 requires metropolitan planning organizations (MPOs) to incorporate a "sustainable communities strategy" (SCS) in their regional transportation plans (RTPs). The goal of the SCS is to reduce regional vehicle miles traveled (VMT) through land use planning and consequent transportation patterns. The regional targets were released by ARB in September 2010. SB 375 also includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. However, those provisions will not become effective until an SCS is adopted.

The Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments adopted the Sustainable Communities Strategy and the 2040 Regional Transportation Plan on July 18, 2013.

California Energy Efficiency Standards for Residential and Non-residential Buildings—Title 24 (2008)

The CEC periodically updates the energy efficiency requirements for residential and non-residential buildings. The currently applicable standards were adopted in 2008. The next standards were adopted in late May, 2012 and come into force in 2014.

California Green Building Standards Code—Title 24, Part 11 (2011)

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code (24 CCR). Part 11 establishes voluntary standards that became mandatory in the 2010 edition of the code, including planning and design for sustainable site development, water conservation, material conservation, and internal air contaminants. The standards took effect in January 1, 2011. The standards did not mandate improvements in energy efficiency above the Title 24 2008 standards.

Climate Change Scoping Plan (2008)

On December 11, 2008, pursuant to AB 32, ARB adopted the Climate Change Scoping Plan. This plan outlines how emissions reductions from significant sources of GHGs will be achieved through regulations, market mechanisms, and other actions. The Climate Change Scoping Plan also describes recommended measures that were developed to reduce GHG emissions from key sources and activities while improving public health, promoting a cleaner environment, preserving our natural resources, and ensuring that the impacts of the reductions are equitable and do not disproportionately affect low-income and minority communities. These measures put the state on a path to meet the long-term 2050 goal of reducing California's GHG emissions to 80 percent below 1990 levels.

ARB is currently updating the scoping plan to include both a 2020 element and a post-2020 element. The 2020 element will focus on state, regional, and local initiatives that are being implemented now to assist in meeting the 2020 goal. The post-2020 element will provide a high-level view of a long-term strategy for meeting the 2050 GHG goals, consistent with the goals set forth in EO S-3-05 and EO B-16-2012.

State CEQA Guidelines (2010)

The State CEQA Guidelines require lead agencies to describe, calculate, or estimate the amount of GHG emissions that would result from a project. Moreover, the State CEQA Guidelines emphasize the necessity to determine potential climate change effects of a project and propose mitigation as necessary. The State CEQA Guidelines confirm the discretion of lead agencies to determine appropriate significance thresholds, but require the preparation of an environmental impact report (EIR) if "there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with adopted regulations or requirements" (Section 15064.4).

State CEQA Guidelines Section 15126.4 includes considerations for lead agencies related to feasible mitigation measures to reduce GHG emissions, which may include, among others, measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency's decision; implementation of project features, project design, or other measures that are incorporated into the project to substantially reduce energy consumption or GHG emissions; offsite measures, including offsets that are not otherwise required, to mitigate a project's emissions; and measures that sequester carbon or carbon-equivalent emissions.

Greenhouse Gas Cap-and-Trade Program (2010/2011)

On October 20, 2011, ARB adopted the final cap-and-trade program for California. The California cap-and-trade program will create a market-based system with an overall emissions limit for affected sectors. The program is currently proposed to regulate more than 85 percent of California's emissions and will stagger compliance requirements according to the following schedule: (1) electricity generation and large industrial sources (2012); and (2) fuel combustion and transportation (2015).

3.6.3.3 Local

Bay Area Air Quality Management District

The BAAQMD's 2011 *CEQA Guidelines* outline advisory thresholds for stationary source and land use development projects. The mass emissions threshold for stationary source projects is 10,000 metric tons of CO_2e (MT CO_2e) per year. For land use development projects, the guidelines establish three potential analysis criteria for determining project significance: compliance with a qualified Climate Action Plan, a mass emissions threshold of 1,100 MT CO_2e per year, and a GHG efficiency threshold of 4.6 MT CO_2e per service population (project jobs + projected residents) (Bay Area Air Quality Management District 2011).

The guidelines do not identify a GHG emissions threshold for construction-related emissions. However, BAAQMD recommends that GHG emissions from construction be quantified and disclosed, and that a determination regarding the significance of these GHG emissions be made with respect to whether a project is consistent with the AB 32 GHG emission reduction goals. The BAAQMD further recommends that best management practices (BMPs) be incorporated to reduce GHG emissions during construction, as feasible and applicable. BMPs may include using alternative-fueled (e.g., biodiesel, electric) construction vehicles and equipment for at least 15 percent of the fleet, using at least 10 percent local building materials, and recycling or reusing at least 50 percent of construction waste or demolition materials.

City of Mountain View

In August 2012, the City of Mountain View Council adopted the *Mountain View Greenhouse Gas Reduction Program* (GGRP), which details the City's efforts to reduce GHG emissions consistent with BAAQMD's *CEQA Guidelines* (AECOM 2012). The GGRP estimates current (2005) and future (2020 and 2030) GHG emissions generated by community activities. The GGRP specifies aggressive 2020 and 2030 emission reduction goals and identifies a list of mitigation measures recommended to achieve these goals. The City intends for the GGRP to serve as a streamlining tool for CEQA analysis, in which projects consistent with applicable mitigation measures can tier from the GGRP and associated *Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report* (LSA Associates 2012).

3.6.4 Impact Analysis

3.6.4.1 Criteria for Determining Significance

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing greenhouse gas emissions and climate change.

A Project impact would be considered significant if construction or operation of the proposed Project would cause either of the following.

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The State CEQA Guidelines are currently silent on whether CEQA evaluations should address the potential impacts of climate change on a project. However, Section 15126.2 (a) does note that the lead agency should "evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions." Accordingly, a lead agency should consider whether construction and operation of a project would be affected by climate change. In conducting such an evaluation, the agency should focus on the long-term aspects of the project that are more likely to experience the effects of climate change in the future. Foreseeable shifts in regional climate will likely spur changes in local patterns of flooding, wildfire potential, water availability, energy demand, environmental health, and heat-wave events (California Energy Commission 2009). A project could place people and property at higher levels of risk from climate change effects if it does not anticipate reasonably foreseeable changes in environmental conditions.

A California Court of Appeal has held that while an EIR must analyze environmental effects that may result from a project, it is not required to examine the effects of the environment on the project (see *Ballona Wetland Foundation v. City of Los Angeles*, 201 Cal. App. 4th 455). Under the *Ballona* decision, lead agencies would not be required to consider impacts of climate change on proposed projects. However, because other California Courts of Appeal may differ in their interpretation of the CEQA Guidelines and conclude that an analysis of climate change effects on proposed projects is required, a discussion of the issue has been included in this EIR for informational purposes.

Construction Emissions

Construction emissions represent a small portion of overall emissions in the Bay Area. Unlike operational emissions, they are temporary and limited to the construction period. As discussed above, BAAQMD has not established a quantitative threshold for the evaluation of construction-related GHG emissions. The significance of construction GHG emissions is therefore evaluated by considering the overall magnitude of emissions, as well as determining whether the Project has incorporated feasible BMPs.

Operational Emissions

Operational emissions are evaluated with respect to the City's GGRP, consistent with BAAQMD's CEQA Guidelines. The City specifically prepared the GGRP as a "Plan for the Reduction of Greenhouse Gas Emissions" for purposes of CEQA Guidelines Section 15183.5, which provides that qualified plans "may be used in the cumulative impacts analysis of later projects." More specifically, "[l]ater project-specific environmental documents may tier from and/or incorporate by reference" the "programmatic review" conducted for the GHG reduction plan. "An environmental document that relies on a GHG reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project." (Section 15183.5) Because global climate change, by its very nature, is a global cumulative impact, an individual project's compliance with a qualifying GHG reduction plan may suffice to mitigate the project's incremental contribution to that cumulative impact to a level that is not "cumulatively considerable" (see CEQA Guidelines, Section 15064[h][3]).

Chapter 5 of the City's GGRP outlines how individual projects can demonstrate consistency to effectively rely on the analysis provided in the document for CEQA purposes. Specifically, all new projects must comply with applicable codes and ordinances identified in the GGRP. Accordingly, the significance of operational GHG emissions is evaluated by determining whether a project is consistent with all applicable measures outlined in the GGRP. If a project is consistent with these measures, it would not conflict with the City's ability to achieve future emission reduction goals. Operational GHG emissions therefore would be found to be less than significant.

3.6.4.2 Methods

GHG emissions associated with construction and operation of the Project were quantified using standard and accepted software tools, techniques, and emission factors. A summary of the methodology is provided below. A full list of assumptions can be found in Appendix B, *Air Quality and Greenhouse Gas Analysis Details*.

Construction

Project construction would generate short-term emissions of CO_2, CH_4, and N_2O. Emissions would originate from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, and from electricity consumption. Mass emissions generated by these sources were estimated using emission factors and modeling methodologies found within the CalEEMod (version 2013.2.2) emissions inventory model, the ARB's EMFAC 2011 web-tool, and construction information provided by the Project applicant. Emissions were summed and presented in MT CO_2e.

Operation

Project implementation would result in office, commercial, hotel, retail, cinema, and restaurant uses on a site currently occupied by commercial and retail uses. Both the existing uses and proposed uses would result in emissions, and the difference in operational emissions between the Project and the existing uses represents the net impact of the Project.

Project operation would generate long-term emissions of CO_2, CH_4, and N_2O. Primary sources of emissions from the Project would be vehicle exhaust, energy usage, water consumption, waste and wastewater generation, area sources, and onsite emergency generators. Note that trees and other vegetation planted by the Project would create a long-term emissions sink that would actively sequester atmospheric CO_2. Sequestered emissions from urban forestry were taken into account in the emissions analysis.

Mass emissions generated under both existing and Project conditions from mobile and area sources, energy usage, water consumption, and waste and wastewater generation were estimated using CalEEMod (version 2013.2.2). Vehicle trip data for the Project comes from the Transportation Impact Analysis (Appendix J) and accounts for vehicle trip reductions from VTA's transportation demand management (TDM) strategies, as well as mixed-use development reductions. Because the Project would seek LEED Gold certification, anticipated emissions reductions associated with the Project's water and energy efficiency measures, including the inclusion of solar energy, have been incorporated into the emissions modeling (see Appendix B). See Chapter 2, *Project Description*, for a list of Project features.

3.6.4.3 Impacts and Mitigation Measures

This section provides a discussion of each impact as it corresponds to the significance criteria presented in Section 3.6.4.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.6.4.4, *Summary of Greenhouse Gas and Climate Change Impacts*.

Impact GHG-1a	Generate GHG emissions during Project construction.
Level of Impact	Less than Significant

Discussion

Project construction would generate emissions of CO_2, CH_4, and N_2O from mobile and stationary construction equipment exhaust and employee and haul truck vehicle exhaust. Estimated construction emissions associated with the Project are summarized in Table 3.6-3. Detailed information on emissions modeling and quantification methods can be found in Appendix B.

Table 3.6-3. Construction GHG Emissions (metric tons per year)

Projected Construction Year	Equipment and Vehicles		Electricity			
	CO_2	Other[a]	CO_2	CH_4	N_2O	MT CO_2e
2014	1,308	0.1	0.2	0.0	0.0	1,310
2015	903	0.1	0.3	0.0	0.0	907
2016	620	0.1	0.1	0.0	0.0	623
Total Emissions[b]	*2,831*	*0.4*	*0.6*	*0.0*	*0.0*	*2,839*

[a] Includes CH_4 and N_2O emissions.
[b] Values may not add due to rounding.

As shown in Table 3.6-3, Project construction would generate approximately 2,839 MT CO_2e during the construction period. This is equivalent to adding approximately 557 typical passenger vehicles per year to the road during the construction period (U.S. Environmental Protection Agency 2011). The construction emissions are primarily the result of diesel-powered construction equipment and diesel-powered delivery and heavy-duty haul trucks. Because the source of construction emissions would cease once construction is complete, construction-related GHG emissions are considered short-term.

As discussed above, BAAQMD's CEQA Guidelines do not identify a GHG emission threshold for construction-related emissions. Section 2.5.7, *Green Building Practices, Energy Efficiency Measures,* *and Transportation Demand Management Features* describes Project elements that are consistent with strategies identified in the AB 32 Scoping Plan, as well as statewide goals to conserve energy and support transit-oriented neighborhood design. Further, as described in Section 3.2, *Air Quality*, implementation of **Mitigation Measure AQ-MM-2a, Mitigation Measure AQ-MM-2b**, **Mitigation Measure AQ-MM-2c,** and **Mitigation Measure AQ-MM-2d** would reduce construction-related emissions (Table 3.6-3). Accordingly, the Project is not expected to generate a significant amount of construction-related emissions. This impact would be less than significant. No mitigation is required.

Impact GHG-1b	Generate GHG emissions during Project operation.
Level of Impact	Less than Significant

Discussion

Operational emissions are evaluated with respect to the City's GGRP. Project operation would generate direct and indirect GHG emissions. Sources of direct emissions include mobile vehicle trips, natural gas combustion, and landscaping activities. Indirect emissions would be generated by electricity generation and consumption, waste and wastewater generation, water use, and use of refrigeration and air conditioning units onsite. Trees and vegetation planted on the project site would function as emission sinks that remove atmospheric CO_2. Similar emissions sources and sinks are currently operating on the Project site at the commercial and retail buildings, albeit in different quantities. The difference in operational emissions between the Project and the existing uses represents the net impact of the Project.

While project significance is evaluated using the City's GGRP, estimated operational emissions under both existing and Project conditions are summarized in Table 3.6-4 for informational purposes. The difference in operational emissions between the Project and the existing uses represents the Project's net emissions. Note that operational emissions associated with the Project include emissions reductions from applicable energy efficiency and TDM measures summarized in Chapter 2, *Project Description*.

Table 3.6-4. Operational GHG Emissions (metric tons per year)

Condition/Source	CO_2	CH_4	N_2O	HFCs	CO_2e
Existing Conditions (2013) [a]					
Area Sources [b]	<1	0.00	0.00	–	<1
Energy	132	0.01	0.00	–	133
Mobile Sources	1,457	0.08	0.00	–	1,459
Waste Generation	10	0.56	0.00	–	21
Water and Wastewater	7	0.14	0.00	–	11
Refrigeration and Air Conditioning Units	–	–	–	0.02	23
Tree Carbon Sequestration[c]	-3	–	–	–	-3
Total Existing Emissions[d]	*1,604*	*0.80*	*0.01*	*0.02*	*1,646*
Project Conditions (Projected for 2017) [d,e]					
Area Sources [b]	<1	0.00	0.00	–	<1
Energy	3,834	0.22	0.06	–	3,858
Mobile Sources	6,098	0.26	0.00	–	6,103
Waste Generation	87	5.15	0.00	–	195
Water and Wastewater	142	2.86	0.07	–	223
Refrigeration and Air Conditioning Units	–	–	–	0.10	152
Tree Carbon Sequestration [c]	-5	–	–	–	-5
Total Project Emissions [d]	*10,155*	*8.48*	*0.13*	*0.10*	*10,526*
Net Emissions (Project minus Existing) [d,f]	8,511	7.68	0.13	0.08	8,881

Notes:

[a] Represents emissions associated with commercial and retail uses currently operating on the Project site that would be removed as part of the Project.

[b] Area Sources within CalEEMod include architectural coatings, consumer products, and landscaping equipment exhaust. However, emissions from architectural coatings and consumer products are not considered GHGs due to the volatilization of their compounds in the atmosphere. Thus, no GHGs are associated with architectural coating and consumer product emissions, and area source GHG emissions only include landscaping.

[c] Urban forests sequester (i.e., remove) atmospheric CO_2. Sequestered emissions are shown as a negative value and subtracted from the emissions total, consistent with emissions protocols.

[d] Totals may not add exactly due to rounding.

[e] Represents emissions associated with the Project assuming a 2017 opening year.

[f] Represents the net Project impact, or the change in emissions relative to existing conditions.

Source: Appendix B.

As shown in Table 3.6-4, Project operation is expected to result in an estimated 8,881 MT CO_2e per year increase relative to existing conditions. This is primarily due to the increased vehicle trips, water use, and waste generation related to the increase in building square footage from existing conditions. Note that energy-related emissions under Project conditions, which include energy-efficiency features and alternative energy reductions, are anticipated to decrease slightly relative to existing conditions.

As previously discussed, the City has adopted a GGRP to reduce community GHG emissions, consistent with BAAQMD CEQA Guidelines. The City specifically prepared the GGRP such that projects meeting certain criteria could rely on the analysis provided in the GGRP to evaluate project significance. Pursuant to the City's analysis requirements, Table 3.6-5 evaluates the Project's consistency with GHG reduction measures outlined in the GGRP.

Table 3.6-5. Project Consistency Analysis with GGRP

GRRP Measure	Description	Project Consistency Analysis
Measure E-1.3 – Non-Residential Lighting Retrofit	Non-residential projects larger than 15,000 square feet are required to improve lighting to 10% above 2008 Title-24 standards Small businesses are encouraged to participate in PG&E programs that provide incentives for energy upgrades	Consistent. The Project would involve new construction of commercial and retail developments of more than 15,000 square feet. The Project is pursuing the more-demanding LEED Gold certification and aims to exceed 2008 Title 24 standards by 15%.
Measure E-1.6 – Exceed State Energy Standards in New Residential Development	New residential development must comply with the Mountain View Green Building Code (MVGBC), which stipulates that new residential projects (single-family and multi-family) must exceed Title 24 standards by 15%	N/A – the Project does not include any residential uses. This measure therefore does not apply the Project
Measure E-1.7 – Exceed State Energy Standards in New Non-Residential Development	New non-residential development must comply with the Mountain View Green Building Code (MVGBC), which stipulates that new non-residential projects must exceed Title 24 standards by 10%	Consistent. The Project includes energy efficiency-measures to ensure the 2008 Title 24 standards are exceeded by 15%
Measure E-2.3 – Non-Residential Photovoltaic Systems	The City will help facilitate partnerships between property owners and solar energy companies to help building owners install PV systems at no up-front cost, provide outreach and technical assistance to interested property owners, and work to allow qualified non-residential property owners to repay the cost of energy efficiency retrofits on their property tax bill	Consistent. The Project would include installation of a photovoltaic (PV) array on the roof of the parking garage, which is anticipated to reduce electricity needs by 25%–30%. The Project would therefore comply with the MVGBC.
Measure E-1.8 – Building Shade Trees in Residential Development	Require the planting of one building shade tree on a parcel to accompany each new single-family residential unit	N/A – the Project does not include any residential uses. This measure therefore does not apply the Project.

GRRP Measure	Description	Project Consistency Analysis
Measure T-1.1 – Transportation Demand Management	Requires the City to adopt a TDM ordinance that specifies all new non-residential development, generating 50 employees or more, to reduce home-based, drive-alone peak hour commute trips	Consistent. The Project is a commercial and retail land use and is expected to generate over 50 employees. The Project includes a TDM plan to reduce employee VMT. The TDM plan includes the following features. • Six electric vehicle (EV) charging stations with Type II chargers • Ten pre-wired parking spaces for future EV chargers • Preferred parking for carpool and hybrid/electric vehicles • Proximity to transit and bike routes • Storage lockers and employee shower facilities to reduce dependency on automobile • Bike share program • Web portal for carpooling • Public transit subsidy or passes to be provided to tenants • Shuttles to public transit

As shown in Table 3.6-5, the Project incorporates all mandatory GGRP measures. Although Project operation is expected to result in a net increase in emissions relative to existing conditions (see Table 3.6-4), the Project is consistent with GGRP. Operational emissions associated with the Project are therefore not expected to conflict with the City's ability to implement the GHG emissions reduction outlined in GGRP. As such, operational emissions associated with the Project are addressed consistent with the GGRP and are considered less than significant. No mitigation is required.

Impact GHG-2	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
Level of Impact	Less than Significant

Discussion

The City has adopted a GGRP to reduce community GHG emissions. The state has also adopted AB 32, which codifies the state's GHG emissions reduction targets for the future. This impact evaluates consistency with both documents.

The GGRP estimates current (2005) and future (2020 and 2030) GHG emissions generated by community activities within the City. The GGRP specifies aggressive 2020 and 2030 emissions reduction goals and identifies a list of mitigation measures recommended to achieve these goals. As shown in Table 3.6-5, the Project is consistent with the all mandatory GGRP measures for new development. Because the Project would be consistent with all required GGRP measures, it is not expected to conflict with implementation of the GGRP.

ARB adopted the AB 32 Scoping Plan as a framework for achieving AB 32 goals. The Scoping Plan outlines a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions. Some reductions will need to come in the form of changes pertaining to vehicle emissions and mileage standards. Some will come from changes pertaining to sources of electricity and increased energy efficiency at existing facilities. The remainder will need to come from plans, policies, or regulations that will require new facilities to have lower carbon intensities than they have under business-as-usual conditions.

As discussed in Chapter 2, *Project Description*, the Project includes a number of energy-efficiency and TDM measures that will contribute to long-term GHG reductions. For example, the Project includes the following: installation of a photovoltaic (PV) array on the roof of the parking garage, adherence to the City's Green Building Code, exceedance of the Title 24 standard, stormwater treatment and filtration, low intensity/energy-efficient lighting, low-flow water fixtures, roofing systems with high Solar Reflectance Index (SRI) and high R-value ceiling and wall insulation, six electric vehicle (EV) charging stations with Type II chargers, pre-wired parking spaces for future EV chargers, preferred parking for carpool and hybrid/electric vehicles, proximity to transit and bike routes, storage lockers and employee shower facilities to reduce dependency on automobile, bike share program, web portal for carpooling, public transit subsidy or passes, and shuttles to public transit. Project -related measures are consistent with strategies identified in the AB 32 Scoping Plan, as well as statewide goals to conserve energy and support transit-oriented neighborhood design.

Based on the review of Project design features and estimated operational GHG emissions, implementation of the Project is not expected to conflict with the City's GGRP or the AB 32. This impact is therefore considered less than significant. No mitigation is required.

Impact GHG-3	Expose property and persons to the physical effects of climate change, including but not limited to flooding, public health, wildfire risk, or other impacts resulting from climate change.
Level of Impact	Less than Significant

Discussion

As discussed in Section 3.6.2.2, *Climate Change,* several impacts on the environment are expected throughout California as a result of global climate change. The extent of these effects remains uncertain until climate modeling tools become more refined. Regardless of the uncertainty in precise predictions, it is widely understood that substantial climate change is expected to occur in the future. Potential climate change impacts in California and the Bay Area include sea level rise, extreme heat events, increased energy consumption, increase in infectious diseases and respiratory illnesses, reduced snowpack and water supplies, increased water consumption, and potential increase in wildfires.

The United States Geological Survey (USGS) has developed a series of maps identifying areas vulnerable to sea level rise by mid-century (16 inches) and end of century (55 inches). According to the USGS (2012), sea level rise from the San Francisco Bay could inundate portions of the Bay as far south as Bayshore Freeway (Highway 101), which is about 1.4 miles north of the Project site. Therefore, future sea level rise is not expected to intrude upon the Project development.

In addition to sea level rise, there is a range of other potential climate change impacts that may affect the Project, including increased temperatures and heat stress days. However, the Project would not exacerbate these issues; rather, energy-efficiency strategies associated with the Project may reduce potential heat-related climate change impacts on the area population. Likewise, while regional water supplies are subject to potential future climate change impacts, the Project includes water-efficiency measures that would help alleviate demand for scarce statewide water resources.

As identified above, the Project would not increase exposure of property or persons to the potential effects of climate change. The Project site is also not anticipated to be affected by future sea level rise. Consequently, the impact of climate change and associated sea level rise on the Project is considered less than significant. No mitigation is required.

3.6.4.4 Summary of Greenhouse Gas Emissions and Climate Change Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
GHG-1a: Generate GHG emissions during Project construction.	Less than Significant	None required	–
GHG-1b: Generate GHG emissions during Project operation.	Less than Significant	None required	–
GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less than Significant	None required	–
GHG-3: Expose property and persons to the physical effects of climate change, including but not limited to flooding, public health, wildfire risk, or other impacts resulting from climate change.	Less than Significant	None required	–

3.7 Hazards and Hazardous Materials

This section describes the environmental and regulatory setting for hazards and hazardous materials. It also describes impacts on hazards and hazardous materials that would result from implementation of the Project and mitigation for significant impacts where feasible and appropriate. A summary of impacts and mitigation measures is presented at the end in Section 3.7.4.4, *Summary of Hazards and Hazardous Materials Impacts*.

3.7.1 Introduction

A hazardous material is any substance that, because of its quantity, concentration, or physical or chemical properties, may pose a hazard to human health and the environment. Under CCR Title 22, the term "hazardous substance" refers to both hazardous materials and hazardous wastes. Both of these are classified according to four properties: (1) toxicity, (2) ignitability, (3) corrosiveness, and (4) reactivity (CCR Title 22, Chapter 11, and Article 3). A hazardous material is defined in CCR Title 22 as:

> [a] substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed (CCR Title 22 Section 66260.10).

Hazardous materials in various forms can cause death, serious injury, long-lasting health effects, and damage to buildings, homes, and other property. Hazards to human health and the environment can occur during production, storage, transportation, use, or disposal of hazardous materials.

Hazardous materials information in this section is based primarily on the Phase I Environmental Site Assessment (Phase I ESA) report prepared for the Machado Property at 405, 417, 419 and 423 San Antonio Road, Mountain View, California (Appendix G).

3.7.2 Environmental Setting

This section provides a discussion of the existing conditions related to hazards and hazardous materials on the Project site and immediately surrounding Project area. The proposed Project is an infill project that involves redeveloping an approximately 9.9-acre site currently occupied by commercial and retail buildings and associated surface parking. The proposed Project would develop office, commercial, hotel, retail, cinema, and restaurant uses along with associated aboveground garage, subterranean garage, and surface parking. Prior to construction of the existing buildings (in approximately 1960), the proposed Project area was used for agricultural purposes.

A reconnaissance survey of the Project site was conducted in September 2011 (Appendix G). The reconnaissance encompassed the following addresses: 405, 417, 419 and 423 San Antonio Road. At the time of the reconnaissance survey, tenants occupying those addresses included retail clothing, retail beverages, personal groomer, and educational development locations. The buildings at 377 and 391 San Antonio Road are part of the proposed Project but were not included in the Phase 1 ESA analysis. Therefore, ICF International (ICF) personnel performed an online environmental database search via the Water Resources Control Board's Geotracker website of the two properties on December 3, 2013. Findings for all the properties are provided below.

Hazardous Materials

During the property reconnaissance, several onsite electrical transformers were noted as potential sources of polychlorinated biphenyls (PCBs). No oil releases were noted or documented at the time of the visit. Based on the construction date (approximately 1960) of the existing building, there is potential for suspected asbestos-containing materials (ACM) and lead-based paint (LBP). Neither ACM nor LBP were confirmed to be present during completion of the Phase 1 ESA. No hazardous materials cabinets or storage were noted in the Phase 1 ESA. Furthermore, no underground storage tanks (USTs) or aboveground storage tanks (ASTs) were observed.

Hazardous Materials Database Results

During the completion of the Phase 1 ESA, a review of federal, state, and tribal environmental databases was conducted to identify potential recognized environmental conditions (RECs) to the properties mentioned above. No listings were identified for any of the addresses included in the proposed Project. A summary of sites located within 0.12 mile are included here as they have the highest likelihood of affecting the implementation of the proposed Project.

Onsite

None of the addresses associated with the subject properties analyzed in the Phase 1 ESA were identified during the environmental database review. Additionally, 377 and 391 San Antonio Road were not found in any environmental database during the online search conducted by ICF.

Offsite Properties—Less than 0.12 Mile

Four sites within 0.12 mile of the proposed Project site were identified in the Resource Conservation and Recovery Act (RCRA) – Small Quantity Generators database. One of the four locations was a case-closed site while the others were listed as registered generators only, with no violations. The case-closed site is located hydraulically downgradient of the proposed Project site.

Six sites were found in the leaking underground storage tank (LUST) database. All six sites were case-closed sites. Two of the six were located upgradient of the proposed Project site. Amongst the offsite case-closed LUST sites is the former Mike's Shell Service station at 2595 California Street. The site was located to the northwest and adjacent to the proposed Project footprint. The service station was demolished and removed in 1988, but remediation activities (for contaminated groundwater and soil) were conducted until the site's closure in 2002. Remediation activities included soil vapor extraction, soil over excavation, groundwater treatment, and injection of oxygen release compounds to accelerate bioremediation. According to the Phase 1 ESA, residual contamination was left in place, and any redevelopment plans for this site should include mitigation for the protection of humans and the environment.

One site was located in the spills, leaks, investigations, and cleanups (SLIC) database. This site (California Cleaners, 2520 California Street) is located upgradient from the proposed Project location and was undergoing verification monitoring (under Cleanup Program Site oversight) at the time of the Phase 1 ESA completion. Affected media included soil and groundwater, and contaminants of concern (COC) were tetrachloroethylene (PCE) and trichloroethylene (TCE).

Five sites were listed under the Historical LUST database. All five were denoted as being case-closed sites. Of the five locations, two were upgradient from the proposed Project site. One site was found in the underground storage tank (UST) registry database. Four sites were found in the California

Environmental Protection Agency Facility Inventory Database for Active and Inactive Underground Storage Tanks. Three of the four sites were identified as case-closed sites and one remained active. The active site (Exxon, 334 San Antonio Road) was denoted as being downgradient from the proposed Project site, along with two of the case-closed sites. Four sites were found in the Historical UST registry database. Four sites were found in the Statewide Environmental Evaluation and Planning System UST. All sites were listed as case closed; one of those sites was identified as being upgradient from the proposed Project area. One site was listed in the RCRA Non-Generating registry database. Additionally, as noted in the Phase 1 ESA, the Sears location at 455 San Antonio Road (located within 0.12 mile from the subject property) was in the process of assessing the extent of impacts associated with a release from their former service elevator. According to the Phase 1 ESA, the potential for such a release to extend onto the proposed Project area is low; but the former source is upgradient from the proposed Project area and was classified as a "Notable Finding." Further research conducted by ICF in the Geotracker website (December 2013) revealed that the site was granted case-closed status as of November 2011 (State Water Resources Control Board 2013). Affected media included soil and groundwater.

Proximity to Schools

There are three schools within 0.25 mile of the proposed Project site. The Poly Modal Learning for ASD School and the Flex College Resource Center are both approximately 0.23 mile south of the Project site on El Camino Real in Los Altos. The Community School of Music and Arts is approximately 0.15 miles to the northwest.

Proximity to Airports and Airstrips

The Project site is not located within an airport land use plan, Airport Influence Area, Airport Safety Zones, or within 2 miles of a public airport or public-use airport. The closest airports are Moffett Federal Airfield, a private airstrip located approximately 3 miles east of the Project site (Windus 2012), and Palo Alto Airport, located approximately 3.3 miles to the north (Windus 2008).

Wildland Fires

According to the California Department of Forestry and Fire Protection's (CAL FIRE's) Fire and Resource Assessment Program, *Fire Hazard Severity Zones in LRA – Santa Clara County*, the Project site is not located within a "Very High Fire Risk Area" (California Department of Forestry and Fire Protection 2012) as it is in a densely developed portion of the County.

3.7.3 Regulatory Setting

This section summarizes federal, state, and local regulations that apply to hazards and hazardous materials.

3.7.3.1 Federal

Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act

The federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a U.S. Environmental Protection Agency-administered program to regulate the generation, transport, treatment, storage, and disposal of hazardous waste. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous wastes.

Comprehensive Environmental Response, Compensation, and Liability Act/ Superfund Amendments and Reauthorization Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund," was enacted by Congress on December 11, 1980. This law (42 United States Code [USC] 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP (Title 40, Code of Federal Regulations [CFR], Part 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Occupational Safety and Health Administration

The Occupational Safety and Health Administration's (OSHA's) mission is to ensure the safety and health of American workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. OSHA establishes and enforces protective standards and reaches out to employers and employees through technical assistance and consultation programs. OSHA standards are listed in 29 CFR 1910.

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) came into law on October 11, 1976. TSCA authorized the United States Environmental Protection Agency (EPA) to secure information on all new and existing chemical substances, as well as to control any of the substances that were determined to cause unreasonable risk to public health or the environment.

Department of Transportation Hazardous Materials Regulations (49 CFR 100–185)

U.S. Department of Transportation (DOT) Hazardous Materials regulations cover all aspects of hazardous materials packaging, handling, and transportation. Parts 107 (Hazard Materials Program), 130 (Oil Spill Prevention and Response), 172 (Emergency Response), 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance) would all apply to the Project and surrounding uses.

Enforcement of these DOT regulations is shared by each of the following administrations under delegations from the Secretary of DOT.

- Research and Special Programs Administration is responsible for container manufacturers, reconditioners, and retesters; and shares authority over shippers of hazardous materials.
- Federal Highway Administration enforces all regulations pertaining to motor carriers.
- Federal Railroad Administration enforces all regulations pertaining to rail carriers.
- Federal Aviation Administration (FAA) enforces all regulations pertaining to air carriers.
- Coast Guard enforces all regulations pertaining to shipments by water.

Federal Aviation Administration

FAA regulates aviation at regional, public, private, and military airports, such as Moffett Federal Airfield and the Palo Alto Airport. FAA regulates objects affecting navigable airspace and structures taller than 200 feet according to Federal Aviation Regulation 49 CFR 77.13.

3.7.3.2 State

California Environmental Protection Agency

The California Environmental Protection Agency (Cal/EPA) was created in 1991. It unified California's environmental authority in a single cabinet-level agency and brought the California Air Resources Board, the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Board (RWQCB), CalRecycle, the Department of Toxic Substances Control (DTSC), the Office of Environmental Health Hazard Assessment, and the Department of Pesticide Regulation under one agency. These agencies were placed under the Cal/EPA "umbrella" for the protection of human health and the environment to ensure the coordinated deployment of state resources. Their mission is to restore, protect, and enhance the environment and ensure public health, environmental quality, and economic vitality.

Department of Toxic Substances Control

DTSC, a department of Cal/EPA, is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

USC 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks or a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites with a known migration of hazardous waste/material.

Hazardous Waste Control Act (Section 25100 et seq.)

DTSC is responsible for enforcing 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. It 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.

Hazardous Materials Release Response Plans and Inventory Act of 1985

The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, requires businesses that use hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Hazardous materials are defined as unsafe raw or unused materials that are part of a process or manufacturing step. They are not considered hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those pertaining to hazardous waste.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) (California Health and Safety Code, Chapter 6.11, Sections 25404–25404.9) consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the environmental and emergency response programs and provides authority to the Certified Unified Program Agency (CUPA). The CUPA for the City of Mountain View (City) is the Santa Clara County Health Department.

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the following hazardous materials programs: Hazardous Materials Business Plan (HMBP) Program, California Accidental Release Prevention (CalARP) Program, UST Program, AST Program, Hazardous Waste Generator Program, and Hazardous Waste Tiered-Permitting Program.

California Code of Regulations, Title 8—Industrial Relations

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal OSHA) and the federal OSHA are the agencies responsible for assuring worker safety in the workplace. Cal OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. These standards would apply to both construction and operation of the Project.

California Labor Code (Division 5; Parts 1, 6, 7, and 7.5)

The California Labor Code is a collection of regulations that include the regulation of the workplace to assure appropriate training on the use and handling of hazardous materials and the operation of equipment and machines that use, store, transport, or dispose of hazardous materials. Division 5, Part 1, Chapter 2.5 ensures employees that are in charge of the handling of hazardous materials are appropriately trained on, and informed of, the materials they are handling. Division 5, Part 7 ensures employees who work with volatile flammable liquids are outfitted in appropriate safety gear and clothing.

3.7.3.3 Local

Santa Clara County Hazardous Materials Compliance Division

The Hazardous Materials Program in the Hazardous Materials Compliance Division (HMCD) was established in 1983 with the adoption of the local Hazardous Materials Storage Ordinance, which regulates the storage of hazardous materials both above- and below-ground. In addition to enforcing Santa Clara County Ordinance Code requirements related to the storage and handling of hazardous materials, HMCD is the CUPA responsible for enforcing specified laws and regulations governing the management of hazardous materials and wastes and overseeing the activities of Participating Agencies within the County's Unified Program (Santa Clara County 2013a).

Santa Clara County Site Mitigation Program

The Site Mitigation Program (SMP) was developed to protect the County's water resources, specifically groundwater, through the prevention and cleanup of adverse environmental factors. The Local Oversight Program (LOP) and the Voluntary Cleanup Program (VCP) function within the SMP as oversight agencies for investigations and clean-up of petroleum releases from USTs and cleanup of properties contaminated by hazardous materials, respectively (Santa Clara County 2013b).

City of Mountain View 2030 General Plan

Under the *Mountain View 2030 General Plan* policies for public safety, impacts on emergency response times are addressed by ensuring the maintenance of adequate fire protection staffing, performance levels, and facilities to serve the needs of communities.

As part of the Mountain View 2030 General Plan Transportation Element, the City Wide Emergency Evacuation Plan provides comprehensive, detailed instructions and procedures regarding the responsibilities of City personnel and coordination with other agencies to ensure the safety of Mountain View citizens.

Mountain View Fire Department

Under an agreement with the HMCD, the Mountain View Fire Department (MVFD) implements several hazardous materials programs for the City as a Participating Agency within the Unified Program (City of Mountain View 2012). The MVFD also enforces storage, handling, and dispensing requirements for hazardous materials and other regulated materials according to the City of Mountain View Hazardous Materials Permit Code Ordinance and Toxic Gases Ordinance.

Hazardous Materials Business Plan Program

Under the HMBP Program, the MVFD requires facilities storing aggregate quantities of any hazardous materials equal to or greater than 10 gallons of liquids, 50 pounds of solids, or 200 cubic feet of gases to report their chemical inventories to the MVFD by preparing a HMBP. An HMBP must include measures for safe storage, transportation, use, and handling of hazardous materials. The HMBP must also include a contingency plan that describes the facility's response procedures in the event of a hazardous materials release.

Hazardous Waste Generator Program

Facilities in Mountain View that generate any quantity of hazardous waste are required to obtain and keep current a Hazardous Waste Generator Permit from the HMCD. Facilities that generate more than 100 kilograms of hazardous waste per month, or more than 1 kilogram of acutely hazardous waste, must be registered with EPA's RCRA program and are subject to extensive regulations regarding storage and disposal.

California Accidental Release Prevention Program

Under the CalARP Program, the HMCD requires facilities that handle more than a threshold quantity of a regulated hazardous substance, such as federally listed extremely hazardous toxic and flammable substances and state-listed acutely hazardous materials, to prepare a risk management plan (RMP). An RMP must analyze the potential for an accidental release and provide measures that can be implemented to reduce this potential. Facilities that are required to prepare an RMP must obtain and keep current a CalARP Program Facility Permit from the HMCD.

Office of Emergency Services

The City does not have established emergency evacuation routes. However, the City recognizes U.S. 101, SR 85, SR 237, and Central Expressway as the primary routes that would be used for evacuation.

Emergency Response Plan

The Mountain View Fire Department Office of Emergency Services (OES) is responsible for helping city employees, residents, businesses and schools prepare for, respond to, and recover from emergencies and disasters. The OES prepares the City by maintaining Mountain View's Emergency Operations Plan (EOP) and Emergency Operations Center (EOC) and training all city staff on the Standardized Emergency Management System (SEMS) and personal preparedness, as well as recruiting and training members of the city Emergency Response Team (ERT) (City of Mountain View 2013).

3.7.4 Impact Analysis

3.7.4.1 Criteria for Determining Significance

The state CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing hazards and hazardous materials.

A Project impact would be considered significant if construction or operation of the proposed Project would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.
6. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.
7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
8. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The proposed Project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, potential impacts resulting from this threshold are not analyzed further.

The Project site is not located within an airport land use plan or within 2 miles of a public airport or public use airport or within the vicinity of a private airstrip. The closest airports are the Moffett Federal Airfield, approximately 3 miles east of the Project site, and the Palo Alto Airport, approximately 3.3 miles to the north of the Project site. Therefore, potential impacts resulting from safety hazards resulting from a project being located within an airport land use plan or within 2 miles of a public or private airport are not analyzed further.

The Project site is located in an urban area. According to the *Fire Hazard Severity Zones in LRA – Santa Clara County* map in the Fire and Resource Assessment Program, the Project location is not within a moderate, high, or very high fire risk area (California Department of Forestry and Fire Protection 2012). Therefore, potential impacts associated with exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, are not analyzed further.

3.7.4.2 Methods

Analysis of potential impacts related to hazards and hazardous materials was based on information presented in the following reports.

- *Phase I Environmental Site Assessment Machado Property 405, 417, 419, and 423 San Antonio Road Mountain View, California* (Appendix G).

3.7.4.3 Impacts and Mitigation Measures

This section provides a discussion of each impact as it corresponds to the significance criteria presented in Section 3.7.4.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.7.4.4, *Summary of Hazards and Hazardous Materials Impacts*.

Impact HAZ-1	Create a public or environmental hazard from the routine transport, use, or disposal of hazardous materials during Project construction or from Project operation.
Level of Impact	Less than Significant

Discussion

Construction

Project construction would involve routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and caulking. Such transport, use, and disposal must comply with applicable regulations such as the RCRA, DOT Hazardous Materials Regulations, and the local CUPA regulations. Although small amounts of solvents, paints, oils, grease, and caulking would be transported, used, and disposed of during Project construction, these are materials typically used in construction projects and are not considered acutely hazardous and thus would not represent the transport, use, and disposal of acutely hazardous materials. Because compliance with existing regulations is mandatory, the Project is not expected to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This impact would be less than significant.

Operation

The proposed Project involves redeveloping an approximately 9.9-acre site currently occupied by approximately 59,655 square feet (sf) of commercial and retail buildings with commercial, hotel, retail, cinema, and restaurant uses along with associated parking. It is anticipated that the proposed Project would use hazardous materials typical of commercial, retail, and hotel operations (e.g., solvents, cleaning agents, paints, pesticides, petroleum fuels, propane, antifreeze, oil filters, used oil, mercury lamps, batteries, and aerosol cans). These hazardous material products are generally used in small, localized amounts, and any spills that may occur are cleaned up as soon as they occur, as required by the Hazardous Materials Business Plan (HMBP). Moreover, the existing HMBP for the proposed Project would be modified, if necessary, to include a description of any new hazardous materials that might be used during future operations and would be subject to approval and oversight by the HMCD and the MVFD.

Although the proposed Project might account for an increase in amounts of common types of hazardous materials, routine use of these products would not result in a significant hazard to residents or workers in the vicinity of the proposed Project. In addition, it is not expected that the proposed Project would handle acutely hazardous materials, substances, or waste. Accordingly, proposed Project operation would not result in a significant hazard to the public or to the environment through the routine transport, use, or disposal of hazardous waste during operation. Impacts would be less than significant.

Impact HAZ-2	Create a public or environmental hazard from reasonably foreseeable upset and accident conditions involving the release of hazardous materials from historic land uses into the environment during Project construction and operation.
Level of Impact	Less than Significant

Discussion

Construction

As described under Impact HAZ-1, typical construction-related hazardous materials would be used during construction of the proposed Project, including gasoline, oil, other vehicle-related fluids, paints, solvents, and metals. It is possible that any of these substances could be released during construction activities. However, as described previously, compliance with federal, state, and local regulations, in combination with construction best management practices (BMPs) implemented in accordance with the SWPPP required as part of the NPDES General Construction Permit issued by Santa Clara County, would ensure that all hazardous materials are used, stored, and disposed of properly (Santa Clara County 2006), which would minimize potential impacts related to a hazardous materials release during construction activities.

As described in Section 3.7.2, *Environmental Setting*, California Cleaners, 2520 California Street, was identified during the environmental database review as being in the SLIC database. The site is located upgradient from the proposed Project and is undergoing verification monitoring for contaminated groundwater and soil. COCs include PCE and TCE. The California Cleaners site is classified as a Category 1 site by the RWQCB. Category 1 includes most leaking underground fuel tank (LUFT) sites and many small commercial facilities, such as dry cleaners. Category 1 sites are characterized by soil or groundwater contamination that does not pose an immediate human health threat or extend off-site onto neighboring properties (State Water Resources Control Board 2013). Additionally, the Sears location at 455 San Antonio Road underwent remediation activities for contaminated soil and groundwater that resulted from an elevator hydraulic fluid leak. The site is adjacent to the proposed Project area and was granted case-closed status in late 2011. Also as previously noted, the former Mike's Shell Service station at 2595 California Street (also adjacent to the Project footprint) underwent remediation activities for contaminated groundwater and soil. The site was granted closure in 2002, but according to the Phase 1 ESA, residual contamination was left in place.

The proposed Project area was used for agricultural purposes prior about 1960, when the existing development was constructed. Therefore, pesticides and herbicides have likely been applied at the site, and may be present with associated metals in near-surface soils at residual concentrations. Agricultural chemicals in use today are applied in diluted concentrations and, when used properly, degrade relatively quickly; however, older pesticides can linger in the soil for many years. It is not known if environmentally persistent pesticides and herbicides were ever applied to the Project site.

Consequently, construction activities for the proposed Project could expose or disturb contaminated material during grading, excavation, and the installation of support structures for new buildings. Accordingly, construction activities could result in a potentially significant impact on construction personnel. The City requires standard conditions of approval regarding discovery of contaminated soils. Specifically, PL-95 (Discovery of Contaminated Soils) requires that if contaminated soils are discovered, the applicant must ensure that the contractor employs engineering and BMPs to minimize human exposure to potential contaminants. For the full text of condition PL-95, see Appendix M. Implementation of the aforementioned BMPs during construction activities would result in a less-than-significant impact related to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials.

Operation

The proposed Project would involve redevelopment of an approximately 9.9-acre site with commercial, hotel, retail, cinema, and restaurant uses, which could result in the use of solvents, cleaning agents, paints, pesticides, petroleum fuels, propane, antifreeze, oil filters, used oil, batteries, and aerosol cans of hazardous materials. These hazardous material products are generally used in small amounts, and any spills that may occur are limited in scope and spill area and would be cleaned up soon after they occur, as required by the HMBP. Moreover, the existing HMBP for the proposed Project would be modified, if necessary, to include a description of any new hazardous materials that might be used during future operations and would be subject to approval and oversight by the HMCD and the MVFD. Accordingly, operation of the proposed Project would result in a less-than-significant impact related to hazards to the public or to the environment through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials.

Impact HAZ-3	Emission or handling of hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
Level of Impact	Less than Significant

Discussion

The Project would result in the handling of hazardous materials within 0.25 mile of three existing schools. The Poly Modal Learning for ASD School and the Flex College Resource Center (both located 0.23 mile southwest of the Project site). The Community School of Music and Arts is located approximately 0.15 mile to the northwest.

Construction

Although the proposed Project would involve hazardous materials typical of a construction project (as discussed above under Impact HAZ-1), the proposed Project would comply with federal, state, and local regulations described under Section 3.7.3, *Regulatory Setting*. Additionally, any potential construction-related hazardous releases or emissions would be from commonly used materials such as fossil fuels, solvents, and paints and would not include substances listed in 40 CFR 355 Appendix A: *Extremely Hazardous Substances and Their Threshold Planning Quantities*. Any such spills would be localized and immediately contained and cleaned in accordance with requirements of the HMBP and project-specific SWPPP.

As noted under Impact HAZ-2, construction activities related to the proposed Project could encounter contaminated media during grading and excavating (as a result of historical contamination from adjacent properties) and could potentially emit hazardous materials, substances, or waste in the vicinity of the identified schools. Adherence to all applicable rules and regulations and compliance with the City's relevant conditions of approval (specifically, PL-95) would reduce impacts to less-than-significant levels. For the full text of condition PL-95, see Appendix M.

Accordingly, construction of the proposed Project would not affect land uses 0.25 mile away, including Poly Modal Learning for ASD School, the Flex College Resource Center, and the Community School of Music and Arts. Impacts would be less than significant.

Operation

Operational activities associated with the proposed Project could involve the use of solvents, cleaning agents, paints, pesticides, petroleum fuels, propane, antifreeze, oil filters, used oil, batteries, and aerosol cans of hazardous materials. These hazardous material products are generally used in small amounts, and any spills that may occur would be limited in scope and spill area and would be cleaned up soon after they occur (as required by the HMBP). Additionally, substances listed in 40 CFR 355 Appendix A: *Extremely Hazardous Substances and Their Threshold Planning Quantities* are not expected to be handled as part of the commercial, hotel, retail, cinema, and restaurant uses of the proposed Project. Therefore, implementation of the Proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of a school. Impacts would be less than significant.

Impact HAZ-4	Interference with adopted emergency response plan or emergency evacuation plan.
Level of Impact	Less than Significant

Discussion

Construction

During Project construction, a traffic control plan would be implemented to minimize obstruction at all major thoroughfares, which would help to ensure continued emergency access to the proposed Project site and nearby properties. The plan would include construction truck marshaling to prevent construction traffic congestion to and from the Project location. The ongoing implementation of Mountain View's EOP and the Public Safety and Infrastructure and Conservation Elements of the Mountain View 2030 General Plan would ensure evacuation plans and adequate response to emergencies, and would reduce the potential for construction-related traffic to interfere with emergency plans. Impacts during construction would be less than significant.

Operation

The proposed Project does not include any characteristics (e.g., permanent road closures) that would physically impair or otherwise interfere with emergency response or evacuation in the Project vicinity. Also, it is expected that the proposed Project would adhere to current and future requirements stipulated by the city of Mountain View's EOP and the Public Safety and Infrastructure and Conservation Elements of the Mountain View 2030 General Plan. Accordingly, potential impacts related to interference with an adopted emergency response plan or emergency evacuation plan during operations would be less than significant.

3.7.4.4 Summary of Hazards and Hazardous Materials Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
HAZ-1: Create a public or environmental hazard from the routine transport, use, or disposal of hazardous materials during Project construction or from Project operation	Less than Significant	None required	–
HAZ-2: Create a public or environmental hazard from reasonably foreseeable upset and accident conditions involving the release of hazardous materials from historic land uses into the environment during Project construction and operation.	Less than Significant	None required	-
HAZ-3: Emission or handling of hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Less than Significant	None required	-
HAZ-4: Interference with adopted emergency response plan or emergency evacuation plan.	Less than Significant	None required	–

3.8 Hydrology and Water Quality

This section describes the environmental and regulatory setting for hydrology and water quality. It also describes impacts on hydrology and water quality that would result from implementation of the Project and mitigation for significant impacts where feasible and appropriate. A summary of impacts and mitigation measures is presented at the end in Section 3.8.3.4, *Summary of Hydrology and Water Quality Impacts*. Water supply and wastewater treatment are addressed in Section 3.14, *Utilities and Service Systems*.

3.8.1 Environmental Setting

This section provides a discussion of the existing conditions related to hydrology and water quality on the Project site and the immediately surrounding Project area, including the Project's potential to drain downstream into the Adobe Creek Watershed.

Stormwater information in this section is based primarily on the *CEQA Storm Drainage Analysis Memorandum* for the Project. This memorandum can be found in Appendix H.

3.8.1.1 Surface Water Hydrology

Regional Surface Water

Mountain View transects five watersheds: Adobe Creek, Calabazas Creek, Permanente Creek, Stevens Creek, and the San Francisco Bay Estuary (Figure 3.8-1) (LSA Associates 2012). The Project site is located in the Adobe Creek watershed, approximately 0.5 mile east of Adobe Creek. Adobe Creek originates in the foothills of the Santa Cruz Mountains; it has a channel length of approximately 14 miles and a watershed area of approximately 10 square miles.

Stormwater

Stormwater runoff from the Project site is routed through the City's Adobe Creek East (ACE) stormwater system to Adobe Creek (Appendix H). The existing drainage system in California Street has a 27-inch main west of Pacchetti Way that expands to 30-inch diameter prior to connecting to the 36-inch main along San Antonio Road. The existing drainage system along San Antonio Road includes a 33-inch main north of Fayette Drive that expands to 36-inch diameter prior to the manhole connection at San Antonio Road and California Street. North of California Street, the 36-inch main along San Antonio Road expands to 42-inch diameter prior to connections with the 80-inch ACE trunk system. The proposed project site includes approximately 9.97 acres of impervious surfaces (concrete or asphalt) and 0.53 acre of pervious surfaces (landscaping) (Appendix H).

3.8.1.2 Groundwater Hydrology

Mountain View, including the Project site, is located in the Santa Clara Valley Groundwater Basin, Santa Clara Subbasin (Groundwater Basin Number 2-9.02). The Santa Clara Subbasin has a total surface area of 153,600 acres or 240 square miles, and occupies a structural trough parallel to the northwest trending Coast Ranges. The basin is bound on the north by San Francisquito Creek, which is north-northwest of the Project site. Annual precipitation for the basin ranges from less than 16 inches in the valley to more than 28 inches in the upland areas (California Department of Water Resources 2004).

Natural recharge occurs principally as infiltration forms streambeds that exit the upland areas within the drainage basin and from direct percolation of precipitation that falls on the basin floor. Efforts to supplement natural recharge in the Santa Clara Valley began in the 1920s (City of Mountain View 2011). Santa Clara Valley Water District (SCVWD) conducts an artificial (facility) recharge program, releasing local surface water or imported water to a total of 18 instream and offstream facilities (City of Mountain View 2011). SCVWD-wide controlled instream recharge accounts for about 45 percent of groundwater recharge in SCVWD-owned facilities. Spreader dams (creating temporary or permanent impoundments in the stream channel) are a key component of the instream recharge program, increasing recharge capacity by approximately 10 percent (California Department of Water Resources 2004).

Offstream recharge facilities include abandoned gravel pits and areas specifically excavated for recharge purposes. Recharge from water deliveries to these facilities accounts for approximately 35 percent of recharge SCVWD-wide (California Department of Water Resources 2004).

Mountain View owns and operates water supply wells that extract groundwater from the Santa Clara Groundwater Basin's Santa Clara Subbasin (City of Mountain View 2011). As the primary water resources agency for the county, the SCVWD is responsible for groundwater management throughout the Santa Clara Subbasin. Operational groundwater storage capacity is an estimate of the storage capacity based on SCVWD operations. Operational storage capacity is generally less than total storage capacity of a basin, as it must account for available pumping capacity, avoidance of land subsidence, and problems associated with high groundwater levels. The operational storage capacity of the basin is estimated to be 350,000 acre feet (California Department of Water Resources 2004).

Groundwater depth onsite was measured between 12 and 17 feet below ground surface (bgs), corresponding to elevations of approximately 38.5 to 43 feet (Appendix F).

3.8.1.3 Water Quality

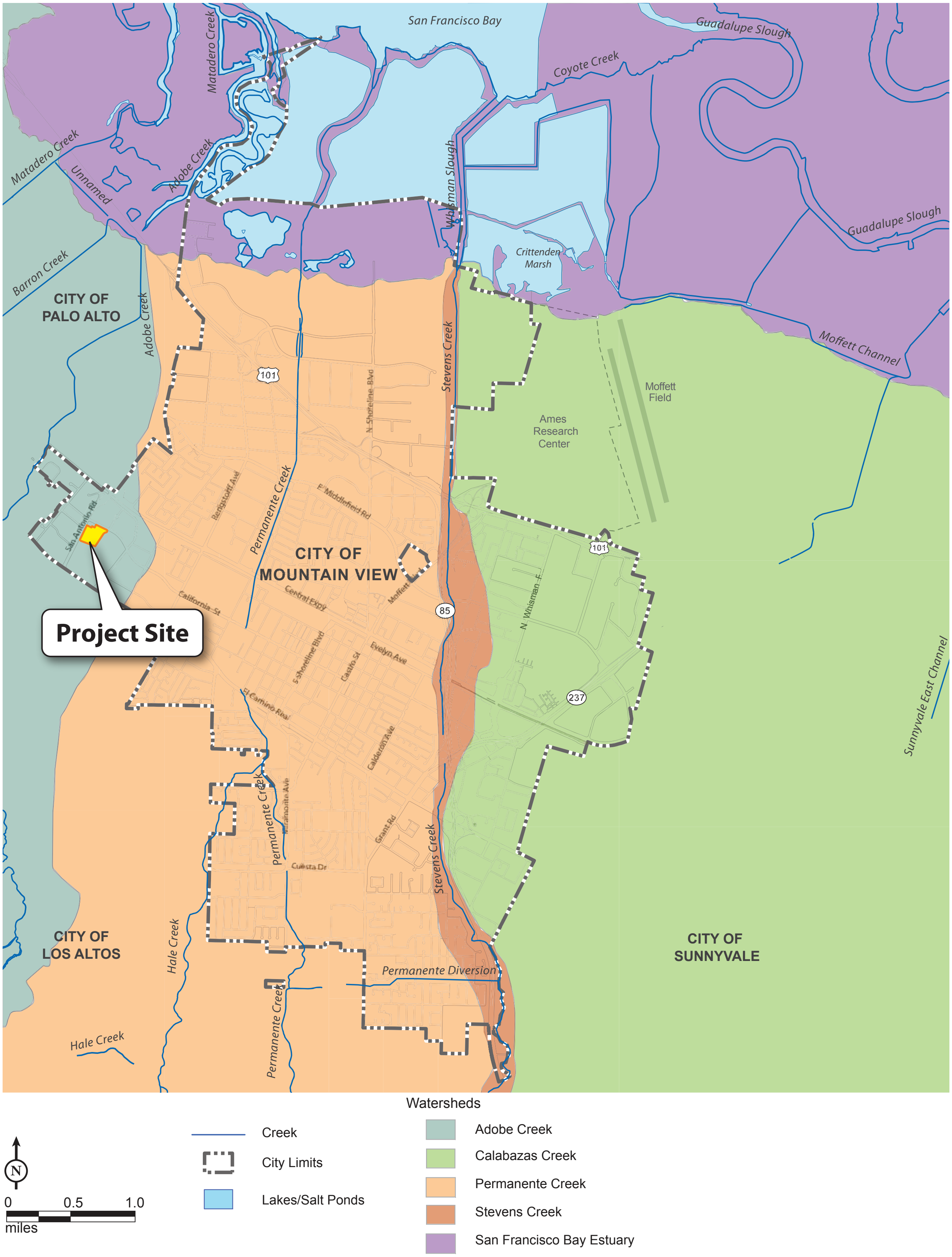
Surface Water

Water quality in a typical surface water body is influenced by processes and activities that take place within the watershed. In an urban environment such as that where the Project site is located, water quality is affected primarily by discharges from both point and nonpoint sources, which include winter storms, overland flow, construction sites, exposed soil, roofs, parking lots, and streets.

The City minimizes pollutant discharges and protects surface waters in local creeks and the Bay through implementation of its Urban Runoff Program (refer to Section 3.8.2, *Regulatory Setting*).

Groundwater

The groundwater in the major producing aquifers within the Santa Clara Valley Groundwater Basin is generally of a bicarbonate type, with sodium and calcium the principal cations. Although the water is hard, it is of good to excellent mineral composition and suitable for most uses. Drinking water standards are met at public supply wells without treatment (California Department of Water Resources 2004). Areas with somewhat elevated mineral levels, perhaps associated with historical saltwater intrusion, have been observed in the northern basin. Some wells in the southern portion of



SOURCES: USGS, 2007; MIG, 2011; City of Mountain View, 2012.

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Figure 3.8-1
Surface and Watershed Features
The Village at San Antonio Center Phase II

the basin also have elevated nitrate concentrations (California Department of Water Resources 2004). Beneficial uses for the Santa Clara Valley Subbasin include municipal and domestic water supply, industrial process water supply, industrial service water supply, and agricultural water supply (San Francisco Bay Regional Water Quality Control Board 2011).

3.8.1.4 Flooding

The Project site is not located in a Special Flood Hazard Zone[1] defined by Federal Emergency Management Agency (FEMA) (2009). The Project site lies outside the Dam Failure Inundation Zones identified by the Association of Bay Area Governments (Association of Bay Area Governments 1995).

3.8.2 Regulatory Setting

This section summarizes federal, state, and local regulations that apply to hydrology and water quality.

3.8.2.1 Federal

Clean Water Act

The following are potentially applicable sections of the Clean Water Act (CWA) (33 USC 1251-13176).

Section 303—Total Maximum Daily Load Program

The State of California adopts water quality standards to protect beneficial uses of state waters as required by CWA 303 Total Maximum Daily Load Program and the state's Porter-Cologne Water Quality Control Act of 1969. CWA Section 303(d) established the total maximum daily load (TMDL) process to guide the application of state water quality standards (see the discussion of state water quality standards in Section 3.8.2.2, *State*). To identify candidate water bodies for TMDL analysis, a list of water-quality–limited streams is generated. These streams are impaired by the presence of pollutants, including sediments, and have no additional assimilative capacity for these pollutants. Adobe Creek is not included on the 303(d) list as impaired for any pollutants (State Water Resources Control Board 2010).

In addition to the impaired water body list required by CWA Section 303(d), CWA Section 305(b) requires states to develop a report assessing statewide surface water quality. Both CWA requirements are being addressed through the development of a 303(d)/305(b) Integrated Report, which will address both an update to the 303(d) list and a 305(b) assessment of statewide water quality. The State Water Resources Control Board (SWRCB) developed a statewide 2010 California Integrated Report based on the Integrated Reports from each of the nine regional water quality control boards (RWQCBs). The 2010 California Integrated Report was approved by SWRCB at a public hearing on August 4, 2010, and the report was approved by the U.S. Environmental Protection Agency (EPA) on October 11, 2011. Currently the SWRCB is assessing comments and data received on the 2012 Integrated Report, which is expected to be final in 2014.

[1] A Special Flood Hazard Zone is the area that has a 1 in 100 (1 percent) chance of being flooded in any one year based on historical data.

Section 401—Water Quality Certification

CWA Section 401 requires that an applicant pursuing a federal permit to conduct any activity that may result in a discharge of a pollutant obtain a water quality certification (or waiver). Water quality certifications are issued by the state RWQCBs in California. The Project site is located within the jurisdiction of the San Francisco Bay RWQCB (SFBRWQCB). Under CWA, the state (as implemented by the relevant board) must issue or waive CWA Section 401 water quality certification for the Project to be permitted under CWA Section 404 by the U.S. Army Corps of Engineers (USACE). A water quality certification requires the evaluation of water quality effects associated with dredging or the placement of fill materials into waters of the United States. Construction of the proposed Project would require CWA Section 401 certification for the Project if CWA 404 were triggered, or if long-term structural dewatering activities were to occur and the discharge leads to waters of the United States.

Section 402—National Pollutant Discharge Elimination System Program

The 1972 amendments to the Federal Water Pollution Control Act established the National Pollutant Discharge Elimination System (NPDES) permit program to control discharges of pollutants from point sources (CWA Section 402). The NPDES permit program is the primary federal program that regulates point-source and nonpoint-source discharges to waters of the United States. The 1987 amendments to CWA created a new section of CWA devoted to stormwater permitting (CWA Section 402[p]). The EPA has granted the State of California primacy in administering and enforcing the provisions of CWA and the NPDES permit program.

The State Water Resources Control Board (SWRCB) issues both general and individual permits for certain activities. Although implemented at the state and local level, relevant general and individual NPDES permits are discussed below.

Construction Activities

Construction activities are regulated under the NPDES Construction General Stormwater Permit (Construction General Permit) provided that the total amount of ground disturbance during construction exceeds 1 acre. The appropriate RWQCB enforces the Construction General Permit. Coverage under a Construction General Permit requires submittal of a notice of intent (NOI) and associated Permit Registration Documents (PRDs), including a SWPPP. The NOI includes site-specific information and the certification of compliance with the terms of the Construction General Permit. The applicant would be required to submit an NOI and gain coverage under a Construction General Permit. The SWPPP needs to be prepared by a Qualified SWPPP Developer (QSD) and includes pollution prevention measures (erosion and sediment control measures and measures to control nonstormwater discharges and hazardous spills), demonstration of compliance with all applicable local and regional erosion and sediment control standards, identification of responsible parties, a detailed construction timeline, and a BMP monitoring and maintenance schedule.

Dewatering Activities

Small amounts of construction-related dewatering are covered under the Construction General Permit. Large amounts of dewatering, particularly over lengthy periods of time, would require coordination with the SFBRWQCB to determine the Project's compliance requirements for this activity (i.e., a 401 certification or waste discharge requirements (WDRs). Dewatering is considered an authorized nonstormwater discharge in the Construction General Permit provided the nonstormwater discharges meet the following criteria.

1. Be infeasible to eliminate
2. Comply with BMPs as described in the SWPPP
3. All dewatering discharges from sedimentation basins are filtered or treated, using appropriate technology.
4. Meet the Numerical Action Levels (NALs) for pH and turbidity
5. Do not cause or contribute to a violation of water quality standards

Dewatering discharges are allowed if sources of pollutants do not enter into receiving waters or if appropriate control measures are implemented to prevent or eliminate the adverse impacts of such sources. These measures include treatment of stormwater, onsite containment of water, and possible discharge to the sanitary sewer. Where discharge to surface waters is unavoidable, measures include dechlorination treatment to remove contaminants (if present) and controlling the discharge rate to prevent erosion of the receiving water. Discharge to the sanitary sewer is dependent upon approval by the City. Sanitary sewer discharge is subject to water quality monitoring and flow restrictions. Discharge of contaminated groundwater to the storm drain is subject to permitting from the RWQCB. Project-related dewatering is anticipated because the water table on site was measured at 12 to 17 feet bgs (Appendix F), and excavation required at Blocks 1 and 2 would include 3 to 4 levels of underground parking that would require excavation to approximately 30 to 40 feet bgs. Excavation for the basement level at Block 5 would be to about 11 feet bgs and dewatering could be required (Appendix F).

Municipal Stormwater Pollution Prevention Program – Municipal Regional Stormwater NPDES Permit

CWA Section 402 mandates permits for municipal stormwater discharges, which are regulated under the NPDES General Permit for Municipal Separate Storm Sewer Systems (MS4) (MS4 Permit). Phase I MS4 regulations cover municipalities with populations greater than 100,000, certain industrial processes, or construction activities disturbing an area of 5 acres or more. Phase II (Small MS4) regulations require that stormwater management plans be developed by municipalities with populations smaller than 100,000. A Municipal Regional Stormwater NPDES Permit (MRP) was issued to the 77 agencies in the Bay Area region, including the City of Mountain View.

These permits require that controls are implemented to reduce pollutants in stormwater discharges to the maximum extent possible, including management practices, control techniques, system design and engineering methods, and other measures as appropriate. As part of permit compliance, these permit holders have created stormwater management plans for their respective locations. These plans outline the requirements for municipal operations, industrial and commercial businesses, construction sites, and planning and land development. These requirements may include multiple measures to control pollutants in stormwater discharge. During implementation of specific projects under the program, project applicants will be required to follow the guidance contained in the stormwater management plans as defined by the permit holder in that location.

Provisions in the MRP require cities to implement stormwater treatment controls in new development projects. Projects that create or replace greater than 10,000 square feet of impervious surface are required to design and install Low Impact Development (LID) stormwater treatment controls to treat post-construction runoff, as described in Section 3.8.2.3, *Local*.

3.8.2.2 State

Porter-Cologne Water Quality Control Act of 1969

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) established the SWRCB and divided the state into nine regional basins, each with an RWQCB. The SWRCB is the primary state agency responsible for protecting the quality of the state's surface and groundwater supplies, while the regional boards are responsible for developing and enforcing water quality objectives and implementation plans. The SFBRWQCB is responsible for the Bay Area region, including the City of Mountain View.

The act authorizes the SWRCB to enact state policies regarding water quality in accordance with CWA Section 303. In addition, the act authorizes the SWRCB to issue WDRs for projects that would discharge to state waters. The Porter-Cologne Water Quality Control Act requires that the SWRCB or the RWQCB adopt water quality control plans (basin plans) for the protection of water quality. A basin plan must perform the following functions.

- Identify beneficial uses of water to be protected.
- Establish water quality objectives for the reasonable protection of the beneficial uses.
- Establish a program of implementation for achieving the water quality objectives.

Basin plans also provide the technical basis for determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. Basin plans are updated and reviewed every 3 years in accordance with Article 3 of Porter-Cologne Water Quality Control Act and CWA Section 303(c) (San Francisco Bay Regional Water Quality Control Board 2011).

California Regional Water Quality Control Board, San Francisco Bay Region—Basin Plan

Water quality in streams and aquifers of the region is guided and regulated by the *San Francisco Bay Basin Water Quality Control Plan* (Basin Plan) (San Francisco Bay Regional Water Quality Control Board 2011). State policy for water quality control is directed at achieving the highest water quality consistent with the maximum benefit to the people of the state. To develop water quality standards consistent with the uses of a water body, the SFBRWQCB classifies historical, present, and potential future beneficial uses for San Francisco Bay Area waters as part of its basin plan.

The Basin Plan identifies the beneficial uses of Adobe Creek, including cold freshwater habitat, water contact recreation, noncontact water recreation, warm freshwater habitat, and wildlife habitat. A detailed discussion of beneficial uses and water quality objectives can be found in the Basin Plan (San Francisco Bay Regional Water Quality Control Board 2011).

3.8.2.3 Local

Mountain View 2030 General Plan

The *Mountain View 2030 General Plan* contains the following goals and policies related to water quality.

Goal INC-8: An effective and innovative stormwater drainage system that protects properties from flooding and minimizes adverse environmental impacts from stormwater runoff.

Policy INC 8.1: Citywide stormwater system. Maintain the stormwater system in good condition.

Policy INC 8.2: National Pollutant Discharge Elimination System (NPDES) Permit. Comply with requirements in the Municipal Regional Stormwater NPDES Permit.

Policy INC 8.3: Cost-effective strategies. Encourage stormwater strategies that minimize additional City administrative and maintenance costs.

Policy INC 8.4: Runoff pollution prevention. Reduce the amount of stormwater runoff and stormwater pollution entering creeks, water channels and the San Francisco Bay through participation in the Santa Clara Valley Urban Runoff Pollution Prevention Program.

Policy INC 8.5: Site-specific stormwater treatment. Require post-construction stormwater treatment controls consistent with MRP requirements for both new development and redevelopment projects.

Policy INC 8.6: Green streets. Seek opportunities to develop green streets and sustainable streetscapes that minimize stormwater runoff, using techniques such as onstreet bio-swales, bio-retention, permeable pavement or other innovative approaches.

Policy INC 8.7: Stormwater quality. Improve the water quality of stormwater and reduce flow quantities.

Policy INC 8.8: Stormwater infrastructure funding. Develop permanent and ad hoc sources of funding to implement stormwater best practices in the city.

Other Policies

Policy INC 4.1.2: Closely monitor groundwater quality as well as any changing rules and regulations regarding the City's access to groundwater, revising plans as necessary to reflect any relevant changes to the groundwater supply.

Policy INC 16.1.2: Enable sufficient surface water replenishment and protect surface water quality to enable groundwater percolation and provide habitat for wildlife.

Policy INC 16.1.3: Support efforts by the Santa Clara Valley Water District to preserve water, habitat, and riparian quality in the creeks within the City, including implementing the Santa Clara Valley Water Resources Protection Collaborative Guidelines and Standards for Land Use Near Streams.

Policy INC 16.1.4: Encourage volunteer creek clean-ups.

Santa Clara Valley Urban Runoff Pollution Prevention Program

The MRP regulated 77 cities in the Bay Area region, including Mountain View, and other agencies in Santa Clara Valley that comprise the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). Provision C.3 is for New Development and Redevelopment source control, site design, and stormwater treatment measures to address stormwater runoff pollutant discharges. This is accomplished through LID techniques, including rainwater harvest, infiltration, and biotreatment. The MRP (under Provision C.3) requires that permanent water quality control devices treat all stormwater to the maximum extent practicable (MEP). Runoff from new impervious surfaces of 10,000 square feet or more must be sized according to the volume or rate criteria identified in the permit. After treatment devices are installed, owners must enter into a maintenance agreement with the City to ensure the treatment devices are maintained, inspected, and reported on annually.

The SCVURPPP requires Operation and Maintenance (O&M) programs for new development or redevelopment. The MRP requires each co-permittee to implement a stormwater treatment BMP Operation and Maintenance Verification Program, to ensure that property owners are maintaining BMPs implemented on their sites. To assist co-permittees, program staff has developed O&M verification guidance documents, has provided support to co-permittees in setting up verification programs and training workshops, and has developed a standardized approach for collecting and reporting data. Participants in the SCVURPPP O&M Verification Program must report all results to the SFBRWQCB.

While postconstruction treatment of runoff is required, hydromodification controls to reduce postconstruction runoff flows are not required for this project because, as currently designed, the Project will result in a reduction of impervious surface.

3.8.3 Impact Analysis

3.8.3.1 Criteria for Determining Significance

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing hydrology and water quality.

A Project impact would be considered significant if construction or operation of the proposed Project would result in any of the following.

1. Violate any water quality standards or waste discharge requirements.
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or offsite.
4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.
5. 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.
6. Otherwise substantially degrade water quality.
7. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
8. Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
9. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

10. Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

As stated in Section 3.8.1.4, *Flooding*, the Project site is located outside the 100-year flood zone and outside of the dam inundation area. Therefore, the Project would not involve placement of housing or structures in the 100-year floodplain or flood hazard area. In the event that a 100-year flood occurred, the flood flows would be primarily contained within the Adobe Creek channels and would not reach the Project site. Accordingly, the Project would not result in a public hazard that may increase risk of exposure to flooding, and potential impacts related to flooding hazards and risks are not analyzed further.

The Project site is located on relatively flat topography, and there is little likelihood of a mudflow occurring as a result of Project construction and operation. In addition, the tsunami inundation map shows that the tsumami run-up for Adobe Creek would not reach the Project site (California Department of Conservation 2009). Accordingly, the likelihood that a seiche would run up farther than a tsunami is not significant, and potential impacts related to seiche, tsunami, or mudflow are not analyzed further.

3.8.3.2 Methods

The evaluation of hydrology and water quality impacts is based on professional standards and the conclusions of technical reports (Appendices F and H) prepared for the Project. The key construction-related impacts were identified and evaluated qualitatively based on the physical characteristics of the Project site and the magnitude, intensity, location, and duration of activities. The key operational or buildout-related impacts were identified and evaluated qualitatively and quantitatively based on current available plans. It is assumed that the Project applicant would conform to City and County building standards, grading permit requirements, erosion control requirements, and stormwater treatment.

3.8.3.3 Impacts and Mitigation Measures

This section includes a discussion of each impact as it corresponds to the significance criteria presented in Section 3.8.3.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.8.3.4, *Summary of Hydrology and Water Quality Impacts*.

Impact HWQ-1a	Degradation of water quality and potential violation of water quality standards or waste discharge requirements.
Level of Impact	Significant
Mitigation Measure HWQ-MM-1	Implement provisions for construction dewatering and operations dewatering, if required
Level of Impact after Mitigation	Less than Significant

The Project could result in degradation of water quality both during construction and from operation.

Discussion

Construction

Project construction activities such as grading, stockpiling of spoil materials, and other construction-related earth-disturbing activities could result in soil erosion and subsequent sediment transport to adjacent properties, roadways, or watercourses, including Adobe Creek, via storm drains. Sediment transport to local drainage facilities such as drainage inlets, culverts, and storm drains could result in reduced storm flow capacity, resulting in localized ponding or flooding during storm events.

All construction activities would comply with the NPDES Construction General Permit, which contains standards to ensure that water quality is not degraded. As part of this permit, standard erosion control measures and BMPs would be identified in a SWPPP and would be implemented during construction to reduce sedimentation of waterways and loss of topsoil. As a performance standard, BMPs to be selected would represent the best available technology (BAT) that is economically achievable and best conventional pollutant control technology (BCT) to reduce pollutants.

Commonly practiced BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater and other nonpoint-source runoff. Measures range from source control to treatment of polluted runoff. BMPs can include watering active construction areas to control dust generation during earthmoving activities; using water sweepers to sweep streets and haul routes; and installing erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, and sandbag dykes) to prevent silt runoff to public roadways, storm drains, or waterways. If appropriate for the development site, disturbed soil would be revegetated as soon as possible with the appropriate selection and schedule of plants. No disturbed surfaces would be left without erosion control measures in place during the rainy season, which generally occurs between October 15 and April 15. Because the Project would be required to comply with the NPDES Construction General Permit, potential impacts on water quality from construction activities would be less than significant.

Due to the high groundwater elevation relative to the proposed elevation of the below-grade levels, construction dewatering would be required for Blocks 1 and 2, and could potentially be required for Block 5. The excavation depth for the subterranean parking garage on Blocks 1 and 2 would be approximately 30 to 40 feet bgs, and the depth to groundwater is approximately 12 to 17 feet bgs, corresponding to elevations of approximately 38.5 to 43 feet (Appendix F). The finished grade of the subterranean parking floor elevation on Blocks 1 and 2 would be approximately 16.5 feet (Appendix H). Therefore, dewatering would be required during construction of the underground parking on Blocks 1 and 2. The finished grade of the subterranean parking on Block 5 would be approximately 11 feet below the existing grade (Appendix F). The depth of excavation for the parking in Block 5 could require dewatering.

The elevation of the existing and proposed onsite storm drain system is also below the water table (Appendix H). Therefore, dewatering would be required for modification to the storm drain system.

Before dewatering to surface water via a storm drain, the applicant's contractor(s) would obtain coverage under the NPDES Construction General Permit from the SFBRWQCB. Construction dewatering activities are defined as authorized nonstormwater discharges under the Construction General Permit, provided that dischargers prove the quality of water to be sufficient and not affect beneficial uses. The City will verify that the Construction General Permit includes coverage for dewatering activities and that all requirements of dewatering are met to ensure water quality is not affected.

Construction dewatering could degrade water quality if it is discharged to waters of the state, if the water does not meet water quality standards, or if proper treatment measures are not implemented prior to discharge; however, implementation of **Mitigation Measure HWQ-MM-1** would reduce this impact to a less-than-significant level.

Operation

The Project would result in an increase in of 0.02 acre of pervious surface on the Project site (Appendix H). The Project would include 29 bio-filtration systems to treat stormwater runoff prior to entering the stormwater system. As described in Chapter 2, *Project Description* (Section 2.5.6, *Utilities and Stormwater Quality Management*), the bio-filtration systems include 25 planter boxes and four modular wetland systems. The planter boxes would treat stormwater flows from the buildings and the modular wetlands would treat all surface runoff.

Blocks 1, 2, and 5 would have below-grade levels that would extend below the water table. Due to the high groundwater elevation (approximately 43 feet) relative to the proposed elevation of the below-grade levels (approximately 16.5 feet), it is anticipated that long-term structural dewatering would be required to prevent flooding from ground water infiltration of the portions of the underground parking structures located below the groundwater elevation. Long-term structural dewatering would convey the groundwater collected by the French drain system (or similar) at Blocks 1 and 2 and potentially Block 5 to the existing storm drain system along San Antonio Road or California Street (Appendix H). Long-term structural dewatering could degrade water quality if water is discharged to waters of the state, if the water does not meet water quality standards, or if proper treatment measures are not implemented prior to discharge. However, implementation of **Mitigation Measure HWQ-MM-1** would reduce this impact to a less-than-significant level.

Mitigation Measure HWQ-MM-1: Implement provisions for construction dewatering and long-term structural dewatering, if required.

Construction Dewatering. If construction dewatering activities lead to discharges to the storm drain system or other waterways that lead to waters of the state, water treatment measures will be designed and implemented as necessary so that water quality standards are met prior to discharge to waters of the state. As a performance standard, these measures will be selected to achieve the maximum removal of contaminants found to be present in the groundwater. Such practices would represent the BAT that is economically achievable. Measures may include the retention of dewatering effluent until particulate matter has settled before it is discharged and the use of infiltration areas. The City or its contractor will perform routine inspections of the construction area to verify that the water quality control measures are properly implemented and maintained, conduct visual observations of the water (i.e., check for odors, discoloration, or an oily sheen on groundwater), collect samples of the water and/or monitoring data prior to discharge, and properly report to the SFBRWQCB, if necessary.

The final selection of water quality control measures will be subject to review by the SFBRWQCB. If the groundwater is found to not meet water quality standards and treatment measures are not effective, the water will be hauled offsite for treatment and disposal at an appropriate wastewater treatment facility.

Long-term structural dewatering. Long-term structural dewatering will involve measures similar to those for construction dewatering practices for sampling, treating, and reporting in the event that effluent is contaminated. The City will consult with SFBRWQCB to determine if there are any requirements for continual dewatering operations. The City or its contractor will sample the water and ensure it does not contain constituents that exceed water quality standards prior to discharge into waters of the state or a waterway that leads to waters of the state, such as storm drains. Details, such as sampling results, volume of water discharged, and visual observations, will be recorded and provided to the SFBRWQCB, if necessary.

Impact HWQ-2a	Construction-related depletion of groundwater supplies or interference with groundwater recharge.
Level of Impact	Less than Significant

Discussion

The Project would increase the amount of pervious surface by approximately 0.02 acre, resulting in a modest increase in the groundwater infiltration from storm events. Therefore, the Project would have a beneficial impact on the ability to recharge the local groundwater aquifer. Section 3.14, *Utilities and Service Systems*, discusses existing water supply and Project water demands. However, garage construction could require dewatering of groundwater due to the shallow groundwater table (refer to *Dewatering Activities* under Section 3.8.2, *Regulatory Setting*, and Impact HWQ-1). Because the construction period is temporary and the Project would increase the pervious surface, temporary dewatering is not expected to result in a significant impact on groundwater recharge or result in depletion of groundwater supplies. Accordingly, impacts on groundwater supplies and groundwater recharge during Project construction would be less than significant.

Impact HWQ-2b	Operation-related depletion of groundwater supplies or interference with groundwater recharge.
Level of Impact	Significant
Mitigation Measure HWQ-MM-2	Implement measures to maintain groundwater levels
Level of Impact after Mitigation	Less than Significant

Discussion

Due to the high groundwater elevation relative to the proposed elevation of the below-grade levels at Blocks 1, 2, and 5, it is anticipated that long-term structural dewatering would be required to convey the flow collected by the French drain system (or similar) at Blocks 1 and 2 and potentially Block 5 to the existing storm drain system along San Antonio Road or California Street (Appendix H).

Because the garage designs would require long-term dewatering, dewatering could result in a net localized decrease in groundwater levels due to the disposal of the discharge into the City's storm drain system. The amount of dewatered water could be greater than the increase in infiltration associated with the increase in pervious surface from the Project, and the Project could therefore interfere with groundwater recharge. Implementation of **Mitigation Measure HWQ-MM-2** would ensure this impact is less than significant.

Mitigation Measure HWQ-MM-2: Implement measures to maintain groundwater levels.

Where dewatering for garages is conducted, the discharger will implement measures identified by the SFBRWQCB and local ordinances to ensure that groundwater supplies are not depleted by long-term structural dewatering activities. Depletion would occur if the structural dewatering volume is greater than the increase in infiltration resulting from the increase in pervious surface. Prior to constructing the garages, potential water discharge volumes from dewatering will be compared to estimated increases in infiltration rates. If groundwater lowering is anticipated, measures will be implemented to maintain groundwater levels. During operation, local groundwater levels will be monitored to determine if groundwater levels are lowered on a continual basis, indicating that increased infiltration rates are not great enough to maintain pre-existing groundwater levels. If it is found that groundwater supplies are being depleted, then measures to increase infiltration rates, such as infiltration galleries or porous pavement in impervious areas, will be implemented.

Impact HWQ-3	Alteration of stormwater drainage patterns.
Level of Impact	Less than Significant

Discussion

Construction

The Project would be required to obtain coverage under a Construction General Permit from SFBRWQCB, as described in Section 3.8.2, *Regulatory Setting*. During construction, implementing the BMPs required in the SWPPP would ensure that drainage patterns are not significantly altered because any small amount of sheet-flow on the construction site would be captured and infiltrated into the ground so as not to increase offsite runoff.

Because the measures required by the Construction General Permit limit site runoff during construction and City of Mountain View requires service to be maintained during construction, the stormwater drainage patterns will not be altered. Accordingly, impacts on stormwater drainage patterns during Project construction would be less than significant.

Operation

Hydromodification controls are not required because the post-Project impervious surface area would be less than the pre-Project impervious area. Modeling of the modest change in the quantity of landscaped (pervious) area within the Citywide Storm Drain Master Plan (SDMP) watershed area indicates that the 10-year storm flow for the proposed site condition would be the same or slightly less than the existing SDMP 10-year storm flow (Appendix H).

Under existing conditions, approximately 0.53 acre of the site is pervious (Appendix H). The proposed development would include approximately 0.55 acres of pervious surface (Appendix H), 0.02 acres more pervious area than existing conditions.

The project would include stormwater treatment controls in compliance with the City and SCVURPPP C.3 guidelines. As described in Chapter 2, *Project Description* (Section 2.5.6, *Utilities and Stormwater Quality Management*), the bio-filtration systems include 25 planter boxes and four modular wetland systems. The planter boxes would treat stormwater flows from the buildings and the modular wetlands would treat all surface runoff. Accordingly, this impact is considered to be less than significant. No mitigation is required.

3.8.3.4 Summary of Hydrology and Water Quality Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
HWQ-1: Degradation of water quality and potential violation of water quality standards or waste discharge requirements.	Significant	HWQ-MM-1: Implement provisions for construction dewatering and long-term structural dewatering, if required.	Less than Significant
HWQ-2a: Construction-related depletion of groundwater supplies or interference with groundwater recharge.	Less than Significant	None required	–
HWQ-2b: Operation-related depletion of groundwater supplies or interference with groundwater recharge.	Significant	HWQ-MM-2: Implement measures to maintain groundwater levels.	Less than Significant
HWQ-3: Alteration of stormwater drainage patterns.	Less than Significant	None required	–

3.9 Land Use and Planning

This section describes the environmental and regulatory setting for land use and planning. It also describes impacts on land use and planning that would result from implementation of the Project and mitigation for significant impacts where feasible and appropriate. A summary of impacts and mitigation measures is presented at the end in Section 3.9.3.4, *Summary of Land Use and Planning Impacts*.

3.9.1 Environmental Setting

This section provides a discussion of the existing conditions related to land use and planning on the Project site and immediately surrounding Project area. Section 3.9.2, *Regulatory Setting*, provides a description of the Project site's land use designation and zoning.

The Project site is in the western portion of the City of Mountain View in Santa Clara County. The City of Los Altos border is directly south of the Project site, and the City of Palo Alto border is less than 0.5 mile to the west. The Project site is situated north of State Route (SR) 82 (West El Camino Real), approximately 2.29 miles west of SR 85, and 1.6 miles south of US 101. Sitting at the southeast corner of the intersection of California Street and San Antonio Road, at the northwestern corner of the existing San Antonio Shopping Center, the Project site is bound by Pacchetti Way to the east, the Hetch-Hetchy Parkway to the south, San Antonio Road to the west, and California Street to the north.

The Project site comprises four Assessor's Parcel Numbers (APN): 148-22-002, 148-22-003, 148-22-004, and 014-22-008. The existing site includes 59,655 square feet (sf) of commercial and retail buildings and 683 surface parking spaces. The existing retail businesses include Ross Dress for Less, BevMo!, Barron Park Supply Company, International Market, Fantastic Hair & Nail Salon, and Kumon Math & Reading Center. Three existing buildings and surface parking located at the corner of California Street and San Antonio Road are not included in the Project site.

The Project site is located along Santa Clara Valley Transportation Authority (VTA) bus routes 32, 34 and 35. Bus routes 32 and 35 operate along California Street and bus route 34 operates along San Antonio Road. The nearest bus stops are adjacent to the Project site at the intersection of California Street and San Antonio Road. The nearest Caltrain Station is the San Antonio Station, approximately 0.2 miles north of the Project site. The nearest VTA Light Rail stop (Mountain View) is approximately 2 miles east of the Project site.

3.9.2 Regulatory Setting

3.9.2.1 Federal

There are no relevant federal regulations for land use and planning.

3.9.2.2 State

All cities and counties within California are required by the state to adopt a general plan establishing goals and policies for long-term development, protection from environmental hazards, and conservation of identified natural resources (California Government Code 65300). Local general plans lay out the pattern of future residential, commercial, industrial, agricultural, open-space, and recreational land uses within a community. To facilitate implementation of planned growth patterns, general plans typically also include goals and policies addressing the coordination of land use patterns with the development and maintenance of infrastructure facilities and utilities. Government Code Section 65302 lists seven "elements" or chapters that cities and counties must include in their general plans: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety.

Local jurisdictions implement their general plans by adopting zoning, subdivision, grading, and other ordinances. Zoning identifies the specific types of land uses that may be allowed on a given site and establishes the standards that will be imposed on new development. Zoning regulations vary from jurisdiction to jurisdiction. However, typical standards promulgated in zoning ordinances include the siting of structures relative to parcel boundaries; architectural design (including height limitations); and the percentage of building coverage allowed relative to the overall square footage of a parcel. In some jurisdictions, the zoning ordinance permits construction "by right" (i.e., without the need for hearing) as an allowable use. In others, a conditional use permit or similar discretionary action is needed.

3.9.2.3 Local

Mountain View 2030 General Plan

The *Mountain View 2030 General Plan* (General Plan) land use designation for the Project site is Mixed-Use Center (City of Mountain View 2012a). This designation is defined in the General Plan as follows.

> *Mixed-Use Center* promotes pedestrian-oriented mixed-use centers with integrated, complementary uses such as entertainment, restaurants, department stores and other retail, office, hotels, convention/assembly and/or civic uses and public spaces that draw visitors from surrounding neighborhoods and the region.
>
> Allowed Land Uses: Office, retail and personal services, lodging, entertainment, parks and plazas; multi-family residential is allowed in the San Antonio Change Area.
>
> Intensity: 2.35 Floor-to-Area Ratio (FAR) (approximately 70 dwelling unit [DU]/ac or 60-150 residents/acre), of which up to 0.75 FAR can be office of commercial.
>
> Height Guideline: up to eight stories.

The Project site is located in the San Antonio Change Area. The following is the vision for this area (City of Mountain View 2013a):

> In 2030, San Antonio is a lively mixture of commercial and residential uses. Bicyclists and pedestrians connect easily to surrounding neighborhoods, Caltrain, and VTA transit stations. San Antonio Center, the core of the area, is a regional and local draw with its housing, retail stores, services and restaurants. Walkable blocks and streets oriented to pedestrians are punctuated by vibrant, active plazas and enhancements to the Hetch-Hetchy right-of-way.

San Antonio Change Area policies support future redevelopment and enhancement to create pedestrian-oriented streets, open spaces, and buildings and to create a balanced, multimodal community.

Table 3.9-1 lists policies specifically related to land use in the San Antonio Change Area, and an evaluation of the Project's consistency with those policies.

Table 3.9-1. Consistency with Relevant General Plan Land Use Policies

Goal/Policy Number	General Plan Policy	Consistency Determination
Goal LUD-21	A gateway neighborhood with diverse land uses, public amenities and strong connections to surrounding areas.	**Consistent.** The Project would replace existing commercial uses with a pedestrian-friendly mixed-use development that includes office, commercial, hotel, retail, cinema, and restaurant uses.
Policy LUD 21.1	**A mix of land uses.** Support a mix of commercial land uses serving the neighborhood and the region.	**Consistent.** The Project would redevelop an existing site containing older commercial uses with a mixed-use development.
Policy LUD 21.2	**Higher-density residential near transit.** Encourage higher-density residential uses near bus and Caltrain stations.	**Consistent.** The Project would not conflict with the implementation of this policy.
Policy LUD 21.3	**Improved connectivity.** Promote improved connectivity to adjacent neighborhoods, destinations and Downtown.	**Consistent.** The Project includes new bicycle lanes on both sides of San Antonio Road from California Street to West El Camino Real. These bicycle lanes would connect to the existing bicycle lanes on San Antonio Road in Los Altos. The Project is located within walking distance from nearby neighborhoods, it is a pedestrian and bicycle-friendly development, and it is located close to public transit.
Policy LUD 21.4	**Improved pedestrian and bicycle circulation.** Support improved pedestrian and bicycle circulation and connectivity throughout the area.	**Consistent.** The Project would be designed to create a safe and active pedestrian environment. On weekend evenings the promenade will be closed for pedestrian use only. The Project also includes the construction of bicycle lanes that would connect to existing bicycle lanes on nearby streets.
Policy LUD 21.5	**Hetch-Hetchy right-of-way.** Promote the use of the Hetch-Hetchy right-of-way for open space and mobility improvements in the area.	**Consistent.** The Project would not conflict with the implementation of this policy.
Goal LUD-22	A revitalized San Antonio Center with a diverse mix of uses and connections to adjacent neighborhoods.	**Consistent.** The Project entails constructing a mixed-use development that is close to existing residential uses and public transit, including Caltrain.
Policy LUD 22.1	**San Antonio Center transformation.** Support the transformation of San Antonio Center into a regional mixed-use and commercial destination.	**Consistent.** The Project would support the demand for land uses such as office, commercial, retail, hotel, cinema, and open space as well as replace outdated commercial buildings.
Policy LUD 22.2	**Residential uses.** Support new residential uses within San Antonio Center.	**Consistent.** The Project would not conflict with the implementation of this policy because it would provide in-demand office, commercial, hotel, and recreational services to nearby residential uses, including residents at the San Antonio Phase I development.

Goal/Policy Number	General Plan Policy	Consistency Determination
Policy LUD 22.3	**Gathering spaces.** Encourage new plazas, open space and other gathering spaces in the San Antonio Center.	**Consistent.** The Project entails a mixed-use development that includes a pedestrian/open space promenade through the center of the Project site and would draw visitors from surrounding neighborhoods and the region.
Policy LUD 22.4	**Pedestrian-oriented design elements.** Ensure that developments include pedestrian-oriented design elements such as accessible building entrances, visible storefronts and landscaping.	**Consistent.** The Project would be designed to create a safe and active pedestrian environment with a joint-use promenade through the center of the project site and an outdoor plaza with seating. Retail spaces would be 1–2 stories and would be developed at a pedestrian-friendly scale. Lighting would be designed to create a safe atmosphere.
Policy LUD 22.5	**Finer street grid.** Promote a finer street grid and improved connectivity within San Antonio Center.	**Consistent.** The Project would include two internal east-west streets (Disk Drive and Silicon Way) that would connect San Antonio Road and Pacchetti Way. There would also be a joint-use promenade that would extend north-south through the center of the Project site from California Street to Hetch-Hetchy Parkway.
Policy LUD 22.6	**Improved mobility.** Support improved mobility within San Antonio Center for vehicles, transit, bicyclists and pedestrians.	**Consistent.** The Project includes new bicycle lanes on both sides of San Antonio Road from California Street to West El Camino Real. These bicycle lanes would connect to the existing bicycle lanes on San Antonio Road in Los Altos. The Project is within walking distance from nearby neighborhoods, it is a pedestrian- and bicycle-friendly development, and it is located close to public transit. The Project site is immediately north of the Phase I project, which promotes connectivity between residential and commercial uses.
Policy LUD 22.7	**Improved bicycle and pedestrian connections.** Promote improved bicycle and pedestrian connections to the San Antonio Caltrain station, El Camino Real bus service, adjacent neighborhoods and the citywide bicycle and pedestrian network.	**Consistent.** The Project is within walking distance from nearby neighborhoods and public transit. It incorporates pedestrian-friendly elements, bike lanes, and bicycle facilities.
Policy LUD 21.8	**Parking area safety.** Ensure safe pedestrian and bicycle access through parking areas.	**Consistent.** The majority of parking associated with the Project would be in underground and aboveground parking garages. Safe pedestrian and bicycle access through areas with street parking would be maintained with bicycle lanes and appropriate signage and other safety measures.

Source: City of Mountain View 2012b.

San Antonio Center Precise Plan

The San Antonio Center Precise Plan (Precise Plan) was adopted by the Mountain View City Council in 1988, and has been amended several times since its adoption. The properties included in the Precise Plan are located within the area bounded by El Camino Real, San Antonio Road, California Street, and Showers Drive and is bisected by the 80-foot wide Hetch-Hetchy water easement. Much of the San Antonio Center is subject to long-term ground leases, and the Center suffers from poor design and access.

The purpose of the Precise Plan is to consider the entire property as a single regional center and to encourage individual property upgrades and assemblages that will develop in phases, provided that each phase promotes the overall viability and desired coordination of the Center. The Precise Plan provides land use and design criteria to guide the rebuilding and strengthening of the San Antonio Center. Principles and objectives of the Precise Plan include the following.

- *Regional Status*. Reinforce the regional status of the Center by ensuring that it provides regional services to Mountain View residents and attracts customers from the surrounding area.
- *Improve Design and Image*. Make substantial design improvements to the Center's buildings and site, creating a quality image of a single, attractive shopping center at this gateway location.
- *Retail Sales Tax*. Revitalize the Center to enhance the success of the retail businesses and bolster retail sales tax revenues.
- *Coordination*. Ensure that access, signage, building design and onsite circulation support the image of a single regional shopping complex.
- *Pedestrian Connections*. Encourage pedestrian walkway connections and amenities to help attract customers, link uses, and revitalize the Center.
- *Flexibilit*y. Recognize the dynamic nature of the retail industry and accommodate through Plan flexibility.

City of Mountain View Municipal Code

Zoning Ordinance

Chapter 36 of the Mountain View Municipal Code includes several zoning districts that determine the range of permitted land uses. According to the City of Mountain View Zoning Map (City of Mountain View 2013b), the Project site is currently zoned P-9 for Planned Community/Precise Plan, specifically the San Antonio Area Precise Plan. Permitted uses include a broad range of large-scale retail businesses, medium and small-scale retail businesses and personal services establishments, and restaurants. Under the San Antonio Area Precise Plan, the maximum building potential for the entire center is 961,000 sf (gross) of commercial development that is divided into two lots. One of the lots is intended for commercial development and the other is intended for both commercial and residential development.

The Project is requesting to be removed from the San Antonio Precise Plan Area, and to be rezoned to a Planned Community District (P District). These changes would allow additional uses, such as a hotel and a cinema, beyond those allowed by the P-9 zoning designation. According to the Mountain View Municipal Code, any use permitted in any other zoning district may be permitted in a P District after it has first been determined that the area to be zoned requires special consideration. Under the Project, there would be 1.2 million sf of infill development in six distinct development blocks, which would require that special consideration.

As noted, the Project is also requesting a Planned Community (PC) Permit (Section A36.68), which allows new construction, redevelopment, or changes of use within the P District with the special land use that was specified at the time of rezoning. The Project is requesting to rezone to a P district, which is designed to provide for those uses that may be appropriately developed at the Project site and allow development consistent with the 2030 General Plan.

3.9.3 Impact Analysis

3.9.3.1 Criteria for Determining Significance

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing land use and planning.

A Project impact would be considered significant if construction or operation of the proposed Project would cause any of the following.

1. Physically divide an established community.
2. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
3. Conflict with any applicable habitat conservation plan or natural community conservation plan.

The Project site is located in a highly urbanized, mixed commercial and residential area of the City, and there are no habitat conservation plans (HCP) or natural community conservation plans (NCCP) applicable to the Project site. The nearest HCP is the Santa Clara Valley HCP/NCCP, which encompasses the cities of San Jose, Morgan Hill, and Gilroy, but not the City of Mountain View. The Project would not conflict with an HCP or NCCP. Therefore, potential impacts on HCPs or NCCPs are not analyzed further.

There are no specific plans or local coastal programs in effect for the Project site. Therefore, potential impacts on specific plans or local coastal programs are not analyzed further.

3.9.3.2 Methods

Analysis of land use within the Project area involved a review of the City of Mountain View General Plan Land Use and Design element, the City’s Land Use Designation and Zoning Maps, the San Antonio Precise Plan, the San Antonio Visioning Plan, and the City’s Municipal Code to determine whether any land uses would be affected.

3.9.3.3 Impacts and Mitigation Measures

This section provides a discussion of each impact as it corresponds to the significance criteria presented in Section 3.9.3.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.9.3.4, *Summary of Land Use and Planning Impacts*.

Impact LUP-1a	Physically divide an established community.
Level of Impact	Less than Significant

Discussion

The Project would involve the construction of new mixed uses on six blocks of an already developed site. The maximum heights of each block are as follows.

- Block 1: 88 feet (office building)
- Block 2: 88 feet (office building)
- Block 3: 41 feet (retail building)
- Block 4: 88 feet (hotel)
- Block 5: 74 feet (parking garage)
- Block 6: 89 feet (cinema and gateway tower)

There is existing residential development to the south of the Project site. The Project would not sever any existing roads or connections between properties. The Project would serve as infill development and would improve connectivity to nearby residential uses because it includes new bicycle lanes on both sides of San Antonio Road from California Street to West El Camino Real, which would connect to the existing bicycle lanes on San Antonio Road. Although the heights of buildings will increase, the entire infill project incorporates pedestrian-friendly design such as a promenade and plaza, and would therefore promote pedestrian activity and connectivity. The construction of new mixed uses would not result in the division of a community and would not introduce any changes to access for any adjacent properties. Accordingly, the Project would not physically divide an established community. This impact is less than significant and no mitigation is required.

Impact LUP-1b	Consistency with applicable general plan policies.
Level of Impact	Less than Significant

Discussion

The Project area is located in the City of Mountain View and subject to the City of Mountain View 2030 General Plan and other related Mountain View planning documents. As described in Section 3.9.2, *Regulatory Setting*, the General Plan land use designation for the Project site is Mixed-Use Center, and the Project entails a mixed-use development that is consistent with this designation. The intensity guideline for a Mixed-Use Center designation is 2.35 FAR, of which up to 0.75 FAR can be office or commercial. The height guideline for a Mixed-Use Center designation is up to 8 stories. The FAR of the Project would be consistent and the maximum height of the Project.

The Project would generally conform to the intent of the land use designation for the proposed site, and would adhere to all of the applicable General Plan policies, as discussed in Table 3.9-1 above. The Planning Commission and City Council, in deciding whether to approve the proposed project, will ultimately decide whether the project is consistent with the General Plan.

Because the Project is consistent with the applicable land use designation and General Plan policies, this impact is less than significant and no mitigation is required.

Impact LUP-1c	Conflict with the existing zoning of the Project site.
Level of Impact	Less than Significant

Discussion

The City is in the process of updating the City of Mountain View Zoning Code to be consistent with the 2030 General Plan adopted in July 2012. The Project site is currently located in a P-9 zoning district. As described above, the Project would not be consistent with the P-9 zoning requirements. Therefore, the Project is requesting rezoning to a P District and a PC Permit. As described in the regulatory section, the P District is designed to provide for those uses that may be appropriately developed as a planned area development. The P designation allows the City flexibility to implement features and standards that conform to the 2030 General Plan policies. The PC Permit would allow the development of office buildings up to 8 stories, aboveground parking garages, and other new land uses such as a hotel and cinema. Under the 1998 San Antonio Precise Plan, the San Antonio Center was divided into two areas that included commercial and residential land uses, while the Project would entail 1.2 million sf of infill development over six blocks. The new zoning designation and PC permit would allow this development to occur. Because the Project is requesting rezoning, and is consistent with the General Plan, this impact is considered less than significant. No mitigation is required.

3.9.3.4 Summary of Land Use Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
LUP-1a: Physically divide an established community.	Less than Significant	None required	–
LUP-1b: Consistency with applicable general plan policies.	Less than Significant	None required	–
LUP-1c: Conflict with the existing zoning of the Project site.	Less than Significant	None required	–

3.10 Noise

This chapter summarizes the potential noise impacts related to construction and operation of the Project. Included are a review of existing conditions, a summary of applicable policies and regulations related to noise, and an analysis of noise impacts resulting from construction and operation of the Project. Where feasible, mitigation measures are identified to reduce the level of expected impacts. A summary of impacts and mitigation measures is presented at the end in Section 3.10.4.4, *Summary of Noise Impacts*.

3.10.1 Introduction

The following are brief definitions of noise terminology used in this evaluation.

- **Sound.** A vibratory disturbance transmitted by pressure waves through a medium such as air, and capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A measure of sound intensity based on a logarithmic scale that indicates the squared ratio of actual sound pressure level to a reference sound pressure level (20 micropascals).
- **A-Weighted Decibel (dBA).** A measure of sound intensity that is weighted to take into account the varying sensitivity of the human ear to different frequencies of sound. The dBA scale is the most widely used for environmental noise assessments. Typical A-weighted noise levels for various types of sound sources are summarized in Table 3.10-1.
- **Equivalent Sound Level (L_{eq}).** L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level that would contain the same acoustical energy as the time-varying sound that actually occurs during the monitoring period. The 1-hour A-weighted equivalent sound level (L_{eq} 1h) is the energy average of A-weighted sound levels occurring during a 1-hour period.
- **Day-Night Level (L_{dn}).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with a 10-dB penalty added to sound levels between 10:00 p.m. and 7:00 a.m.
- **Community Noise Equivalent Level (CNEL).** Similar to L_{dn}, this noise descriptor adds an additional 5-dB penalty to sound levels between 7:00 p.m. and 10:00 p.m.

Urban noise commonly represents the combined sound level contributed by several individual sources—different pieces of equipment operating on a construction site, for instance. However, the individual sound levels for different noise sources cannot be arithmetically added to give the combined sound level for all of the sources. Instead, the combined noise level produced by multiple noise sources is calculated using logarithmic summation. For example, if one bulldozer produces a noise level of 80 dBA, then two bulldozers operating side by side would generate a combined noise level of 83 dBA (only 3 dBA louder than the single bulldozer).

Table 3.10-1. Typical A-Weighted Sound Levels

Common Outdoor Activities	Sound Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 mph at 50 feet		
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower at 100 feet	70	Vacuum cleaner at 3 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban area, daytime	50	Dishwasher in next room
Quiet urban area, nighttime	40	Theater, large conference room (background)
Quiet suburban area, nighttime		
	30	Library
Quiet rural area, nighttime		Bedroom at night, concert hall (background)
Rustling of leaves	20	
		Broadcast/recording studio
	10	
	0	

Source: California Department of Transportation 2009.

Human sound perception, in general, is such that a change in sound level of 3 dB is just noticeable; a change of 5 dB is clearly noticeable; and a change of 10 dB is perceived as doubling or halving the sound level. A doubling of actual sound energy is required to result in a 3 dB (i.e., barely noticeable) increase in noise; in practice, for example, this means that the volume of traffic on a roadway typically needs to double to result in a noticeable increase in noise.

Sound perception also depends on whether a new sound is similar to existing sounds in an area. Most people cannot detect differences of 1 or 2 dB between noise levels of a similar nature (for example, a 1 dB increase in traffic noise compared to existing traffic noise). However, under ideal listening conditions, some people can detect differences of 2 or 3 dB, and most people under normal listening conditions would probably perceive a 5 dB change in sounds of a similar nature. When a new, intruding sound is of a different nature than the background sound (for example, a car alarm compared to quiet residential sounds), most people can detect changes as small as 1 dBA.

When distance is the only factor considered, sound levels from isolated point sources of noise typically decrease by about 6 dB for every doubling of distance from the noise source. When the noise source is a continuous line, such as vehicle traffic on a highway, sound levels decrease by about 3 dB for every doubling of distance. Noise levels can also be affected by several factors other than the distance from the noise source. Topographic features and structural barriers that absorb, reflect, or scatter sound waves can affect the reduction of noise levels over distance. Atmospheric conditions (e.g., wind speed and direction, humidity levels, and temperatures) and the presence of dense vegetation can also affect the degree of sound attenuation. Normally the presence of acoustically absorptive ground such as grass will increase the rate of attenuation by about 1.5 dB per doubling of distance. Thus, where absorptive ground is present the attenuation rate for a point source will increase to about 7.5 dB per doubling of distance, and the rate for a line source will increase to about 4.5 dB per doubling of distance.

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Noise-sensitive land uses typically include residences, hospitals, schools, guest lodgings, libraries, and certain types of passive recreational uses, such as parks to be used for reading, conversation, and meditation (Federal Transit Administration 2006).

3.10.2 Environmental Setting

This section provides a discussion of the existing conditions related to noise on the Project site and immediately surrounding Project area.

The study area for noise impacts is defined as the sensitive land uses in the vicinity of the Project site that would be potentially affected by elevated noise and vibration levels generated by Project construction activities and Project operation.

In the study area, the nearest noise-sensitive land uses are apartment complexes and Hetch-Hetchy Parkway located directly south of the Project site, and the multi-family residential area located northeast of the Project site on the other side of the California Street/Pacchetti Way intersection. Figure 3.10-1 shows the noise-sensitive land uses in the study area.

The existing ambient noise environment in the study area is characteristic of an urban environment (e.g., local traffic, aircraft overflights, and commercial noise sources). Vehicles traveling on San Antonio Road and California Street are the dominant noise source in the study area. To generally quantify existing ambient noise levels in the study area, short-term (15-minute) ambient noise measurements were conducted on October 22, 2013, at various locations around the Project site (refer to Figure 3.10-1). The results of the noise measurements are summarized in Table 3.10-2. The ambient noise levels measured along the northern and western Project boundary were 59.3 dBA L_{eq} (ST1) and 61.2 dBA L_{eq} (ST2), respectively, and are attributed primarily to vehicle traffic on California Street and San Antonio Road. The ambient noise level measured south of the project site from the center of Hetch-Hetchy Parkway (ST3) was 55.8 dBA L_{eq}. The ambient noise level measured northeast of the project site from the multi-family residences on California Street and Pacchetti Way (ST4) was 52.8 dBA L_{eq}; it should be noted that there are barrier walls along California Street to shield the first row residences from traffic noise on California Street. Based on the noise measurement of 59.3 dBA L_{eq} taken at ST1 from the south side of California Street where there are no barrier walls, it is estimated that the barrier walls provide a noise reduction of about 6 dBA L_{eq} at ST4.

Table 3.10-2. Summary of Existing Ambient Noise Levels

Site	Site Description	Date and time	Measured Noise Level (dBA) L_{eq}	L_{max}	L_{min}	Noise Source
ST1	Parking lot on California Street in front of BevMo! within the Project site	10/22/2013 at 2:30 pm	59.3	71.9	49.2	Vehicle traffic on California Street
ST2	Parking lot on San Antonio Road within the Project site	10/22/2013 at 2:05 pm	61.2	72.7	49.6	Vehicle traffic on San Antonio Road
ST3	Seating area at the Hetch-Hetchy Parkway between Project site and Phase I multi-family residences	10/22/2013 at 1:30 pm	55.8	71.3	48.4	Distant vehicle traffic on San Antonio Road; delivery trucks on the driveway
ST4	Multi-family residences at northeast corner of California Street/Pacchetti Way. Barrier walls are provided between the residences and California Street	10/22/2013 at 2:50 pm	52.8	61.3	44.7	Distant vehicle traffic on California Street

Note: ST = short-term (15 minutes) ambient noise measurement.

3.10.3 Regulatory Setting

3.10.3.1 Federal

There are no federal regulations that apply to noise.

3.10.3.2 State

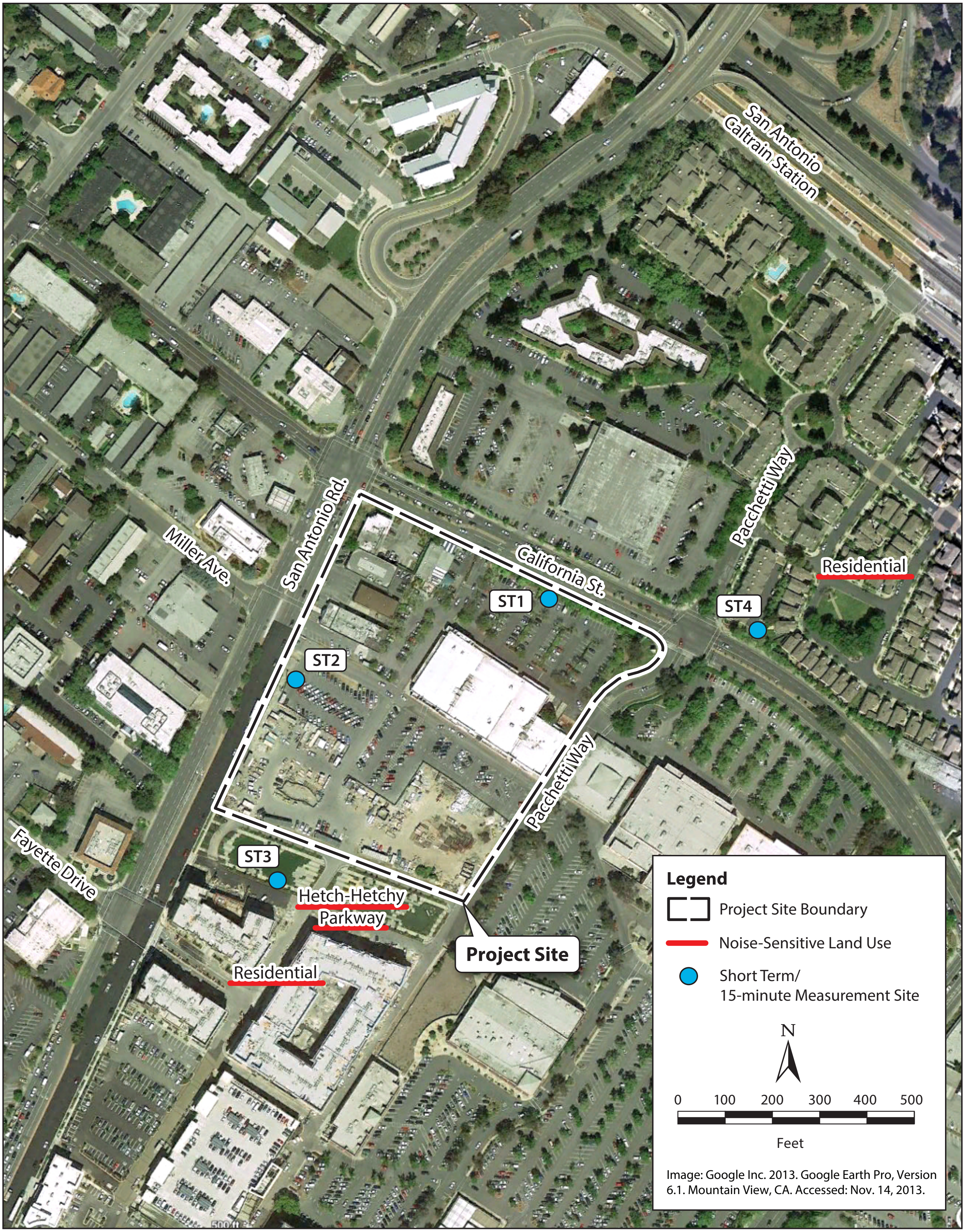
California requires each local government entity to implement a noise element as part of its general plan. The State of California General Plan Guidelines (California Governor's Office of Planning and Research 2003) provides guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. Based on these guidelines, the City of Mountain View has developed noise compatibility standards as part of the General Plan's noise acceptability guidelines. The City's standards are addressed below.

3.10.3.3 Local

Mountain View 2030 General Plan Noise Element

The *Mountain View 2030 General Plan* noise acceptability guidelines indicate that outdoor noise levels below 67.5 dBA L_{dn} for office buildings and business commercial and 60 dBA L_{dn} for hotels are normally acceptable. The Noise Element policies that relate to the Project are listed below.

- **Policy NOI 1.1:** Land Use Compatibility. Use the Outdoor Noise Acceptability Guidelines as a guide for planning and development decisions.



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ICF INTERNATIONAL

Figure 3.10-1
Noise Monitoring Locations and Sensitive Receptors
The Village at San Antonio Center Phase II

- **Policy NOI 1.3:** Exceeding Acceptable Noise Thresholds. If noise levels in the area of a proposed project would exceed normally acceptable thresholds, the City shall require a detailed analysis of proposed noise reduction requirements to determine whether the proposed use is compatible. As needed, noise insulation features shall be included in the design of such projects to reduce exterior noise levels to meet acceptable thresholds, or for uses with no active outdoor use areas, to ensure acceptable interior noise levels.
- **Policy NOI 1.4:** Site Planning. Use site planning and project design strategies to achieve the noise level standards in NOI 1.1 (Land Use Compatibility) and in NOI 1.2 (Noise Sensitive Land Uses). The use of noise barriers shall be considered after all practical design-related noise measures have been integrated into the project design.
- **Policy NOI 1.5:** Major Roadways. Reduce the noise impacts from major arterials and freeways.
- **Policy NOI 1.6:** Sensitive Uses. Minimize noise impacts on noise-sensitive land uses, such as residential uses, schools, hospitals, and child-care facilities.
- **Policy NOI 1.7:** Stationary Sources. Restrict noise levels from stationary sources through enforcement of the Noise Ordinance.

Mountain View City Code

The City of Mountain View Municipal Code, Section 8.70.1, *Construction Noise*, provides regulations for construction noise as follows: "No construction activity shall commence prior to 7:00 a.m. nor continue later than 6:00 p.m., Monday through Friday, nor shall any work be permitted on Saturday or Sunday or holidays unless prior written approval is granted by the building official."

The City of Mountain View Municipal Code, Section 21.26, *Stationary Equipment Noise*, provides regulations for operational noise as follows: "No person shall own or operate on any property any stationary equipment, such as, but not limited to, air compressors, equipment for swimming pools, spas, or air conditioners, which produces a sound level exceeding 55 dBA (50 dBA during the night, 10:00 p.m. to 7:00 a.m.) when measured at any location on any receiving residentially used property."

3.10.4 Impact Analysis

3.10.4.1 Criteria for Determining Significance

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on the existing noise environment.

A Project impact would be considered significant if construction or operation of the proposed Project would result in any of the following.

1. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
2. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
3. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
6. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The nearest airport is the Moffett Federal Airfield, approximately 3.5 miles northeast of the Project site. The Project site is outside the aircraft noise impact zone (65 dBA CNEL noise contour) of the Moffett Federal Airfield (Santa Clara County 2012). The Project site is also not in the vicinity of a private airstrip. Therefore, aircraft noise is not analyzed further.

In accordance with CEQA, City plans and policies, and professional standards, a project's noise impact would be considered significant if the project would do any of the following.

- Generate onsite construction noise that violates Mountain View noise ordinance or is substantially higher than the ambient noise levels at existing residential uses adjacent to the Project site.
- Generate onsite operation noise in excess of 55 dBA L_{eq} in daytime hours (7:00 a.m. to 10:00 p.m.) and 50 dBA L_{eq} in nighttime hours (10:00 p.m. to 7:00 a.m.) at existing residential uses adjacent to the Project site.
- Result in an increase in operational traffic noise of greater than 3 dB above the traffic noise levels without the project at the neighborhoods along major Project traffic access roadways. Three dB is generally considered to be the threshold of a perceptible change.
- Expose the proposed onsite outdoor common areas to noise greater than 67.5 dBA L_{dn} for office and commercial uses and 60 dBA L_{dn} for the hotel.
- Expose existing residential uses adjacent to the Project site to excessive groundborne vibration during construction.

3.10.4.2 Methods

This noise impact analysis evaluates the temporary noise increase associated with Project construction activities, operational noise generated by sound-generating equipment (e.g., HVAC condensers, ventilation fans), traffic noise associated with Project-related changes in traffic patterns, and exposure of Project residents to noise.

Noise impacts associated with onsite demolition and construction activities were evaluated using construction phase, schedule, and equipment information provided by the applicant and the construction equipment noise data in the Federal Highway Administration (FHWA) roadway construction noise model (RCNM). The noise data include the A-weighted L_{max}, measured at a distance of 50 feet from the construction equipment, and the utilization factors for the equipment, defined as the fraction of time that the equipment typically runs at maximum capacity (Federal Highway Administration 2006).

Noise impacts associated with increased traffic volumes generated by the Project were evaluated for the existing condition, existing-plus-Project condition, cumulative no-Project condition, and cumulative-plus-Project condition, using a spreadsheet based on the FHWA traffic noise model

(TNM). This spreadsheet calculates the traffic noise levels at a fixed distance from the centerline of a roadway based on the traffic volume, speed, and truck percentage that is predicted to occur under each condition. The traffic data used in this analysis were based on the transportation impact analysis report provided by the project traffic consultant (Appendix J). Traffic noise was evaluated in terms of how Project-related traffic noise increases could affect existing noise-sensitive land uses and how the Project could be affected by noise from traffic on existing roadways.

Operational noise impacts associated with the proposed onsite activities and stationary sources are evaluated based on the proposed layout and a list of noise-generating equipment and activities provided by the applicant.

Noise generated by point sources (e.g., construction equipment and stationary operational equipment) was estimated to include point-source attenuation of 6 dB per doubling of distance. Noise generated by line sources (e.g., vehicles traveling on streets) was estimated to include line-source attenuation of 3 dB per doubling of distance from the noise source.

3.10.4.3 Impacts and Mitigation Measures

This section provides a discussion of each impact as it corresponds to the significance criteria presented in Section 3.10.4.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.10.4.4, *Summary of Noise Impacts*.

Impact NOI-1	Expose adjacent residential uses to increased noise levels during Project construction.
Level of Impact	Less than Significant

Discussion

Project construction activities would be conducted in compliance with Section 8.70.1, *Construction Noise*, of the City of Mountain View Municipal Code, which stipulates that no construction activity will commence prior to 7:00 a.m. or continue later than 6:00 p.m. Monday through Friday. Additionally, no work would be permitted on Saturdays, Sundays, or holidays unless prior written approval is granted by the building official. Therefore, Project construction would not violate standards established by the Mountain View Noise Ordinance. However, Project construction could result in temporary elevated noise levels at adjacent noise-sensitive land uses, including the apartment complexes located directly to the south of Hetch-Hetchy Parkway (ST3), and the multi-family residential area located at the northeast corner of the intersection of California Street and Pacchetti Way (ST4). The apartment complexes are about 250 feet south of the closest construction area, and the multi-family residential area is about 300 feet northeast of the closest construction area.

Project construction would include demolition, mass grading/excavation, building construction, and paving/utility activities. The noisiest of these activities is typically demolition and grading/excavation, when heavy equipment would be used. Building construction includes framing and interior work. Framing involves the use of pneumatic tools such as nail guns and hand tools such as hammers and saws. Interior work tends to be less intrusive since the noise occurs indoors. A summary of the construction phases, construction duration, and anticipated heavy construction equipment is provided in Table 3.10-3.

Table 3.10-3. Project Construction Activities and Equipment

Construction Activity	Construction Duration	Construction Equipment
Demolition	06/16/2014–06/27/2014	2 excavators
Parking structure excavation and site grading	06/30/2014–01/19/2015	1 blade, 5 skip loaders, 1 excavator, 1 compactor, 1 roller
Building construction	07/28/2014–07/18/2016	1 crane, 2 forklifts, 4 scissor lifts, 4 lifts
Site paving and utilities	01/20/2015–05/28/2015 02/02/2016–10/28/2016	1 wacker, 2 excavators, 1 loader, 1 crew truck, 1 pickup truck.

The estimated construction noise levels at existing residential uses adjacent to the Project construction activities are summarized in Table 3.10-4. The estimated construction noise levels reflect a conservative condition where the five loudest pieces of equipment are assumed to operate simultaneously for a 1-hour period. In reality, construction activities would likely be intermittent, so actual noise levels could be somewhat lower than the estimated noise levels in Table 3.10-4. The construction noise calculations are included in Appendix I.

Although the actual noise levels could be lower than estimated levels, construction noise would likely be substantially higher than the typical ambient daytime noise levels measured at the noise-sensitive land uses. At the apartment complexes south of the Project site, construction noise could be up to 12 dBA above the ambient noise level when construction activities occur in south portions of the Project site. At the multi-family residences northeast of the Project site, the construction noise could be up to 8 dBA above the ambient noise level when construction activities occur in the northeast portion of the Project site. However, the City has standard conditions of approval regarding construction noise (PL-85: Construction Noise Reduction), which would require the applicant to prepare and implement a noise control plan for construction that includes noise abatement measures to be incorporated into construction plans and contractor specifications. For the full text of condition PL-85, see Appendix M. These conditions of approval would ensure that existing residential uses adjacent to the Project site would not be exposed to substantially higher ambient noise from Project construction. Therefore, this impact is considered less than significant. No mitigation is required.

Table 3.10-4. Estimated Construction Noise Levels at Nearest Noise Sensitive Land Uses

Noise Sensitive Land Uses	Distance to Closest Building (feet)	Measured Daytime L_{eq} (dBA)	Estimated Construction L_{eq} (dBA)
Hetch-Hetchy Parkway and apartment complexes (ST3)	250	56	62–68
Multi-family residences (ST4)[a]	300	53	55–61

Note: Refer to Figure 3.10-1.

[a] Barrier walls are present along California Street to shield the first row of residences from traffic noise on California Street.

Impact NOI-2	Expose adjacent residential uses to increased noise levels from onsite Project operation.
Level of Impact	Less than Significant

Discussion

Project operation would consist of daily activities associated office, commercial, hotel, retail, cinema, and restaurant uses. Noise sources include stationary mechanical equipment, vehicular traffic and parking garage activities, and truck loading activities. The potential for these noise sources to exceed the noise standards is discussed below.

Mechanical Equipment

The Project would include installation of noise-generating equipment including HVAC units, exhaust fans, and cooling towers. All equipment would be located on the roof behind an acoustic wall/parapet. All equipment would include sound and vibration isolation to minimize sound transferred through the structure from rooftop equipment.

Mechanical HVAC equipment located on rooftops of new buildings has the potential to generate an average hourly noise level of between 50 and 65 dBA L_{eq} at 50 feet from the equipment (City of Santa Ana 2010). The screen installed around these mechanical systems and the roof parapet around the rooftops would typically reduce noise levels by approximately 15 dBA, which would reduce HVAC equipment noise to a maximum of 50 dBA L_{eq} at 50 feet from the equipment. The proposed buildings would be located approximately 250 feet north of apartment complexes in Phase I (ST3) and approximately 300 feet southwest of the multi-family residences on California Street and Pacchetti Way (ST4). At these distances, noise from the HVAC systems and sound-generating equipment at the Project site would be well below the noise limits of 55 dBA L_{eq} in daytime hours (7:00 a.m. to 10:00 p.m.) and 50 dBA L_{eq} in nighttime hours (10:00 p.m. to 7:00 a.m.) at existing residential uses adjacent to the Project site. Accordingly, the noise impact from mechanical equipment would be less than significant.

Vehicular Parking Activities

Noise sources from vehicular traffic at parking lots would include vehicle door slams, car starts, tire squeals, accidental car alarms, and other automotive noise. The proposed aboveground parking structure would be built on Block 5 with surrounding buildings of Blocks 2, 4, and 6 to shield noise sources from parking garage activities. Ramps to the underground parking garage on Blocks 1, 2, and 5 would also be located between Project buildings and away from the apartment complexes and multi-family residences. Therefore, noise associated with vehicular parking activities would be less than significant.

Truck Loading Activities

Truck loading activities would result in intermittent noise, such as engines idling and beeping of backing warning signals. Truck deliveries are part of the existing onsite activity; however, the increase in development, deliveries, and employees could result in an increase of onsite activities that could require additional deliveries and truck loading activities. Nonetheless, truck deliveries would involve small-scale deliveries of supplies and goods. In addition, the Project would locate the truck loading areas between Project buildings and away from the existing residential uses adjacent to the Project site. Given the short duration and relative infrequency of truck trips to the Project site, truck deliveries in the loading areas would not be a source of excessive ambient noise. Therefore, impacts related to truck deliveries would be less than significant.

In summary, the Project would not generate onsite operation noise in excess of 55 dBA L_{eq} in daytime hours (7:00 a.m. to 10:00 p.m.) or 50 dBA L_{eq} in nighttime hours (10:00 p.m. to 7:00 a.m.) at existing residential uses adjacent to the Project site. In addition, the City has standard conditions of approval regarding noise impacts (PL-86: Site-Specific Building Acoustical Analysis), which would be applied to the Project and would require a site-specific acoustical analysis based on the final mechanical equipment and building design and the implementation of recommended noise control treatments as necessary. For the full text of condition PL-86, see Appendix M. These conditions of approval would ensure that mechanical and building design treatments would reduce equipment noise to a level that complies with City noise standards. Accordingly, this impact would be less than significant. No mitigation is required.

Impact NOI-3	Expose nearby neighborhoods along major Project traffic access roadways to substantial noise increase from Project traffic.
Level of Impact	Less than Significant

Discussion

Project-generated traffic would occur primarily on San Antonio Road, El Camino Real, and California Street, considered major roadways in the area. Although the retail, hotel, and cinema uses would generate traffic throughout the day and into the evening, the maximum project traffic would be generated by the office uses during the AM and PM commute hours. In the Project vicinity, residences along these major project access roadways could potentially be affected by the increase in traffic noise caused by the Project. Table 3.10-5 summarizes the increase in traffic noise levels (L_{eq}) along San Antonio Road, El Camino Real, and California Street as a result of Project-generated traffic. Traffic noise levels (L_{eq}) were estimated based on the peak hour traffic volumes that are predicted to occur. The calculation of traffic noise levels is included in Appendix I.

As shown in Table 3.10-5, traffic noise is expected to increase by less than 3 dB as a result of the Project under both existing and cumulative conditions. The 3 dB increase is considered to be the threshold of a perceptible change. Therefore, the impact of increased traffic noise on residents along Project traffic access roadways is considered less than significant. No mitigation is required.

Table 3.10-5. Project Traffic Noise Increase at Representative Locations in the Project Vicinity

Roadway	Segment[b]	Distance to Center of the Road (feet)	Traffic Noise Level L_{eq} without Project (dBA)	Traffic Noise Level L_{eq} with Project (dBA)	Increase in Noise Level as a Result of Project (dB)	Significant Impact?[d]
Existing Condition[a]						
San Antonio Road	South of Middlefield Road	120	66	67	1	No
El Camino Real	East of Charleston Road	70	71	71	0	No
California Street	East of Pacchetti Way[c]	500	57	59	2	No
Cumulative Condition[a]						
San Antonio Road	South of Middlefield Road	120	67	67	0	No
El Camino Real	East of Charleston Road	70	72	72	0	No
California Street	East of Pacchetti Way[c]	50	58	59	1	No

Notes:

[a] Refer to Section 3.13, *Transportation and Circulation*, for a description of the traffic scenarios.

[b] The analysis segment is selected because the project trips would result in the highest traffic volume increase along the analysis roadway. Refer to Figures 7, 10, 13, and 14 of Appendix J (Transportation Impact Analysis report) for traffic volumes projected by the project's traffic consultant.

[c] There are barrier walls along California Street to shield the first row of residences from traffic noise on California Street.

[d] Significant impact is determined by the traffic noise increase of 3 dB, which generally considered the threshold of a perceptible change.

Impact NOI-4	Expose new onsite outdoor common areas to excessive noise.
Level of Impact	Less than Significant

Discussion

The project includes new onsite common outdoor areas that could expose people to excessive noise, primarily from traffic along San Antonio Road and California Street.

The Project includes office and commercial uses that would include outdoor terraces along San Antonio Road and California Street. As shown in Table 3.10-2, the existing daytime noise levels are approximately 61 dBA L_{eq} along San Antonio Road (ST2) and 59 dBA L_{eq} along California Street (ST1). With the future traffic growth and Project-generated traffic on the streets, the noise levels are expected to increase by 1 dB along San Antonio Road and 2 dB along California Street in the project vicinity (as shown in Table 3.10-5), resulting in future daytime noise levels of approximately 62 dBA L_{eq} along San Antonio Road (ST2) and 61 dBA L_{eq} along California Street (ST1), which is equivalent to approximately 65 dBA L_{dn} along San Antonio Road and 64 dBA L_{dn} along California Street.[1] The L_{dn} noise levels are below the normally acceptable outdoor noise level of 67.5 dBA L_{dn} for office and commercial land uses.

The Project includes a hotel, which would include common outdoor space, in the southern portion of the Project site near the Hetch-Hetchy Parkway. The existing noise level measured at the Hetch-Hetchy Parkway (ST3) was approximately 56 dBA L_{eq}. With the future traffic growth and project-generated traffic, the future noise level at the Hetch-Hetchy Parkway (ST3) is expected to increase by 1 dB along San Antonio Road in the project vicinity (as shown in Table 3.10-5), resulting in future daytime noise level of approximately 57 dBA L_{eq} at ST3, which is equivalent to approximately 60 dBA L_{dn}. The hotel would be set back from San Antonio Road and California Street and thus shielded from traffic noise by the office and commercial buildings surrounding it. Therefore, the future noise level at the hotel is expected to be much lower than the noise level at ST3 and would be well below the normally acceptable outdoor noise level of 60 dBA L_{dn} for hotel land uses.

In summary, this impact would be less than significant because the anticipated noise levels at outdoor common areas for the office, commercial, and hotel uses would be well below the City's established acceptable noise levels. No mitigation is required.

Impact NOI-5	Expose adjacent residential uses to groundborne vibration or groundborne noise levels during construction.
Level of Impact	Less than Significant

Discussion

Typical outdoor sources of perceptible groundborne vibration and noise are construction equipment, steel-wheeled trains, and heavy vehicles driving over bumps. If the roadways in use are smooth, the groundborne vibration and noise from traffic are rarely perceptible.

The operation of heavy construction equipment can generate localized groundborne vibration at buildings adjacent to the construction site, especially during the operation of high-impact equipment such as pile drivers. Vibration from nonimpact construction activity and truck traffic is

[1] Based on the noise measurements for Mountain View projects in the project vicinity, L_{dn} levels were about 1–3 dBA higher than the average daytime L_{eq} levels along arterial streets (Mountain View 2013a and 2013b).

typically below the threshold of residential annoyance when the activity is more than about 50 feet from the noise-sensitive land uses (Federal Transit Administration 2006). Within the study area, the nearest existing residential uses adjacent to the Project site are the apartment complexes located more than 50 feet south of the Project constriction area. Additionally, Project construction would not involve high-impact equipment, such as a pile driver.

Operation of the Project would consist of typical office, commercial, and retail operations and would not involve the use of vibratory equipment that would generate groundborne vibration and noise. Therefore, groundborne vibration and noise impacts associate with Project construction and operation would be less than significant. No mitigation is required.

3.10.4.4 Summary of Noise Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
NOI-1: Expose adjacent residential uses to increased noise levels during Project construction.	Less than Significant	None required	–
NOI-2 Expose adjacent residential uses to increased noise levels from onsite Project operation.	Less than Significant	None required	–
NOI-3: Expose nearby neighborhoods along major Project traffic access roadways to substantial noise increase from Project traffic.	Less than Significant	None required	–
NOI-4: Expose new onsite outdoor common areas to excessive noise.	Less than Significant	None required	–
NOI-5: Expose residential uses to groundborne vibration or groundborne noise levels during construction.	Less than Significant	None required	–

3.11 Population and Housing

This section describes the environmental and regulatory setting for population and housing. It also describes impacts on population and housing that would result from implementation of the Project and mitigation for significant impacts where feasible and appropriate. A summary of impacts and mitigation measures is presented at the end in Section 3.11.3.4, *Summary of Population and Housing Impacts*.

3.11.1 Environmental Setting

This section provides a discussion of the existing conditions related to population and housing on the Project site and within the City of Mountain View (City).

3.11.1.1 Population

The 2013 population of Mountain View was approximately 76,260, and the 2013 population of Santa Clara County was 1,842,254 (California Department of Finance 2013). Between 2013 and 2035, the City's population is expected to increase by approximately 15.9 percent to 90,600, with an average growth of 4.5 percent every 5 years. Table 3.11-1 presents the anticipated growth for both the City and the County.

Table 3.11-1. Mountain View and Santa Clara County Population Growth Projections 2015–2030

Year	City of Mountain View Population	Percent Change		Santa Clara County Population	Percent Change	
		Incremental	Cumulative		Incremental	Cumulative
2013	76,260	–	–	1,842,254	–	–
2020	80,200	4.9	4.9	2,063,100	10.7	10.7
2025	84,100	4.6	9.3	2.185,800	5.6	15.7
2030	87,300	3.7	12.6	2,310,800	5.4	20.3
2035	90,600	3.6	15.9	2,431,400	5.0	24.2

Source: California Department of Finance 2013; Association of Bay Area Governments 2009.

3.11.1.2 Housing

This section describes existing housing units and household characteristics in Mountain View and Santa Clara County.

Housing Units

In 2013, there were 34,136 housing units in the City of Mountain View (Table 3.11-2). This is an increase of 1,704 from 2000. Approximately 94.3 percent of the housing units were occupied in 2013, compared with 96.3 percent in 2000. In Santa Clara County, there were 639,446 housing units in 2013, up from 579,329 housing units in 2000. In 2013, approximately 4.4 percent or 28,020 of the housing units were vacant in Santa Clara County.

Table 3.11-2. Mountain View and Santa Clara County Housing Units 2000, 2013

	2000	2013
Mountain View		
Total Housing Units	32,432	34,136
Increase in Housing Units	–	1,704
Occupied Housing Units	31,242	32,197
Change in Occupied Housing Units		+955
Percent Occupied	96.3	94.3
Percent Vacant	3.7	5.7
Santa Clara County		
Total Housing Units	579,329	639,446
Increase in Housing Units	–	60,117
Occupied Housing Units	565,863	611,426
Change in Occupied Housing Units		+45,563
Percent Occupied	97.7	95.6
Percent Vacant	2.3	4.4

Source: Association of Bay Area Governments 2010; California Department of Finance 2013.

Households

In 2013 there were 32,197 households[1] in Mountain View (Williams pers. comm.). As shown in Table 3.11-3, the Association of Bay Area Governments (ABAG) projects that the number of households in Mountain View will increase by approximately 23.6 percent between 2015 and 2035, with an average increase of approximately 5.4 percent every 5 years.

Average Household Size

The average household size in Mountain View was 2.36 people in 2013 (California Department of Finance 2013). The average household size is expected to fall to approximately 2.18 people per household by 2030 (LSA Associates 2012).

[1] Households are based on occupied housing units.

Table 3.11-3. Mountain View and Santa Clara County Household Growth Projections 2010–2035

Year	City of Mountain View Households	Percent Change		Santa Clara County Households	Percent Change	
		Incremental	Cumulative		Incremental	Cumulative
2015	34,090	–	–	653,810	–	–
2020	36,090	5.9	5.9	696,530	6.5	6.5
2025	38,100	5.6	11.8	739,820	6.2	13.2
2030	40,120	5.3	17.7	785,090	6.1	20.1
2035	42,120	5.0	23.6	827,330	5.4	26.5

Source: Association of Bay Area Governments 2009.

3.11.1.3 Employment

ABAG estimates that between 2015 and 2035, there will be an approximately 44 percent increase in jobs in Santa Clara County, from 981,230 to 1,412,620. The number of jobs in Mountain View is projected to increase by approximately 38 percent between 2015 and 2035 (LSA Associates 2012). In August 2013, the unemployment rate was 6.7 percent in the County and 5.0 percent in Mountain View (California Employment Development Department 2013). Table 3.11-4 summarizes the projected 5-year incremental increases in jobs in Mountain View and Santa Clara County from 2015 to 2035.

Approximately 6 percent of the jobs in Santa Clara County are located in Mountain View. This trend is projected to continue until 2035.

Since 2010, Mountain View has had more jobs than employed residents (Table 3.11-4). In 2013, the City had 67,327 jobs and 39,784 employed residents, a ratio of 1.69 jobs for every employed resident (Williams pers. comm.). This means that some employees working in Mountain View live elsewhere and are in-commuting. Santa Clara County also has more jobs than employed residents. This trend is expected to continue through 2035.

Table 3.11-4. Mountain View and Santa Clara County Employment Projections

	2015	2020	2025	2030	2035
Mountain View	52,510	53,650	58,890	65,310	72,470
Santa Clara County	981,230	1,071,980	1,177,520	1,292,490	1,412,620

Source: LSA Associates 2012.

3.11.2 Regulatory Setting

3.11.2.1 Federal

There are no relevant federal regulations for population and housing.

3.11.2.2 State

There are no relevant state regulations for population and housing other than the California Department of Housing and Community Development's (HCD's) Regional Housing Needs Allocation (RHNA), which is discussed in Section 3.11.2.3.

3.11.2.3 Local

ABAG Regional Housing Need Allocation

The RHNA process addresses the need for housing across a range of incomes and in all communities throughout the state. To ensure that adequate housing is available for all income groups, HCD is responsible for determining this regional need in coordination with ABAG. ABAG is required to distribute the region's share of statewide need to the cities and counties within its jurisdiction.

The purpose of the RHNA is to allocate to cities and counties their "fair share" of the Bay Area's projected housing need by household income groups, which are categorized as very low, low, moderate, and above moderate.

Mountain View 2030 General Plan

The *Mountain View 2030 General Plan* (General Plan) contains goals and policies related to population and housing within the San Antonio Change Area. The policy related to population and housing is listed below. For a more comprehensive consistency analysis with General Plan goals and policies, refer to Table 3.9-1 in *Section 3.9, Land Use and Planning*.

- **Policy LUD 2.1.1:** A mix of land uses. Support a mix of commercial land uses serving the neighborhood and the region.

City of Mountain View Housing Element

The City of Mountain View Housing Element 2007–2014 (City of Mountain View 2010) includes plans and policies to address the housing needs of the City of Mountain View. The relevant policy is:

- **Policy 1.D:** Provide higher density housing near transit, in the Downtown, near employment centers, and within walking distance of services.

City of Mountain View Housing Impact Fee Program

The City of Mountain View Municipal Code includes a Housing Impact Fee Program (Chapter 36, Article X, Division 3). The Housing Impact Fee Program requires developers of nonresidential projects that involve the construction of new floor area to pay a fee that will be used to increase and improve the supply of housing affordable to households of very low, low, and moderate income.

3.11.3 Impact Analysis

3.11.3.1 Criteria for Determining Significance

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing population and housing.

A Project impact would be considered significant if construction or operation of the proposed Project would result in any of the following.

1. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

There are no housing units on the project site and the Project does not include the demolition of existing housing units. The Project would not displace substantial numbers of existing housing or people. Accordingly, the Project would have no impact on housing and potential impacts on the displacement of existing housing and people are not analyzed further.

3.11.3.2 Methods

Identifying a project's impacts on population and housing involves a review of ABAG's *Projections 2009* (Association of Bay Area Governments 2009) and the Mountain View 2030 General Plan, and measuring the project's population growth against that data.

3.11.3.3 Impacts and Mitigation Measures

This section provides a discussion of each impact as it corresponds to the significance criteria presented in Section 3.11.3.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized below in Section 3.11.3.4, *Summary of Population and Housing Impacts*.

Impact POP-1a	Create new employment opportunities which would indirectly induce population growth.
Level of Impact	Less than Significant

Discussion

The existing retail and commercial establishments on the Project site employ approximately 43 people. The Project would generate approximately 2,500 new jobs, representing an increase of 2,457 jobs at the Project site. As discussed in the Section 3.11.1.3, *Employment*, it is projected that by 2035 there will be 72,470 jobs in the City of Mountain View, an increase of 19,960 jobs from 2015. In Santa Clara County, it is projected that there will be approximately 1,412,620 jobs in 2030, an increase in 431,390 jobs from 2015 (LSA Associates 2012). Therefore, the 2,457 new jobs generated by the Project would fall within City and county-wide job projections.

As discussed in the *Housing* section, in 2013 there were 1,946 vacant housing units in the City of Mountain View and 28,136 vacant housing units in Santa Clara County. The majority of new employees can be expected to live in the existing vacant housing in Mountain View or Santa Clara County. New housing development projects in Mountain View or Santa Clara County will undergo their own environmental review process to assess impacts related to the direct increase in population. Therefore, the Project would not directly induce population growth and the impact on population growth is less than significant. No mitigation is required.

Impact POP-1b	Induce indirect population growth due to jobs created by Project construction and utility extension.
Level of Impact	Less than Significant

Discussion

Construction of the Project would result in a temporary increase in construction-related job opportunities in the local area. However, the opportunities provided by Project construction would not likely result in construction workers relocating their households to the Project vicinity because these jobs would be temporary. It is expected that construction workers would be drawn from the construction employment labor force already residing in Mountain View and the surrounding communities. The construction jobs would be new jobs, however, and would slightly alter the balance of jobs to employed residents in Mountain View. This effect would not be permanent, and is not expected to change the current ratio of 1.69 jobs per employed resident. Accordingly, employment opportunities provided by construction would not generate substantial population growth.

The project would install new utility lines to connect to the existing utility lines along the perimeter of the Project site. The new utility lines would be installed to accommodate Project operation, and would not induce indirect population growth. While the Project would include two new private parallel roads on the Project site, the project would not include the construction of new public roads that could result in indirect population growth.

Therefore, impacts related to indirect population growth are considered less than significant. No mitigation is required.

3.11.3.4 Summary of Population and Housing Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
POP-1a: Create new employment opportunities which would indirectly induce population growth.	Less than Significant	None required	–
POP-1b: Induce indirect population growth due to jobs created by Project construction and utility extension during Project operation.	Less than Significant	None required	–

3.12 Public Services and Recreation

This section describes the environmental and regulatory setting for public services and recreation including schools, fire protection and emergency medical services, police protection, and parks. It also describes impacts on public services and recreation that would result from implementation of the Project and mitigation for significant impacts where feasible and appropriate. A summary of impacts and mitigation measures is presented at the end in Section 3.12.3.4, *Summary of Public Services and Recreation Impacts*.

3.12.1 Environmental Setting

3.12.1.1 Public Services

Unless otherwise noted, the following regional setting information for public services was obtained from the *City of Mountain View Draft 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report* (General Plan EIR) (LSA Associates 2011), *Mountain View General Plan Update Current Conditions Report* (MIG et al. 2009), and the *Precise Plan Amendments and San Antonio Center Project Environmental Impact Report* (City of Mountain View 2010).

Schools

The City of Mountain View (City) is served by three public school districts: Mountain View Whisman School District, Mountain View-Los Altos Union High School District (MVLA UHSD), and Los Altos Elementary School District (City of Mountain View 2012a). The Project area is served by elementary and middle schools in the Los Altos School District (LASD) and by high schools in the MVLA UHSD.

According to the *MVLA UHSD Review and Update of the Development Impact Fee Justification Study* prepared by Schoolhouse Services (2012), younger families are being attracted to and moving to the area. This can be seen in the increase of a little over 6 percent in enrollment from the fall of 2007 to the fall of 2012 in the District's two elementary feeder districts. Therefore, it is expected that more students will be attending the elementary feeder districts and enrollment will be increasing across both the LASD and MVLA UHSD.

Los Altos School District

LASD operates nine schools serving the communities of Los Altos, Mountain View, Palo Alto, Los Altos Hills and some unincorporated areas. There are seven elementary (K–6) and two junior high schools (7–8). LASD also provides facilities to Bullis Charter School, which operates independently from the district. District-wide enrollment for the 2012–2013 school year was 4,505 students (California Department of Education 2013a). Elementary and intermediate school-age residents from the proposed Project area would attend Covington Elementary School for grades K–6 and Egan Junior High for grades 7–8 (Los Altos School District 2007). Current enrollment at Covington Elementary and Egan Junior High are 500 and 520, respectively (California Department of Education 2013a, 2013b). This represents approximately 22.6 percent of district-wide enrollment. The capacity of the Los Altos School District is 4,075 and Covington Elementary and Egan Junior High both have a capacity of 600 students (Kenyon pers. comm.). Although the district is 10 percent over capacity, Covington Elementary and Egan Junior High are operating at 83 percent and 87 percent capacity, respectively.

Mountain View-Los Altos Union High School District

MVLA UHSD provides school services to the communities of Mountain View, Los Altos, and Los Altos Hills. The high school district operates three high schools and one adult school. The three high schools are Los Altos High School, Mountain View High School, and Alta Vista High School. The proposed Project falls within the Los Altos High School attendance boundaries (Los Altos School District 2007).

The district's enrollment during the 2012–2013 school year was 3,737, which is 97 percent of its current capacity of 3,850. At Los Altos High School, student enrollment for 2012–2013 was 1,728, representing 96 percent of its current capacity of 1,800 (California Department of Education 2013c; Groves pers. comm.).

Fire Protection and Emergency Medical Services

The City of Mountain View Fire Department (MVFD) provides fire protection and emergency medical services in Mountain View. MVFD also participates in an automatic aid program with the cities of Palo Alto, Los Altos, and Sunnyvale, in addition to statewide and mutual aid programs.

MVFD has an established response time goal of 6 minutes (from dispatch) 90 percent of the time for "Medical Code Three" calls (i.e., those requiring expedited transport). During the 2012–2013 fiscal year (July 1, 2012 to June 30, 2013), the MVFD achieved this goal 100 percent of the time.

During the 2012–2013 fiscal year, the MVFD had 87 full-time staff, and 1.5 permanent part-time staff, including 21 paramedics. MVFD staff are organized into three divisions: Administration, Suppression, and Fire and Environmental Protection. The Administration Division has 3.5 full-time positions. The Suppression Division has 69.5 operations positions (firefighters and paramedics), one training/safety position, and 1.5 Office of Emergency Services/Public Information position. The Fire and Environmental Protection Division has 12 positions, including staff for the Environmental Safety and Fire and Building Safety sub-divisions.

The MVFD operates out of five fire stations: Station 1, at 251 South Shoreline Boulevard; Station 2, at 160 Cuesta Drive; Station 3, at 301 North Rengstorff Avenue; Station 4, at 229 North Whisman Road; and Station 5, at 2195 North Shoreline Boulevard (McKenzie pers. comm.). The five MVFD fire stations are staffed daily by a minimum of 21 firefighters, an MVFD standard. Each station staffs one fire engine. The Administration Division is at 1000 Villa Street, and the Fire and Environmental Protection Division is located in City Hall at 500 Castro Street. Emergency transport services are provided by Rural Metro through a contract with Santa Clara County. (City of Mountain View 2013).

The closest Fire Station to the Project site is Station 3, located approximately 1.3 miles northeast. It staffs one engine, one truck, and one rescue vehicle. The second closest is Fire Station 1, approximately 2.6 miles east of the Project site. The estimated response time from both stations to the Project site is 6 minutes or less.

Police Protection Services

Police services in the City are provided by the City of Mountain View Police Department (MVPD), which operates out of one police station, located at 1000 Villa Street. MVPD has a staff of 96 sworn and 48 non-sworn personnel. The MVPD conducts an active volunteer program (non-officers), which consists of approximately 30 non-sworn volunteers.

MVPD separates the City into four beats. The Project site is located in Beat 2 (City of Mountain View n.d.). MVPD's goal is to respond to emergency and priority 1 calls, which warrant emergency dispatch and are the highest priority, in less than 4 minutes at least 55 percent of the time. During the 2012–2013 fiscal year, MVPD had a response time of 4 minutes or less 53.1 percent of the time. However, a review shows a consistent increase in overall response times between 6 a.m. and 6 p.m., suggesting that traffic and drive time are most likely reasons for the increase. MVPD continues to evaluate response times to see if other factors may also be in play (McKenzie pers. comm.).

Other Public Services and Community Facilities

There is one library in the City, the Mountain View Public Library (Public Library), at 585 Franklin Street in downtown Mountain View.

Hospitals and medical facilities in the City are El Camino Hospital at 2500 Grant Road, Kaiser Permanente Medical Center at 555 Castro Street, and Palo Alto Medical Foundation—Mountain View Center at 710 East El Camino Real.

The City also offers the following community facilities: two swimming pools and a tennis complex; the Mountain View Center for the Performing Arts, located on Castro Street in downtown Mountain View; the Mountain View Senior Center, at 266 Escuela Avenue; the Mountain View Community Center, at 201 South Rengstorff Avenue in Rengstorff Park; the Mountain View Teen Center, at 298 Escuela Avenue; Rengstorff House,[1] at 3070 North Shoreline Boulevard in Shoreline Park; and the Adobe Building,[2] at 157 Moffett Boulevard (City of Mountain View 2012b; MIG et al. 2009).

3.12.1.2 Recreation

The City has nearly 1,000 acres of parks and open space and an interconnected system of trails that links neighborhoods to parks and other community facilities, including recreational facilities (City of Mountain View 2012b). The City had 13.5 acres of parkland per 1,000 residents in 2010, substantially better than its standard of 3.0 acres per 1,000 residents (see *City of Mountain View Parks and Open Space Plan*, below) (City of Mountain View 2008). Two large regional open spaces, Shoreline at Mountain View Regional Park and Stevens Creek Trail, account for 80 percent of the City's park and open space area.

Recreational and community facilities include two athletic complexes, Mountain View Sports Pavilion, and the Whisman Sports Center, as well as 15 ball fields, 14 soccer/football fields of varying sizes, and 32 tennis courts. The City also owns and operates two outdoor aquatic facilities, the Eagle Pool and the Rengstorff Pool. Mountain View has an extensive and growing multi-use pedestrian and bicycle trail network, which includes the Stevens Creek, Hetch-Hetchy, Permanente Creek, Whisman Light Rail, and Bay Trails. Mountain View also has a public golf facility, the Shoreline Golf Link, which is located within Shoreline Regional Park. Additionally, the City has two community gardens that are open to Mountain View residents and current City employees for an annual rental fee. Mountain View residents also have access to parks and recreation services in the adjacent cities of Los Altos, Sunnyvale, and Palo Alto (MIG et al. 2009).

[1] Rengstorff House offers educational programs that focus on the area's early history. The facility is available for special events and meetings.

[2] The Adobe Building is available for a variety of events, ranging from weddings to corporate meetings.

The Project site is in the San Antonio/Rengstorff Neighborhood Planning Area of the *Mountain View 2030 General Plan* (General Plan). More specifically, the Project site is in the City's San Antonio Change Area within the San Antonio/Rengstorff Neighborhood (City of Mountain View 2012b; MIG et al. 2009). The San Antonio Change Area is centered around the San Antonio Center and contains small and medium-sized retail and commercial uses (City of Mountain View 2012b). The Project site is also located within the San Antonio Planning Area of the Mountain View Parks and Open Space Plan (Parks and Open Space Plan) (City of Mountain View 2008). The San Antonio Planning Area occupies the southwest corner of the City, encompasses approximately 506 acres, and is bounded by Central Expressway, the Palo Alto border, El Camino Real and Escuela Avenue (City of Mountain View 2008).

Klein Mini-Park, Rengstorff Park, and the recently opened Del Medio Park are the only open space facilities in the San Antonio Planning Area. The closest park to the Project site is the 0.35-acre Del Medio Mini-Park, which is approximately 0.2 miles northwest of the Project site. A children's play area is the primary facility provided at the Del Medio Mini-Park. The second closest park is the Klein Mini-Park, which is approximately 0.34 mile east of the Project site. Activities at Klein Mini-Park are primarily basketball and children's play. Rengstorff Park is approximately 0.6 mile east of the Project site and is one of two large community parks in the City; it is heavily used. This park provides barbecue and picnic facilities, basketball, volleyball, swimming, children's play areas and informal field sports such as football, soccer, and softball. The City's Community Center is also located at Rengstorff Park. A wide variety of youth and community meetings are held at the Community Center (City of Mountain View 2008). Table 3.12-1 summarizes planning area data for the San Antonio Planning Area compared to the Citywide average.

Approximately one-half of the San Antonio Planning Area is devoted to residential uses. However, multi-family units are the primary type of residence, with only small pockets of single-family homes. As a result, the density of the residential areas is high compared to the average in the City. According to the Parks and Open Space Plan, the San Antonio Planning Area has a ratio of 1.36 acres per 1,000 residents. This ratio is below the City standard of 3.0 acres per 1,000 residents, meaning that this Planning Area is deficient in open space resources. On the other hand, the ratio of open space to planning area is greater for the San Antonio Planning Area with 18.28 acres (3.6 percent) than for the City at 20.74 acres (2.8 percent). While the percentage of open space in the area is above average, it is concentrated in the eastern section of the planning area, where Rengstorff Park represents 95 percent of the area's total park land. Therefore, given the large number of multi-family units, the large area bounded by San Antonio Road, California Street, Rengstorff Avenue, and Central Expressway that is isolated from City open space facilities, and the fact that the open space standard is not met, the City has identified a need to acquire additional open space in the San Antonio Planning Area (City of Mountain View 2008).

In addition to lands specified as parklands, 12 school campuses are used as neighborhood parks outside of school hours, in accordance with joint-use agreements between the City and Mountain View Whisman School District (City of Mountain View 2012b).

Table 3.12-1. Planning Area Data for San Antonio and the City

Description	San Antonio Planning Area	Citywide Average
Size (acres)	506	648
Open Space Acres (% of area)	18.28 (3.6)	20.74 (2.8)
Residential Density (# persons per residential acre)	55	21
Open Space Acres per 1,000 Residents	1.36	3.00
Source: City of Mountain View 2008.		

3.12.2 Regulatory Setting

3.12.2.1 Federal

There are no federal regulations pertaining to public services and recreation.

3.12.2.2 State

Quimby Act of 1975

The Quimby Act of 1975, amended several times since then, authorizes jurisdictions to pass ordinances that would require developers of residential land to dedicate land or impose a requirement of in-lieu fees for park or recreational purposes as a condition to the approval of a parcel map.

California Government Code Section 65996

California Government Code Section 65996 describes the exclusive methods of considering and mitigating impacts on school facilities that result or could result from any state or local agency action, including development of real property. One of these methods is through Education Code Section 17620, described below.

Education Code Section 17620

Education Code Section 17620 authorizes school districts to levy a fee, charge, dedication, or other form of requirement against any development project for the construction or reconstruction of school facilities provided the district can show justification for levying of fees.

3.12.2.3 Local

City of Mountain View 2030 General Plan

The Public Safety and Infrastructure and Conservation Elements of the General Plan (City of Mountain View 2012b) include policies to ensure that public safety service levels remain adequate. The following goals and policies may be applicable to the Project.

Goal PSA-1: A high level of community safety with police, fire, and emergency response services that meet or exceed industry-accepted service standards.

PSA 1.1: Adequate staffing. Maintain adequate police and fire staffing, performance levels and facilities to serve the needs of the community.

Goal PSA-2: A total commitment to reducing criminal activity and instilling a feeling of safety and security in the community.

PSA 2.7: Police service levels and facilities. Ensure Mountain View Police Department service levels and facilities meet demands from new growth and development.

Goal PSA-3: A community protected from fire, hazardous materials and environmental contamination.

PSA 3.1: Minimized losses. Minimize property damage, injuries and loss of life from fire.

Goal INC-2: Infrastructure systems planned and designed to function during interruptions, emergencies, or disasters.

INC 2.2: Emergency service providers. Ensure long-term reliability from service providers and suppliers, especially in the case of an emergency or natural disaster.

The Parks, Open Space, and Community Facilities Element of the General Plan (City of Mountain View 2012b) includes goals related to parks, open space, and park facilities. The following goals and policies may be applicable to the Project.

Goal POS-1: An expanded and enhanced park and open space system.

Policy POS 1.1: Additional parkland. Expand park and open space resources to meet current City standards for open space acreage and population in each neighborhood.

Policy POS 1.2: Recreation facilities in new residential developments. Require new development to provide park and recreation facilities.

Goal POS-2: Parks and public facilities equitably distributed throughout the community and accessible to residents and employees.

Policy POS 2.1: Distribution of Parks. Give priority for park acquisition to the Planning Areas identified in the Parks and Open Space Plan.

City of Mountain View Parks and Open Space Plan

The *City of Mountain View Parks and Open Space Plan* (Parks and Open Space Plan) (City of Mountain View 2008) was updated in 2008 to provide a comprehensive review of open space needs for the City of Mountain View. The Parks and Open Space Plan serves as a tool to help implement the open space goals in the General Plan. To achieve these goals, the Parks and Open Space Plan offers a long-range vision to guide decisions made to advance park and open space resources as well as environmental conservation efforts that enhance the quality of life for all who live and work in the City. The Parks and Open Space Plan includes recommendations to increase, improve, preserve, and provide access to open space and develop trail systems. These recommendations are intended to ensure that parks and open space and access to these resources are evenly distributed throughout the town.

A main focus of the Parks and Open Space Plan is to improve and provide safe and convenient access to existing parks and open space. According to the Parks and Open Space Plan, improved access could reduce the need for the acquisition of additional open space.

The Parks and Open Space Plan has adopted a standard of 3 acres of open space per 1,000 persons living in the City. Currently, the City of Mountain View has 13.5 acres of open space per 1,000 residents, including regional open space and school parks.

The Parks and Open Space Plan includes the following recommendations for the San Antonio planning area.

- Acquire land in the midsection of the San Antonio planning area for development of a mini-park, preferably on the north side of California Street between Showers Drive, Central Expressway, and Rengstorff.
- Provide a safer and improved crossing of Rengstorff Avenue to increase the accessibility of Rengstorff Park to those persons living on the west side of Rengstorff Avenue, north of California Street.
- Improve access to the new parks at the Mayfield Mall site.
- Continue the renovation of Rengstorff Park.

The Parks and Open Space Plan also identified a citywide priority to build mini-trails to facilitate access to trails, especially from neighborhoods that are deficient in open space.

3.12.3 Impact Analysis

3.12.3.1 Criteria for Determining Significance

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing public services and recreation.

A Project impact would be considered significant if construction or operation of the proposed Project would cause any of the following.

1. 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:
    a. Fire protection.
    b. Police protection.
    c. Schools.
    d. Parks.
    e. Other public facilities.
2. 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.
3. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

3.12.3.2 Methods

The potential impacts associated with public services are evaluated on a quantitative and qualitative basis through coordination with respective service agencies. Significant impacts would occur if the Project would adversely affect the ability of service agencies to provide adequate service to the Project area or to other existing service areas and if new facilities would be required as a result of the Project, the construction of which could cause significant environmental effects.

Identifying the proposed Project area's public services involved review of the following documents and sources of information.

- City of Mountain View web site.
- City of Mountain View planning documents:
  - Mountain View General Plan Update Current Conditions Report.
  - Review of the City of Mountain View's 2030 General Plan.
- Service providers' web sites.
- Direct communications with service providers.

3.12.3.3 Impacts and Mitigation Measures

This section provides a discussion of each impact as it corresponds to the significance criteria presented in Section 3.12.3.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.12.3.4, *Summary of Public Services and Recreation Impacts*.

Impact PSR-1a	Reduced service ratios and response times for fire protection and emergency medical services during construction.
Level of Impact	Significant
Mitigation Measure TRA-MM-8	Develop and implement a construction traffic control plan.
Level of Impact after Mitigation	Less than Significant

Discussion

Construction of the proposed Project is scheduled to commence July 2014 and end November 2016, lasting approximately 28 months. All construction activities would be contained with a chain-link fence around the entire site. Since Project construction would be a temporary activity and all building plans would be subject to review by the City and MVFD prior to the issuance of any building permits, Project construction is unlikely to materially or permanently increase the need for emergency fire protection services. Further, existing fire services are expected to be adequate and capable of ensuring safety during construction at the Project site (McKenzie pers. comm.).

Emergency access to the Project area could be affected by Project construction. Temporary lane closures and construction-related traffic could delay or obstruct the movement of emergency vehicles. This impact could be significant; however, implementation of **Mitigation Measure TRA-MM-8** would ensure emergency access and thereby reduce the impact to a less-than-significant level. Accordingly, impacts related to construction activities would be less than significant after implementation of **Mitigation Measure TRA-MM-8**.

Impact PSR-1b	Reduced service ratios and response times for fire protection and emergency medical services during operation.
Level of Impact	Less than Significant

Discussion

The proposed Project would develop 1.2 million sf of mixed uses that could create a need for additional fire protection services. However, the Project site is currently developed with 59,655 sf of commercial and retail buildings and is adequately served by the MVFD. Although the proposed Project would result in a more intense development of the site, it is not expected to significantly impact the service ratios and response time for the MVFD. Further, the proposed Project would be developed in accordance with applicable state, county, and City regulations, codes, and policies for fire-hazard reduction and protection, including the Uniform Fire Code and the Municipal Fire Code.

Additionally, Project buildings would be equipped with emergency sprinkler systems and fire detectors. Vehicular and emergency access to the Project site would be provided from Pacchetti Way, California Street, and San Antonio Road. As shown on Figure 2-7, *Internal Circulation*, there would be an internal street network that would provide emergency vehicles with access to all six blocks. The bollards that would close off the promenade between Blocks 2 and 5 on weekend evenings would be retractable for emergency access. Prior to issuing grading and building permits, the City would review all emergency access and building plans to ensure compliance with all City building and fire codes, as well as applicable water pressure and fire equipment regulations.

The Project is located within the response area for Fire Station 3. The response time goal for Station 3 is 6 minutes or less, and existing actual response times are 6 minutes or less (McKenzie pers. comm.). Implementation of the Project is expected to result in an increase of approximately 2,457 employees at the Project site.[3] The City of Mountain View Fire Department staff determined that this estimated increase would not degrade response times below department goals (McKenzie pers. comm.). Therefore, the proposed Project would be within the current capacity of the MVFD and would not create the need for any new facilities or personnel during Project operations. Impacts would be less than significant. No mitigation is required.

Impact PSR-2a	Reduced service ratios and response times for police protection during construction.
Level of Impact	Significant
Mitigation Measure TRA-MM-8	Develop and implement a construction traffic control plan.
Level of Impact after Mitigation	Less than Significant

Discussion

Construction of the proposed Project is scheduled to commence July 2014 and end November 2016, lasting approximately 28 months. All construction activities would be contained with a chain-link fence around the entire site. Since Project construction would be a temporary activity and the existing Project site is adequately served by the MVPD, it is unlikely to materially or permanently

[3] The proposed Project is expected to create approximately 2,500 jobs. Currently there are approximately 43 workers employed on the Project site.

increase the need for police protection services. Existing police services are expected to be adequate and capable of ensuring safety during construction at the Project site (McKenzie pers. comm.).

As discussed above under Impact PSR-1a, emergency access to the Project area could be affected by Project construction. Temporary lane closures and construction-related traffic could delay or obstruct the movement of emergency vehicles. This impact could be significant; however, implementation of **Mitigation Measure TRA-MM-8** would ensure emergency access and thereby reduce the impact to a less-than-significant level. Accordingly, impacts related to construction activities would be less than significant after implementation of **Mitigation Measure TRA-MM-8.**

Impact PSR-2b	Reduced service ratios and response times for police protection during operation.
Level of Impact	Less than Significant

Discussion

The Project would develop approximately 1.2 million sf of mixed uses that could create a need for additional police protection services. Retail, office, restaurant, cinema, and hotel uses on the site would increase the daytime and nighttime population of the proposed Project area. However, the MVPD already adequately services the Project site in its current configuration, and police services and staffing ratios go through an annual budgeting process during which citywide priorities are established and service levels monitored, allowing adjustment where needed.

As described above, the Project is located within Beat 2 of the MVPD. The response time goal for the MVPD is to arrive on scene in 4 minutes or less in 55 percent of all emergency and priority 1 calls in all sectors of the City. Although the proposed Project would increase employment at the Project site by approximately 2,457 jobs, it is expected that the majority of these employees would come from the local population and would not place a significant burden on the MVPD. Furthermore, City of Mountain View Police Department staff determined that this estimated increase in employees would not reduce response times below department goals (McKenzie pers. comm.). Therefore, the proposed Project would be within the current capacity of the MVPD and would not create the need for any new facilities or personnel during Project operations. Furthermore, lighting on the Project site would be designed to minimized unwanted trespass and provide safe lighting levels for pedestrian activities throughout the site. Impacts would be less than significant. No mitigation is required.

Impact PSR-3	Substantial increase in student enrollment resulting in adverse physical impacts.
Level of Impact	Less than Significant

Discussion

The demand for new schools is generally associated with population increases or impacts on existing schools. The proposed Project would increase the number of employees at the Project site by approximately 2,457; however, it is expected that the majority of these employees would come from the local population and a significant number of workers would not relocate from outside the region. Furthermore, the proposed Project would not bring a substantial influx of children and adolescents into the area that would require educational accommodations.

School services in the Project area are provided by the MVLA UHSD and Los Altos Elementary School District. The MVLA UHSD is currently operating at 97 percent capacity and is expected to be able to accommodate any new students generated as a result of the proposed Project. The LASD is operating at 10 percent over capacity; however, the local schools which would serve the project, Covington Elementary and Egan Junior High, are operating at 83 percent and 87 percent capacity, respectively.

Additionally, pursuant to the MVLA UHSD Impact Fee Justification Study Review, the proposed Project would be subject to pay school impact fees to compensate for any potential indirect impact on school services. The Schoolhouse Services (2012) study discussed in Section 3.12.1.1 addresses the impacts of non-residential development for varying types of development. The factors that affect the impacts are the density of employment by type, the formation of workers' households, student generation from these households, the cost of facilities to house these students, and how much of that cost is left unfunded after receipt of residential fees. The District's 2012 maximum commercial/industrial fee is $0.17 per square foot (Schoolhouse Services 2012). Impacts would be less than significant. No mitigation is required.

Impact PSR-4	Increased use or reduced level of service at parks resulting in adverse physical impacts.
Level of Impact	Less than Significant

Discussion

Development of the proposed Project would increase the demand for additional park and recreational space for its new patrons and employees. However, there is sufficient acreage of neighborhood and regional parks close to the Project site. As described in Section 3.12.1.2, *Recreation*, Klein, Del Medio, and Rengstorff Parks are located within 1 mile of the Project site. Additionally, the proposed Project would include a promenade between the east and west blocks that would extend from California Street to the existing Hetch-Hetchy Parkway. This promenade would be open to vehicles during the week and, but on weekend evenings, the promenade would be closed for pedestrian use only between Blocks 2 and 5. The Promenade would include an open plaza area, potted trees, and two monuments dedicated to the Birthplace of Silicon Valley. Since the proposed Project would provide open space opportunities and there are multiple neighborhood and regional parks close to the Project area, the proposed Project is not expected to cause physical deterioration in nearby park and recreational facilities or create a need for new or expanded recreational facilities. Impacts would be less than significant.

Impact PSR-5	Reduced use or level of service at other public service and community facilities.
Level of Impact	Less than Significant

Discussion

As discussed above, the proposed Project would increase the number of employees at the Project site by approximately 2,457; however, it is expected that the majority of these employees would come from the local population and a significant number of workers would not relocate from outside the region. Employees commuting from other areas who may occasionally use existing facilities would not create a need for staff increases or new facilities. Therefore, the proposed Project is not expected to generate a substantial number of new users of public facilities requiring the need for new or altered service facilities. Accordingly, the proposed Project would not result in substantial adverse impacts on public facilities or require new facilities to maintain acceptable performance standards. Impacts would be less than significant. No mitigation is required.

3.12.3.4 Summary of Public Services and Recreation Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
PSR-1a: Reduced service ratios and response times for fire protection and emergency medical services during construction.	Significant	TRA-MM-8: Develop and implement a construction traffic control plan.	Less than Significant
PSR-1b: Reduced service ratios and response times for fire protection and emergency medical services during operation.	Less than Significant	None required	–
PSR-2a: Reduced service ratios and response times for police protection during construction.	Significant	TRA-MM-8: Develop and implement a construction traffic control plan.	Less than Significant
PSR-2b: Reduced service ratios and response times for police protection during operation.	Less than Significant	None required	–
PSR-3: Substantial increase in student enrollment resulting in adverse physical impacts.	Less than Significant	None required	–
PSR-4: Reduced use or level of service at parks resulting in adverse physical impacts.	Less than Significant	None required	–
PSR-5: Reduced use or level of service at other public service and community facilities.	Less than Significant	None required	–

3.13 Transportation and Circulation

This chapter summarizes the potential transportation and circulation impacts related to construction and operation of the Project based on the Transportation Impact Analysis (TIA) report (Appendix J) prepared for the Project by Fehr & Peers Transportation Consultants in 2013. Included is a review of existing conditions, a summary of applicable policies and regulations related to transportation and circulation, and an analysis of environmental impacts of the Project. Where feasible, mitigation measures are recommended to reduce the level of expected impacts. A summary of impacts and mitigation measures is presented at the end in Section 3.13.3.4, *Summary of Transportation and Circulation Impacts*.

3.13.1 Environmental Setting

This section provides a discussion of the existing conditions related to transportation and circulation on the Project site and the surrounding area. The study area for transportation and circulation impacts is defined as the surrounding street network, and transit, pedestrian, and bicycle facilities in the vicinity of Project site that could potentially be affected by implementation of the Project.

3.13.1.1 Study Area

The Project site is located on San Antonio Road, south of California Street, west of Pacchetti Way, north of El Camino Real (also known as State Route [SR] 82), and near US 101. In the Project vicinity, US 101 and El Camino Real are part of the Congestion Management Program (CMP) roadway system of Santa Clara County. Santa Clara Valley Transportation Authority (VTA) is responsible for maintaining the performance and standards of the CMP roadway system in Santa Clara County.

Project impacts on the study area roadway facilities were determined by measuring the effect Project traffic would have on intersection operations during the morning (7:00 AM to 9:00 AM) and evening (4:00 PM to 6:00 PM) peak periods. A total of 27 intersections were selected in consultation with City of Mountain View (City) staff and based on VTA's TIA Guidelines (2009), which indicate that intersections should be included if a proposed project is expected to add 10 or more peak hour vehicles per lane to any intersection movement. Intersections that are designated by the *Mountain View 2030 General Plan* (2012) as within the San Antonio Center Planning Area are also identified. The study intersections and their jurisdictions are summarized in Table 3.13-1. Figure 3.13-1 shows the location of the Project site, the surrounding transportation network, and study intersections and roadway segments.

Table 3.13-1. Study Intersections

Intersection		Intersection	
1	San Antonio Road and US 101 NB Off-Ramp (MV)	15	El Camino Real and Del Medio Avenue (MV)
2	San Antonio Road and Charleston Road (CMP)	16	El Camino Real and Showers Drive (MV)
3	San Antonio Road and Middlefield Road (CMP)	17	El Camino Real and Ortega Avenue (MV)
4	San Antonio Road and California Street (MV)**	18	El Camino Real and Rengstorff Avenue (CMP)
5	San Antonio Road and Fayette Drive (MV)**	19	California Street and Del Medio Avenue (MV)**
6	San Antonio Road and El Camino Real (CMP)	20	California Street and Pacchetti Way (MV)**
7	San Antonio Road and W Portola Avenue (LA)	21	California Street and Showers Drive (MV)**
8	San Antonio Road and Almond Avenue (LA)	22	California Street and Ortega Avenue (MV)**
9	San Antonio Road and W Edith Avenue/Main Street (LA)	23	California Street and Rengstorff Avenue (MV)**
10	San Antonio Road and Cuesta Drive/First Street (LA)	24	Latham Street and Showers Drive (MV)**
11	El Camino Real and Los Robles Avenue/El Camino Way (PA)	25	El Camino Real and El Monte Avenue (CMP)
12	El Camino Real and Maybell Avenue (PA)	26	El Camino Real and Shoreline Boulevard (CMP)
13	El Camino Real and Arastradero Road/Charleston Road (PA)	27	El Camino Real and Castro Street (CMP)
14	El Camino Real and Los Altos Avenue/ Cezano Court (LA)		

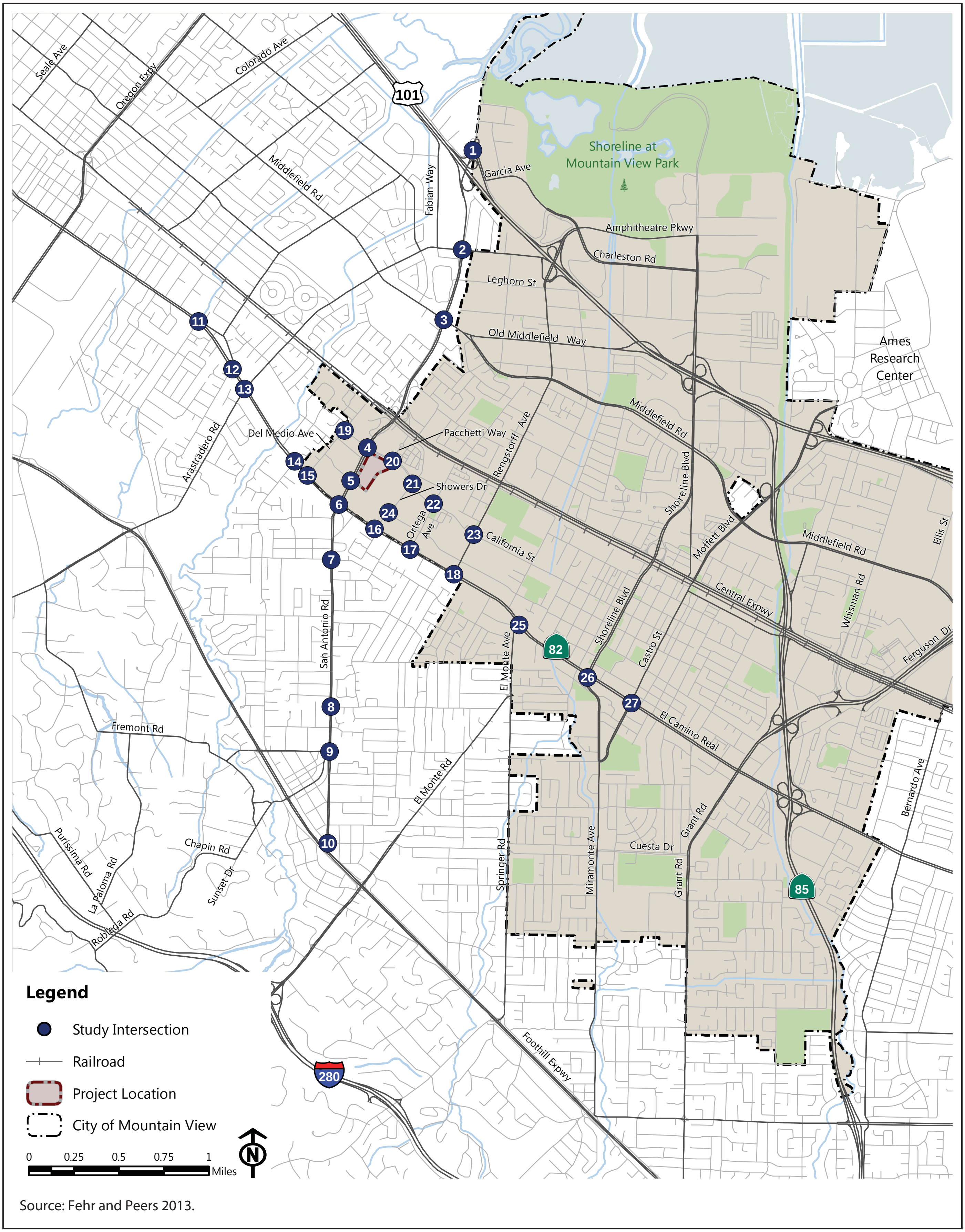
Note:
NB = Northbound; LA = Los Altos; MV = Mountain View; PA = Palo Alto; CMP = VTA's Congestion Management Program intersections; ** = San Antonio Center Plan Area.

The study freeway segments were selected in consultation with the City and finalized based on VTA TIA Guidelines, which indicate that a freeway segment should be included if a proposed project is expected to add traffic equal to or at least 1 percent of the freeway segment's capacity. The analysis evaluated the operations of the following freeway segments in both the northbound and southbound directions.

- US 101 from Oregon Expressway to San Antonio Road.
- US 101 from San Antonio Road to Rengstorff Avenue.
- US 101 from Rengstorff Avenue to North Shoreline Boulevard.

3.13.1.2 Roadway Network

Regional access to the Project site is provided by US 101. Local access to the Project site is provided via San Antonio Road, Middlefield Road, Alma Street/Central Expressway, California Street, Latham



Source: Fehr and Peers 2013.

Figure 3.13-1
Project Location and Study Intersections
The Village at San Antonio Center Phase II

Street, El Camino Real, Rengstorff Avenue, Showers Drive, Del Medio Avenue, Los Altos Avenue, and Charleston Road/Arastradero Road. Figure 3.13-1 shows the locations of these facilities in relation to the Project site. Descriptions of these access roadways are as follows.

- **US 101** is a north-south freeway located northeast of the Project site and providing four travel lanes in each direction. One travel lane in each direction is designated as a high-occupancy vehicle (HOV) lane. US 101 extends north through San Francisco and south through San Jose. Access to the Project site from US 101 is provided via interchanges with San Antonio Road and Rengstorff Avenue.
- **San Antonio Road** is a four- to six-lane street that extends east towards US 101 and west towards Los Altos. San Antonio Road has four lanes with the exception of a six-lane segment between El Camino Real and California Street (adjacent to the Project site). San Antonio Road provides direct access to the western portion of the Project site. San Antonio Road has raised medians, some with landscaping, near the Project site and Class II bike lanes in both directions west of El Camino Real. The posted speed limit is 35 miles per hour (mph) near the Project site.
- **Middlefield Road** is a four-lane street that extends south towards Sunnyvale and north towards Palo Alto, Menlo Park, and Redwood City. Near the Project site between Rengstorff Avenue and Old Middlefield Way, traffic is divided by a raised median with trees and enhanced landscaping. On-street parking is provided on both sides of Middlefield Road between Charleston Road and Old Middlefield Way. The posted speed limit is 35 mph between Rengstorff Avenue and Old Middlefield Way and 25 mph between Middlefield Way and Charleston Road near the Project site. Middlefield Road has Class II bike lanes in both directions between Charleston Road and Montrose Avenue and between Old Middlefield Way and Rengstorff Avenue near the Project site.
- **Alma Street/Central Expressway** is a four-lane expressway that extends south towards Sunnyvale and Santa Clara and north towards Palo Alto. The expressway is named the Central Expressway south of the San Antonio Road interchange, while north of the interchange it is named Alma Street. Central Expressway divides traffic with a raised, landscaped median, while Alma Street has a two-way left turn median. The posted speed limit is 45 mph on the Central Expressway and 35 mph on Alma Street near the Project site.
- **California Street** is a two- to four-lane street that extends south towards Mountain View and north to Del Medio Avenue. California Street has four lanes south of San Antonio Road and two lanes north of San Antonio Road, providing direct access to the northern border of the Project site. In addition, north of San Antonio Road, free on-street parking is provided on both sides of the street. Between San Antonio Road and Showers Drive, California Street has a raised, landscaped median with trees. The posted speed limit is 35 mph near the Project site. Near the Project site between Del Medio Avenue and Rengstorff Avenue, California Street has Class II bike lanes in both directions.
- **Latham Street** is a two-lane street that extends from Showers Drive in the north to Shoreline Boulevard in the south. Latham Street’s northern terminus at Showers Drive provides direct access to the San Antonio Shopping Center. Near the Project site, Latham Street provides free on-street parking in both directions. The posted speed limit is 25 mph near the Project site.
- **El Camino Real** is a six-lane arterial that extends south towards Mountain View and Santa Clara and north towards Redwood City, Millbrae, and San Bruno. El Camino Real provides access to local and regional commercial areas and access to the Project site via San Antonio Road. Near

the Project site, El Camino Real has a raised, landscaped median and provides on-street parking on both sides of the street. The posted speed limit is 35 mph near the Project site.

- **Rengstorff Avenue** is a four-lane street that extends east towards US 101 (and to the Google campus) and west towards El Camino Real, where it terminates. Rengstorff Avenue provides regional access to the Project site via its connection to US 101 and California Street and El Camino Real. Rengstorff Avenue has Class II bike lanes in both directions near the Project site, as well as raised, landscaped medians near its intersections with California Street and the Central Expressway. Rengstorff Avenue provides on-street parking in both directions, with more limited parking areas west of California Street. The posted speed limit is 35 mph near the Project site.
- **Showers Drive** is a two- to four-lane street that extends east towards the San Antonio Caltrain Station and west towards El Camino Real, its western terminus. Showers Drive has two lanes east of California Street and four lanes west of California Street. Showers Drive provides access to the Project site via California Street and El Camino Real and direct access to the San Antonio Transit Center. Showers Drive has Class II bike lanes in both directions near the Project site. It also has several raised, landscaped medians east of California Street and a two-way left turn lane median west of California Street. The posted speed limit is 35 mph near the Project site.
- **Del Medio Avenue** is a two-lane street that extends east towards the Caltrain right-of-way, its eastern terminus, and west towards El Camino Real, its western terminus. Del Medio Avenue provides access to the Project site via California Street, Miller Avenue, Fayette Drive, and El Camino Real. Free on-street parking is provided on both sides of the streets. The posted speed limit is 25 mph near the Project site. A short segment of Del Medio Avenue between California Street and Miller Avenue is classified as a Class III bike route.
- **Los Altos Avenue** is a two-lane local street that extends east to El Camino Real—its eastern terminus—and west towards Los Altos. Los Altos Avenue provides access to the Project site via El Camino Real and has Class II bike lanes. The posted speed limit is 25 mph near the Project site.
- **Charleston Road/Arastradero Road** is a two- to four-lane street that extends east towards US 101 and west towards Interstate 280. The street is named Charleston Road east of El Camino Real and Arastradero Road west of El Camino Real. Charleston Road is a two-lane road with the exception of a four-lane segment between Alma Street and El Camino Real. Charleston Road has painted center medians with some left turn pockets, while Arastradero Road has a two-way left turn median. The posted speed limit is 25 mph near the Project site. Both Charleston Road and Arastradero Road have Class II bike lanes.

3.13.1.3 Existing Traffic Conditions

Level of Service Method

The operations of roadway facilities are described with the term *level of service* (LOS), a scale used to determine the operating quality of a roadway segment or intersection based on volume-to-capacity (V/C) ratio or average delay experienced by vehicles on the facility. The levels range from A to F, with LOS A representing free traffic flow and LOS F representing severe traffic congestion. 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.

Intersections

Methods described in the *Highway Capacity Manual* (Transportation Research Board 2000) were used to calculate the LOS for signalized and stop-controlled intersections. For signalized intersections, the LOS method was approved by VTA, and adopted by the cities of Mountain View, Palo Alto, and Los Altos with adjusted saturation flow rates to reflect conditions in Santa Clara County. LOS for signalized intersections is determined by the average control delay experienced by vehicles at the intersection. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and acceleration delay. Table 3.13-2 summarizes the relationship between delay and LOS for signalized intersections. The cities of Mountain View, Palo Alto, and Los Altos use a LOS D standard for local street intersections and LOS E standard for CMP facilities and, for the City of Mountain View, intersections within the Downtown and San Antonio Center Planning Areas.

For stop-controlled intersections, LOS depends on the average control delay experienced by vehicles on the stop-controlled approaches. Thus, for side-street stop-controlled intersections, LOS is based on the average delay experienced by vehicles entering the intersection from the minor (stop-controlled) streets and vehicles making left turns from the major street. For all-way stop-controlled intersections, LOS is determined by the average delay for all movements through the intersection. The LOS criteria for stop-controlled intersections have different threshold values than those for signalized intersections, primarily because drivers expect different levels of performance from distinct types of transportation facilities. In general, stop-controlled intersections are expected to carry lower volumes of traffic than signalized intersections. Thus, for the same LOS, a lower level of delay is acceptable at stop-controlled intersections than at signalized intersections. Table 3.13-2 also summarizes the relationship between delay and LOS for stop-controlled intersections. The cities of Mountain View, Palo Alto, and Los Altos do not have an adopted LOS policy for unsignalized intersections; however, LOS D is considered to be the minimum acceptable LOS and has been used for traffic studies within the cities.

Table 3.13-2. Level of Service Criteria for Intersections

	Average Delay per Vehicle (seconds/vehicle)	
LOS Designation	Signalized Intersections	Stop-Controlled Intersections
A	≤ 10	≤ 10.0
B+	10.1 to 12.0	
B	12.1 to 18.0	> 10.1–15.0
B-	18.1 to 20.0	
C+	20.1 to 23.0	
C	23.1 to 32.0	> 15.1–25.0
C-	32.1 to 35.0	
D+	35.1 to 39.0	
D	39.1 to 51.0	> 25.1–35.0
D-	51.1 to 55.0	
E+	55.1 to 60.0	
E	60.1 to 75.0	> 35.1–50.0
E-	75.1 to 80.0	
F	> 80.0	> 50.0

Source: Transportation Research Board 2000; Santa Clara Valley Transportation Authority 2003.

Freeway Segments

Freeway segments within Santa Clara County are evaluated using VTA TIA Guidelines, which are based on the density of the traffic flow using methods described in the 2000 Highway Capacity Manual. Density is expressed in passenger cars per mile per lane. The CMP ranges of densities for freeway segment LOS are shown in Table 3.13-3. The VTA standard for the freeway segments is LOS E.

Table 3.13-3. Level of Service Criteria for Freeway Segments

LOS Designation	Density (passenger cars per mile per lane)
A	≤ 11
B	11.1 to 18.0
C	18.1 to 26.0
D	26.1 to 46.0
E	46.1 to 58.0
F	> 58.0

Source: Transportation Research Board 2000; Santa Clara Valley Transportation Authority 2003.

Intersection Levels of Service

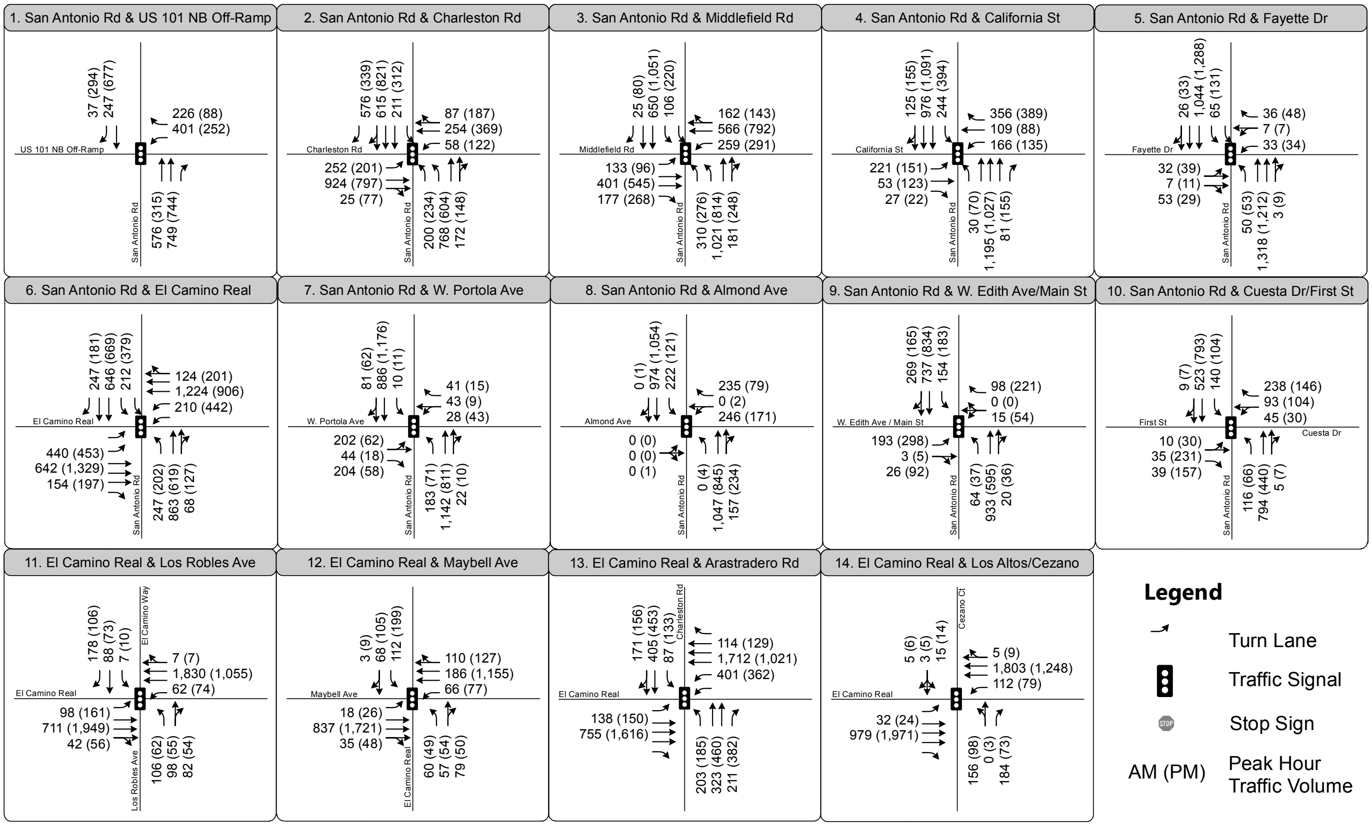
Existing intersection LOS was calculated based on the peak-hour traffic volumes, lane configurations, and intersection traffic control (stops signs or traffic signals) collected at the study intersections, as shown in Figure 3.13-2. Weekday morning (7:00 AM to 9:00 AM) and evening (4:00 PM to 6:00 PM) peak period intersection turning movement counts were conducted at the study locations in May and June 2013 with area schools in session. Counts for intersections that were added after the initial scoping process were completed in September 2013, after schools had returned from summer recess. These turning movement counts were verified against prior counts from other sources such as the North Bayshore Project and San Antonio Phase I TIA. In some cases, the prior counts were used instead of the 2013 counts in order to provide a conservative analysis. The single hour with the highest traffic volumes during each count period was identified as the peak hour.

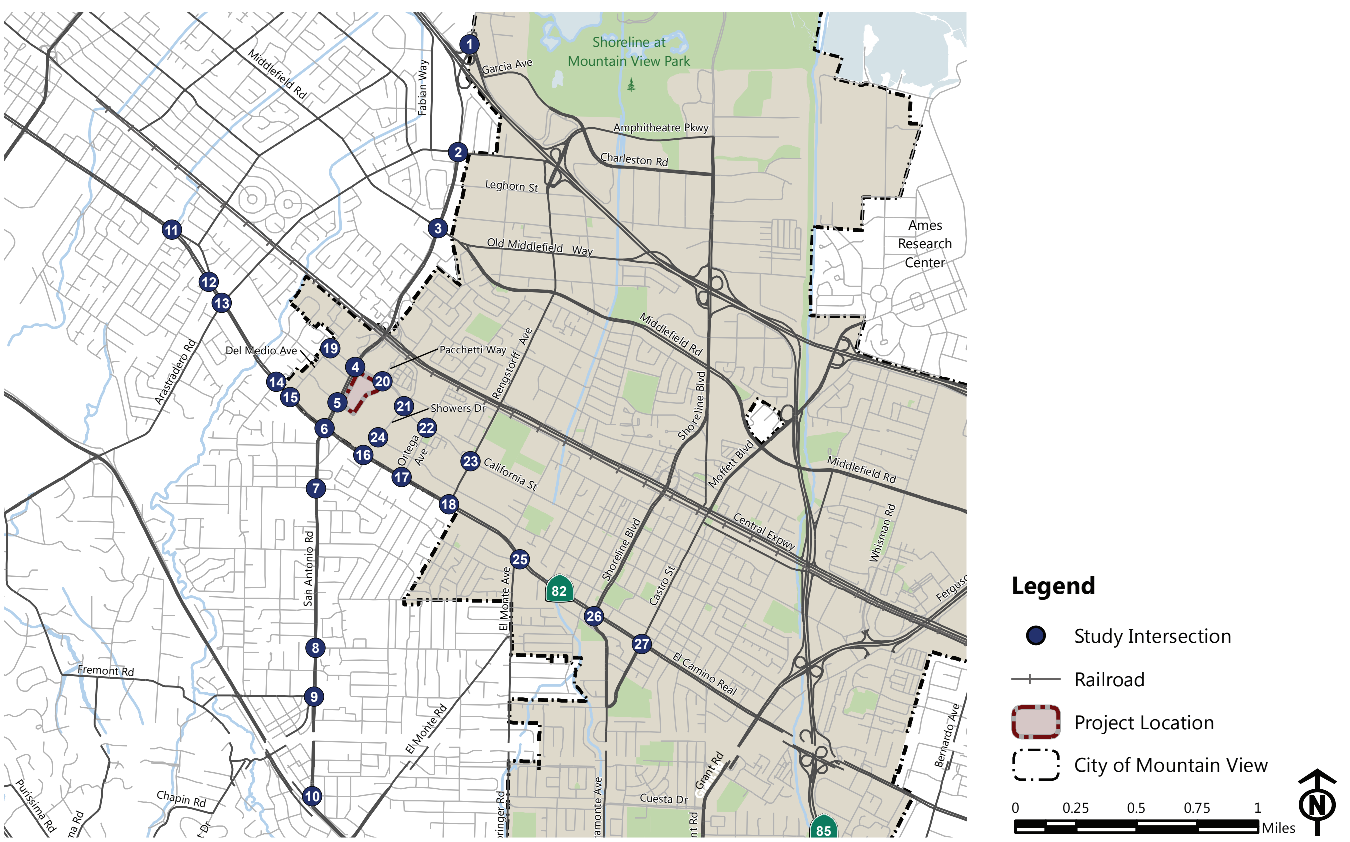
The results of the LOS calculations, as shown in Table 3.13-4, indicate that all of the study intersections currently operate at acceptable levels of service according to their designated LOS standard (LOS D or better for local city intersections; LOS E or better for San Antonio Planning Area intersections and CMP intersections).

Field Observations

Field observations at the Project site and at study area locations were conducted during the weeks of August 5, 2013, and August 19, 2013, to collect existing driveway count data, verify the calculated LOS operations, and observe the overall transportation operations. In general, observations indicated that most of the study intersections are operating at or near the calculated LOS.

The San Antonio Road Corridor operates at LOS D+ or worse during the AM and PM peak hours between El Camino Real and Charleston Road. Queues on San Antonio Road frequently extend to the adjacent intersections in both directions during both peak hours. There are significant pedestrian movements in the area, which contributes to the queuing. The queuing lasts for short peaks within the peak hour and completely dissipates by the end of the hour.





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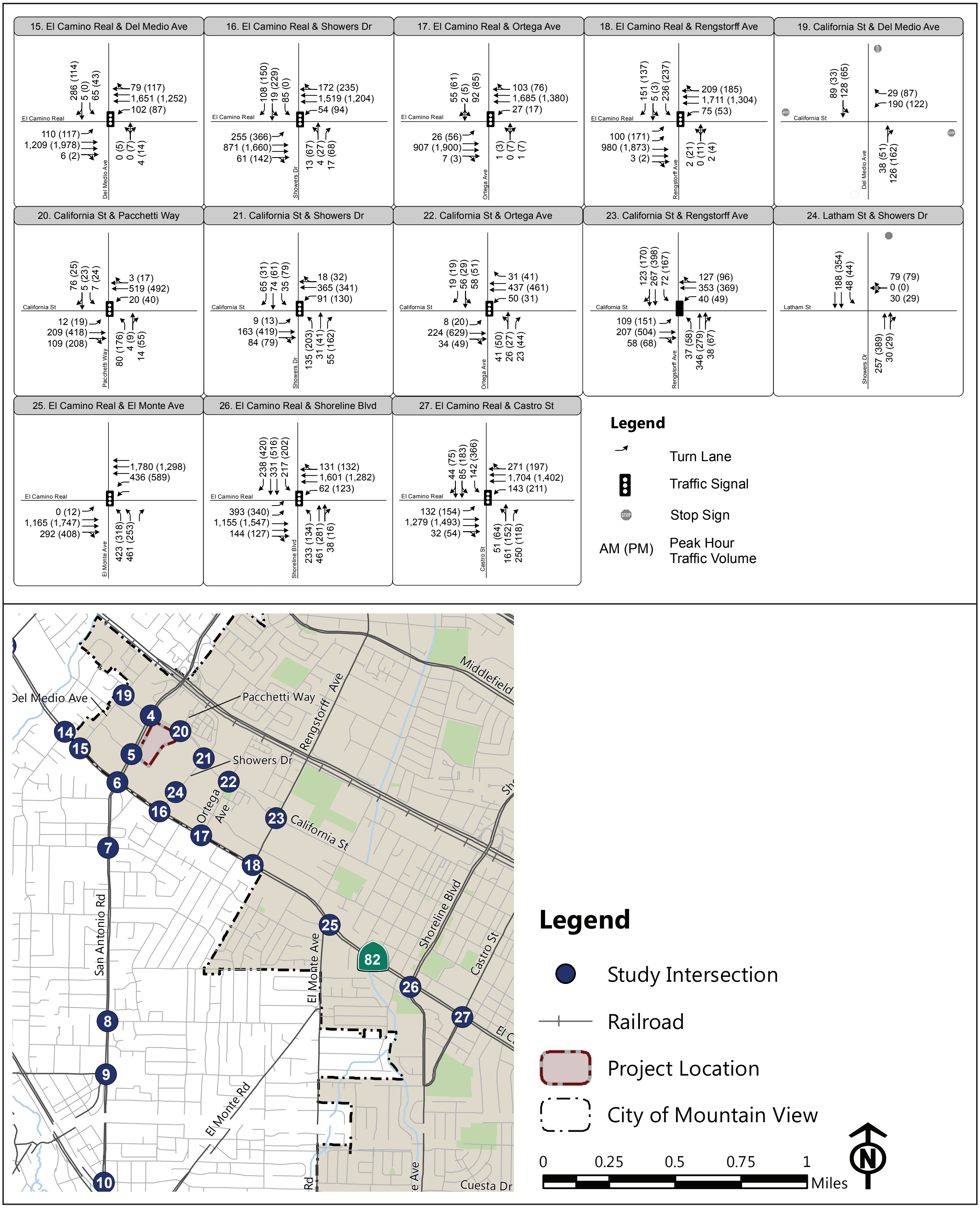
Source: Fehr and Peers 2013.

Figure 3.13-2a
Lane Configurations, Traffic Control, and Peak Hour Traffic Volumes - Existing Conditions (Intersections 1-14)
The Village at San Antonio Center Phase II



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Source: Fehr and Peers 2013.

Figure 3.13-2b
Lane Configurations, Traffic Control, and Peak Hour Traffic Volumes - Existing Conditions (Intersections 15-27)
The Village at San Antonio Center Phase II

Table 3.13-4. Existing Intersection Levels of Service

	Intersection	Control	Peak Hour	Delay[1]	LOS
1	San Antonio Road and US 101 NB Off-Ramp (MV)	Signal	AM	11.8	B+
			PM	10.8	B+
2	San Antonio Road and Charleston Road (CMP)	Signal	AM	36.0	D+
			PM	38.9	D+
3	San Antonio Road and Middlefield Road (CMP)	Signal	AM	45.5	D
			PM	48.9	D
4	San Antonio Road and California Street (MV)**	Signal	AM	50.5	D
			PM	48.7	D
5	San Antonio Road and Fayette Drive (MV)**	Signal	AM	15.5	B
			PM	16.2	B
6	San Antonio Road and El Camino Real (CMP)	Signal	AM	43.2	D
			PM	47.1	D
7	San Antonio Road and W Portola Avenue (LA)	Signal	AM	18.9	B-
			PM	13.0	B
8	San Antonio Road and Almond Avenue (LA)	Signal	AM	17.3	B
			PM	17.6	B
9	San Antonio Road and W Edith Avenue/Main Street (LA)	Signal	AM	31.9	C
			PM	41.1	D
10	San Antonio Road and Cuesta Drive/First Street (LA)	Signal	AM	31.4	C
			PM	28.7	C
11	El Camino Real and Los Robles Avenue/El Camino Way (PA)	Signal	AM	28.1	C
			PM	22.9	C+
12	El Camino Real and Maybell Avenue (PA)	Signal	AM	32.9	C-
			PM	27.5	C
13	El Camino Real and Arastradero Road/Charleston Road (PA)	Signal	AM	37.6	D+
			PM	39.4	D
14	El Camino Real and Los Altos Avenue/Cezano Court (LA)	Signal	AM	22.3	C+
			PM	17.1	B
15	El Camino Real and Del Medio Avenue (MV)	Signal	AM	28.0	C
			PM	18.5	B-
16	El Camino Real and Showers Drive (MV)	Signal	AM	26.1	C
			PM	31.3	C
17	El Camino Real and Ortega Avenue (MV)	Signal	AM	13.8	B
			PM	13.2	B
18	El Camino Real and Rengstorff Avenue (CMP)	Signal	AM	22.5	C+
			PM	21.3	C+
19	California Street and Del Medio Avenue (MV)**	AWSC	AM	9.7	A
			PM	8.6	A
20	California Street and Pacchetti Way (MV)**	Signal	AM	13.8	B
			PM	17.2	B
21	California Street and Showers Drive (MV)**	Signal	AM	25.8	C
			PM	25.5	C

Intersection		Control	Peak Hour	Delay[1]	LOS
22	California Street and Ortega Avenue (MV)**	Signal	AM	7.8	A
			PM	5.6	A
23	California Street and Rengstorff Avenue (MV)**	Signal	AM	29.8	C
			PM	34.5	C-
24	Latham Street and Showers Drive (MV)**	SSSC	AM	10.7	B
			PM	12.0	B
25	El Camino Real and El Monte Avenue (CMP)	Signal	AM	29.1	C
			PM	29.2	C
26	El Camino Real and Shoreline Boulevard (CMP)	Signal	AM	39.3	D
			PM	39.3	D
27	El Camino Real and Castro Street (CMP)	Signal	AM	27.0	C
			PM	31.4	D

Note:
1. Average control delay expresses in second per vehicle.
NB = Northbound; AWSC = all-way stop-controlled intersections; SSSC = side-street stop controlled intersections.
LA = Los Altos; MV = Mountain View; PA = Palo Alto; CMP = VTA's Congestion Management Program intersections; ** = San Antonio Center Plan Area.
Source: Appendix J

The intersection of El Camino Real and Arastradero Road/Charleston Road is also quite congested (LOS D) during the AM and PM peak hours. During the AM peak hour, the eastbound approach experiences heavy queuing, occasionally requiring multiple signal cycles to clear. During the PM peak hour, the westbound approach experience heavy queuing, though the queue typically clears during each cycle.

Freeway Segment Levels of Service

The existing AM and PM peak hour mixed-flow and HOV-lane freeway segment densities reported in VTA's *2011 Monitoring and Conformance Report* (2012) are presented in Table 3.13-5. The following Mixed-Flow freeway segments exceed VTA's LOS E standard during the specified peak hour.

- US 101 Northbound Mixed-Flow Lanes
  - North Shoreline Boulevard and Rengstorff Avenue (AM and PM peak hours).
  - Rengstorff Avenue and San Antonio Road (AM and PM peak hours).
  - San Antonio Road and Oregon Expressway (AM peak hour).
- US 101 Southbound Mixed-Flow Lanes
  - Oregon Expressway and San Antonio Road (PM peak hour).
  - San Antonio Road and Rengstorff Avenue (PM peak hour).

The following HOV lane freeway segment exceeds VTA's LOS E standard during the specified peak hour.

- US 101 Northbound between North Shoreline Blvd. and Rengstorff Avenue (AM peak hour).
- US 101 Southbound between San Antonio Road and Oregon Expressway (PM peak hour).

Table 3.13-5. Existing Freeway Segment Levels of Service

Freeway Segment	Peak Hour	Number of Lanes		Density[a]		LOS	
		Mixed	HOV	Mixed	HOV	Mixed	HOV
US 101 Northbound							
North Shoreline Blvd. and Rengstorff Avenue	AM	3	1	**78**	**87**	**F**	**F**
	PM	3	1	**98**	38	**F**	D
Rengstorff Avenue and San Antonio Road	AM	3	1	**66**	56	**F**	E
	PM	3	1	**83**	37	**F**	D
San Antonio Road and Oregon Expressway	AM	3	1	**62**	54	**F**	E
	PM	3	1	56	35	E	D
US 101 Southbound							
Oregon Expressway and San Antonio Road	AM	3	1	50	41	E	D
	PM	3	1	**71**	**61**	**F**	F
San Antonio Road and Rengstorff Avenue	AM	3	1	46	43	D	D
	PM	3	1	**84**	47	**F**	E
Rengstorff Avenue and North Shoreline Blvd.	AM	3	1	50	40	E	D
	PM	3	1	54	35	E	D

Note:

[a] Measured in passenger cars per mile per lane.

Mixed = Mix-Flow; HOV = High-Occupancy Vehicle.

Bold text indicates unacceptable operations by jurisdiction level of service standard (LOS F for CMP-designated facilities).

Source: Santa Clara Valley Transportation Authority 2012; Appendix J.

3.13.1.4 Transit Service

Bus service and light rail service in Mountain View are operated by the VTA. Commuter rail service (Caltrain), which passes through Mountain View between San Francisco and Gilroy, is operated by the Peninsula Joint Powers Board. The Project site is served by VTA local, express, and rapid transit bus routes; Caltrain; and the Stanford University Marguerite Shuttle. The VTA light rail system extends as far north as the Downtown Mountain View Transit Center, located approximately 2.5 miles southeast of the Project site and accessible by VTA bus service. Figure 3.13-3 shows the existing transit service near the Project site. Table 3.13-6 describes the span of services and frequency of service during the week with average weekday load factors for VTA buses and Caltrain.

Table 3.13-6. Existing Transit Service

			Weekdays		Weekends	
Route[a]	From	To	Operating Hours	Peak Headway[b]	Operating Hours	Headway[b]
VTA						
22	Palo Alto Transit Center	Eastridge Transit Center	24-hour service	12	24-hour service	15
32	San Antonio Transit Center	Santa Clara Transit Center	5:45 AM - 8:00 PM	30	8:50 AM – 5:50 PM (Sat only)	60
34	San Antonio Transit Center	Mountain View	9:50 AM - 3:00 PM	60	No service	No service
35	Mountain View	Stanford Shopping Center	5:50 AM - 10:40 PM	30	8:30 AM - 8:10 PM	60
40	Foothill College	La Avenida & Inigo	6:20 AM - 10:30 PM	30	8:00 AM - 6:15 PM	45-60
522	Palo Alto Transit Center	Eastridge Transit Center	4:45 AM - 9:00 PM	15	7:50 AM - 8:30 PM (Sat only)	15
Caltrain						
Caltrain San Antonio Station	San Francisco	Gilroy	4:30 AM - 1:32 AM	20-40	7:00 AM - 1:40 AM	60
Stanford Marguerite Shuttle System						
Shopping Express (SE)	Palo Alto Transit Center	San Antonio Shopping Center	3:00 PM - 10:20 PM	50 (evening only)	9:45 AM- 10:30 PM	45

Note:

[a] Weekday and weekend service as of July 2013.

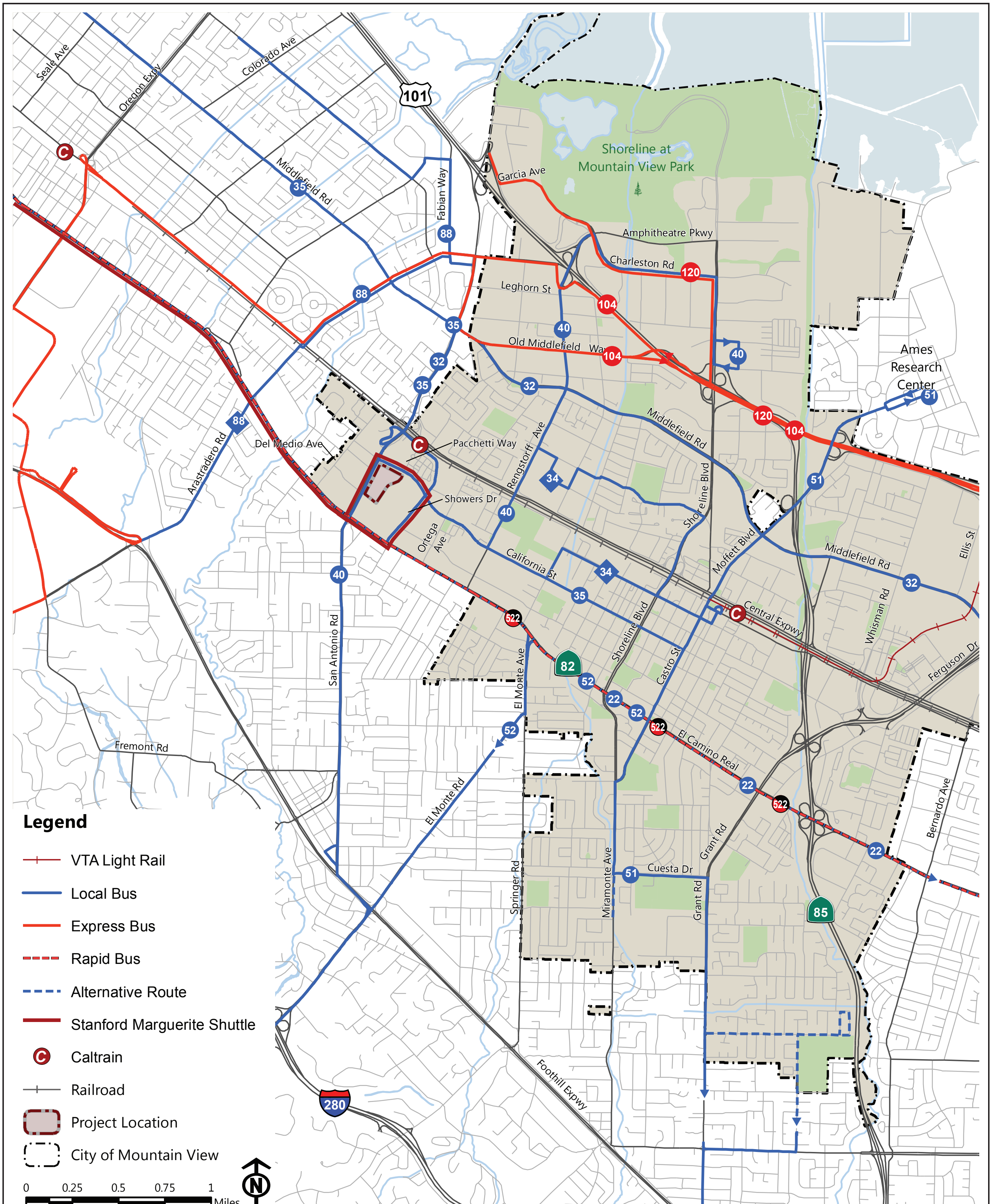
[b] Headways are defined as the time between transit vehicles on the same route (e.g. time between two Route 22 buses stopping at the San Antonio Transit Center). Headways measured in minutes.

Source: Appendix J.

3.13.1.5 Nonmotorized Transportation Facilities

Pedestrian Facilities

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. Most of the streets near the Project have sidewalks on both sides of the street, with some exceptions on San Antonio Road and Alma Street/Central Expressway. Along San Antonio Road and California Street near the Project site, sidewalks are 4 to 6 feet wide, generally in good condition, and free from obstructions (such as telephone poles). Most signalized intersections within 0.25 mile of the Project site have crosswalks and pedestrian signals on all four legs. In addition,



Source: Fehr and Peers 2013.

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Figure 3.13-3
Existing Transit Facilities
The Village at San Antonio Center Phase II

there is a mid-block, unsignalized crosswalk at Miller Avenue that crosses San Antonio Road near the intersection of San Antonio Road and California Street. The Project site is within walking distance of the San Antonio Caltrain Station, located north of the site and accessible via Pacchetti Way or via San Antonio Road and San Antonio Circle. Figure 3.13-4 presents the pedestrian routes to the Caltrain station platform from the Project site.

Pedestrian activity varied by intersection, with the greatest numbers observed near the Caltrain station, along San Antonio Road, and California Street. The intersection of San Antonio Road and California Street and the intersection of Pacchetti Way and California Street experience high pedestrian activity as Caltrain commuters walk to and from nearby uses. These intersections serve approximately 40 to 50 pedestrians during both the AM and PM peak hours. The intersection of El Camino Real and San Antonio Road also serves high pedestrian activity during the morning and evening peak hours.

Bicycle Facility

Bicycle facilities are classified into three categories: bike paths (Class I) provide a completely separate right-of-way for the exclusive use of bicycles and pedestrians with minimal roadway crossings. Bike lanes (Class II) provide a striped lane and signage for one-way bike travel on a street and are designed for the exclusive use of cyclists; and bike routes/bike boulevards (Class III) may be identified on a local residential or collector street when the travel lane is wide enough and the traffic volume is low enough to allow both cyclists and motor vehicles.

Bicycle use is widespread throughout the study area and is consistent with pedestrian activity, with the greatest numbers observed along California Avenue near the Project site (about 50 in the AM peak hours and 30 in the PM peak hours). Figure 3.13-5 presents existing bicycle facilities within a 0.5-mile ride of the Project site. Bicycle facilities in the Project vicinity include the following.

- Class II Bicycle Lane
    - Middlefield Road between Charleston Road and Montrose Avenue.
    - Middlefield Road between Old Middlefield Way and Rengstorff Avenue.
    - California Street between Del Medio Avenue and Castro Street.
    - Rengstorff Avenue between El Camino Real and Garcia Avenue.
    - Showers Drive between El Camino Real and Pacchetti Way.
    - San Antonio Road between Foothill Expressway and El Camino Real.
    - Arastradero Road between Foothill Expressway and El Camino Real.
    - Charleston Road between El Camino Real and Fabian Way.
- Class III Bicycle Route
    - Del Medio Avenue between California Street and Miller Avenue.

In 2013, the City of Mountain View Public Works Department submitted a road improvement Project to the 2012–2013 Capital Improvement Program (CIP) that would provide Class II bike lanes along San Antonio Road from El Camino Real to California Street. The scope of the Project also includes removal and replacement of curbs, gutters, sidewalks, driveways, wheelchair ramps, median islands, traffic signal loop detectors, street trees, and roadway striping, as well as relocation of electroliers, roadway signs, traffic signals, storm drain inlets, and fire hydrants with the construction of a park strip with street trees.

The Bay Area Bike Share is the region's bike sharing system with 700 bikes and 70 stations across the region launching in August 2013, with locations in San Francisco, Redwood City, Mountain View, Palo Alto, and San Jose. It is intended to provide Bay Area residents and visitors with an additional transportation option for getting around the region. Bay Area bikes can be rented from and returned to any station in the system, creating a network with many possible combinations of start and end points. Mountain View would have seven Bike Share stations, four in the Downtown area and three near the Project site at the following locations.

- San Antonio Caltrain Station
- San Antonio Shopping Center (Latham Street at Showers Drive)
- Rengstorff Avenue at California Street

3.13.2 Regulatory Setting

3.13.2.1 Federal

There are no relevant federal regulations for identifying environmental effects of the proposed Project on transportation and circulation.

3.13.2.2 State

There are no relevant state regulations for identifying environmental effects of the proposed Project on transportation and circulation.

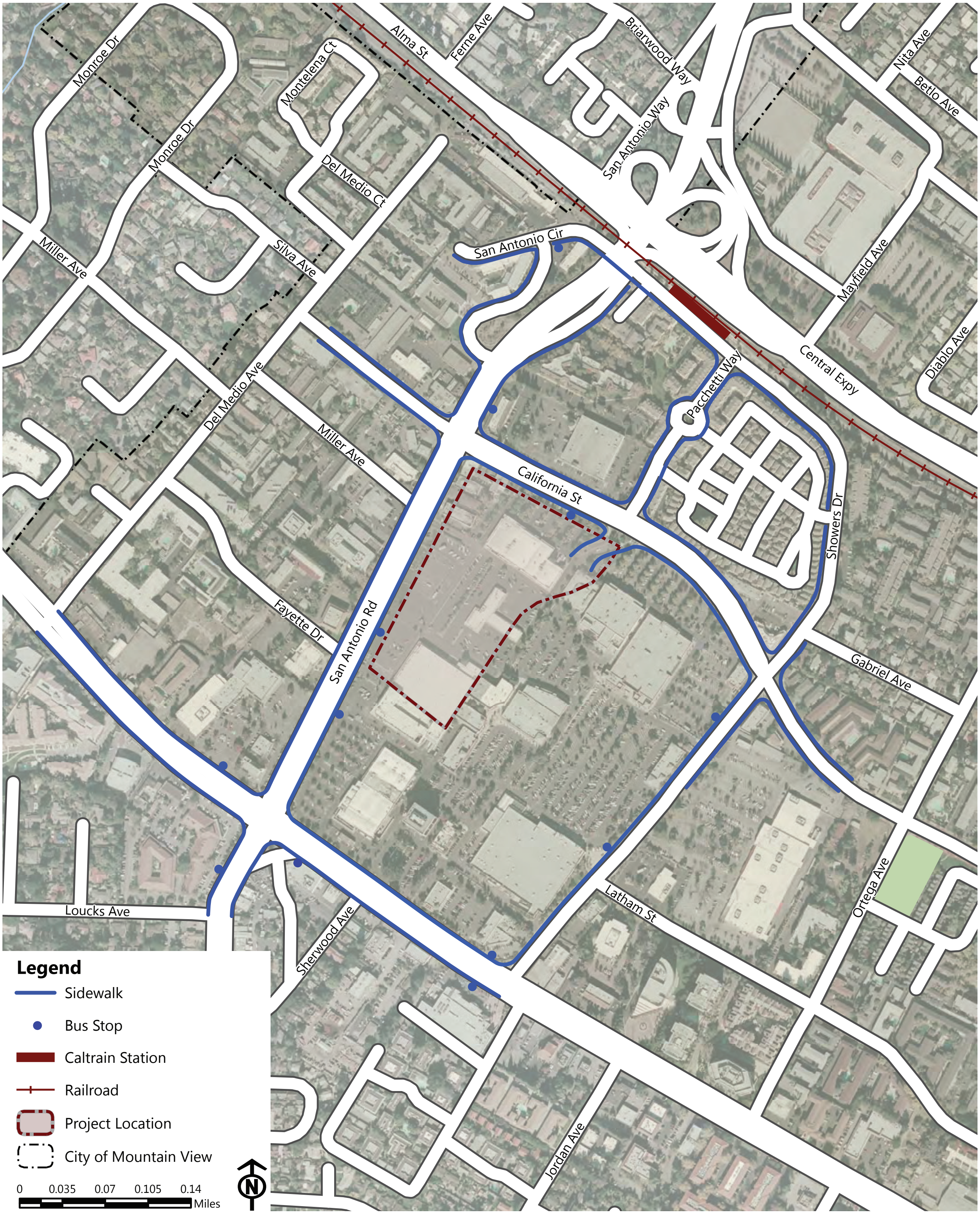
3.13.2.3 Local

Santa Clara County Congestion Management Program

VTA is responsible for maintaining the performance and standards of the CMP roadway system in Santa Clara County. VTA strives to maintain LOS E operations on all CMP-monitored facilities. Based on VTA's TIA Guidelines, a CMP intersection shall be included in a TIA if the proposed development Project is expected to add 10 or more peak hour vehicles per lane to any intersection movement and a CMP freeway segment shall be included in a TIA if the proposed development Project is expected to add traffic equal to or at least 1 percent of the freeway segment's capacity (Santa Clara Valley Transportation Authority 2009).

Mountain View 2030 General Plan

The Mobility Chapter of the *Mountain View 2030 General Plan* includes specific goals, policies, and actions designed to maintain acceptable traffic operations and to reduce congestion. Improved circulation is expected to be provided through enhancement of transit, bicycle, and pedestrian modes, as well as the use of aggressive transportation demand management (TDM) measures to reduce single-occupant vehicle trips. The Mountain View 2030 General Plan establishes the LOS standards for local roadways (LOS D), acknowledges higher levels of congestion on regional CMP roadways and local roadways within the Downtown and San Antonio Center Planning Areas (LOS E standard), and includes plans for future bicycle facilities and walkways. These standards are discussed in Section 3.13.1.3, *Existing Traffic Conditions*.



Source: Fehr and Peers 2013.

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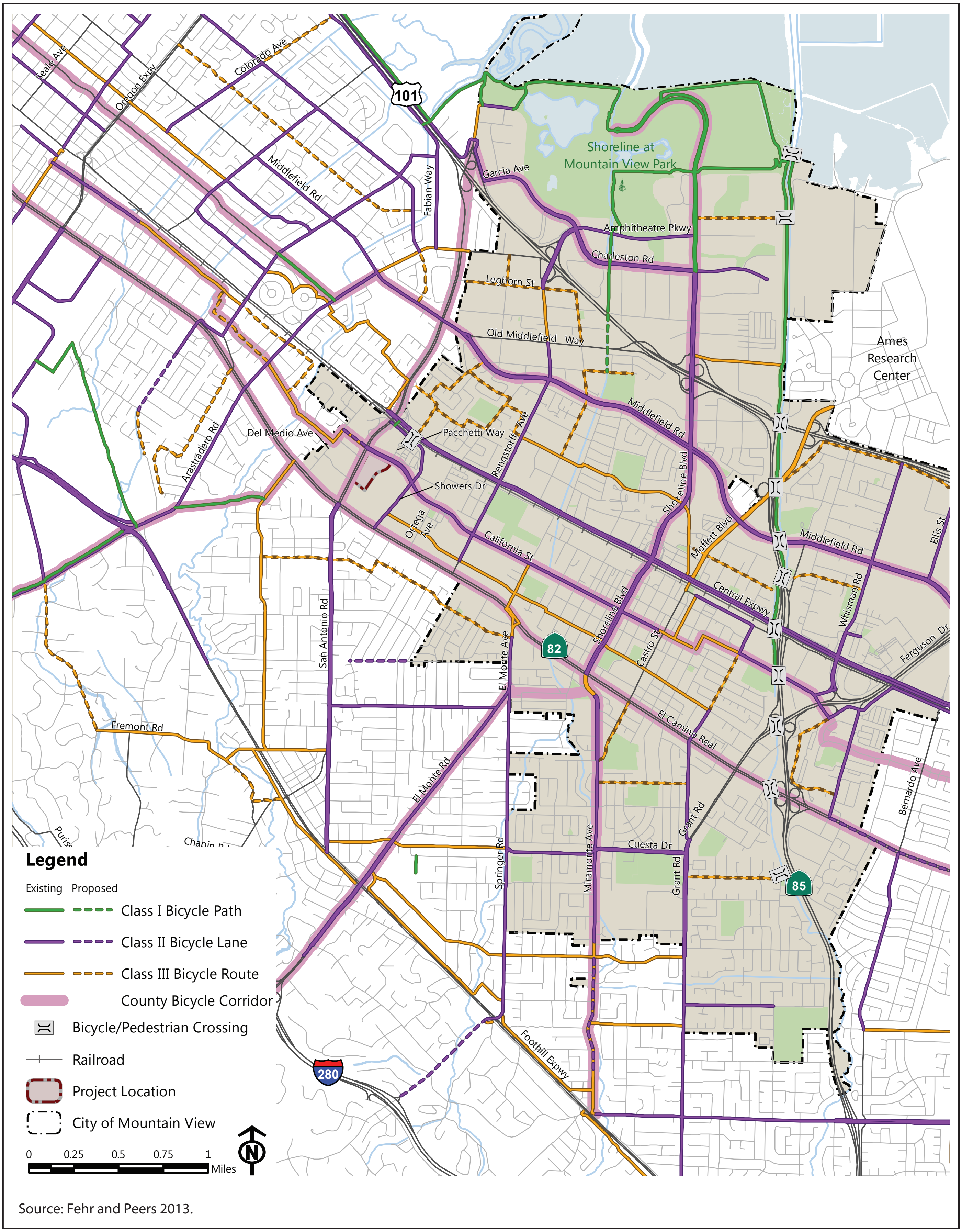
Figure 3.13-4
Existing Pedestrian Connections to Transit Service
The Village at San Antonio Center Phase II



Source: Fehr and Peers 2013.

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Figure 3.13-5
Existing Bicycle Facilities
The Village at San Antonio Center Phase II

3.13.3 Impact Analysis

3.13.3.1 Criteria for Determining Significance

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a Project could have significant impacts on existing transportation and circulation. A Project impact would be considered significant if construction or operation of the proposed Project would cause any of the following.

1. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
2. Conflict with an applicable CMP, including, but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
3. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
4. Result in inadequate emergency access.
5. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or that otherwise decrease the performance or safety of such facilities.
6. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

Although parking is not identified in the State CEQA Guidelines, Appendix G, as a significance criterion to be considered, this EIR evaluates whether the Project would result in inadequate parking capacity based on information provided by the City and the Project applicant.

Regarding air traffic patterns, the Project would include 6-story structures that would be a maximum height of approximately 88–89 feet. This building height is consistent with the development standards within the San Antonio Center Planning Area and would not extend high enough to impede air traffic patterns. Therefore, the Project would not result in a change in air traffic patterns or otherwise result in a safety risk, and impacts would not occur. Potential impacts on air traffic patterns are not analyzed further.

The determination of significance for Project impacts is based on applicable policies, regulations, goals, and guidelines defined by the cities of Mountain View, Los Altos, and Palo Alto and the VTA. The impacts of the Project were evaluated by comparing the results of the LOS calculations under the Existing plus Project Condition and the Background plus Project Condition to the results under the Existing Condition and Background Condition, respectively. A similar comparison under Cumulative Near Term Conditions was done to identify cumulative impacts. The detailed impact criteria for this study are presented below.

Signalized Intersection

A significant impact on a local signalized intersection under the jurisdictions of the cities of Mountain View, Los Altos, and Palo Alto would occur if the addition of Project traffic causes one of the following:

- Intersection operations to degrade from an acceptable level to an unacceptable level; or
- Exacerbate unacceptable operations by increasing the critical delay by more than 4 seconds *and* increasing the critical V/C ratio by 0.01 or more; or
- An increase in the V/C 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.

The City of Mountain View uses the LOS D standard for local street intersections and LOS E standard for intersections within the Downtown and San Antonio Center areas and CMP facilities. The cities of Los Altos and Palo Alto uses the same LOS standard for city controlled intersections (LOS D) and CMP intersections (LOS E).

A significant impact on a CMP signalized intersection would occur if the addition of Project traffic would cause one of the following.

- Intersection operations to deteriorate from an acceptable level (LOS E or better) to an unacceptable level (LOS F); or
- Exacerbate unacceptable operations by increasing the average critical delay by more than 4 seconds *and* increasing the critical V/C ratio by 0.01 or more at an intersection operating at LOS F; or
- The V/C ratio increases by 0.01 or more at an intersection with unacceptable operations (LOS F) when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

Unsignalized Intersection

LOS analysis at unsignalized intersections are generally used to determine the need for modification in type of intersection control (i.e., all-way stop or signalization). As part of this evaluation, traffic volumes, delay, and traffic signal warrants are evaluated to determine if the existing intersection control is appropriate.

The cities of Mountain View, Los Altos, and Palo Alto do not have officially adopted significance criteria for unsignalized intersections. Based on previous studies in these cities, significant impacts are considered to occur when the addition of Project traffic causes the average intersection delay for all-way stop-controlled intersection or the worst movement/approach for side-street stop-controlled intersections to degrade to LOS F *and* the intersection satisfies the peak-hour traffic signal warrant from the California Manual of Uniform Traffic Control Devices (MUTCD).

Freeway Segments

Traffic impacts on CMP freeway segments in Santa Clara County are determined to occur when the addition of Project traffic causes either of the following:

- Freeway segment operations to deteriorate from an acceptable level (LOS E or better) under the Existing Conditions to an unacceptable level (LOS F); or
- An increase in traffic of more than 1 percent of the capacity of the segments that operate at LOS F under Existing Conditions.

Transit Service

Significant impacts on transit service would occur if the Project or any part of the Project

- Creates demand for public transit services above the capacity that is provided or planned;
- Requires mitigation that disrupts existing transit services or facilities[1];
- Conflicts with an existing or planned transit facility; or
- Conflicts with transit policies adopted by the cities of Mountain View, Los Altos, and Palo Alto, Santa Clara County, VTA, or the California Department of Transportation (Caltrans) for their respective facilities in the study area.

Nonmotorized Transportation Facilities

The Mountain View 2030 General Plan describes related policies necessary to ensure that pedestrian and bicycle facilities are safe and effective for City residents. Using the General Plan as a guide, significant impacts on these facilities would occur if the Project or an element of the Project

- Would not provide adequate pedestrian and bicycle facilities to connect to the area circulation system;
- Conflicts with existing or planned bicycle or pedestrian facilities without adequate design and/or appropriate warning systems;
- Has a design that would cause increased potential for bicycle/vehicle conflicts; or
- Generates vehicles that would cross pedestrian facilities on a regular basis without adequate design and/or warning systems, causing safety hazards.

3.13.3.2 Methods

Traffic Analysis Scenarios

Peak hour operations of the study intersections were evaluated for the following scenarios to identify the potential traffic impacts related to the Project.

- **Existing Condition** – Existing traffic condition at the study intersections, as discussed in Section 3.13.1.3, *Existing Traffic Conditions*. Analysis was conducted using existing traffic volumes and roadway geometry.

[1] This includes disruptions caused by proposed Project driveways on transit streets and impacts on transit stops/shelters and transit operations from traffic improvements proposed or resulting from a project.

- **Existing Plus Project Condition** – Analysis was conducted using the existing volumes plus the net new traffic generated by the proposed Project. No transportation network improvements were proposed as part of the Project; therefore, the existing roadway network was used for the scenario.
- **Background Condition** –The Background Condition is defined as the condition prior to completion and occupancy of the proposed Project. Traffic volumes for the Background Condition comprise existing volumes plus traffic generated by approved but not yet constructed and occupied developments in the area. Projections of added traffic for Background Conditions were based on development projects approved but not occupied near the Project site. A list of approved and pending projects for Mountain View, Palo Alto, and Los Altos near the Project site is included in Appendix E of the TIA report (Appendix J). No approved and funded transportation network improvements have been identified that would be constructed prior to Project completion; therefore, the existing roadway network was used for the Background Condition analysis.
- **Background Plus Project Condition** – Analysis was conducted using the Background Condition volumes plus the net new traffic generated by the proposed Project. No transportation network improvements were proposed as part of the Project; therefore, the roadway network is the same as the network analyzed under the Background Condition, which is the existing roadway network.
- **Cumulative Condition** – Cumulative Condition is defined as existing volumes plus traffic generated by approved but not yet constructed and occupied developments in the area (Background Condition volumes) as well as a growth factor 2 percent per year on the existing volumes to account for general growth in the area until occupancy of the Project (year 2017).
- **Cumulative Plus Project Conditions** – Analysis was conducted using the Cumulative Condition volumes plus the net new traffic generated by the proposed Project.

Project Trip Estimates

The magnitude of traffic generated by the Project and amount of the traffic added to the roadway system are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. The first step estimates the amount of traffic entering/exiting the Project site. The second step estimates the directions of travel to and from the Project site. The new trips are assigned to specific street segments and intersection turning movements during the third step.

Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic entering and exiting the Project site. Vehicle trips are estimated for a typical weekday and the peak 1-hour periods during the AM and PM commute periods when traffic volumes on the adjacent streets are highest. The amount of daily and AM and PM peak hour vehicle traffic was estimated using information for appropriate land uses published in the Institute of Transportation Engineers' (ITE) *Trip Generation*, 9th Edition (Institute of Transportation Engineers 2012). The vehicle trip generation estimates were developed using the equations for "Hotel" (ITE Land Use 310), "Shopping Center" (ITE Land Use 820), "General Office" (ITE Land Use 710), "Quality Restaurant" (ITE Land Use 931), and "Multiplex Movie Theater" (ITE Land Use 445). The equations for "General Office" (ITE Land Use 220) were used for the proposed commercial space as it could be used as either office or retail space.

The internal, passby, and TDM trip reductions were applied to the trips estimated using the ITE equations because these trips do not result in a net increase in traffic on the surrounding transportation system, as discussed below.

- Internal trips are trips that remain within a site during a single visit because of the mix of uses provided in the site. These reductions were calculated based on the VTA TIA Guidelines and were applied to the retail, restaurant, and hotel uses, per direction from the City of Mountain View.
- Passby trips represent vehicles that are currently traveling on the street adjacent to a site for some other primary purpose (such as a trip from work to home) and stop at the site en route during their normal travel. These reductions were calculated based on the VTA TIA Guidelines and were applied to the retail and restaurant uses.
- A 30 percent reduction in office-related trips was applied based on the City's agreement with the developer for a TDM plan with a 30 percent trip reduction target. This reduction also accounts for office employees using Caltrain as their commute mode. The TDM program is discussed further below.

There is an existing retail building on the site (with a Ross store and a BevMo!) that is currently occupied and is generating traffic. Traffic counts were conducted to assess the amount of traffic generated by those uses, as they would be replaced by the Project. Existing use traffic was subtracted from estimated traffic generated by the Project (after the previous reductions were applied) to develop net new trip generation estimates.

Incorporating these site-specific reductions, the proposed Project is estimated to generate 6,805 net new daily vehicle trips, 571 net-new AM peak-hour vehicle trips (472 inbound and 99 outbound) and 893 net new PM peak-hour vehicle trips (278 inbound and 561 outbound). The trip generation results are presented in Table 3.13-7.

Friday Night Trip Generation

The Project includes restaurants and cinemas, uses that reach their peak traffic generation on Friday evenings after the PM commute period and on Saturday evenings. Friday night trip generation estimates were developed to determine whether these uses would influence the overall peak traffic generation period of the site. A temporal distribution was used to determine Friday trip generation between 5:00 PM and 9:00 PM.

This analysis shows that during a Friday night the site would generate, at most, a number of vehicle trips equivalent to those during the mid-week PM peak hour. However, this maximum occurs after 7:00 PM, when the base level of traffic on the network is significantly less than during the midweek commute PM peak hour. Therefore, the midweek PM peak hour is the time period with the highest overall traffic volumes and the most potential for significant impacts, and is therefore used for all evaluations in this analysis.

Trips Distribution and Assignment

Trip distribution is defined as the directions of approach and departure that vehicles would use to arrive at and depart from the site. The trip distribution pattern was estimated based on the locations of complementary land uses, existing travel patterns in the area, patterns used in other studies, and the locations of Project site driveways. U.S. Census data for place-to-place commuting for the City of Mountain View was used to further refine the distribution for office-related trips.

Table 3.13-7. Trip Generation Estimates

Land Use	Units[a]	Weekday Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Proposed Retail	54.2	2,314	32	20	52	96	105	201
Proposed Office	392.9	3,714	503	69	572	88	430	518
Proposed Commercial	28.5	506	62	8	70	19	91	110
Proposed Restaurant	35.4	3,180	16	13	29	177	88	265
Proposed Hotel	167	1,121	52	37	89	51	49	100
Proposed Cinema[b]	1,710	822	0	0	0	49	88	137
Total Gross Project Trips		**11,657**	**666**	**146**	**812**	**481**	**850**	**1,331**
Retail and Restaurant Internal Reduction		(181)	(6)	(9)	(15)	(21)	(8)	(29)
Hotel Internal Reduction		(112)	(3)	(5)	(8)	(5)	(5)	(10)
Retail Passby Reduction		(694)	(10)	(6)	(16)	(29)	(31)	(60)
Restaurant Passby Reduction		(954)	(5)	(4)	(9)	(54)	(26)	(80)
TDM Plan Reduction		(1,266)	(170)	(23)	(193)	(32)	(156)	(188)
Total Project Trip Reductions		**(3,208)**	**(194)**	**(47)**	**(241)**	**(141)**	**(226)**	**(367)**
Existing Retail	55	2,349	0	0	0	88	90	178
Retail Passby Reduction		(705)	(0)	(0)	(0)	(26)	(27)	(53)
Existing Use Trips		**1,644**	**0**	**0**	**0**	**62**	**63**	**125**
Net New Project Trips		**6,805**	**472**	**99**	**571**	**278**	**561**	**839**

Note:

[a] Units for uses: Retail/Office/Commercial/Restaurant = KSF (1,000 square feet); Hotel = Rooms; Cinema = Seats.

[b] AM and PM peak hour trips for the proposed cinema are calculated using ITE equations. No ITE daily trip rate is available; daily trips are about 6 times of PM peak hour trips on a weekday.

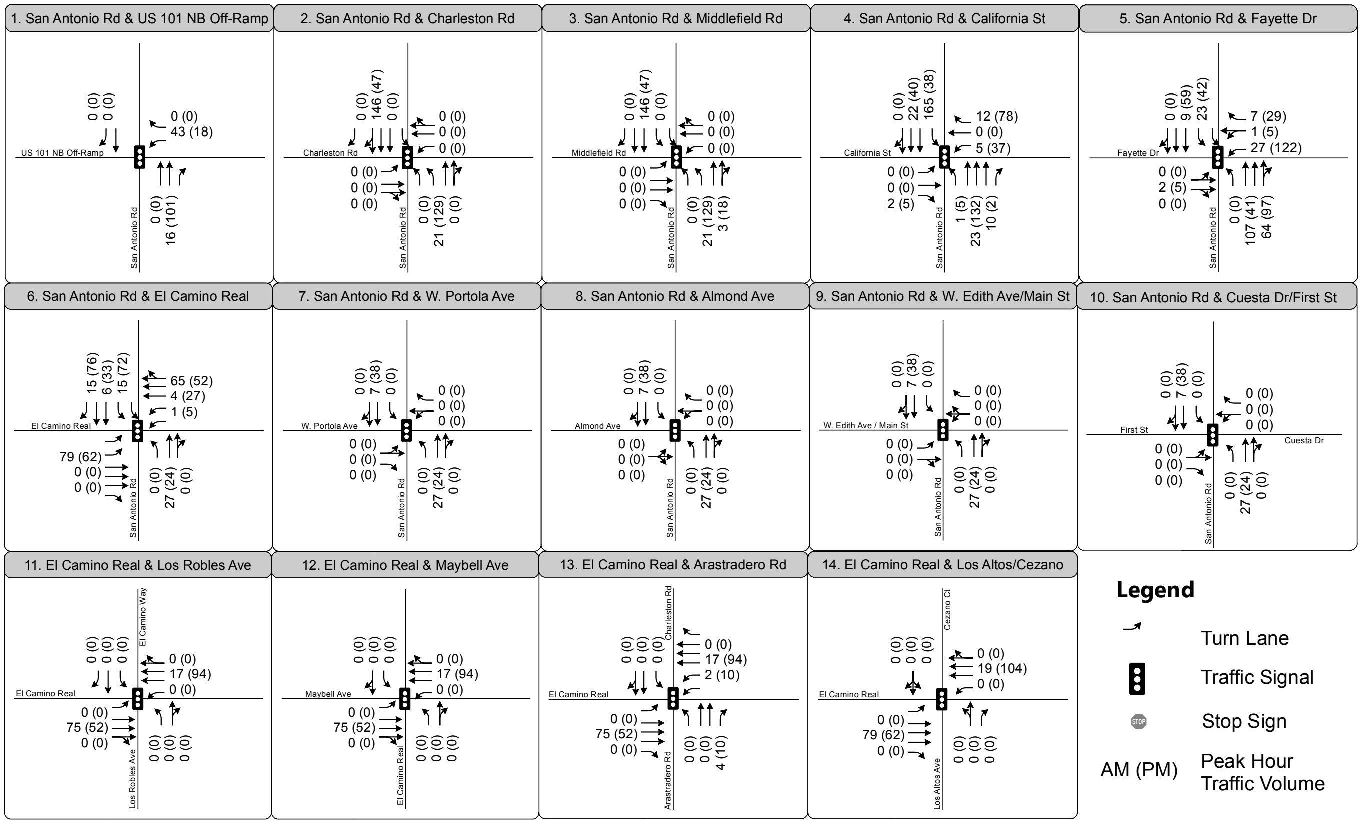
Source: Appendix J.

The Project trips were assigned to specific streets and intersections based on the directions of approach and departure. Figure 3.13-6 shows net new Project trips assigned to each turning movement by intersection.

Transportation Demand Management

The City of Mountain View is requiring the Project to have a TDM program that reduces peak hour vehicle trips generated by the office space by approximately 30 percent. The TDM program needs to provide detailed descriptions of the variety of TDM strategies to be implemented on the site, the party responsible for each measure, the monitoring process, and penalties for noncompliance. Measures aimed at reducing both single-occupant vehicle trips and parking demand would include the following.

- Subsidized transit tickets for all feasible transit modes (e.g., VTA bus and Caltrain).
- Preferential carpool and vanpool parking.



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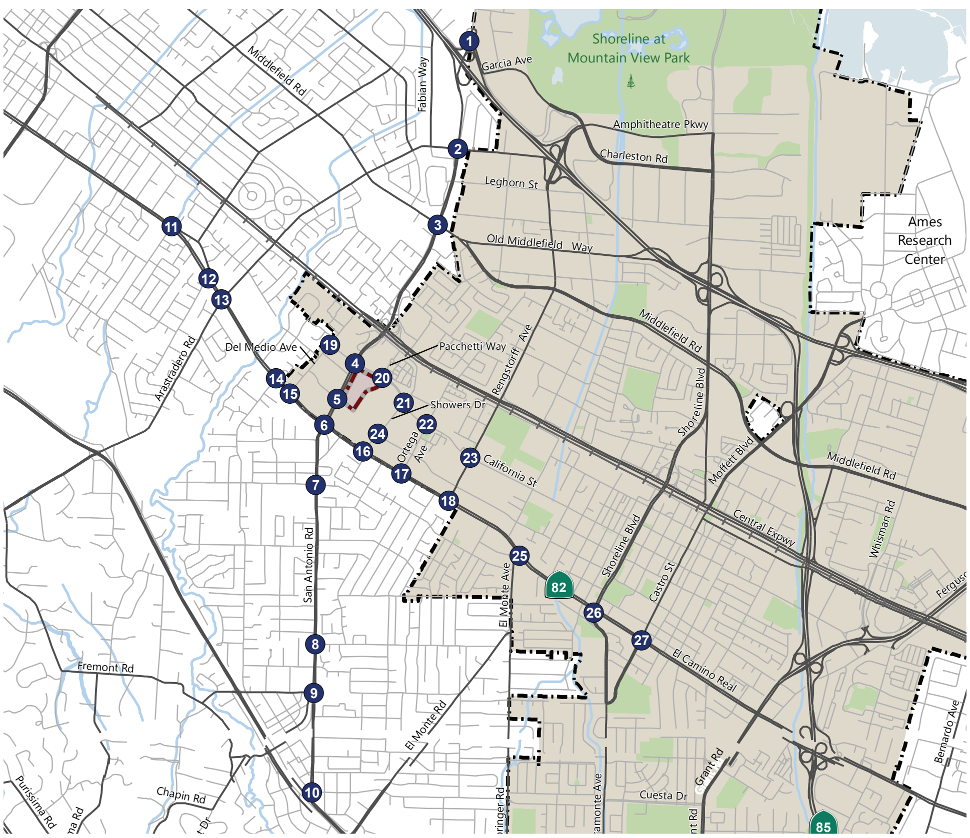
Turn Lane

Traffic Signal

Stop Sign

AM (PM) Peak Hour Traffic Volume



Legend

Study Intersection

Railroad

Project Location

City of Mountain View

0 0.25 0.5 0.75 1 Miles

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Source: Fehr and Peers 2013.

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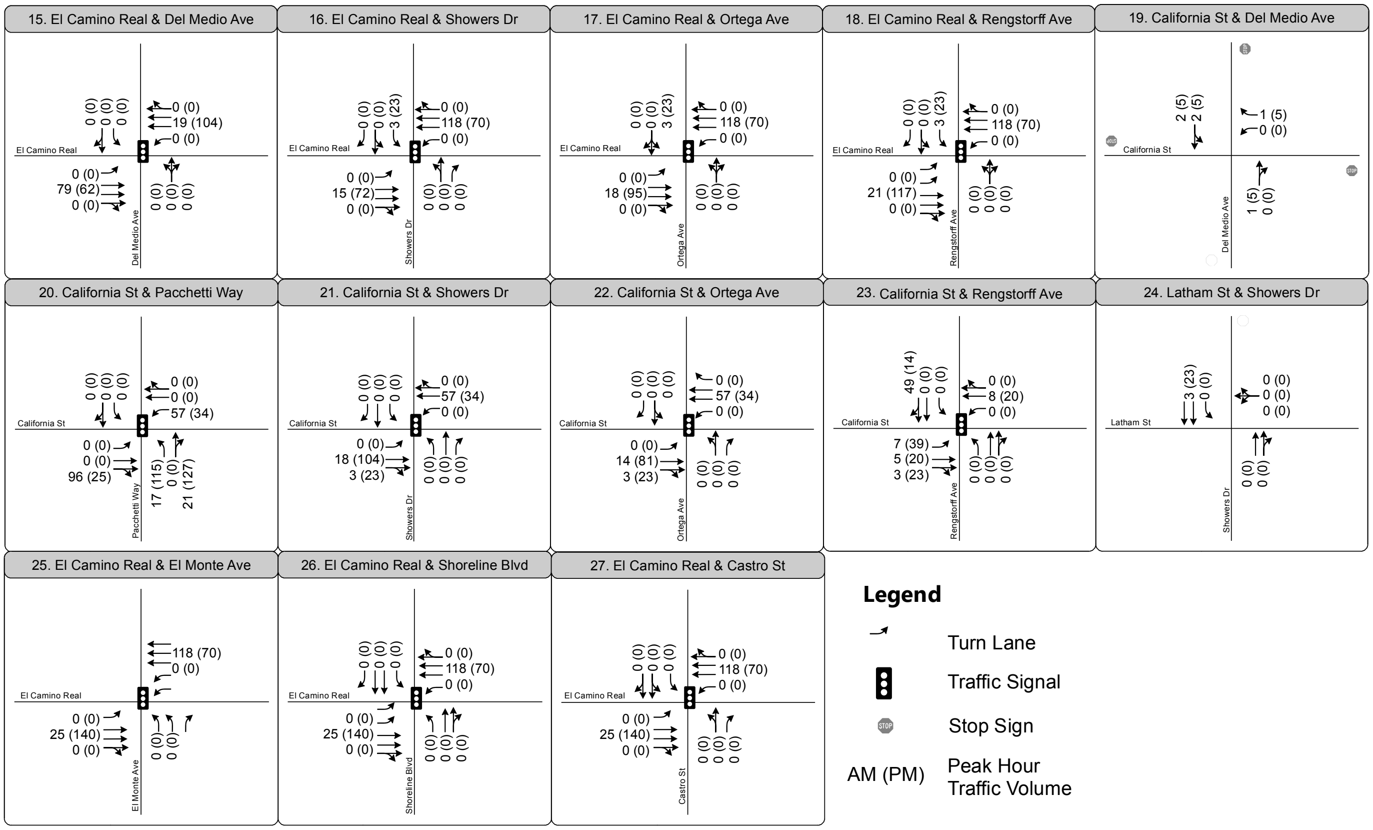
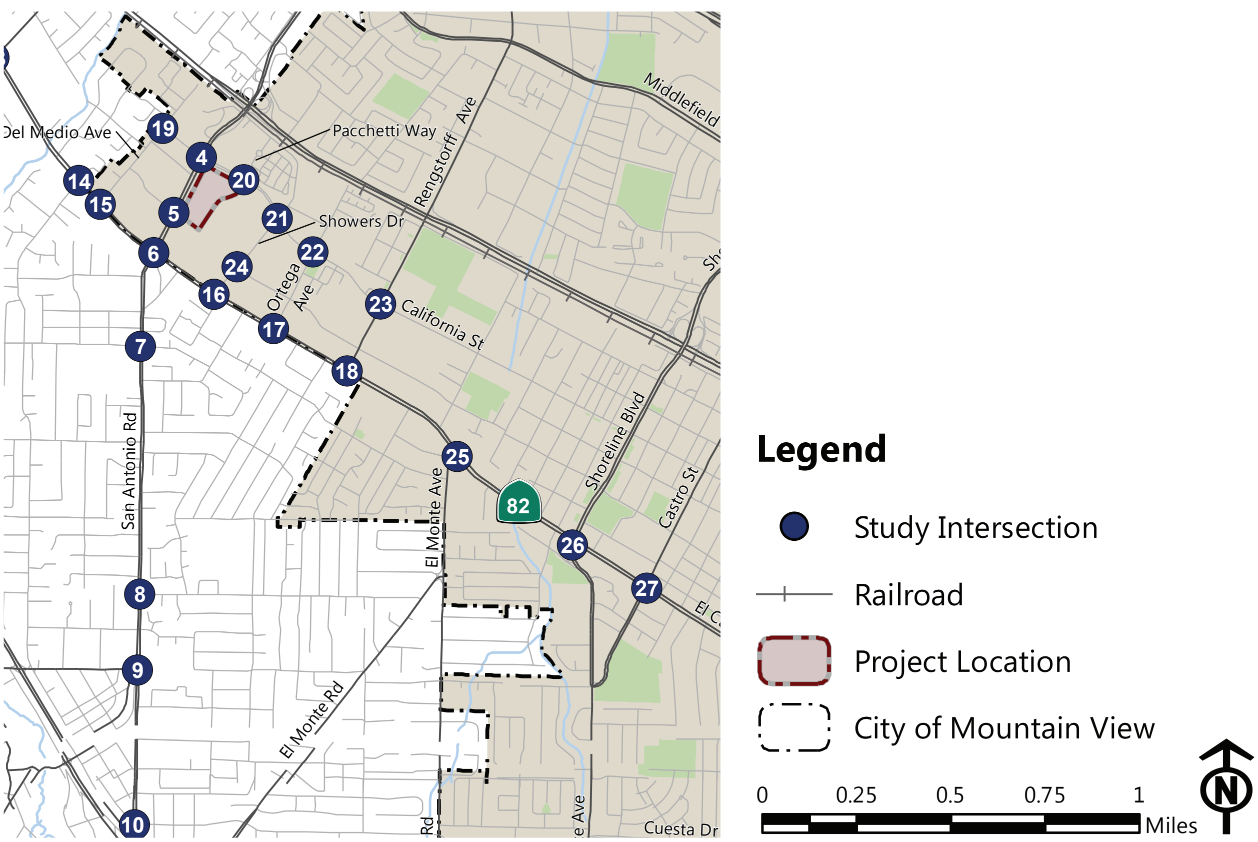
Figure 3.13-6a
Project Trip Assignment (Intersections 1-14)
The Village at San Antonio Center Phase II





Source: Fehr and Peers 2013.

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Figure 3.13-6b
Project Trip Assignment (Intersections 15-27)
The Village at San Antonio Center Phase II

- Onsite commuter assistance center offering one-stop shopping for transit and commute alternative information.
- High-speed internet connections in employee homes to facilitate telecommuting.
- Alternative work schedules (staggered start times, flexible work hours, and/or compressed work week program).
- Other onsite amenities that encourage workers to leave cars at home.
- Bicycle parking including lockers, racks, and cages, as well as showers, changing rooms, and clothing lockers.
- Cash payments to commuters who bicycle or walk to work.
- A guaranteed ride home program, or vanpool implementation support.
- Parking "cash out" program where employees are offered a cash incentive not to drive their cars to the site.
- Restricted parking spaces to ensure office parking spaces are used for employees only.

The TDM program would include an annual review of employee commuting patterns and characteristics, to be submitted to City staff for review, as part of the monitoring process. This information would be used to modify the TDM strategies to increase the program's effectiveness and its ability to meet the vehicle trip reduction requirement. The office peak-hour vehicle trip monitoring would be done by an independent evaluator.

3.13.3.3 Impacts and Mitigation Measures

This section provides a discussion of each impact as it corresponds to the significance criteria presented in Section 3.13.3.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.13.3.4, *Summary of Transportation and Circulation Impacts*.

Impact TRA-1	Substantial increase in vehicle delay or deterioration of traffic operation at study intersections under the Existing plus Project Condition.
Level of Impact	Less than Significant

Discussion

Under the Existing plus Project Condition, the net new traffic generated by the Project (Figure 3.13-6) was added to the traffic volumes under the Existing Condition. No transportation network improvements were proposed as part of the Project; therefore, the existing roadway network was used for the Existing plus Project Condition.

LOS calculations were conducted to evaluate intersection operations under the Existing plus Project Condition. The results of the analysis are summarized in Table 3.13-8. The results indicate that the study intersections are projected to operate within acceptable levels of service (LOS D or better for local city intersections and LOS E or better for San Antonio Center Planning Area intersections and CMP intersections) during the AM and PM peak hours. Accordingly, Project operational impacts at the study intersections would be less than significant. No mitigation is required.

Table 3.13-8. Intersection Levels of Service – Existing Plus Project Condition

	Intersection	Control	Peak Hour	Existing Delay[a]	Existing LOS	Existing plus Project Delay[a]	Existing plus Project LOS
1	San Antonio Road and US 101 NB Off-Ramp (MV)	Signal	AM	11.8	B+	12.1	B+
			PM	10.8	B+	10.4	B+
2	San Antonio Road and Charleston Road (CMP)	Signal	AM	36.0	D+	35.8	D+
			PM	38.9	D+	39.9	D
3	San Antonio Road and Middlefield Road (CMP)	Signal	AM	45.5	D	45.5	D
			PM	48.9	D	49.6	D
4	San Antonio Road and California Street (MV)**	Signal	AM	50.5	D	55.0	E+
			PM	48.7	D	53.4	D-
5	San Antonio Road and Fayette Drive (MV)**	Signal	AM	15.5	B	16.0	B
			PM	16.2	B	19.5	B-
6	San Antonio Road and El Camino Real (CMP)	Signal	AM	43.2	D	45.6	D
			PM	47.1	D	49.3	D
7	San Antonio Road and W Portola Avenue (LA)	Signal	AM	18.9	B-	18.8	B
			PM	13.0	B	12.9	B
8	San Antonio Road and Almond Avenue (LA)	Signal	AM	17.3	B	17.4	B
			PM	17.6	B	17.4	B
9	San Antonio Road and W Edith Avenue/Main Street (LA)	Signal	AM	26.3	C	26.2	C
			PM	34.6	C	34.5	C-
10	San Antonio Road and Cuesta Drive/First Street (LA)	Signal	AM	31.4	C	31.4	C
			PM	28.7	C	28.9	C
11	El Camino Real and Los Robles Avenue/El Camino Way (PA)	Signal	AM	28.1	C	27.8	C
			PM	22.9	C+	22.5	C+
12	El Camino Real and Maybell Avenue (PA)	Signal	AM	32.9	C-	32.0	C-
			PM	27.5	C	27.0	C
13	El Camino Real and Arastradero Road/Charleston Road (PA)	Signal	AM	37.6	D+	37.6	D+
			PM	39.4	D	39.6	D
14	El Camino Real and Los Altos Avenue/Cezano Court (LA)	Signal	AM	22.3	C+	22.1	C+
			PM	17.1	B	16.8	B
15	El Camino Real and Del Medio Avenue (MV)	Signal	AM	28.0	C	27.9	C
			PM	18.5	B-	18.3	B-
16	El Camino Real and Showers Drive (MV)	Signal	AM	26.1	C	25.9	C
			PM	31.3	C	31.2	C
17	El Camino Real and Ortega Avenue (MV)	Signal	AM	13.8	B	13.5	B
			PM	13.2	B	14.1	B
18	El Camino Real and Rengstorff Avenue (CMP)	Signal	AM	22.5	C+	22.1	C+
			PM	21.3	C+	21.1	C+
19	California Street and Del Medio Avenue (MV)**	AWSC	AM	9.7	A	9.8	A
			PM	8.6	A	8.7	A
20	California Street and Pacchetti Way (MV)**	Signal	AM	13.8	B	15.4	B
			PM	17.2	B	19.8	B-

Intersection		Control	Peak Hour	Existing Delay[a]	Existing LOS	Existing plus Project Delay[a]	Existing plus Project LOS
21	California Street and Showers Drive (MV)**	Signal	AM	25.8	C	22.9	C+
			PM	25.5	C	25.0	C
22	California Street and Ortega Avenue (MV)**	Signal	AM	7.8	A	7.4	A
			PM	5.6	A	5.3	A
23	California Street and Rengstorff Avenue (MV)**	Signal	AM	29.8	C	29.8	C
			PM	34.5	C-	34.8	C-
24	Latham Street and Showers Drive (MV)**	SSSC	AM	10.7	B	10.7	B
			PM	12.0	B	12.1	B
25	El Camino Real and El Monte Avenue (CMP)	Signal	AM	29.1	C	29.1	C
			PM	29.2	C	29.0	C
26	El Camino Real and Shoreline Boulevard (CMP)	Signal	AM	39.3	D	39.6	D
			PM	39.3	D	39.3	D
27	El Camino Real and Castro Street (CMP)	Signal	AM	27.0	C	27.1	C
			PM	31.4	C	31.2	C

Note:

[a] Average control delay expresses in second per vehicle.

NB = Northbound; AWSC = all-way stop-controlled intersections; SSSC = side-street stop controlled intersections.

LA = Los Altos; MV = Mountain View; PA = Palo Alto; CMP = VTA's Congestion Management Program intersections; ** = San Antonio Center Plan Area.

Source: Appendix J.

Impact TRA-2	Substantial increase in vehicle delay or deterioration of traffic operation at study intersections under the Background plus Project Condition.
Level of Impact	Less than Significant

Discussion

The Background Condition is defined as the condition prior to completion and occupancy of the proposed Project. Traffic volumes for the Background Condition comprise existing volumes plus traffic generated by approved but not yet constructed and occupied developments in the area. Projections of added traffic for Background Conditions were based on development projects approved and not occupied near the Project site. A list of approved and pending projects for Mountain View, Palo Alto, and Los Altos near the Project site is included in Appendix E of the TIA report (Appendix J). No approved and funded transportation network improvements have been identified that would be constructed prior to Project completion; therefore, the existing roadway network was used for the Background Condition analysis.

Under the Background plus Project Condition, the net new traffic generated by the Project (Figure 3.13-6) was added to the traffic volumes under the Background Condition. No transportation network improvements were proposed as part of the Project; therefore, the roadway network is the same as the network analyzed under the Background Condition, which is the existing roadway network.

LOS calculations were conducted to evaluate intersection operations under the Background plus Project Condition. The results of the analysis are summarized in Table 3.13-9. The results indicate that the study intersections are projected to operate within acceptable levels of service (LOS D or better for local city intersections and LOS E or better for San Antonio Center Planning Area intersections and CMP intersections) during the AM and PM peak hours. Accordingly, Project operational impacts at the study intersections under the Background plus Project Condition would be less than significant. No mitigation is required.

Table 3.13-9. Intersection Levels of Service – Background Plus Project Condition

Intersection		Control	Peak Hour	Background		Background plus Project	
				Delay[a]	LOS	Delay[a]	LOS
1	San Antonio Road and US 101 NB Off-Ramp (MV)	Signal	AM	12.1	B+	12.3	B+
			PM	10.6	B+	11.0	B+
2	San Antonio Road and Charleston Road (CMP)	Signal	AM	35.9	D+	35.7	D+
			PM	39.2	D	40.3	D
3	San Antonio Road and Middlefield Road (CMP)	Signal	AM	45.5	D	45.4	D
			PM	49.6	D	50.4	D
4	San Antonio Road and California Street (MV)**	Signal	AM	50.0	D	55.4	E+
			PM	48.8	D	54.9	D-
5	San Antonio Road and Fayette Drive (MV)**	Signal	AM	14.8	B	15.5	B
			PM	15.4	B	18.2	B-
6	San Antonio Road and El Camino Real (CMP)	Signal	AM	53.0	D	60.1	E
			PM	61.6	E	70.1	E
7	San Antonio Road and W Portola Avenue (LA)	Signal	AM	18.9	B-	18.8	B
			PM	12.3	B	12.2	B
8	San Antonio Road and Almond Avenue (LA)	Signal	AM	18.2	B-	18.3	B-
			PM	18.4	B-	18.3	B-
9	San Antonio Road and W Edith Avenue/Main Street (LA)	Signal	AM	25.5	C	25.5	C
			PM	33.9	C-	33.9	C-
10	San Antonio Road and Cuesta Drive/First Street (LA)	Signal	AM	37.4	D+	37.8	D+
			PM	42.8	D	45.1	D
11	El Camino Real and Los Robles Avenue/El Camino Way (PA)	Signal	AM	28.3	C	28.0	C
			PM	30.9	C	30.6	C
12	El Camino Real and Maybell Avenue (PA)	Signal	AM	31.1	C	30.2	C
			PM	25.9	C	25.6	C
13	El Camino Real and Arastradero Road/Charleston Road (PA)	Signal	AM	37.6	D+	37.6	D+
			PM	41.0	D	41.6	D
14	El Camino Real and Los Altos Avenue/Cezano Court (LA)	Signal	AM	21.7	C+	21.5	C+
			PM	16.4	B	16.2	B
15	El Camino Real and Del Medio Avenue (MV)	Signal	AM	27.9	C	27.8	C
			PM	18.7	B-	18.6	B-
16	El Camino Real and Showers Drive (MV)	Signal	AM	25.5	C	25.5	C
			PM	31.3	C	31.4	C
17	El Camino Real and Ortega Avenue (MV)	Signal	AM	13.2	B	13.0	B
			PM	12.4	B	13.4	B

Intersection		Control	Peak Hour	Background		Background plus Project	
				Delay[a]	LOS	Delay[a]	LOS
18	El Camino Real and Rengstorff Avenue (CMP)	Signal	AM	23.4	C	23.2	C
			PM	23.2	C	23.1	C
19	California Street and Del Medio Avenue (MV)**	AWSC	AM	10.0	B	10.0	B
			PM	8.9	A	9.0	A
20	California Street and Pacchetti Way (MV)**	Signal	AM	13.7	B	15.2	B
			PM	16.9	B	19.6	B-
21	California Street and Showers Drive (MV)**	Signal	AM	23.2	C	22.7	C+
			PM	25.6	C	25.1	C
22	California Street and Ortega Avenue (MV)**	Signal	AM	7.6	A	7.2	A
			PM	5.5	A	5.3	A
23	California Street and Rengstorff Avenue (MV)**	Signal	AM	30.1	C	30.3	C
			PM	34.5	C-	34.9	C-
24	Latham Street and Showers Drive (MV)**	SSSC	AM	10.8	B	10.8	B
			PM	12.1	B	12.2	B
25	El Camino Real and El Monte Avenue (CMP)	Signal	AM	29.1	C	29.2	C
			PM	28.4	C	28.4	C
26	El Camino Real and Shoreline Boulevard (CMP)	Signal	AM	39.1	D	39.5	D
			PM	39.6	D	39.8	D
27	El Camino Real and Castro Street (CMP)	Signal	AM	26.9	C	27.0	C
			PM	31.0	C	30.9	C

Note:

[a] Average control delay expresses in second per vehicle.

NB = Northbound; AWSC = all-way stop-controlled intersections; SSSC = side-street stop controlled intersections.

LA = Los Altos; MV = Mountain View; PA = Palo Alto; CMP = VTA's Congestion Management Program intersections; ** = San Antonio Center Plan Area.

Source: Appendix J.

Impact TRA-3	Substantial deterioration of traffic operation on freeway segments during Project operation.
Level of Impact	Less than Significant

Discussion

The impact of Project traffic on the operation of study freeway segments was determined by calculating the amount of traffic projected to be added on these segments. If the Project traffic would add more than 1 percent of the freeway's capacity on segments that currently operate at LOS F or cause the segment operations to deteriorate from LOS E or better to LOS F, the impact would be significant. For mixed-flow lanes, freeway segment capacities are defined as 2,200 vehicles per hour per lane (vphpl) for four-lane freeway segments and 2,300 vphpl for six-lane freeway segments. HOV lane capacities are defined as 1,650 vphpl. The contribution of Project traffic to freeway segments' capacities was calculated for the AM and PM peak hours. Results of the study segments that would exceed the VTA 1-percent threshold are presented in Table 3.13-10. On freeway segments that are already operating at LOS F during the AM and PM peak period, the added Project traffic would not constitute more than 1 percent of the freeway's capacity. On freeway segments that are currently operating at LOS E or better, the Project traffic would not cause the LOS to decline to LOS F. Accordingly, the Project is estimated to have a less-than-significant impact on the freeway system. No mitigation is required.

Table 3.13-10. Freeway Segment Levels of Service – Existing plus Project

Freeway Segment	Peak Hour	Existing LOS		Project Trips Added[a]		Percent Trips Added[a]		Existing plus Project LOS	
		Mixed	HOV	Mixed	HOV	Mixed	HOV	Mixed	HOV
US 101 Northbound									
North Shoreline Blvd. and Rengstorff Avenue	AM	**F**	**F**	37	6	0.54%	0.36%	**F**	**F**
	PM	**F**	D	15	3	0.22%	0.18%	**F**	D
Rengstorff Avenue and San Antonio Road	AM	**F**	E	37	6	0.54%	0.36%	**F**	E
	PM	**F**	D	15	3	0.22%	0.18%	**F**	D
San Antonio Road and Oregon Expressway	AM	**F**	E	14	2	0.20%	0.12%	**F**	E
	PM	E	D	86	15	1.25%	0.91%	E	D
US 101 Southbound									
Oregon Expressway and San Antonio Road	AM	E	D	88	15	1.28%	0.91%	E	D
	PM	**F**	**F**	25	4	0.36%	0.24%	**F**	**F**
San Antonio Road and Rengstorff Avenue	AM	D	D	4	1	0.06%	0.06%	D	D
	PM	**F**	E	24	4	0.35%	0.24%	**F**	E
Rengstorff Avenue and North Shoreline Blvd.	AM	E	D	7	1	0.06%	0.06%	E	D
	PM	E	D	39	7	0.57%	0.42%	E	D

Note:

[a] Measured in passenger cars per mile per lane.

Mixed = Mix-Flow; HOV = High-Occupancy Vehicle.

Bold text indicates unacceptable operations (LOS F for CMP-designated facilities).

Source: Appendix J.

Impact TRA-4	Substantial increase in vehicle delay or deterioration of traffic operation at study intersections under the Cumulative Condition.
Level of Impact	Significant
Mitigation Measure TRA-MM-4	Pay a fair share contribution towards the future improvement at the San Antonio Road/El Camino Real intersection.
Level of Impact after Mitigation	Significant and Unavoidable

Discussion

The General Plan EIR (LSA Associates 2012) identifies several impacts related to transportation, circulation, and parking, including an increase in daily land-use-based vehicle miles of travel, increased motor vehicle traffic on several roadway segments, decreased level of service on several freeway segments, increased traffic outside of the City of Mountain View, and potential increased emergency response times due to increased traffic. The cumulative setting for transportation and circulation is the Project vicinity and the intersections and roadways identified and studied in the traffic analysis (see Section 3.13, *Transportation and Circulation*).

Cumulative impacts in the Project area were evaluated for the year the Project is scheduled to open (Year 2017). A growth rate of 2 percent per year, compounded annually, was applied to the existing intersection traffic volumes (Year 2013) to account for regional background growth. In addition, traffic generated by approved, but not yet constructed and occupied, developments and pending developments in Mountain View, Palo Alto, and Los Altos were added to existing-plus-growth projections to derive the Cumulative Condition volumes. Under the Cumulative plus Project Condition, the net new traffic generated by the Project was added to the traffic volumes under the Cumulative Condition.

No approved and funded transportation network improvements were identified that would be constructed and operational prior to Project completion under the Cumulative Condition. Therefore, the existing roadway network was used for the cumulative analysis.

Level of service calculations were conducted to evaluate intersection operations under the Cumulative plus Project Condition. The results of the level of service analysis are summarized in Table 3.13-11. The results indicate that the majority of study intersections are projected to operate within acceptable levels of service (LOS D or better for local city intersections and LOS E or better for San Antonio Planning Area intersections and CMP intersections) during the AM and PM peak hours, except at the intersection of San Antonio Road and El Camino Real. The addition of Project traffic would cause the operation of this intersection to degrade from an acceptable level (LOS E) to an unacceptable level (LOS F). Therefore, the Project would result in cumulatively considerable significant impacts at the intersection of San Antonio Road and El Camino Real under the Cumulative plus Project condition.

As prescribed in **Mitigation Measure TRA-MM-4**, intersection capacity improvement is required to improve intersection operation to an acceptable level of service. With this mitigation, the Project's contribution to this cumulative impact would be considered less than significant. However, because this improvement would require approval by Caltrans and VTA, the City cannot ensure the construction of this improvement at this time because it does not have any authority over those agencies' decisions. Without implementation of the proposed mitigation, the impact would be significant and unavoidable.

Mitigation Measure TRA-MM-4: Pay a fair-share contribution towards the future improvement at the San Antonio Road/El Camino Real intersection

The applicant will pay for the improvement of the San Antonio Road and El Camino Real intersection and will be reimbursed by future developers based on their impact of their respective projects on the level of service at this intersection. The Project will contribute 16.80 percent to the intersection impacts and will ultimately pay only its proportionate share, after reimbursement by future developers contributing impacts to the intersection. The proposed mitigation measure for the San Antonio Road/El Camino Real intersection, located in the City of Los Altos, includes adding a second northbound left-turn lane, and will, if constructed, improve intersection operations to an acceptable level (LOS E or better). An approximate 100-foot long left-turn pocket can be accommodated within the existing curb-to-curb width, although the median will have to be relocated. Signal poles, mast arms, and heads may need to be re-aligned or added with this change. Preliminary consultation with the City of Los Altos indicates that Los Altos accepts the need for the improvements to the intersection and would cooperate with the City of Mountain View and other agencies in ensuring it would be constructed. The final configuration of the improved intersection will require approval from the City of Mountain

View, the City of Los Altos, VTA, and Caltrans to address the practical steps of implementing any improvements.

Table 3.13-11. Intersection Levels of Service – Cumulative Condition

	Intersection	Control	Peak Hour	Cumulative		Cumulative plus Project	
				Delay[a]	LOS	Delay[a]	LOS
1	San Antonio Road and US 101 NB Off-Ramp (MV)	Signal	AM	12.3	B+	12.5	B+
			PM	11.2	B+	11.6	B+
2	San Antonio Road and Charleston Road (CMP)	Signal	AM	38.6	D+	38.0	D+
			PM	42.5	D	44.0	D
3	San Antonio Road and Middlefield Road (CMP)	Signal	AM	47.7	D	47.6	D
			PM	53.4	D-	54.7	D-
4	San Antonio Road and California Street (MV)**	Signal	AM	52.3	D-	60.5	E
			PM	52.2	D-	62.0	E
5	San Antonio Road and Fayette Drive (MV)**	Signal	AM	14.9	B	15.6	B
			PM	15.6	B	18.2	B-
6	San Antonio Road and El Camino Real (CMP)	Signal	AM	63.1	E	72.4	E
			PM	73.2	E	**84.4**	**F**
7	San Antonio Road and W Portola Avenue (LA)	Signal	AM	19.9	B-	19.9	B-
			PM	12.6	B	12.5	B
8	San Antonio Road and Almond Avenue (LA)	Signal	AM	20.3	C+	20.5	C+
			PM	18.9	B-	19.0	B-
9	San Antonio Road and W Edith Avenue/Main Street (LA)	Signal	AM	27.5	C	27.5	C
			PM	35.8	D+	35.7	D+
10	San Antonio Road and Cuesta Drive/First Street (LA)	Signal	AM	40.8	D	40.3	D
			PM	53.7	D-	52.3	D-
11	El Camino Real and Los Robles Avenue/El Camino Way (PA)	Signal	AM	29.3	C	29.1	C
			PM	31.7	C	31.5	C
12	El Camino Real and Maybell Avenue (PA)	Signal	AM	31.4	C	30.6	C
			PM	26.9	C	26.7	C
13	El Camino Real and Arastradero Road/Charleston Road (PA)	Signal	AM	39.5	D	39.5	D
			PM	44.9	D	46.1	D
14	El Camino Real and Los Altos Avenue/Cezano Court (LA)	Signal	AM	22.3	C+	22.3	C+
			PM	16.8	B	16.8	B
15	El Camino Real and Del Medio Avenue (MV)	Signal	AM	29.1	C	29.3	C
			PM	19.5	B-	19.6	B-
16	El Camino Real and Showers Drive (MV)	Signal	AM	26.5	C	26.5	C
			PM	33.6	C-	33.7	C-
17	El Camino Real and Ortega Avenue (MV)	Signal	AM	13.4	B	13.3	B
			PM	12.7	B	13.8	B
18	El Camino Real and Rengstorff Avenue (CMP)	Signal	AM	24.0	C	23.9	C
			PM	24.0	C	24.0	C
19	California Street and Del Medio Avenue (MV)**	AWSC	AM	10.4	B	10.5	B
			PM	9.2	A	9.3	A

Intersection		Control	Peak Hour	Cumulative		Cumulative plus Project	
				Delay[a]	LOS	Delay[a]	LOS
20	California Street and Pacchetti Way (MV)**	Signal	AM	13.7	B	15.3	B
			PM	16.9	B	19.6	B-
21	California Street and Showers Drive (MV)**	Signal	AM	25.9	C	22.9	C+
			PM	25.9	C	25.6	C
22	California Street and Ortega Avenue (MV)**	Signal	AM	7.7	A	7.3	A
			PM	5.5	A	5.3	A
23	California Street and Rengstorff Avenue (MV)**	Signal	AM	30.2	C	31.2	C
			PM	34.9	C-	35.5	D+
24	Latham Street and Showers Drive (MV)**	SSSC	AM	11.1	B	11.1	B
			PM	12.7	B	12.8	B
25	El Camino Real and El Monte Avenue (CMP)	Signal	AM	30.6	C	30.8	C
			PM	30.3	C	30.5	C
26	El Camino Real and Shoreline Boulevard (CMP)	Signal	AM	42.7	D	43.3	D
			PM	43.4	D	43.5	D
27	El Camino Real and Castro Street (CMP)	Signal	AM	28.9	C	29.2	C
			PM	33.7	C-	33.6	C-

Note:

[a] Average control delay expresses in second per vehicle.

Bold text indicates intersection operates at a deficient level of service. **Bold and highlighted** indicates a significant impact.

NB = Northbound; AWSC = all-way stop-controlled intersections; SSSC = side-street stop controlled intersections.

LA = Los Altos; MV = Mountain View; PA = Palo Alto; CMP = VTA's Congestion Management Program intersections; ** = San Antonio Center Plan Area.

Source: Appendix J.

Impact TRA-5	Potential conflict with transit services and facilities and policies and plans related to the services during Project operation.
Level of Impact	Less than Significant

Discussion

The Project is located adjacent to existing transit lines and bus stops operating along Caltrain rail, San Antonio Road, California Street, Showers Drive, and El Camino Real. Project operation would increase passenger demand for transit services because of the increased uses at the site and the proposed TDM program that would increase the number of employees commuting with public transit. The TDM program is expected to reduce 193 AM peak hour trips and 188 PM peak hour trips through carpooling, vanpooling, alternative work schedules, bicycle riding, and use of public transit. Therefore, the increase in transit passengers would be less than the reduced vehicle trips. It is expected that the transit passengers would travel in different directions and use various transit lines (VTA buses, Caltrain trains, and Stanford Marguerite shuttles) to access the Project site; therefore, the Project is not expected to increase the transit demand to a level where it could not be accommodated by existing or planned transit facilities. Additionally, the Project's design features would not interrupt the existing transit facilities on roadways surrounding the Project site, introduce safety hazards to the facilities, or otherwise conflict with City's General Plan. Therefore, the impacts on transit service and facilities are considered less than significant.

Impact TRA-6	Potential conflict with local pedestrian and bicycle facilities and policies and plans regarding the facilities during Project operation.
Level of Impact	Less than Significant

Discussion

Pedestrian Facilities

The Project is expected to increase demand for pedestrian facilities that allow shoppers and employees to access nearby bus stops, the Caltrain station, and other adjacent land uses. As shown in Figure 3.13-4, most of the streets near the Project have sidewalks on both sides of the street. Most signalized intersections within 0.25 mile of the Project site have crosswalks and pedestrian signals on all four legs. In addition, there is a mid-block, unsignalized crosswalk at Miller Avenue that crosses San Antonio Road near the intersection of San Antonio Road and California Street. Though the Project would increase vehicle traffic that would cross existing pedestrian facilities on a regular basis, the existing facilities are designed adequately. In addition, the Project would incorporate onsite pedestrian amenities as part of the TDM program and Project design features would improve onsite pedestrian access and circulation. The Project's design features would not interrupt the existing sidewalks surrounding the Project site, introduce safety hazards to the existing pedestrian facilities, or otherwise conflict with the City's General Plan. Accordingly, the impacts on pedestrian facilities are considered less than significant.

Bicycle Facilities

The Project is expected to increase demand for bicycle facilities on roadways leading to the Project site because of the increase in shoppers and employees and the proposed bicycle parking and amenities that are part of the TDM program to encourage employees to commute with bicycles. However, the Project is not expected to increase the biking demand to a level where it could not be accommodated by existing or planned facilities. Additionally, the Project would incorporate onsite bicycle parking and amenities as part of the TDM program. The bike amenities would improve onsite bicycle access and circulation. The Project's design features would not interrupt the existing bicycle facilities on roadways surrounding the Project site, introduce safety hazards to the facilities, or otherwise conflict with City's General Plan and Bicycle Plan. Accordingly, the impacts on bicycle facilities are considered less than significant.

Impact TRA-7	Inadequate parking supply during Project operation.
Level of Impact	Less than Significant

Discussion

The Project site is proposed to be zoned as a P district, and there are no City-approved parking requirements for the mixed-use land use; therefore, the parking supply requirement for the Project is estimated according to the City's Municipal Code for each individual land use on the Project site. The Project would provide a total of 2,596 parking spaces for employees and visitors. As shown in Table 3.13-12, without the implementation of the TDM program, the proposed parking supply would be approximately 181 spaces (or 7 percent) less than the City requirements. However, with implementation of a TDM program, as required by the City, to reduce peak-hour vehicle trips generated by the office space by approximately 30 percent, the office parking demand would be reduced by 393 parking spaces. This reduction would result in a total parking demand of 2,347, which is fewer parking spaces than the Project would provide. In addition, it is not anticipated that all parking spaces would be used at the same time of day. For example, the spaces allocated to office uses would most likely be vacated at the time most cinema visitors would be at the Project site. To encourage this type of parking share, some of the office parking spaces could be designated for joint uses for retail/restaurant/cinema/hotel visitors after office hours or during the weekends when the office parking demand is low. For these reasons, the Project provides an adequate parking supply and would not result in inadequate capacity. There is not expected to be any "spillover" of Project visitors looking for parking into adjacent neighborhoods. Therefore, this impact is considered less than significant.

Table 3.13-12. Project Vehicle Parking Requirements

			Required Vehicle Parking Supply		
Land Use	Vehicle Parking Ratio[1]	Size	Regular	Accessible[2]	Total
Hotel	1 Stall/1 Room, + 1 Stall/ 2 Employees	167 Rooms	186	6	192
Retail	1 Stall/180 sf	54,186 sf	293	8	301
Office	1 Stall/300 sf	392,853 sf	1,286	23	1,309
Commercial	1 Stall/300 sf	28,502 sf	91	4	95
Restaurant	1 Stall/100 sf	35,358 sf	346	8	354
Cinema	1 Stall/3.5 Seats	1,710	480	9	489
Total Vehicle Parking Spaces Required			2,682	58	2,740

1. Parking Requirements by Land Use, Section 36.37.040.B, City of Mountain View Municipal Code.

2. Handicapped Parking Requirements, Section 36.37.060, City of Mountain View Municipal Code, and Section 1129 B of the California Code of Regulations, Title 24, Part 2 (Uniform Building Code).

Source: Appendix J.

Impact TRA-8	Potential construction impacts on traffic operation and circulation, transit service, nonmotorized transportation facilities, and emergency access.
Level of Impact	Significant
Mitigation Measure TRA-MM-8	Develop and implement a construction traffic control plan.
Level of Impact after Mitigation	Less than Significant

Discussion

Transportation system impacts during Project construction include the potential to disrupt traffic flows on area roadways and the potential to disrupt alternative modes of transportation, such as by blocking bicycle or pedestrian pathways or public transit lanes on area roadways. Disruption to traffic flows could be caused by heavy-duty construction vehicles sharing the roadway with normal vehicle traffic, creating potential conflicts between incompatible uses; and by short-term utility installation or other construction activities requiring temporary lane closures. Emergency access to the Project site and in the immediate vicinity could also be disrupted because of lane closures for utility installation or construction-related traffic that could delay or obstruct the movement of emergency vehicles. Although construction impacts would be temporary, this impact is considered potentially significant. Implementation of a construction traffic control plan, as prescribed in **Mitigation Measure TRA-MM-8**, would reduce the potential for construction vehicle conflicts with other roadway users to a less-than-significant level.

Mitigation Measure TRA-MM-8: Develop and implement a construction traffic control plan.

Prior to issuance of grading permits, the construction contractor will develop the traffic control plan in accordance with City's policies and submit for City approval. The plan will be implemented throughout the course of Project construction and may include, but will not be limited to, the following elements.

- Limit truck access to the Project site during peak commute times (7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM).
- Require that written notification be provided to contractors regarding appropriate routes to and from the Project site, and the weight and speed limits on local roads used to access the Project site.
- Provide access for emergency vehicles at all times.
- Provide adequate onsite parking for construction employees, site visitors, and inspectors as feasible.
- Maintain pedestrian and bicycle access and circulation during Project construction where safe to do so. If construction encroaches on a sidewalk, a safe detour will be provided for pedestrians at the nearest crosswalk. If construction encroaches on a bike lane, warning signs will be posted that indicate bicycles and vehicles are sharing the roadway.
- Require traffic controls in the Project area and the Project entrance driveway, including flag persons wearing bright orange or red vests and using a "Stop/Slow" paddle to control oncoming traffic.
- Post standard construction warning signs in advance of the construction area and at any intersection that provides access to the construction area.
- Repair or restore the road right-of-way to its original condition or better upon completion of the work.

3.13.3.4 Summary of Transportation and Circulation Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
TRA-1: Substantial increase in vehicle delay or deterioration of traffic operation at study intersections under the Existing plus Project Condition.	Less than Significant	None required	–
TRA-2: Substantial increase in vehicle delay or deterioration of traffic operation at study intersections under the Background plus Project Condition.	Less than Significant	None required	–
TRA-3: Substantial deterioration of traffic operation on freeway segments during Project operation.	Less than Significant	None required	–
TRA-4: Substantial increase in vehicle delay or deterioration of traffic operation at study intersections under the Cumulative Condition.	Significant	TRA-MM-4: Pay a fair share contribution towards the future improvement at the San Antonio Road/El Camino Real intersection	Significant and unavoidable
TRA-5: Potential conflict with transit services and facilities and policies and plans related to the services during Project operation.	Less than Significant	None required	–
TRA-6: Potential conflict with local pedestrian and bicycle facilities and policies and plans regarding the facilities during Project operation.	Less than Significant	None required	–
TRA-7: Inadequate parking supply during Project operation.	Less than Significant	None required	–
TRA-8: Potential construction impacts on traffic operation and circulation, transit service, nonmotorized transportation facilities, and emergency access.	Significant	TRA-MM-8: Develop and implement a construction traffic control plan.	Less than Significant

3.14 Utilities and Service Systems

This section describes the environmental and regulatory setting for utilities and service systems, including water, wastewater, storm drainage, and solid waste. It also describes impacts on utilities and service systems that would result from implementing the Project and mitigation for significant impacts where feasible and appropriate. A summary of impacts and mitigation measures is presented at the end in Section 3.14.3.4, *Summary of Utilities and Service Systems Impacts*. Impacts related to stormwater quality are addressed in Section 3.8, *Hydrology and Water Quality*. Impacts related to fire protection service are addressed in Section 3.12, *Public Services and Recreation*.

3.14.1 Environmental Setting

This section provides a discussion of the existing conditions related to utilities and service systems on the Project site and in the surrounding Project area. The study area for this analysis is the Project site and the jurisdiction of each of the utility service providers.

3.14.1.1 Water

The City of Mountain View (City) provides water to the existing uses on the Project site. There is an existing 10-inch water line in California Street and a 12-inch water line in San Antonio Road. The City of Mountain View purchases the majority of its drinking water from the San Francisco Public Utilities Commission (SFPUC) and the Santa Clara Valley Water District (SCVWD). These sources are supplemented by water pumped from seven active groundwater wells owned and operated by the City. Beginning in 2009, Mountain View also began receiving nonpotable recycled water from the Palo Alto Regional Water Quality Control Plant (RWQCP). In 2010, water supplies used by the City (both potable and nonpotable) included 84 percent SFPUC water, 9 percent SCVWD treated water, 4 percent groundwater, and 3 percent recycled water (City of Mountain View 2011).

The average annual water use on the Project site from 2003 through 2012 was approximately 4.7 acre-feet per year (AFY), with annual water use ranging from 3.11 AF in 2012 to 6.06 AF in 2004.

3.14.1.2 Wastewater

Municipal wastewater contains sewage and greywater (i.e., wastewater generated from sinks and showers). The wastewater collection system for the existing parcels is operated and maintained by the City. There are existing 8-inch sanitary sewer lines in California Street and San Antonio Road.

The City's wastewater is treated at the RWQCP located at 2501 Embarcadero Way in Palo Alto, California. The RWQCP is owned and operated by the City of Palo Alto for the communities of Los Altos, Los Altos Hills, Mountain View, Palo Alto, East Palo Alto, and Stanford University. Wastewater from these communities is treated by the RWQCP prior to discharge to the San Francisco Bay. The RWQCP has an overall average dry weather flow capacity of 39 million gallons per day (mgd), with current average flows of approximately 22 mgd (City of Palo Alto 2011).

Mountain View has a current capacity share of 15.1 mgd (LSA Associates 2012). As of 2010, approximately 7.9 mgd of wastewater from Mountain View was collected and treated by the RWQCP (City of Mountain View 2011). This quantity is expected to increase to 13.78 mgd by the year 2030 with General Plan buildout. This amounts to 91.2 percent of the City's current capacity rights (City of Palo Alto 2011).

As part of the Los Altos 1970 Sewer Agreement, the City of Los Altos agrees to receive two million gallons per day of maximum peak flow rate of sanitary sewage from Mountain View at a portion of Los Altos' San Antonio Interceptor Sewer between Central Expressway and the Joint System meeting station.

3.14.1.3 Storm Drainage

The City of Mountain View Public Works Department operates and maintains the storm drainage system in the City. Surface runoff conveys stormwater to public streets. The City's storm drainage system consists of an underground gravity piping network, cross culverts, drywells, a detention pond, and five pump stations. Runoff is collected through inlets into small-diameter pipes, which convey the flows to 24-inch diameter and larger main pipes. Generally, the system drainage flows from south to north toward the San Francisco Bay. Over 80 percent of the storm drainage system discharges to Stevens and Permanente Creeks, while the remaining drainage discharges to the Permanente Diversion Channel, Adobe Creek, and various sloughs that drain to the Bay.

The existing drainage system in California Street has a 27-inch main west of Pacchetti Way that expands to 30-inch diameter prior to connecting to the 36-inch main along San Antonio Road. The existing drainage system in San Antonio Road includes a 33-inch main north of Fayette Drive that expands to 36-inch diameter prior to the manhole connection at San Antonio Road and California Street. North of California Street, the 36-inch main along San Antonio Road expands to 42-inch diameter prior to connections with the 80-inch Adobe Creek East trunk system. There is a 12-inch storm drain line in Pacchetti Way, and an 18-inch storm drain line just north of the Hetch-Hetchy Parkway.

3.14.1.4 Solid Waste

Recology provides solid waste collection and recycling services for residents and businesses in Mountain View. Once collected, solid waste and recyclables are transported to the Sunnyvale Materials Recovery and Transfer Station (SMaRT) station at 301 Carl Road in Sunnyvale for sorting. Nonrecyclable waste from the SMaRT Station is transported to the Kirby Canyon Landfill in San Jose. Kirby Canyon Landfill has a total estimated permitted capacity of 36.4 million cubic yards, a remaining estimated capacity of approximately 57.3 million cubic yards, and an anticipated closing date of December 31, 2022 (CalRecycle 2013; LSA Associates 2012). The landfill receives a maximum disposal of 2,600 tons of garbage per day. The estimated capacity accounts for all planned development through 2035 with general plan buildout.

Recology provides roll-off boxes for construction sites, and transports all collected materials to the SMaRT Station, which transports all nonrecyclable construction waste to the Kirby Canyon Landfill in San Jose for disposal.

The City is working to maintain the waste diversion goal of 50 percent set by state law (see AB 939 and SB 1016 in Section 3.14.2, *Regulatory Setting*). In 2006, the City achieved a diversion rate of 72 percent, the last year this rate was calculated. The City's per capita disposal rate in 2010 was 3.8 pounds per person per day (LSA Associates 2012).

3.14.2 Regulatory Setting

This section summarizes federal, state, and local regulations that apply to utilities and service systems.

3.14.2.1 Federal

Regulations relevant to water quality are described in Section 3.8, *Hydrology and Water Quality*. There are no additional federal regulations relevant to utilities and services systems.

3.14.2.2 State

Regulations relevant to water quality are described in Section 3.8, *Hydrology and Water Quality*.

Senate Bill 610

Senate Bill (SB) 610 requires local water providers to conduct a water supply assessment (WSA) for projects proposing over 500 housing units, 250,000 square feet (sf) of commercial office space (or more than 1,000 employees), a shopping center or business establishment with over 500,000 sf (or more than 1,000 employees), or equivalent usage. A WSA was prepared for the Project in November 2013. The WSA is included as Appendix K.

Assembly Bill 939 and SB 1016

The California Integrated Waste Management Act of 1989, or Assembly Bill (AB) 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of all solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. In 2006, SB 1016 updated the requirements. The new per capita disposal and goal measurement system moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a factor, along with evaluating program implementation efforts. These two factors will help determine each jurisdiction's progress toward achieving its AB 939 diversion goals. The 50 percent diversion requirement is now measured in terms of per-capita disposal expressed as pounds per person per day.

3.14.2.3 Local

City of Mountain View Water Conservation in Landscaping Regulations and Green Building Code

To comply with state law, Mountain View adopted the *Water Conservation in Landscaping Regulations* and the *Mountain View Green Building Code* (MVGBC), promoting water-use efficiency. The landscaping regulations, adopted in July 2010, generally apply to new and rehabilitated landscapes of 1,000 sf or greater, and are intended to reduce water waste in landscaping by establishing standards for irrigation efficiency and promoting the use of region-appropriate plants that require minimal supplemental irrigation. The MVGBC, approved by the City Council in March 2011, sets standards for improved energy efficiency, water conservation, indoor environmental quality, and waste reduction (LSA Associates 2012).

City of Mountain View Construction and Demolition Debris Ordinance

The City's Construction and Demolition Debris Ordinance (Chapter 16, Article III) requires at least 50 percent of debris from construction, renovation, and/or demolition projects of 5,000 sf or more to be diverted from landfills through salvage and recycling.

City of Mountain View Zero Waste Resolution and Zero Waste Strategic Plan

The City Council adopted an *Environmental Sustainability Action Plan* on March 24, 2009, that calls for, among other actions, the creation of a Zero Waste Plan. To start the process, the City completed a waste characterization study. For 2009, Mountain View's disposal rate was 4.0 pounds per capita per day, which is 3.8 pounds less than CalRecycle's 7.8 pounds per capita per day target rate. Implementing the Zero Waste Plan is expected to further reduce the per capita disposal rate for both residential and commercial waste (City of Mountain View 2014).

City of Mountain View 2010 Water System Master Plan

The City of Mountain View's *2010 Urban Water Management Plan* (UWMP) provides growth and water demand projections (City of Mountain View 2011a). The City's 2010 Water System Master Plan includes recommendations for hydraulic improvements required by the water distribution system to maintain service for existing and future development, based on growth assumptions, design criteria, and hydraulic modeling data (Infrastructure Engineering Corporation 2010).

City of Mountain View 2011 Sewer System Management Plan

The City of Mountain View's *Sewer System Management Plan* (SSMP) includes policies, procedures and activities that are included in the planning, management, operation and maintenance of the City's sanitary sewer system (City of Mountain View 2011b).

3.14.3 Impact Analysis

3.14.3.1 Criteria for Determining Significance

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on existing utilities and service systems.

A Project impact would be considered significant if construction or operation of the proposed Project would cause any of the following.

1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
3. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
4. Have insufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed.

5. 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.
6. Be served by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs.
7. Result in noncompliance with federal, state, and local statutes and regulations related to solid waste.

Regarding the wastewater treatment requirements of the applicable RWQCB, all wastewater generated by the Project would be treated at the RWQCP, which is obligated to meet the requirements of the San Francisco Bay Regional Water Quality Control Board. Water quality issues are further addressed in Section 3.8, *Hydrology and Water Quality*. Therefore, this issue is not addressed further in this section.

3.14.3.2 Methods

Impacts on utilities and services systems were evaluated using the following methods.

- Review the City of Mountain View's website and other websites for information on services provided.
- Review the analysis in the following technical studies.
  - Water Supply Assessment Study (WSA) (Appendix K)
  - *Water and Sewer Hydraulic Capacity Study for San Antonio Center Phase II Project* (Appendix L)
- Review the following planning documents for population projections and information about the utilities and services.
  - *Mountain View 2030 General Plan* (City of Mountain View 2012)
  - *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report* (General Plan EIR) (LSA Associates 2012)
  - City of Mountain View *2010 Urban Water Management Plan* (UWMP) (City of Mountain View 2011a)
  - City of Mountain View Water Master Plan (WMP)
  - City of Mountain View Sanitary Sewer Management Plan (City of Mountain View 2013)

A WSA was prepared based on the requirements of Senate Bill 610 (as defined in Water Code §10910-10915) and its applicability to the Project (Appendix K). The WSA assessed the current and projected future water use for the Project through the year 2035; the historical, current, and projected future water demand for the City of Mountain View through the year 2035; and the current and projected future water supply for the City of Mountain View through the year 2035. The WSA conducted a comparative study between the water supply and demand for the City of Mountain View's water service area, including the projected water use associated with the Project (Appendix K).

A *General Plan Update Utility Impact Study* (GPUUIS) was prepared in October 2011 that assessed the City's projected water and wastewater flows for 2030 based on the General Plan Update

(Infrastructure Engineering Corporation 2011). A water and sewer hydraulic capacity study for the Project was prepared in December 2013 (Appendix L) that assessed the water and wastewater flows for the Project site under three scenarios—existing conditions; the ultimate 2030 flows analyzed in the GPUUIS; and the Project's flows based on the proposed land uses—to determine Project flows and if there is adequate hydraulic capacity in the existing water and sewer systems. In this case, the existing water and wastewater flows for the Project site would be the same as the 2030 flows analyzed in the GPUUIS.

3.14.3.3 Impacts and Mitigation Measures

This section provides a discussion of each impact as it corresponds to the significance criteria presented in Section 3.14.3.1, *Criteria for Determining Significance*. Impacts and required mitigation measures are summarized at the end in Section 3.14.3.4, *Summary of Utilities and Service Systems Impacts*.

Impact UTL-1	Increased demand for water supply at the Project site.
Level of Impact	Less than Significant

Discussion

Supply

Water is likely to be used during Project construction to prevent dust from becoming airborne, for routine cleaning of construction equipment, mixing of concrete, and for other purposes. Water demand during the construction phase would not be substantial and it would not require additional water treatment facilities supplies, or entitlements. Water demand during operations on the site would include watering landscaped areas, water fountains, and water used in routine cleaning, but the primary demand for water by the Project would be related to use of bathrooms and kitchens within the office, commercial, cinema, and restaurant buildings. Therefore, the Project's water use is closely approximated by the amount of wastewater generated.

Currently, no standard water use models allow development of project-specific commercial water use factors. However, general water use factors are available for various types of commercial land uses and associated landscaping. The WSA estimated future water demand for the Project using the following two methods (see Table 3.14-1):

1. Gallons per Employee per Day (GED) Method: Water use estimated based on the per-employee water use factors and conservation assumptions

2. Mountain View Unit Water Duty Factors: Water use estimated based on unit water duty factors from the City of Mountain View 2010 UWMP (City of Mountain View 2011a).

Table 3.14-1. Summary of Estimated Project Water Use Using Different Estimation Methods

Demand estimation Method	Total Annual Demand for the Proposed Project (AFY)	Incremental Demand Relative to Existing Water Use (AFY)	Additional Demand Beyond Approved Phase I Project (AFY)
Gallons per Employee per Day	62	58	37
Mountain View Unit Water Duty Factors	147	143	122

Source: Appendix K
AFY = acre-feet per year

The WSA conducted for the Project estimated the Project water demand based on the following.

- The average water use per employee per workday.
- The typical number of employees per floor area.
- The typical number of workdays per year.
- Estimated irrigation demands.
- Additional conservation saving measures not incorporated into employee water use factors for existing buildings.

Based on the GED method, the Project would result in a water demand of approximately 62 AFY, an increase of 58 AFY over existing conditions. Based on the water unit duty factors method, the Project would use approximately 125 AFY, an increase of 121 AFY over existing conditions. Accordingly, future water use associated with the Project is projected to be between 62 AFY and 147 AFY, with an incremental increase in water use of approximately 37 AFY to 122 AFY, after accounting for the historical water demand and the volume of water approved as part of the Phase I WSA. The estimated increase is based on the future water demand for new buildings, the increase in number of employees from 43 to 2,500, and the water savings associated with water use efficiency compared with the historical water use for the existing facilities. Refer to Appendix K for more detailed information regarding the water demand estimates.

Based on the City's 2010 UWMP, during normal water years[1] the City is expected to have adequate water supplies to meet its projected demands. If the incremental Project demand (37 to 122 AFY) is added to the projected total City demand, there is still sufficient supply to meet the anticipated total demand during normal years through 2035.

During single-dry years[2] in 2035, the City's total water demand without the Project is expected to exceed total supply by approximately 1,972 AFY, which results in a total water supply shortfall of 13.8 percent (Table 11 of Appendix K). If the incremental Project demand (37 to 122 AFY) is added to the projected total City demand, the single-dry year shortfall in 2035 is projected to be between

[1]10635. (a) of the UWMP states that every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years (i.e. between 2015 and 2035), in five-year increments, for a normal water year, a single dry water year, and multiple dry water years.

[2] The driest single year on record.

2,009 and 2,094 AFY. This represents an overall supply shortfall of between 14.1 and 14.6 percent (see Table 13 of Appendix K) and an incremental impact of approximately 0.22 to 0.73 percent to the without-Project conditions in 2035.

During multiple-dry years[3] in 2035 without the Project, the City's water demand is projected to exceed the total supply by approximately 3,412 AFY, which results in a total water supply shortfall of 23.9 percent (Table 12 of Appendix K). If the incremental Project demand (37 to 122 AFY) is added to the projected total City demand, the multiple dry year shortfall in 2035 is projected to be between 3,449 and 3,534 AFY. This represents an overall supply shortfall of between 24.1 to 24.6 percent and an incremental impact of approximately 0.20 to 0.64 percent to the without-Project conditions in 2035.

In response to anticipated future dry-year shortfalls, the City has developed a water shortage contingency plan that systematically identifies ways in which the City can reduce water demands and augment supplies during dry years. It is expected that, even without the Project, the City would have to rely on implementing its water shortage contingency plan during some dry years to reduce demands. Given the small incremental impact of the Project on the shortage projections, it is not expected that the City would have to change its operations or the implementation of its contingency plan in response to a drought, even after the Project is completed. Estimated incremental water demand for the Project is within the City's projected increase in future demand over the next 20 years and the City of Mountain View has sufficient water supplies to meet the Project's demand. Impacts on water supply would be less than significant and no mitigation is required.

System Infrastructure

Project construction includes the installation of water infrastructure onsite to serve the development. Water for domestic use and fire service would connect to the existing lines. The Project would install a 10-inch fire-water line in Pacchetti Way that would connect to the existing 10-inch water line in California Street. The 10-inch fire-water line would turn west at the Hetch-Hetchy Parkway and connect to the existing 12-inch water line in San Antonio Road. The Project would also include an 8-inch fire-water line that would connect to the 10-inch fire-water line in Pacchetti Way and would continue along Silicon Way to the Promenade. At the Promenade, the 8-inch fire-water line would extend south to connect with the 10-inch fire-water line along the Hetch-Hetchy Parkway. Construction-related impacts of installing this infrastructure (e.g., excavation, vegetation removal, dust, noise, traffic) are addressed in the respective resource sections of this chapter.

The water and sewer hydraulic capacity study (Appendix L) assesses the hydraulic capacity of the existing water system to provide service for the Project's incremental water demand. The increased water flow and impacts on the water system are based on the fire flow requirements for nonresidential density, and not on the occupancy of the new development, because fire flow requirements are typically 30 to 40 times greater than average and peak domestic water demands. The Project site's proposed zoning of Planned Community (P) and existing General Plan land use designation of Mixed Use Center (C/R-C) require a fire flow rate of 5,000 gallons per minute (gpm). The required fire flow rate would not increase with the Project (Appendix L). An extension of an existing water line would be required to deliver water to the Project site but it would not be necessary to upsize the infrastructure in California Street or San Antonio Road to accommodate an

[3] The driest multiple-dry-year period on record.

increase in water demand at the Project site. The Project would have a less-than-significant impact on system capacity and infrastructure.

Impact UTL-2	Increased generation of wastewater at the Project site.
Level of Impact	Significant
Mitigation Measure UTL-MM-2	Pay fair-share contribution to upsizing specific wastewater pipelines or construct new pipelines in the system.
Level of Impact after Mitigation	Less than Significant

Discussion

The Project would increase the wastewater generated at the Project site. The existing wastewater flow, estimated Project wastewater flow, and incremental increase of wastewater flow associated with Project implementation are shown in Table 3.14-2. The table shows that the Project would result in an incremental increase in wastewater flow at the site of 0.1203 mgd, compared to the existing use at the site.

Table 3.14-2. Wastewater Generation Associated with Existing and Proposed Uses at the Project Site.

				Incremental Increase	
Land Use	Existing Use (mgd)	Projected GPUUIS Use (mgd)	Proposed Project Use (mgd)	Project Compared to Existing Use (mgd)	Project Compared to GPUUIS Use (mgd)
Office, Commercial, Hotel, Restaurant, Cinema	0.0108	0.0265	0.1311	0.1203	0.1046

Source: Appendix L

GPUUIS = General Plan Update Utility Impact Study

mgd = million gallons per day

Treatment Capacity

As shown in Table 3.14-2, the Project would increase the wastewater flow by an additional 0.1203 mgd (Appendix L). The City's current capacity share at the Palo Alto RWQCP is 15.1 mgd. The General Plan EIR projected that the City's wastewater flow in 2030 would be 13.78 mgd, or 91 percent of the City's current capacity (LSA Associates 2012). Therefore, incremental wastewater that would be generated by the Project could be accommodated by the Palo Alto RWQCP.

The City of Mountain View, the City of Los Altos, and the City of Palo Alto have a Basic Agreement in which each party agrees to complete an engineering study to redefine future needs when sewage flow from its respective service area has reached 80 percent of its capacity rights (LSA Associates 2012). Therefore, while the wastewater treatment capacity is sufficient to accommodate the incremental increase from the Project, in compliance with the Basic Agreement, the City will be required to complete an engineering study for the Palo Alto RWQCP when 80 percent of current capacity is realized. There is sufficient capacity to accommodate the incremental increase in wastewater demand from the Project. Therefore, this impact is considered less than significant.

The Project area falls under the purview of the Los Altos 1970 Sewer Agreement. According to the agreement, the City of Los Altos agrees to receive 2 mgd of maximum peak flow rate of sanitary sewage from the City at a portion of Los Altos' San Antonio Interceptor Sewer between Central Expressway (formally Alma Street) and the Joint System metering station. The analysis (Appendix L) concluded that under all scenarios (with and without the Project), sewer flow was below the contractual limitation of 2 mgd of maximum peak flow rate of sanitary sewage. There are 1 percent and 3 percent of sewer capacity remaining to Los Altos' San Antonio Interceptor Sewer for ultimate (2030) flow with and without proposed Project, respectively.

System Infrastructure

The Project would connect to the 8-inch lines in California Street and San Antonio Road. The Project would install a new 8-inch sewer line that would run down the proposed Promenade. The Project would also install a 6-inch sewer line that would connect to the 8-inch line in the Promenade and extend east in Disk Drive. The Project would include several 4- and 6-inch laterals that would connect buildings to the new sewer lines.

The GPUUIS completed in 2011 analyzed the impact the General Plan update would have on utility systems. The GPUUIS accounted for the GPUUIS estimation of wastewater flow at the Project site, but not the incremental flow increase associated with the Project (Infrastructure Engineering Corporation 2011). Therefore, an additional study was conducted to determine whether the current hydraulic capacity of the City's wastewater systems is sufficient to accommodate the ultimate incremental flow increase associated with the Project, combined with General Plan buildout (Appendix L). As shown in Table 3.14-2, the ultimate incremental wastewater flow increase, compared to the GPUUIS estimation for the Project site, would be approximately 0.1046 mgd (Appendix L).

With this incremental increase, 11 pipes require upsizing for hydraulic and continuity criteria. Appendix L includes recommendations for upsizing sewer mains for hydraulic capacity. Because the Project would contribute to the need for additional upsizing of the wastewater system not accounted for in the GPUUIS, this impact is considered potentially significant. The current hydraulic capacity of the wastewater pipelines may not allow the City to accept additional flows without pipe upsizing. Implementing **Mitigation Measure UTL-MM-2** would reduce the impact to a less-than-significant level by requiring the applicant to either construct new pipelines or make a fair-share contribution to upsizing specific pipelines in the system.

Mitigation Measure UTL-MM-2: Pay fair-share contribution to upsizing specific wastewater pipelines or construct new pipelines in the system.

Before the City can issue a building permit, the Project applicant will be responsible for preparing improvement plans and signing an improvement agreement. Based on the improvement agreement, the Public Works Director will determine whether the Project applicant with construct or pay a fair-share contribution to the City for upsizing specific wastewater pipelines in the system to achieve appropriate hydraulic capacity and continuity. A summary table of pipes with recommended diameter increases for hydraulic capacity and continuity, as well as the percent of contributed flow each agency is responsible for, is included in Appendix L. The proportionate share of the ultimate facilities recommended to be built is based on ultimate average dry weather flows (ADWF).

Impact UTL-3	Alteration of stormwater drainage patterns.
Level of Impact	Less than Significant

Discussion

Construction

Project construction would include the installation of stormwater infrastructure onsite to serve the development, and construction-related impacts (e.g., excavation, vegetation removal, dust, noise, traffic) are addressed in the respective sections of this chapter and in Section 3.8, *Hydrology and Water Quality*. The Project would connect to the 30-inch line in California Street with the installation of a 24-inch storm drain in the proposed Promenade. The Project would also include a 24-inch storm drain line that would connect to the 24-inch line in the Promenade and extend east in Disk Drive. There would be several 6-, 8-, 10-, and 12-inch connections to the storm drain lines in San Antonio Road, California Street, and Pacchetti Way. There would be no offsite construction impacts because the existing storm drainage infrastructure downstream has adequate capacity (Appendix H).

Implementation of the stormwater pollution prevention plan, as required by the Construction General Permit, would include pollution prevention measures and construction best management practices that would limit stormwater runoff from the Project site. Because the measures required by the Construction General Permit limit site runoff during construction and City of Mountain View requires service to be maintained during construction, the stormwater drainage patterns would not be altered. Accordingly, impacts on stormwater drainage patterns during Project construction would be less than significant.

Operation

The Project involves the redevelopment of existing uses on an approximately 9.9-acre site that is currently occupied by approximately 59,655 sf of commercial and retail buildings with associated surface parking and limited landscaping. Under existing conditions, approximately 0.53 acre of the site is pervious (Appendix H). The proposed development would include approximately 0.55 acres of pervious surface (Appendix H), 0.02 acres more pervious area than existing conditions (refer to Impact HWQ-1 in Section 3.8, *Hydrology and Water Quality*). Pervious surface is associated with landscaping, and impervious surface is associated with concrete or asphalt. Pervious surfaces have a lower runoff coefficient than impervious surfaces (i.e., pervious surfaces create less runoff) (Appendix H).

The Project would have 29 biofiltration systems to treat the stormwater runoff. Treated runoff would discharge to the existing storm drains. Hydromodification controls are not required because the post-Project impervious surface area would be less than the pre-Project impervious area. Modeling of the modest change in the quantity of landscaped (pervious) area within the Citywide Storm Drain Master Plan (SDMP) watershed area indicates that the 10-year storm flow for the proposed site condition would be the same or slightly less than the existing SDMP 10-year storm flow (Appendix H). Therefore, this impact would be less than significant. No mitigation is required.

Impact UTL-4	Sufficient permitted capacity to accommodate the Project's solid waste disposal needs at the Kirby Canyon Landfill.
Level of Impact	Less than Significant

Discussion

Construction

Construction of the Project would generate construction waste material from demolished structures. The waste would include concrete, asphalt, vegetation, soil, rebar, and other similar materials. Construction of the subterranean parking garages and their foundations would require excavation of soils. The Project would excavate to approximately 47 feet below ground surface. Excavation activities would generate 185,000 cubic yards (cy) of cut and 5,000 cy of fill, resulting in a net export of 180,000 cy of soil. Demolition activities would generate approximately 4,480 cy of demolished material, trees, concrete, and asphalt and an additional 12,444 cy of recyclable materials that would be exported from the Project site. Demolition debris and removed trees would be transported to Zanker Disposal and Recycling in San Jose. Demolished concrete and asphalt would be transported to Stevens Creek Quarry in Cupertino. Demolished materials from grading and paving activities would be transported to the Brisbane Landfill in Brisbane and materials from garage excavation and miscellaneous grading activities would be transported to either Brisbane Landfill or Dumbarton Quarry.

A least 50 percent of the demolition debris would be recycled in compliance with state law and the City Municipal Code (Chapter 16, Article III). Nonrecyclable waste would be transported to the Kirby Canyon Landfill. As described in Section 3.14.1.4, *Solid Waste*, the Kirby Canyon landfill has sufficient capacity to accommodate the solid waste. Furthermore, given that City-certified construction and demolition waste processors recycle at least 50 percent of their loads, the amount of solid waste that reaches the landfill is less than what initially leaves the site.

With the implementation of the green building standards described in Chapter 2, *Project Description*, the solid waste transported to the landfill during the construction phase would further decrease, in accordance with the requirement that construction waste generated at the Project site be diverted to recycle or salvage to meet a goal of 50 percent reduction.

Project construction would comply with all applicable regulatory requirements related to solid waste. Refer to Impact HAZ-1 in Section 3.7, *Hazards and Hazardous Materials*, for additional information on hazardous materials handling during construction of the Project, as well as applicable hazardous waste laws and mandatory compliance with these laws. By meeting all applicable standards and regulations, impacts related to solid waste generated by construction of the Project would be less than significant. No mitigation is required.

Operation

The Project would increase the square footage of office, commercial, retail, restaurant, and cinema space in the City. Businesses generate 64 percent of the City's waste, and the Project would contribute to the total solid waste generated by businesses in the City. As discussed in the Section 3.14.2.3, *Local,* the City's disposal rate is 4.0 pounds per capita, 3.8 pounds less than CalRecycle's per capita per day target rate. The Project would be subject to comply with the City's Zero Waste Plan, which would further reduce the per capita disposal rate for commercial waste.

The Project would result in an increase in 2,457 employees at the Project site. Using the City's waste generation rates of approximately 4.0 pounds per person per day, the Project would result in an increase of 9,828 pounds per day of solid waste or 1,114 tons per year.[4] The Project would result in a negligible increase of approximately 0.1 percent of solid waste per day at the existing Kirby Canyon Landfill. These solid waste generation factors are estimates prior to recycling, composting, or other waste diversion programs. Furthermore, actual disposal rates could be less because the Project would be equipped with refuse and dual stream recycling chutes, and provisions would be made for mandatory cardboard box recycling. Given the relatively high recycling rate of the City and the Zero Waste Plan goals, operation of the Project would not lead to a substantial burden on the existing Kirby Canyon landfill. As described above, remaining capacity estimates at the Kirby Canyon Landfill account for all planned development, including the Project.

Project operation would comply with all applicable regulatory requirements related to solid waste. Refer to Impact HAZ-1 in Section 3.7, *Hazards and Hazardous Materials*, for additional information on hazardous materials handling during operation of the Project, as well as applicable hazardous waste laws and mandatory compliance with these laws.

Accordingly, impacts related to solid waste generated by operation of the Project would be less than significant. No mitigation is required.

3.14.3.4 Summary of Utilities and Service Systems Impacts

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
UTL-1: Increased demand for water supply at the Project site.	Less than Significant	None required	–
UTL-2: Increased generation of wastewater at the Project site.	Significant	UTL-MM-2: Pay fair-share contribution to upsizing specific wastewater pipelines or constructing new pipelines in the system.	Less than Significant
UTL-3: Alteration of stormwater drainage patterns.	Less than Significant	None required	–
UTL-4: Sufficient permitted capacity to accommodate the Project's solid waste disposal needs at the Kirby Canyon Landfill.	Less than Significant	None required	–

[4] Assumes 250 working days per year.

Chapter 4
Other CEQA-Required Sections

This chapter includes the following other discussions and analyses required by CEQA:

- Cumulative impacts.
- Significant and unavoidable environmental impacts.
- Significant irreversible environmental changes.
- Growth-inducing impacts.

4.1 Cumulative Impacts

4.1.1 Approach to Impact Analysis

4.1.1.1 Legal Requirements

State CEQA Guidelines require that the cumulative impacts of a project be addressed in an EIR when the cumulative impacts are expected to be significant and when the project's incremental effect is cumulatively considerable (State CEQA Guidelines Section 15130[a]). Cumulative impacts are impacts on the environment that result from the incremental impacts of a proposed action when added to other past, present, and reasonably foreseeable future actions (State CEQA Guidelines Section 15355[b]). Such impacts can result from individually minor but collectively significant actions taking place over time.

Section 15130 of the State CEQA Guidelines states that the discussion of cumulative impacts need not provide as much detail as the discussion of effects attributable to the project alone. The level of detail should be guided by what is practical and reasonable. This section introduces the methods used to evaluate cumulative effects, lists related projects and describes their relationship to the project, identifies cumulative impacts by resource area, and recommends mitigation for considerable contributions to significant cumulative effects.

4.1.1.2 Methodology

According to the State CEQA Guidelines, an adequate discussion of significant cumulative impacts should contain the following discussions.

- An analysis of related future projects or planned development that would affect resources in the project area similar to those affected by the project.
- A summary of the expected environmental effects to be produced by those projects, with specific reference to additional information stating where that information is available.
- A reasonable analysis of the cumulative impacts of the relevant projects.

An EIR must examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative impacts.

When evaluating cumulative impacts, CEQA recommends one of the following two methods.

1. Projects to consider in the cumulative analysis include any past, present, and probable future projects producing related or cumulative impacts, including projects outside the control of the lead agency (i.e., project list approach).
2. The cumulative analysis would consider projections contained in an adopted local, regional, or statewide plan, or would use a prior environmental document which has been adopted or certified for such a plan (i.e., plan approach).

The *Mountain View 2030 General Plan* (General Plan) was adopted on July 10, 2012, by the Mountain View City Council. The General Plan, in part, contains the goals, policies, and implementing actions for a variety of issues including natural and human-made hazards and natural and human-made resources, and sets the framework for decision making regarding the City's long-term development and use of resources. The General Plan allows for long-term growth within the City as allowed by the plan designations and requirements. Mountain View planning staff generated a list of approved projects for consideration in the cumulative impact analysis. Refer to Appendix E of the Transportation Impact Analysis (TIA) (Appendix J) for a complete list of these projects. However, to ensure it captured foreseeable future development, the TIA also applied a two percent per year growth factor to account for additional planned or future growth. The list of approved projects is consistent with and contained within the Mountain View 2030 General Plan buildout. Therefore, the Mountain View 2030 General Plan and the *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report* (General Plan EIR) (LSA Associates 2012) are the main sources considered for the cumulative impact analysis for the topics noted below.

4.1.2 Analysis of Cumulative Impacts

The following analysis describes the potential for the Project, in combination with the cumulative projects, to result in cumulatively significant environmental impacts. Each analysis considers the cumulative setting of the potential impacts. The evaluations identify whether the cumulative impact would be significant, and whether the Project's contribution to a significant cumulative impact would be considerable. The analysis of cumulative impacts set forth in the General Plan EIR adequately addresses regional and area wide cumulative impacts on aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, population and housing, public services and recreation, and utilities and service systems. Therefore, the General Plan EIR's analysis of cumulative impacts in each of these environmental topics is hereby incorporated by reference. The General Plan EIR is available for review at the City of Mountain View, Community Development Department, 500 Castro Street, Mountain View, CA 94041. The remaining topics of air quality, greenhouse emissions and climate change, noise, and transportation and circulation are based on the data presented in the TIA and, as such, also assume a two percent per year growth factor.

4.1.2.1 Aesthetics

The cumulative setting for aesthetics includes any proposed development allowed by the Mountain View 2030 General Plan within the same viewshed as the Project. The Project area viewshed is defined by surrounding land uses along California Street and San Antonio Road. This area is developed with predominantly commercial and retail uses.

As discussed in Section 3.1.4.3, *Impacts and Mitigation Measures,* implementation of the Project would not result in project-level significant impacts on scenic vistas, scenic resources within a scenic highway, or on the existing visual character or quality of the site and surroundings. Accordingly, the Project would not result in cumulatively considerable impacts when considered with potential future proposed projects. The General Plan EIR (LSA Associates 2012) noted one impact related to aesthetics: an increase in the amount of light and glare in the City. The site is already developed and would be redeveloped with similar commercial uses, but to a greater intensity. As such, the Project could create new sources of light and glare. However, the Project would be subject to the City's development approval processes prior to submittal of construction drawings. This review would ensure that the proposed design and construction materials are consistent with community standards for commercial development and would not adversely affect the visual quality of the area or create a substantial new source of light or glare. Therefore, the Project would not result in a considerable contribution to this cumulative impact.

4.1.2.2 Air Quality

Potential air quality impacts include contributing to the exceedance of established standards for criteria pollutants and exposing sensitive receptors to diesel particulate matter (DPM) concentrations during construction and operation.

Criteria Pollutants

As discussed under Impact AQ-2a, Impact AQ-2b, and Impact AQ-3 in Section 3.2, *Air Quality*, construction and operational emissions associated with the Project are not expected to exceed the BAAQMD's quantitative thresholds after mitigation. The City has standard conditions of approval (PL-94: Basic Air Quality Construction Measures) that require the project to implement best management practices (BMPs) pursuant to air district regulations to reduce construction-related fugitive dust emissions to less than significant. Moreover, implementation of **Mitigation Measure AQ-MM-2a, Mitigation Measure AQ-MM-2b**, and **Mitigation Measure AQ-MM-2c** would reduce tailpipe emissions from off-road construction equipment to a less-than-significant level. **Mitigation Measure AQ-MM-2d** would reduce tailpipe emissions from heavy-duty soil haul trucks to a less-than-significant level. Therefore, the Project would not result in a considerable contribution to this cumulative impact.

Diesel Particulate Matter from Construction and Operations

As discussed in Section 3.2, *Air Quality*, there are multiple sensitive receptors (i.e., residences and a park) located within 1,000 feet of the Project site (refer to Figure 3.2-1). Exposure to construction- and operation-related DPM emissions was therefore assessed by predicting the health risks in terms of excess cancer, non-cancer hazard impacts, and elevated PM2.5 concentrations at the Project level. Consistent with BAAQMD's (2011) *CEQA Guidelines*, cumulative exposure was evaluated by combining background health risks with the health risk estimated for the Project (see Impact AQ-3a in Section 3.2, *Air Quality*). Detailed information on emissions modeling and quantification methods may be found in Appendix B, *Air Quality and Greenhouse Gas Analysis Details*.

Background permitted sources in the vicinity include San Antonio Cleaners and San Antonio Gas & Service. Background roadways include State Route 82. Background major transit facilities include the San Antonio Caltrain and VTA bus station. The results of the construction and operational cumulative health risks assessment are summarized in Table 4-1. Detailed information on emissions modeling and quantification methods may be found in Appendix B, *Air Quality and Greenhouse Gas Analysis Details*.

Table 4-1. Maximum Cumulative-Level Health Risks at Nearby Receptors

	Maximum Cumulative Health Risks during Construction		
Construction Year (Phase)	Cumulative DPM Non-Cancer Hazard Index	Cumulative DPM Cancer Risk (per Million)	Cumulative Average Annual PM2.5 Concentration (μg/m^3)
Year 2014 (Demolition, Grading/Excavation, Building Construction)	0.10	46.0	0.49
Year 2015 (Grading/Excavation, Building Construction, Paving/ Utilities)	0.14	46.8	0.67
Year 2016 (Building Construction, Paving/ Utilities)	0.12	46.5	0.60
BAAQMD Thresholds	10	100	0.8
Exceed Thresholds?	*No*	*No*	*No*

Notes:
Please refer to Appendix B for a summary of phases assumed during each construction period.

As shown in Table 4-1, Project construction would not result in a cumulatively considerable increase of the cancer risk. Therefore, the project would not result in a considerable contribution to a significant cumulative impact, and this impact is considered less than significant.

Carbon Monoxide Hot Spots

As discussed under Impact AQ-4b in Section 3.2, *Air Quality*, traffic volumes at nearby intersections would not exceed BAAQMD's screening criteria under future year cumulative conditions. Therefore, this impact is considered less than significant.

4.1.2.3 Biological Resources

The cumulative setting for biological resources is the City of Mountain View. According to the General Plan EIR (LSA Associates 2012), future development in the City could result in the destruction of significant ecological resources.

The Project site and the surrounding area are fully developed, retain little or no natural habitat, and exhibit a high level of disturbance. The Project area does not contain any of the significant ecological resources identified in the General Plan EIR, and therefore the Project would not result in a considerable contribution to this impact. Although Project construction includes removing 75 trees currently on the Project site (including seven Heritage trees), the Project landscape plan includes planting approximately 165 trees in addition to several palms, shrubs, grasses, vines, ferns, and other ground cover, resulting in a net increase of approximately 90 trees.

As discussed in Section 3.3.3.4, *Impacts and Mitigation Measures*, to the extent that the anticipated removal of trees on the Project site could results in impacts on any bird that may occupy such trees, implementation of the City's standard conditions of approval (PL-98: Preconstruction Nesting Bird

Survey) would protect any active nests. Therefore, the Project would not result in a considerable contribution to this cumulative impact.

4.1.2.4 Cultural Resources

The cumulative setting for cultural resources includes the planned developments within the City that could potentially affect archaeological, historical, and paleontological resources. As determined by the *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report* (General Plan EIR)(LSA Associates 2012), development associated with the *Mountain View 2030 General Plan* buildout would result in potentially significant impacts on known and unknown archeological, historical, and paleontological resources. As such, development of the Project site, in combination with the planned projects of the General Plan EIR, could result in a significant cumulative impact on cultural resources.

However, no known historical, archaeological, or paleontological resources were identified on the Project site, and, therefore, the Project would not contribute to this cumulative impact. To the extent that construction activities unearth previously undiscovered resources, adherence to the City's standard conditions of approval and implementation of **CUL-MM-3** would ensure that, if such resources are discovered during construction, work is stopped and the resources are properly identified and treated. The Project would, therefore, not result in a considerable contribution to this cumulative impact.

4.1.2.5 Geology and Soils

Geological hazards related to future development in the Project vicinity are site-specific and relate to the type of building and building foundation proposed, as well as the soil composition and slope on the site.

Potentially adverse environmental effects associated with seismic hazards, expansive soils, and erosion usually are site-specific and generally do not combine with similar effects that could occur with other projects. Implementation of the provisions of the California Building Code, the NPDES permit requirements, the General Plan safety policies and implementation of the recommendations in the proposed Project's geotechnical study would ensure that potential site-specific geotechnical conditions would be addressed fully in the design of the Project and that potential impacts would be maintained at less-than-significant levels. The proposed Project would not contribute to adverse soils, geologic, or seismic cumulative impacts.

4.1.2.6 Greenhouse Gas Emissions and Climate Change

As described in Section 3.6, *Greenhouse Gas Emissions and Climate Change*, the unique chemical properties of GHGs enable them to become well-mixed within the atmosphere and transported over long distances. Climate change is largely a cumulative issue and the geographic scope for cumulative GHG emissions impacts is global, as GHGs are emitted by innumerable sources worldwide. Thus the analysis presented in Section 3.6 is inherently cumulative. Following is a brief summary of the GHG emissions from construction and operation with respect to cumulative impacts. Refer to Section 3.6 for the complete analysis.

As discussed in Section 3.6, *Greenhouse Gas Emissions and Climate Change*, and shown in Table 3.6-3 and Table 3.6-4, project construction and operation would generate GHG emissions over existing conditions. As discussed in Section 2.5.7, *Green Building Practices, Energy Efficiency Measures, and*

Transportation Demand Management Features, the Project incorporates feasible BMPs to reduce GHG emissions, as well as a requirement to recycle or salvage 50 percent of construction waste. Further, implementation of **Mitigation Measure AQ-MM-2c** and **Mitigation Measure AQ-MM-2d** would further reduce construction-related emissions shown in Table 3.6-3. Accordingly, the Project is not expected to generate a significant amount of construction-related emissions. Further, as discussed under Impact GHG-1b, project operations would result in an increase in GHG emission relative to existing conditions. However, as shown in Table 3.6-5, the Project is consistent with all the mandatory measures within *Mountain View Greenhouse Gas Reduction Program* (GGRP), which is a qualified GHG reduction plan in accordance with BAAQMD guidelines. Therefore, the Project is not expected to conflict with the City's ability to implement the GHG emissions reduction outlined in GGRP. CEQA Guidelines Section 15064.4 provides that the extent to which a project may reduce GHG emissions and complies with an adopted plan for the reduction of GHGs is to be considered a factor in determining whether a project would make a considerable contribution to GHG emissions. Accordingly, the Project's incremental contribution to this cumulative impact would not be considered substantial. The impact would be less than significant. No mitigation is required.

4.1.2.7 Hazards and Hazardous Materials

The Mountain View 2030 General Plan EIR identifies significant impacts related to an increase in public and environmental exposure to hazardous materials from contamination in development areas or a federal Superfund site.

Hazardous materials are strictly regulated by local, state and federal laws specifically to ensure that they do not result in a gradual increase to toxins in the environment. The Mountain View 2030 General Plan includes policies that reinforce these regulations by requiring prevention of uncontrolled release of hazardous materials (Policy PSA 3.2); development review to identify and remediate contamination (Policy PSA 3.3); and coordination with local, state, and federal agencies to encourage remediation of contamination and protection of public environmental health and safety (Policy PSA 3.4).

Hazardous materials issues are generally site-specific and relate to the prior history of land uses on the site or adjacent sites. Except in cases where there is a major hazardous site nearby (e.g., a Superfund site), these hazardous impacts are site-specific because they generally only affect conditions within a single site. With respect to impacts related to the routine transport, disposal, and handling of hazardous materials, intermittent use and transport of petroleum-based lubricants, solvents, and fuels, and transportation of affected soil to and from the Project will occur during construction. However, any hazardous waste that is generated during construction of the Project would be collected, properly characterized for disposal, and transported away from the Project site in compliance with regulations such as the RCRA, DOT Hazardous Materials Regulations, and the local CUPA regulations (refer to Section 3.7, *Hazards and Hazardous Materials*). Therefore, impacts would be less than significant and would not have the potential to contribute to hazards associated with cumulative projects because these types of impacts would only occur intermittently.

Regarding impacts related to the creation of a hazard through upset or accident conditions involving the release of a hazardous material (including releases near schools within 0.25 mile of the proposed Project), Project construction and operation would include grading, excavation, and the installation of support structures for new buildings; and the use and transport of petroleum-based lubricants, solvents, fuels, herbicides, and pesticides to and from the site. However, conformance with existing federal, state, and local regulations; implementation of **Mitigation Measures HAZ-**

MM-2; and compliance with the City's relevant conditions of approval for discovery of contaminated soils, described in Section 3.7.4.3, *Impacts and Mitigation Measures*, would render this impact less than significant. This impact does not have the potential to contribute to hazards associated with cumulative projects because these types of impacts would be localized, occurring only in the immediate vicinity of the Project site. In addition, the implementation of appropriate safety measures during construction of the proposed Project would reduce the impact to a level that would not contribute to cumulative effects. Therefore, impacts would not be cumulatively considerable.

4.1.2.8 Hydrology and Water Quality

The General Plan EIR (LSA Associates 2012) does not identify any significant impacts related to hydrology and water quality. As described in Section 3.8, *Hydrology and Water Quality*¸ the Project would result in a net reduction of impervious surface and an increase in bioretention facilities on the Project site. Because the Project would decrease the amount of stormwater runoff in relation to baseline conditions, add bioretention facilities that would aid in groundwater recharge and improve water quality, and includes mitigation that reduces potential impacts from dewatering to less-than-significant levels, it is expected that the Project would not have a cumulatively considerable impact on hydrology, water quality, and groundwater resources. Accordingly, the Project would not result in a considerable contribution to a significant cumulative impact.

4.1.2.9 Land Use and Planning

The cumulative context for land use is the City of Mountain View, and the San Antonio Change Area in particular. This area is planned for Mixed-Use Center, which promotes pedestrian-oriented mixed-use centers with integrated, complementary uses such as entertainment, restaurants, department stores and other retail, office, hotels, convention/assembly and/or civic uses, and public spaces that draw visitors from surrounding neighborhoods and the region. The City's General Plan policies support mixed-use development in the San Antonio Change Area. The City's General Plan EIR (LSA Associates 2012) states that the development of mixed-use districts close to public transit represents an environmentally-preferred method for accommodating population growth. The General Plan EIR does not identify any significant land use impacts. Because the Project conforms with General Plan land use designations and would not result in any impacts on land use, it would not result in a cumulatively considerable impact.

4.1.2.10 Noise

The General Plan EIR noted that buildout would result in increased ambient noise levels related to roadway traffic. The threshold for a significant contribution to traffic noise increase is greater than 3 dB over the traffic noise levels without the Project under the cumulative condition. As shown in Table 3.10-5 in Section 3.10, *Noise*, future traffic noise levels under the cumulative-plus-Project condition would be an increase of approximately 1 to 2 dB over the noise levels under the existing condition; however, the Project would only contribute to less than 1 dB of the cumulative traffic noise increase. This is not considered a substantial contribution. Therefore, the cumulative traffic noise impact is considered less than significant at neighborhoods along the Project access roads in the vicinity of the Project.

Project construction would result in a temporary increase in noise levels in the vicinity of the construction areas. Noise from construction would be highly localized and intermittent and would stop once construction is complete. Therefore, construction noise would not result in a substantial contribution to a significant cumulative impact.

4.1.2.11 Population and Housing

The cumulative setting for population and housing is the City of Mountain View. The City of Mountain View anticipates population and employment growth beyond what was analyzed in the General Plan EIR. The General Plan EIR found that cumulative impacts related to population and housing were less than significant due to the application of policies that promote infill development, including encouraging housing growth near transit. The General Plan EIR reports that there will be 65,310 jobs in the City of Mountain View in 2030, an increase of 13,320 jobs from 2010. The increase of 2,849 new jobs associated with the Project falls within the City's projections as discussed in the General Plan EIR. Furthermore, the additional employment opportunities would not directly generate population growth because new residents would be expected to occupy vacant housing in the project vicinity. Therefore, cumulative impacts are considered less than significant.

4.1.2.12 Public Services and Recreation

The cumulative setting for public services and recreation is the City of Mountain View. According to the General Plan EIR (LSA Associates 2012), new jobs anticipated under the Mountain View 2030 General Plan could generate a demand for public services (i.e., police and fire protection services, recreation, or public school facilities) beyond the existing capacity. The population served by public service providers is directly related to population and employment in the City. This growth in service population could result in the need for additional staff and equipment, resulting in the need for additional facilities to maintain acceptable service ratios. The General Plan EIR includes mitigation measures that reduce these impacts to less-than-significant levels. In addition, the Mountain View 2030 General Plan contains policies to ensure service levels remain adequate as growth occurs in the City. Implementation of the Project is expected to result in an increase of 2,849 employees in the Project area. The increase in jobs associated with the Project represents approximately 15 percent of overall job growth anticipated in the City.

The policies in the 2030 General Plan are in place to ensure adequate response times and service levels associated with public services are maintained. The City is required to ensure that General Plan policies are applied to new development in the City that could result in growth in the service population. Additionally, according to the General Plan EIR, if a new public services facility is warranted, it would be required to undergo independent environmental review. For these reasons, cumulative impacts related to public services and recreation are less than significant.

4.1.2.13 Transportation and Circulation

The cumulative transportation and circulation impacts are addressed in Impact TRA-4 in Section 3.13, *Transportation and Circulation*. As discussed, a significant impact would occur in the cumulative condition at the intersection of San Antonio Road and El Camino Real. Mitigation Measure TRA-MM-4 would require fair share contribution towards further improvements at this intersection but impacts would remain significant and unavoidable.

4.1.2.14 Utilities and Service Systems

The cumulative impact area for utilities includes the Project site and the City of Mountain View. The General Plan EIR (LSA Associates 2012) does not identify any significant impacts related to utilities. Under the City's *2010 Urban Water Management Plan*, the City's water system is expected to be able to meet projected water demand during normal, single dry, and multiple dry year scenarios through 2035. The General Plan EIR states that new growth and development under the Mountain View 2030 General Plan would not, in and of itself, require the construction of new water or wastewater treatment facilities. However, a subsequent study was conducted specifically for the proposed Project to evaluate the water and sewer system capacity, and it was determined that specific sewer and stormwater pipelines required upgrading and upsizing to meet projected flows from the Project site. The replacement of these lines would be financed by the Project applicant. Implementation of **Mitigation Measure UTL-MM-2**, identified in Section 3.14, *Utilities and Services Systems*, would reduce potentially significant impacts on wastewater facilities to less than significant. As there are no cumulative impacts related to utilities, the Project would not result in a considerable contribution to a significant cumulative impact.

4.2 Significant and Unavoidable Environmental Impacts

Section 21067 of CEQA and Sections 15126(b) and 15126.2(b) 15126.2 (b) of the State CEQA Guidelines require that an EIR describe any significant impacts, including those that can be mitigated but not reduced to a less than significant level. Furthermore, where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the Project is being proposed, notwithstanding their effect, should also be described.

Table 4-2 shows the significant and unavoidable impacts resulting from Project implementation and mitigation measures that would be required but would not reduce these impacts to a less-than-significant level.

Due to these significant unavoidable environmental effects, approval of the Project would require that a Statement of Overriding Considerations be adopted, indicating that the City of Mountain View is aware of the significant environmental consequences and believes that the benefits of approving the Project outweigh its unavoidable significant environmental impacts.

Table 4-2. Significant and Unavoidable Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
TRA-4: Substantial increase in vehicle delay or deterioration of traffic operation at study intersections under the Cumulative Condition.	Significant	TRA-MM-4: Pay a fair share contribution towards the future improvement at the San Antonio Road/El Camino Real intersection	Significant and unavoidable

4.3 Significant Irreversible Environmental Changes

Section 15126.2(c) of the State CEQA Guidelines requires that an EIR consider any significant irreversible environmental changes that would be caused by the Project should it be implemented. Section 15126.2(c) reads as follows.

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

A project would result in significant irreversible environmental changes if any of the following criteria are met.

- The primary and secondary impacts would generally commit future generations to similar uses.
- The project would involve a large commitment of nonrenewable resources.
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

The environmental effects of the Project are analyzed in detail in the resource sections of Chapter 3 of this EIR.

The Project would require the use of nonrenewable resources such as metal and aggregate resources for physical construction elements. Furthermore, fossil fuels would be consumed during construction and operation activities. Fossil fuels in the form of diesel oil and gasoline would be used for construction equipment and vehicles. During operations, diesel oil and gasoline would be used by passenger vehicles. Electrical energy (in part derived from fossil fuel generation) and natural gas would also be consumed during construction. The consumptive use of these energy resources would be irretrievable and their loss irreversible. Construction use of fossil fuels is limited to the construction period. Operational direct and indirect use of fossil fuels would be consistent with existing conditions.

As previously discussed, the Project would result in significant irreversible changes due to the use of raw materials and fossil fuels during construction and operation. While many of these impacts can be avoided, lessened, or mitigated, some of these impacts are irreversible consequences of development, which are described in greater detail in the resource sections of Chapter 3 of this EIR.

4.4 Growth-Inducing Impacts

Section 21100(b)(5) of CEQA requires an EIR to discuss how a project, if implemented, may induce growth and the impacts of that induced growth (see also State CEQA Guidelines Section 15126). CEQA requires the EIR to discuss specifically "the ways in which the Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment" (State CEQA Guidelines Section 15126.2[d]). The CEQA Guidelines do not provide specific criteria for evaluating growth inducement and state that "it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment." CEQA does not require separate mitigation for growth inducement, as it is assumed that these impacts are already captured in the analysis of environmental impacts (see Chapter 3, *Setting, Impacts, and Mitigation Measures*). Furthermore, the CEQA Guidelines require that an EIR "discuss the ways" a project could be growth inducing and that it "discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment."

According to the CEQA Guidelines, a project would have potential to induce growth if it would result in either of the following.

- Remove obstacles to population growth (e.g., through the expansion of public services into an area that does not currently receive these services), or through the provision of new access to an area, or a change in a restrictive zoning or General Plan land use designation.
- Result in economic expansion and population growth through employment opportunities and/or construction of new housing.

In general, a project could be considered growth-inducing if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way. However, the CEQA Guidelines do not require a prediction or speculation of where, when, and in what form such growth would occur (CEQA Guidelines, Section 15145).

4.4.1 Economic, Population, and Housing Growth

Typically, the growth-inducing potential of a project is considered significant if it fosters growth or a concentration of population in a different location or in excess of what is assumed in pertinent general plans or land use plans, or projections made by regional planning agencies such as the Association of Bay Area Governments (ABAG). Section 4.1.2.11, *Population and Housing*, summarizes the cumulative impacts of direct population growth as a result of development on the Project site. The Project includes the construction of a new office, commercial, hotel, retail, cinema, and restaurant development that would provide job opportunities for approximately 2,500 people, for a net increase of approximately 2,457 new jobs. The new jobs created by the Project would constitute approximately 12 percent of overall job growth anticipated in the City between 2014 and 2035. This employment growth and the resulting economic and population expansion would be within the City's growth projections. The Project would not cause a significant environmental impact through inducement of population growth (see Section 3.11, *Population and Housing*), but it would be growth inducing through its introduction of new jobs that would bring a new population to the Project area. However, the Project would not directly or indirectly affect the ability of the agencies to provide needed public services.

Construction of the Project would result in a short-term increase in construction-related job opportunities in the City of Mountain View. However, construction workers can be expected to be drawn from the existing construction employment labor force, as construction of new development occurs throughout the City and within surrounding cities. Therefore, opportunities provided by construction of the Project site would not likely result in the relocation of construction workers to the Project region. Accordingly, the employment opportunities provided by construction are not anticipated to induce indirect growth in the region.

4.4.2 Change in Zoning

The Project would include the rezoning of the Project site from Planned Community Precise Plan (P-9) District to Planned Community (P) Zoning District to allow for additional uses, such as a hotel and a cinema, beyond those allowed by the P-9 zoning designation. Because the P District classification would dictate what could be developed on the Project site, the Project would be consistent with this classification. The Project would generate infill, transit-oriented urban growth with the addition of approximately 1.2 million square feet of office, commercial, hotel, retail, cinema, and restaurant space in the area and associated parking, and the changes in land use would encourage additional jobs. However, as explained in Section 4.3.1, this induced growth in within the City's long-term projections for growth and would not have significant environmental impacts beyond those previously considered and evaluated in this EIR.

Chapter 5
Alternatives

5.1 Introduction

According to Section 15126.6 of the CEQA Guidelines, an EIR must describe a reasonable range of feasible alternatives to the Project or Project location that could feasibly attain most of the basic Project objectives and that would avoid or substantially lessen any of the significant impacts of the Project. As such, alternatives that do not avoid or substantially lessen significant impacts of the Project do not need to be analyzed in an EIR. Additionally, the No Project Alternative must be analyzed. The EIR must evaluate the comparative merits of the alternatives. The EIR must identify the environmentally superior alternative other than the No Project alternative.

An EIR is not required to present the alternatives analysis at the same level of detail as the assessment of the Project, and it is not required to consider every conceivable alternative to a project. Rather, an EIR must consider a reasonable range of potentially feasible alternatives that will foster informed decision making.

This chapter includes the following sections:

- *Alternatives Screening Process*, which includes the Project objectives, significant impacts of the Project, and the alternatives considered.
- *Alternatives Analysis*, including a qualitative analysis comparing the No Project Alternative, the Reduced Density (Existing Zoning) Alternative, and the Reduced Density (Residential Component) with the Project.
- *Environmentally Superior Alternative*.

5.2 Alternatives Screening Process

The goal of developing a set of possible alternative scenarios is to identify other means to attain the Project objectives, while substantially lessening or avoiding one or more of the significant environmental impacts potentially caused by the Project. To develop a reasonable range of alternatives for analysis, the City considers the Project objectives and the significant impacts of the Project so an alternative can be selected that meets most of the objectives and avoids or minimizes at least one of the Project's significant impacts.

5.2.1 Project Objectives

The applicant has identified the following objectives for the Project.

- To support the existing demand for office, commercial, retail, hotel, cinema, and associated parking and open space in the City of Mountain View and the surrounding region.
- To locate job-generating uses close to existing residential uses so as to improve the jobs-housing balance and advance associated local and regional transportation objectives.

- To provide an intensity and range of uses that implements the visions of the City's General Plan for land use, urban form and density, economic development, and circulation.
- To promote and enhance a healthy and diverse economy in Mountain View.
- To address the existing lack of hotel space in the west-central portion of the City, an area with significant office and commercial uses that generate substantial local demand for lodging.
- To provide mutually supportive office, hotel, and retail uses in immediate proximity to one another and to substantial existing transit and transportation corridors, including Caltrain and El Camino Real.
- To construct a project that encourages further redevelopment of the overall 56-acre San Antonio regional retail center.
- To conserve land and resources, and reduce impacts on the City's infrastructure through the vertical orientation and density of development.

5.2.2 Significant Impacts of the Project

Table 5-1 provides a list of the significant impacts of the Project identified in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*.

Impacts related to the following topic would remain significant with the implementation of mitigation and thus would be "significant and unavoidable."

- Transportation and Circulation

Table 5-1. Summary of Project Impacts and Required Mitigation Measures

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Air Quality			
AQ-2a: Violation of a BAAQMD air quality standard or substantial contribution to an existing or projected air quality violation during Project construction.	Significant	AQ-MM-2a: Implement BAAQMD basic construction mitigation measures to reduce construction-related NO_X emissions. AQ-MM-2b: Implement BAAQMD additional control measures to control construction-related NO_X emissions. AQ-MM-2c: Use clean diesel-powered equipment during construction to control NO_X emissions. AQ-MM2d: Use Modern Fleet for On-Road Haul Trucks to control construction-related NO_X emissions.	Less than Significant

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
AQ-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment.	Significant	AQ-MM-2a: Implement BAAQMD basic construction mitigation measures to reduce construction-related NO_X emissions. AQ-MM-2b: Implement BAAQMD additional control measures to control construction-related NO_X emissions. AQ-MM-2c: Use clean diesel-powered equipment during construction to control construction related NO_X emissions. AQ-MM-2d: Use modern fleet for on-road haul trucks to control construction-related NO_X emissions.	Less than Significant
Cultural Resources			
CUL-3: Potential discovery and damage to unknown paleontological or unique geologic features during construction.	Significant	CUL-MM-3: Stop work if paleontological or unique geologic features are encountered during ground-disturbing activities.	Less than Significant
Geology and Soils			
GEO-2b: Loss of topsoil during Project construction.	Significant	GEO-MM-2: Stockpile topsoil removed during construction and reuse stockpiled topsoil during revegetation.	Less than Significant
Hydrology and Water Quality			
HWQ-1: Degradation of water quality and potential violation of water quality standards or waste discharge requirements.	Significant	HWQ-MM-1: Implement provisions for construction dewatering and long-term structural dewatering, if required.	Less than Significant
HWQ-2b: Operation-related depletion of groundwater supplies or interference with groundwater recharge.	Significant	HWQ-MM-2: Implement measures to maintain groundwater levels.	Less than Significant
Public Services and Recreation			
PSR-1a: Reduced service ratios and response times for fire protection and emergency medical services during construction.	Significant	TRA-MM-8: Develop and implement a construction traffic control plan.	Less than Significant
PSR-2a: Reduced service ratios and response times for police protection during construction.	Significant	TRA-MM-8: Develop and implement a construction traffic control plan.	Less than Significant

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Transportation and Circulation			
TRA-4: Substantial increase in vehicle delay or deterioration of traffic operation at study intersections under the Cumulative Condition.	**Significant**	**TRA-MM-4: Pay a fair share contribution towards the future improvement at the San Antonio Road/El Camino Real intersection.**	**Significant and unavoidable**
TRA-8: Potential construction impacts on traffic operation and circulation, transit service, nonmotorized transportation facilities, and emergency access.	Significant	TRA-MM-8: Develop and implement a construction traffic control plan.	Less than Significant
Utilities and Service Systems			
UTL-2: Increased generation of wastewater at the Project site.	Significant	UTL-MM-2: Pay fair-share contribution to upsizing specific wastewater pipelines or construct new pipelines in the system.	Less than Significant
Note: Significant and unavoidable impacts are identified in **bold**.			

5.2.3 Alternatives Considered

Onsite Alternatives

Design alternatives with similar square footage of office, commercial, hotel, retail, cinema, and restaurant development were considered; and although they would meet Project objectives, they would not reduce environmental impacts. Therefore, onsite alternatives of the same size were dismissed from further consideration.

Offsite Alternatives

The CEQA Guidelines encourage consideration of an alternative site when significant effects of the Project would be avoided or substantially lessened by putting the Project at another location (Section 15126(f)[2][A]). An alternative location would need to be at least of comparable size within the urbanized area of Mountain View, and would require adequate roadway access and utility capacity to serve the development proposed. Since the Project site consists of an older commercial and retail development complex, appropriate alternative sites might also include other developed (or vacant) commercial/retail properties.

In order to identify an alternative site that might be reasonably considered to “feasibly accomplish most of the basic purposes” of the Project, and would also reduce significant impacts, it was assumed that such a site would ideally have the following characteristics.

- Approximately 10 acres in size.
- Located near transit facilities.
- Located near freeways and/or major roadways.

- Served by available infrastructure.
- Available for development.
- Allow office, commercial, hotel, retail, cinema, and restaurant development at a density similar to what is permitted at the Project site.

Potential alternatives sites were evaluated in terms of whether they would: (1) reduce or avoid some or all of the environmental impacts of the proposed project, (2) be of sufficient size to meet most of the basic Project objectives, and (3) be immediately available to be acquired or controlled by the applicant.

A suitably sized development site within Mountain View could be expected to have traffic impacts (such as intersection impacts), as well as impacts associated with construction. Any project of this size and intensity is likely to result in the same or similar impacts on freeway segments, some perhaps more significant, and these sites may also be located in areas that are not as well served by transit as the Project site. Therefore, since no suitable alternative site was found that could meet the basic objectives of the Project, and where significant impacts would not be reduced, an offsite alternative was not identified.

5.3 Alternatives Analyzed

The two alternatives to the Project analyzed in this section are the No Project Alternative and the Reduced Density Alternative.

- **No Project Alternative**: The site would remain in its existing condition, but assumes the construction a 175,000 sf retail store with associated parking, as approved by the *Precise Plan Amendments and San Antonio Center Project EIR*. The existing retail uses on the Project site would remain operational.
- **Reduced Density (Existing Zoning) Alternative**: This alternative (referred to as the Existing Zoning Alternative) assumes that the existing uses would be demolished, and an office with ground floor retail and commercial uses would be constructed. The hotel and cinema associated with the Project would not be included as part of this alternative.
- **Reduced Density (Residential Component) Alternative**: This alternative (referred to as the Residential Component Alternative) assumes that the existing uses would be demolished and a mix of office with ground-floor retail, commercial uses, a cinema, and a hotel would be constructed. In addition, unlike the Project, this alternative would include the construction of residential units at the Project site.

The three alternatives are analyzed below in comparison with the Project. In several cases, the description of the impact may be the same under each alternative when compared with the CEQA thresholds of significance (i.e., both the Project and the alternative would result in a less-than-significant impact). The actual degree of impact may be slightly different between the Project and each alternative, and this relative difference is the basis for a conclusion of greater or lesser impacts.

Table 5-2 presents a matrix summarizing the Project impacts in comparison with the three alternatives.

Table 5-2. Comparison of Project Alternatives to the Project

		Impact Compared to Project		
Environmental Topic Area	Level of Project Impact	No Project Alternative	Existing Zoning Alternative	Residential Component Alternative
Aesthetics	Less than Significant	Less	Similar but slightly less	Similar but slightly less
Air Quality	Less than Significant with Mitigation	Less	Similar but slightly less	Similar but slightly less
Biological Resources	Less than Significant	Less	Similar	Similar
Cultural Resources	Less than Significant with Mitigation	Less	Similar	Similar
Geology and Soils	Less than Significant with Mitigation	Less	Similar	Similar
Greenhouse Gas Emissions and Climate Change	Less than Significant	Less	Similar but slightly less	Similar but slightly less
Hazards and Hazardous Materials	Less than Significant with Mitigation	Less	Similar	Similar
Hydrology and Water Quality	Less than Significant with Mitigation	Less	Similar	Similar
Land Use and Planning	Less than Significant	Similar	Similar but slightly less	Similar
Noise	Less than Significant	Less	Similar but slightly less	Similar but slightly less
Population and Housing	Less than Significant	Similar	Similar	Similar
Public Services and Recreation	Less than Significant with Mitigation	Less	Similar but slightly less	Similar
Transportation and Circulation	Significant and Unavoidable	Less	Similar but slightly less	Similar but slightly less
Utilities and Service Systems	Less than Significant with Mitigation	Less	Less	Similar

Note: Although the Existing Zoning Alternative and the Residential Component Alternative may result in lesser or greater impacts compared to the Project, the difference is incremental and does not change the significance conclusion or requirement for mitigation.

5.3.1 No Project Alternative

Pursuant to CEQA Guidelines, Section 15126.6(e)(3)(A), when a project is a revision to an existing land use or regulatory plan, policy, or ongoing operation, the No Project Alternative will be the continuation of the existing plan, policy, or operation into the future. The No Project Alternative is included in the EIR to allow comparison of the impacts caused by approving the project with the impacts that would result if the project were not approved.

Under the No Project Alternative, the site would remain in its existing condition, but assumes the construction a 175,000 sf retail store with associated parking, as approved by the *Precise Plan Amendments and San Antonio Center Project EIR*. The new retail store would be 2 stories (40 feet) in height and would include parking on the ground level. The new building would have a 60-foot signage tower constructed on the southwest corner of the building and would include landscaping (trees, shrub, and groundcover) around the exterior. There would be no demolition associated with the No Project Alternative.

5.3.1.1 Aesthetics

Under the No Project Alternative, the site would remain in its existing condition, except for the construction of a new 175,000 square foot retail store with associated parking. As described above, the new retail store would be 2 stories tall (40 feet), and have a 60-foot signage tower and landscaping around the exterior of the building. Although the construction of the retail building would result in a minor change to the visual character of the site, it would be similar to existing conditions, which include low-density retail uses. The Project would result in a more substantial change to the visual character of the site and more light and glare because it includes a substantially larger development (office, commercial, hotel, retail, cinema, restaurant uses), would be much taller (approximately 88 feet high), and would be configured with six distinct development blocks. Neither the No Project Alternative nor the Project would have an adverse effect on a scenic vista or scenic resources. The No Project Alternative would have less impact when compared to the Project.

5.3.1.2 Air Quality

The No Project Alternative overall would result in less air quality impacts than the Project because there would be no demolition, substantially less new construction and, therefore, much less short-term construction-related emissions than under the Project. The No Project Alternative would require some mitigation to offset construction impacts, but the mitigation requirements would be less stringent than compared to the Project. The No Project Alternative would result in less operational emissions because there would be less development and associated traffic. Similar to the Project, the No Project Alternative would result in less-than-significant operational emissions. Overall, impacts related to air quality would be less with the No Project Alternative.

5.3.1.3 Biological Resources

Because a smaller-scale development would occur, the No Project Alternative would avoid some of the identified impacts related to tree removal and potential disturbance to nesting birds and, therefore, would have less impact when compared to the Project.

5.3.1.4 Cultural Resources

There are no known cultural resources on the Project site. The potential disruption to unknown historic and archaeological resources would be less likely under the No Project Alternative because a smaller portion of the Project site would be disturbed. The Project would have substantial excavation associated with the underground parking and new structures. Therefore, No Project Alternative would have less impact when compared to the Project.

5.3.1.5 Geology and Soils

The No Project Alternative would result in less soil erosion and loss of top soil overall than the Project because there would be no demolition, substantially less new construction and, therefore, much less soil disturbance in general. Because there would be less development overall, there would be less exposure of people or structures to adverse effects associated with seismic activity. Therefore, the No Project Alternative would have less impact when compared to the Project.

5.3.1.6 Greenhouse Gas Emissions and Climate Change

The No Project Alternative overall would result in less greenhouse gas and climate change impacts than the Project because there would be no demolition, substantially less new construction and, therefore, much less short-term construction-related emissions. Mitigation measures are identified in this EIR that would reduce potential impacts during Project construction to a less-than-significant level. The No Project Alternative would require minimal mitigation to offset this impact, compared to the Project. The No Project Alternative would result in less operational emissions because there would be less development and associated traffic. Therefore, the No Project Alternative would have less impact when compared to the Project.

5.3.1.7 Hazards and Hazardous Materials

Under the No Project Alternative, the existing structures on the site would not be demolished and there would be no excavation that disrupts potentially contaminated soils. Therefore, the No Project Alternative would have less impact when compared to the Project.

5.3.1.8 Hydrology and Water Quality

Implementation of the No Project Alternative would result in minimal alteration to the current drainage pattern on the Project site. Stormwater would continue to flow across the surface to the city's storm drain system, which is designed to convey run-off from the 10-year storm event. The Project includes 29 bio-filtration systems consisting of 25 planter boxes and four modular wetlands, and an increase in pervious surfaces of 0.02 acre, resulting in a modest increase in groundwater infiltration from storm events. However, the Project's underground garages would require long-term structural dewatering which could degrade water quality. The No Project Alternative would not require any long-term dewatering. The No Project Alternative is considered to have greater stormwater impacts when compared to the Project because the Project would improve the drainage of stormwater during rain events, but less impact when compared to the Project in terms of water quality because it would not require long-term structural dewatering.

5.3.1.9 Land Use and Planning

The No Project Alternative would result in a continuation of the existing uses on the Project site, aside from the construction a 175,000 sf retail store with associated parking, as approved by the *Precise Plan Amendments and San Antonio Center Project EIR*. This alternative is considered similar in effect to the Project because both uses are consistent with the existing General Plan and zoning designations. Neither alternative would physically divide a community or conflict with an applicable conservation plan.

5.3.1.10 Noise and Vibration

With the No Project Alternative, there would be less short-term construction noise and vibration impacts because there would be no demolition and substantially less construction. In the long term, the No Project Alternative would result in a continuation of existing uses on the Project site with the addition of the operation of the 175,000 sf retail store, and existing noise levels would only increase minimally. The noise impact from continuation of existing uses with the addition of a retail store is considered similar to the Project since both uses would result in long-term operational levels that would be within the City's threshold. However, the No Project Alternative would result in less noise and vibration increase than the Project due to scale, and thus would have slightly less impact than the Project.

5.3.1.11 Population and Housing

The impacts of the No Project Alternative and the Project would be similar. Neither would induce substantial population growth in an area through extension of roads or other infrastructure, neither would displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere, and neither would displace people. Therefore, the No Project Alternative would have a similar impact when compared to the Project.

5.3.1.12 Public Services and Recreation

The No Project Alternative would have slightly less impact on public services and recreation because the overall demands would be similar to existing conditions. The Project would increase the demand because there would be approximately twice the development and corresponding demand. Therefore, the No Project Alternative would have less impact when compared to the Project.

5.3.1.13 Transportation and Circulation

The No Project Alternative would result in less traffic impacts than the Project because there would be no demolition, substantially less new construction and, therefore, much less construction-related traffic. There would also be substantially less operational traffic because the Project includes more than twice the development and associated trips. Therefore, the No Project Alternative would have less impact when compared to the Project.

5.3.1.14 Utilities and Service Systems

The No Project Alternative would have less impact on utilities and services systems because the overall demands would be slightly greater but similar to existing conditions. The Project would increase the demand substantially more than the No Project Alternative because there would be approximately twice the development and corresponding demand; however, the existing systems have adequate capacity to accommodate the Project. The No Project Alternative would have less impact when compared to the Project.

5.3.2 Reduced Density (Existing Zoning) Alternative

The *Reduced Density (Existing Zoning) Alternative* does not include rezoning of the Project site and, therefore, would not allow the same extent of mixed-use development as the Project. Under the Existing Zoning Alternative, the existing uses would be demolished, and a multi-block development with office, commercial, retail, and restaurant uses would be constructed. However, current zoning does not allow a hotel and cinema, which are part of the Project. Under the Existing Zoning Alternative, the site would be redeveloped based on the existing zoning of P-9 for Planned Community/Precise Plan. The existing zoning would allow the 9.9-acre site to be developed with up to 392,853 sf of office development, 28,502 sf of commercial development, 54,186 sf of retail development, and 35,358 sf of restaurant development for a total of 510,899 sf of new mixed-use development with a maximum height of 6 stories and 88 feet (not including parking). For purposes of analysis, it is assumed that the ground level design and amenities (e.g., outdoor common space and landscaping) would be similar to the Project, and the parking would include underground parking.

5.3.2.1 Aesthetics

The Existing Zoning Alternative would result in demolition of the existing 59,655 sf of commercial and retail buildings and construction of 510,899 sf of new mixed use development, which would intensify the land uses on the site and increase the building heights to a maximum of 88 feet, and thus change the visual character and increase light and glare. It would not have an adverse effect on a scenic vista or scenic resources. Because the Project would result in 720,263 sf of new mixed use development, the overall aesthetic impact of the Existing Zoning Alternative would be similar to but slightly less than that of the Project.

5.3.2.2 Air Quality

In comparison to the Project, the Existing Zoning Alternative provides 30 percent fewer square feet of office, commercial, retail, and restaurant space, and reduces traffic and operational emissions, resulting in reduced air quality impacts compared to the operation of the Project. Both the Project and the Existing Zoning Alternative would result in construction-related emissions; however, as the physical expanse of the Existing Zoning Alternative would be less than that of the Project, construction-related emissions that could affect sensitive receptors would be reduced. Therefore, the Existing Zoning Alternative would result in similar but slightly less impact when compared to the Project.

5.3.2.3 Biological Resources

Although the density of development allowed by the Existing Zoning Alternative would be less than the Project, some or all of the 75 regulated trees on the Project site likely would be removed or disturbed during construction of the 510,899 sf of office, commercial, retail, and restaurant development. The Existing Zoning Alternative would be subject to the same standard conditions of approval (avoiding tree removal during nesting season) and would have a landscape plan that compensates for tree removal. Therefore, this alternative would have similar impacts when compared to the Project.

5.3.2.4 Cultural Resources

Subsurface construction associated with both the Project and the Existing Zoning Alternative would have the same potential to damage unknown cultural resources in the Project area. Therefore, the Existing Zoning Alternative would have environmental impacts similar to those of the Project.

5.3.2.5 Geology and Soils

New office, commercial, retail, and restaurant development would occur under the Existing Zoning Alternative. This alternative would likely have a parking garage of similar magnitude to the Project with some underground level. Therefore, several geologic/soils impacts would be likely to occur and would be similar to the Project. Standard conditions of approval, many similar to those identified in this EIR, could reduce this alternative's potential geology and soils impacts to a less-than-significant level. Therefore, the Existing Zoning Alternative would have environmental impacts similar to those of the Project.

5.3.2.6 Greenhouse Gas Emissions and Climate Change

In comparison to the Project, there would be 30 percent fewer square feet of office, commercial, retail, and restaurant space under the Existing Zoning Alternative and thus relatively less greenhouse gas emissions from construction and traffic. Therefore, the Existing Zoning Alternative would have similar but slightly less environmental impact than the Project.

5.3.2.7 Hazards and Hazardous Materials

Development under the Existing Zoning Alternative would require similar construction activities to those of the Project. This alternative would have the same associated risks of accidental release of hazardous materials as would the Project. Therefore, the Existing Zoning Alternative would have environmental impacts similar to those of the Project.

5.3.2.8 Hydrology and Water Quality

Development of the Project site under the Existing Zoning Alternative would result in similar alteration of the existing drainage patterns to that of the Project. Like the Project, the total impervious area under this Alternative would be less than existing conditions, resulting in less impact on hydrology and water quality compared to both existing conditions and the No Project Alternative. The Existing Zoning Alternative would include underground parking which would require long-term structural dewatering. Therefore, the Existing Zoning Alternative would have environmental impacts similar to those of the Project.

5.3.2.9 Land Use and Planning

Both the Project and the Existing Zoning Alternative would be consistent with the *Mountain View 2030 General Plan*. Unlike the Project, the Existing Zoning Alternative would also be consistent with the existing Mountain View P-9 zoning district. The Existing Zoning Alternative would not require rezoning, but this was a less-than-significant impact of the Project. Therefore, the overall impacts would be similar to but slightly less than those of the Project.

5.3.2.10 Noise and Vibration

Both the Project and the Existing Zoning Alternative would involve construction-noise impacts. Long-term development of the Existing Zoning Alternative would also result in noise associated with traffic and stationary uses. This alternative and the Project would both result in noise levels generally consistent with the City's allowable noise levels. Because the Existing Zoning Alternative would have 30 percent less development, the construction noise and operation noise would be slightly less than that of the Project, but overall the impacts and standard conditions of approval would be the same. Therefore, the Existing Zoning Alternative would have similar but slightly less impacts than the Project.

5.3.2.11 Population and Housing

Similar to the Project, the Existing Zoning Alternative would introduce new jobs and an associated increase in employment. As identified under Impact POP-1a, the Project would generate approximately 2,500 jobs, a net increase of 2,457 jobs. Similarly, the Existing Zoning Alternative would generate new jobs (2,044 new jobs[1] for a net increase of 2,001 jobs), but not as many because it does not include a new hotel and cinema. Growth under this alternative and the Project would be within the projected growth rates for Mountain View. Because fewer new jobs would be created, the Existing Zoning Alternative would contribute less to the City's jobs-to-housing ratio imbalance. However, overall, the Existing Zoning Alternative would have environmental impacts similar to those of the Project.

5.3.2.12 Public Services and Recreation

The Existing Zoning Alternative would result in increased demand for public services but not recreation because the Project does not include residential uses that create a demand for recreation. This alternative would have less of a demand for public services than the Project, because there would be approximately 20 percent fewer employees (2,044 new employees instead of 2,500 new employees) and fewer visitors since there is no hotel or cinema included. However, similar to the Project, this alternative could have an impact on emergency response times to the site if road lanes are closed or construction traffic slows traffic flow during construction. Mitigation measures required by this alternative would be similar to those for the Project. Therefore, the Existing Zoning Alternative would have environmental impacts similar to but slightly less than those of the Project.

5.3.2.13 Transportation and Circulation

The Existing Zoning Alternative would result in similar but less traffic impacts than the Project because the Project includes approximately 30 percent more development and associated trips. Fewer employees would travel to the site under the Existing Zoning Alternative, reducing the number of vehicles at affected intersections. The reduction may not reduce the impacts at San Antonio Road/El Camino Real; it is anticipated that this intersection would still experience significant and unavoidable impacts even under the Reduced Intensity Alternative.

[1] The number of jobs is based on an average of 250 sf per employee.

5.3.2.14 Utilities and Service Systems

The Existing Zoning Alternative would result in increased demand for utilities and service systems but not as much as the Project because there would be approximately 30 percent less development, 20 percent fewer employees, and fewer visitors since there is no hotel or cinema included. Because the demand for the Project could be met by the existing infrastructure and capacities of utility service providers (refer to Section 3.14 and Appendices K and L), it is assumed the demand for the Existing Zoning Alternative could be met. Therefore, the Existing Zoning Alternative would have environmental impacts similar to but less than those of the Project.

5.3.3 Reduced Density (Residential Component) Alternative

Under the Reduced Density (Residential Component) Alternative, existing uses would be demolished, and a multi-block development with office, commercial, retail, restaurant, hotel, cinema, and residential uses would be constructed. However, this alternative would construct half the amount of office and hotel uses as the Project. Therefore, the Residential Component Alternative would allow the 9.9-acre site to be developed with up to 196,427 sf of office development, 71,042 sf of hotel space (84 rooms), and 150,000 sf of residential uses (150 units). Commercial, cinema, retail, and restaurant uses would be the same as proposed under the Project, with 28,502 sf of commercial development, 67,280 sf of cinema uses, 54,186 sf of retail development, and 35,358 sf of restaurant space. In total, the Residential Component Alternative would include approximately 602,795 sf of new mixed-use development compared with approximately 720,263 sf under the Project. For purposes of analysis, it is assumed that the ground-level design and amenities (e.g., outdoor common space and landscaping) would be similar to the Project, and the parking would include underground parking.

5.3.3.1 Aesthetics

The Residential Component Alternative would result in demolition of the existing 59,655 sf of commercial and retail buildings and construction of 602,795 sf of new mixed-use development, which would intensify the land uses on the site. The building heights would be similar to the Project (89 feet). Because the Residential Component Alternative would be similar in height, mass, light, and glare to the Project, this alternative would not alter or degrade the visual character or quality of the Project site, its surroundings, or public view corridors in the area. Because the Project would result in 720,263 sf of new mixed-use development, the overall aesthetic impact of the Residential Component Alternative would be similar to but slightly less than that of the Project.

5.3.3.2 Air Quality

The Residential Component Alternative would result in an overall decrease of approximately 117,468 sf compared with the Project, potentially resulting in a shorter construction period. However, daily construction activities under the Residential Component Alternative would be similar to the Project, while annual emissions could be less. Operation of the Residential Component Alternative has the potential to create air quality impacts, associated primarily with mobile and area sources. Because this alternative would result in fewer vehicle trips due to the reduction in building space, the operational air quality impacts would be reduced. Therefore, the Residential Component Alternative would result in similar but slightly fewer air quality impacts when compared to the Project.

5.3.3.3 Biological Resources

Existing shrubs and trees on the Project site could provide nesting habitat for a variety of native and migratory birds. Although the density of development with implementation of the Residential Component Alternative would be less than the Project, some or all of the 75 identified trees on the Project site would most likely be removed or disturbed during construction of this alternative. The Residential Component Alternative would be subject to the same standard conditions of approval (avoiding tree removal during nesting season) and have a landscape plan that would compensate for tree removal. Therefore, this alternative would have similar impacts when compared to the Project.

5.3.3.4 Cultural Resources

Subsurface construction associated with both the Project and the Residential Component Alternative would have the same potential to damage unknown cultural resources in the Project area. Therefore, the Residential Component Alternative would have environmental impacts similar to those of the Project.

5.3.3.5 Geology and Soils

New office, commercial, cinema, hotel, retail, restaurant, and residential development would occur under the Residential Component Alternative. This alternative would most likely have a parking garage of similar magnitude to the Project with some underground levels. Therefore, several geologic/soils impacts would most likely occur, similar to the Project. Standard conditions of approval, as identified for the Project, could reduce this alternative's potential geology and soils impacts to a less-than-significant level. Therefore, the Residential Component Alternative would have environmental impacts similar to those of the Project.

5.3.3.6 Greenhouse Gas Emissions and Climate Change

Construction of the Residential Component Alternative would generate emissions from mobile and stationary construction equipment exhaust and employee and haul truck vehicle exhaust. Although the construction period could be shorter for this alternative because of less building area, the intensity of construction activities at a given time would be similar to the Project. Operation of the Residential Component Alternative would result in fewer vehicle trips and less electricity generation and consumption, waste and wastewater generation, and water use. As a result, this alternative would generate fewer direct and indirect GHG emissions than the Project because of a decrease in building area. Therefore, the Residential Component Alternative would have similar but slightly fewer environmental impacts compared to the Project.

5.3.3.7 Hazards and Hazardous Materials

Development under the Residential Component Alternative would require similar construction activities to those of the Project. Project construction would involve routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and caulking. As with the Project, the Residential Component Alternative would be required to comply with mandatory hazardous materials regulations. Compliance with applicable regulations would ensure that potential releases during construction would be less than significant, similar to the Project. During operation, it is anticipated that the Residential Component Alternative would involve the use of hazardous materials typical of office, commercial, retail, and residential uses (solvents, cleaning agents, paints, petroleum fuels, propane, batteries, etc.). Use, storage, and disposal of these materials would be regulated according to federal and state regulations and guidelines, the intent of which is to minimize the risk of upset. Therefore, the Residential Component Alternative would have environmental impacts similar to those of the Project.

5.3.3.8 Hydrology and Water Quality

Development of the Project site under the Residential Component Alternative would result in similar alteration of the existing drainage patterns to that of the Project. Implementation of this alternative, similar to the Project, would include construction activities, which would disturb land and result in a temporary increase in sediment loads. All construction activities would be subject to existing regulatory requirements. Similar to the Project, the total impervious area under this alternative would be less than existing conditions, resulting in less impact on hydrology and water quality compared with existing conditions. The Residential Component Alternative would include underground parking, which could require long-term structural dewatering. Therefore, the Residential Component Alternative would have environmental impacts similar to those of the Project.

5.3.3.9 Land Use and Planning

The Project site is currently located in a P-9 zoning district; however, similar to the Project, the Residential Component Alternative would not be consistent with the P-9 zoning requirements, which do not permit hotel and cinema uses. As with the Project, the Residential Component Alternative would require the adoption of a new Planned Community ("P") Zoning District, consisting of the Project site and a Zoning Map Amendment reflecting both the new P District and removal of the Project site from the San Antonio Center Precise Plan. The P district would allow the proposed uses, including multi-family residential, to be appropriately developed at the Project site, consistent with the *2030 General Plan.*

5.3.3.10 Noise and Vibration

Both the Project and the Residential Component Alternative would involve impacts related to construction noise. Construction would require the use of heavy equipment that would temporarily increase noise levels at properties near the work sites. Although the Residential Component Alternative would result in less building area and, therefore, potentially shorter construction periods, noise levels at a given time during construction would be similar to the levels expected under the Project. Operation of the Residential Component Alternative would consist of typical office, commercial, retail, hotel, cinema, and residential operations, such as stationary mechanical equipment, parking lot activities, truck loading activities, and traffic noise reflected from buildings. Because this alternative would result in less building space and fewer vehicle trips than the Project, it is expected that the operational noise would be slightly less than under the Project. This alternative, similar to the Project, would result in noise levels generally consistent with the City's allowable noise levels and adhere to the same standard conditions of approval. Therefore, the Residential Component Alternative would have impacts similar to the Project.

5.3.3.11 Population and Housing

Similar to the Project, the Residential Component Alternative would introduce new jobs and an associated increase in employment. The Project would generate approximately 2,500 jobs, a net increase of 2,457 jobs compared with existing conditions. The Residential Component Project would result in the same number of commercial, retail, restaurant, and cinema jobs as the Project but would result in approximately 50 percent fewer office and hotel-related jobs. A minimal number of jobs (less than 10) would be generated as a result of the residential component. Therefore, the Residential Component Alternative would generate approximately 1,821 new jobs,[2] for a net increase of 1,778 jobs at the Project site. Employment growth under this alternative and the Project would be within the projected growth rates for Mountain View.

Although fewer new jobs would be created under the Residential Component Alternative compared with the Project, new residents would be introduced to the Project site. The 150,000 sf of residential space would result in approximately 354 new residents.[3] Because the Project does not include housing, the Residential Component Alternative would result in greater population growth impacts. However, this would be within the City's population growth projections. In addition, because housing would be provided at the Project site, some of the new employees generated by the alternative could be accommodated within these units, reducing housing impacts in the City compared with the Project. Therefore, as with the Project, the Residential Component Alternative would not directly induce population beyond the projected growth.

5.3.3.12 Public Services and Recreation

The Residential Component Alternative would result in increased demand for public services. Similar to the Project, this alternative could have an impact on emergency response times to the site if road lanes are closed or construction slows traffic flow. Mitigation measures required by this alternative would be similar to those for the Project. During operation, this alternative would have a similar demand for public services as the Project. Although office and hotel development would decrease by approximately 50 percent, residential uses would be included, which would have a demand for fire, police, school, and recreational services. The Residential Component Alternative would generate approximately 1,778 net new jobs and 354 on-site residents.

Compared with existing conditions, the Project would have more on-site activities, resulting in more incidents requiring fire and police responses. However, the increased level of fire and police services would not be large enough to trigger the need for construction of new or expanded facilities that could adversely affect the physical environmental or affect human health and safety. As with the Project, the Residential Component Alternative would generate student demand from the induced housing demand caused by increased employment at the Project site. In addition, unlike the Project, this alternative would generate a direct student demand as a result of the proposed housing. However, impacts from the potential new students would be mitigated by the payment of the school impact fees established by SB 50 by the Project applicant and any subsequent residential projects as a result of this alternative. The Residential Component Alternative would also increase the demand for additional park and recreational space for its new patrons, employees, and residents. However, as with the Project, this increase is not expected to cause physical deterioration for existing facilities or create the need for new or expanded facilities. Therefore, the impacts of the Residential Component Alternative would be similar to the impacts of the Project.

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[2] The number of jobs is based on an average of 250 sf per employee for the office, hotel, commercial, retail, restaurant, and cinema uses. In addition, it is assumed that approximately 10 new jobs would be generated for the residential component.

[3] Estimated population was obtained by using 2.36 persons per household (150 units x 2.36 persons per household = 348 persons).

5.3.3.13 Transportation and Circulation

The Residential Component Alternative would result in approximately 117,468 sf less than the Project. Although trips associated with residential uses would be added, the office and hotel vehicle trips would be reduced. This alternative is expected to reduce the PM peak-hour trip generation by approximately 100 vehicles, to 740 PM peak-hour vehicle trips. However, this reduction would not eliminate the impact at the San Antonio Road/El Camino Real intersection to a less-than-significant level. Therefore, it is anticipated that, prior to mitigation, this intersection would still experience significant and unavoidable impacts, similar to the Project.

5.3.3.14 Utilities and Service Systems

Implementation of the Residential Component Alternative would result in approximately 1,778 net new jobs and 354 on-site residents, while the Project would result in approximately 2,457 new jobs. Therefore, the Residential Component Alternative would have similar impacts on water demand and wastewater, stormwater, and solid waste generation. It is assumed that, similar to the Project, wastewater generation under this alternative would exceed capacity in specific sewer lines. Because the demand for the Project could be met by the existing infrastructure and capacities of utility service providers for water, stormwater, and solid waste (refer to Section 3.14 and Appendices K and L), it is assumed the demand for these utilities under the Residential Component Alternative could also be met. Therefore, the Residential Component Alternative have impacts similar than those of the Project.

5.3.4 Environmentally Superior Alternative

The State CEQA Guidelines require that an environmentally superior alternative be identified. The environmentally superior alternative is the alternative that would avoid the environmental impacts associated with the project or lessen them to the greatest extent, while feasibly obtaining most of the major project objectives. If the alternative with the least environmental impact is determined to be the "no project alternative," the EIR shall also identify an environmentally superior alternative among the other alternatives.

Table 5-2 provides a comparison of the potential impacts of the No Project Alternative, the Existing Zoning Alternative, and the Residential Component Alternative to the Project by resource topic. The No Project Alternative would have less impact on most resource topics, and slightly greater impact on hydrology and water quality. The Existing Zoning Alternative would have similar but slightly less environmental impacts for most resource topics, particularly aesthetics, air quality, noise, and traffic, because of the reduced scale. Compared with the Project, the Existing Zoning Alternative would result in approximately 30 percent fewer square feet, 20 percent fewer employees, and fewer visitors because it does not include a hotel and cinema. The Residential Component Alternative would result in slightly less development than the Project but more than the Existing Zoning Alternative. Therefore, the Residential Component Alternative would result in impacts generally similar to the Project.

The No Project Alternative would be the environmentally superior of the two alternatives because it would result in less impact overall. However, because the No Project Alternative would not fulfill any of the Project objectives and is required to be included in the EIR by CEQA, another alternative must be identified as the environmentally superior alternative.

The Residential Component Alternative would result in more development than the Existing Zoning Alternative, and would include residential uses. Therefore, it would result in more impacts than the Existing Zoning Alternative; it would not be the environmentally superior alternative. The Residential Component Alternative was formulated to reduce the PM peak-hour trips created by the office and hotels uses by replacing them with a land use that would have more AM peak-hour trips (residential). However, as discussed above, the Residential Component Alternative would only reduce PM peak-hour trips by approximately 100 vehicles, which would not be enough to eliminate the identified impact at the San Antonio Road/El Camino Real intersection.

The Existing Zoning Alternative and the Project would have very similar impacts. Because the Existing Zoning Alternative would result in 30 percent fewer square feet, due to developing only the office, commercial, retail, and restaurant uses without the hotel and cinema, the impacts would be similar to but less than those under the Project. Therefore, the Existing Zoning Alternative is considered the environmentally superior project alternative.

Chapter 6
Report Preparation

The CEQA Lead Agency is the City of Mountain View. ICF International (formerly Jones & Stokes) prepared this EIR on the Lead Agency's behalf. Additional technical assistance was provided by Fehr & Peers for the transportation impact analysis, by Infrastructure Engineering Corporation (IEC) for water and sewer hydraulic capacity study, and by Nolte Associates (NV5) for stormwater drainage analysis. This chapter lists the individuals who prepared the report.

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Chapter 7
References

7.1 Aesthetics

Arkema. 2013. *Kynar by Arkema*. Available: <http://americas.kynar.com/en/index.html>. Accessed: November 15, 2013.

Caltrans. 2011. *California Scenic Highway Mapping System*. September 7. Available: <http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm> Accessed: August 23, 2013.

City of Mountain View. 2012. *Mountain View 2030 General Plan*. Prepared by City of Mountain View Community Development Department, Mountain View, CA. Adopted July 10. Available: <http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp>. Accessed: August 2013.

City of Mountain View. 2013. *Project Review Process*. Available: <http://www.ci.mtnview.ca.us/city_hall/community_development/planning/project_review_process/default.asp>. Accessed: August 26, 2013.

LSA Associates. 2011. *City of Mountain View Draft 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. November. Public Review Draft. SCH No. 2011012069. Prepared for City of Mountain View, CA.

7.2 Air Quality

Bay Area Air Quality Management District. 2009. *Revised Draft Options and Justification Report: California Environmental Quality Act Thresholds of Significance*. October. San Francisco, CA.

———. 2010. *Bay Area 2010 Clean Air Plan*. September 15.

———. 2011. *California Environmental Quality Act Air Quality Guidelines*. June. San Francisco, CA.

———. 2013. Google Earth map files for San Mateo County to identify stationary and highway sources and associated estimated risk and hazard impacts for the cumulative analysis. Available at: http://www.baaqmd.gov/Divisions/ Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

California Air Resources Board. 1998. *Findings of the Scientific Review on The Report on Diesel Exhaust*. Adopted April 22. Available: http://www.arb.ca.gov/toxics/dieseltac/combined.pdf. Accessed: February 9, 2012.

———. 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. Sacramento, CA. Prepared by Stationary Source Division and Mobile Source Control Division.

———. 2004. *Revision to the California State Implementation Plan for Carbon Monoxide*. July.

———. 2013a. *iADAM Air Quality Data Statistics: Top 4 Summary Pollutant/Year Range Selection*. Available: http://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed: June 5, 2013.

———. 2013b. *Area Designations Maps/State and National*: *The Green Book Nonattainment Areas for Criteria Pollutants*. Available: http://www.arb.ca.gov/regact/2013/area13/area13.htm.

———. 2013c. *Ambient Air Quality Standards*. Available: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. June 4, 2013.

Caltrain. 2012. *Schedule*s. Available: http://www.caltrain.com/schedules.html. Accessed: December 10, 2013.

Santa Clara Valley Transportation Authority. 2013. *Schedules by Type - Community Bus Service*. Available: http://www.vta.org/getting-around/schedules/by-type. Accessed: December 10, 2013.

U.S. Environmental Protection Agency. 2009. *Emission Factors for Locomotives*. EPA-420-F-09-025. April.

———. 2012a. *Criteria Pollutant Information*. Last Revised: July 1, 2010. Available: http://www.epa.gov/air/urbanair/. Accessed: July 23, 2012.

———. 2012b. *Monitor Values Report*. Available: http://www.epa.gov/airdata/ad_rep_mon.html. Accessed: September 23, 2013.

———. 2013. *The Green Book Nonattainment Areas for Criteria Pollutants*. Available: http://www.epa.gov/oaqps001/greenbk/. Accessed: June 5, 2013.

7.3 Biological Resources

California Department of Fish and Game. Biogeographic Data Branch. 2011. *Special Animals (898 taxa)*. Last revised: January 2011. Available: <http://dfg.ca.gov/biogeodata/cnddb/pdfs/SPAnimals.pdf>. Accessed: December 2, 2013.

California Department of Fish and Wildlife. Biogeographic Data Branch. 2013. *California Natural Diversity Database*. Last revised: October 1, 2013. Available: <http://dfg.ca.gov/biogeodata/cnddb/>. Accessed: October 22, 2013.

California Native Plant Society. 2013. *Inventory of Rare and Endangered Plants* (online edition, v8-02). California Native Plant Society. Sacramento, CA. Available: <http://www.rareplants.cnps.org/>. Accessed: October 23, 2013.

City of Mountain View. 2012. *Mountain View 2030 General Plan*. Prepared by City of Mountain View Community Development Department, Mountain View, CA. Adopted July 10. Available: <http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp>. Accessed:

LSA Associates, Inc. 2011. *City of Mountain View Draft 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. Berkeley, CA. November 2011.

Moyle, P. B. 2002. *Inland Fishes of California*. Berkeley: University of California Press. 502 pp.

Rosenfield, J. A. and R. D. Baxter. 2007. Population Dynamics and Distribution Patterns of Longfin Smelt in the San Francisco Estuary. *Transactions of the American Fisheries Society* 136:1577–1592.

U.S. Fish and Wildlife Service. 2013. *Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 ½ Minute Quads you requested (Mountain View and Palo Alto)*. Last revised: September 18, 2011. Available: <http://www.fws.gov/sacramento/es_species/Lists/es_species_lists-form.cfm>. Accessed: October 22, 2013.

Western Bat Working Group. 2007. *Regional Bat Species Priority Matrix*. Last revised: February 9–13, 1998. Available: <http://www.wbwg.org/speciesinfo/species_matrix/spp_matrix.pdf>. Accessed: December 2, 2013.

7.4 Cultural Resources

Bean, L. J. 1994. *The Ohlone Past and Present: Native Americans of the San Francisco Bay Region*. Menlo Park, CA: Ballena Press.

Bellifemine, V. 1997. *Mortuary Variability in Prehistoric Central California: A Statistical Study of the Yukisma Site, CA-SCL-38*. Master's thesis, Department of Interdisciplinary Studies, San Jose State University, CA.

Bennyhoff, J. A. 1994a. The Napa District and Wappo Prehistory. In R. E. Hughes, (ed.), *Toward a New Taxonomic Framework for Central California Archaeology: Essays by James A. Bennyhoff and David A. Fredrickson*, pp. 49–56. Berkeley, CA: Contributions of the University of California Archaeological Research Facility 52.

———. 1994b. A Delta Intrusion to the Bay in the Late Middle Period in Central California. In R. E. Hughes, (ed.), *Toward a New Taxonomic Framework for Central California Archaeology: Essays by James A. Bennyhoff and David A. Fredrickson*, pp. 7–13. Berkeley, CA: Contributions of the University of California Archaeological Research Facility 52.

Cartier, R. R. 2002. The Sunnyvale Red Burial, CA-SCL-832. *Proceedings of the Society for California Archaeology* 15:49–52.

City of Mountain View. 1992. *Mountain View 1992 General Plan Update.* Prepared for the City of Mountain View. Mountain View, CA.

———. 2011. *Designation and Preservation of Historic Resources*. Mountain View, California, Code of Ordinances, Part II- The Code. Chapter 36, Zoning, Article XIII, Zoning Ordinance Administration, Section A.36.78. Electronic document. Available: http://library.municode.com/index.aspx?clientId=16508. Accessed August 10, 2012.

Clark, M. 1998. *Evaluative Archaeological Investigations at the San Bruno Mountain Mound Site, CA-SMA-40, South San Francisco, California*. Holman and Associates, San Francisco. Submitted to Terrabay Development. Copies available from Northwest Information Center, Department of Anthropology, Sonoma State University, Rohnert Park, California.

Clark, M. and A. L. Reynolds. 2003. *Archaeological Investigations and Mitigative Data Recovery at CA-SCL-689 on Pulte Homes' Kenwood II Project Area, San Jose, California*. Holman and Associates, San Francisco. Submitted to Pulte Home Corporation, Pleasanton, CA. Copies available from Northwest Information Center, Department of Anthropology, Sonoma State University, Rohnert Park, California.

Computer History Museum. 2007. *1956 – Silicon Comes to Silicon Valley*. Available: http://www.computerhistory.org/semiconductor/timeline/1956-silicon.html. Accessed: November 20, 2013.

Cook, S. F. 1943a. The Conflict between the California Indians and White Civilization, I: The Indian Versus the Spanish Mission. *Ibero-Americana 21*. Berkeley, CA.

———. 1943b. The Conflict between the California Indians and White Civilization, II: The Physical and Demographic Reaction of the Non-Mission Indians in Colonial and Provincial California. *Ibero-Americana 22*. Berkeley, California.

Elsasser, A. B. 1978. Development of Regional Prehistoric Cultures. In *California*, R. F. Heizer, ed., pp. 37–57. Handbook of North American Indians. Vol. 8. W.C. Sturtevant, general ed. Washington, D.C.: Smithsonian Institution.

Fitzgerald, R. T. and J. Porcasi. 2003. The Metcalf Site (CA-SCL-178) and Its Place in Early Holocene California Prehistory. *Society for California Archaeology Newsletter* 37 (4):27–31.

Fitzgerald, R. T., T. L. Jones, and A. Schroth. 2005. Ancient Long Distance Trade in Western North America: New AMS Radiocarbon Dates from Southern California. *Journal of Archaeological Science* 32:423–434.

Fredrickson, D. A. 1973. *Early Cultures of the North Coast of the North Coast Ranges, California*. Ph.D. Dissertation, Department of Anthropology, University of California, Davis, CA.

Garaventa, D., R. Anastasio, S. Guedon, S. Jarvis, L. Pujol, and S. Rossa. 1990. *Cultural Resources Assessment for 1990 General Plan Update, City of Mountain View, Santa Clara County, California*. Prepared for the City of Mountain View. Report on file (S-12528) at the Northwest Information Center, Department of Anthropology, Sonoma State University, Rohnert Park, CA.

Groza, R. G. 2002. *An AMS Chronology for Central California* Olivella *Shell Beads*. Master's thesis, Department of Anthropology, California State University, San Francisco.

Hildebrandt, W. R. 1983. *Final Report, Archaeological Research of the Southern Santa Clara Valley Project: Based on a Data Recovery Program from Sites CA-SCL-54, CA-SCL-163, CA-SCL-178, CA-SCL-237, and CA-SCL-241 Located in the Route 101 Corridor, Santa Clara County, California*. Report on file, California Department of Transportation, Oakland.

Hylkema, M. G. 2002. Tidal Marsh, Oak Woodlands, and Cultural Florescence in the Southern San Francisco Bay Region. In J. M. Erlandson and T. L. Jones, (eds.), *Catalysts to Complexity: Late Holocene Societies of the California Coast*, pp. 233–262. Los Angeles, CA: Cotsen Institute of Archaeology, University of California, Los Angeles, CA.

Jackson, T. L. 1986. *Late Prehistoric Obsidian Exchange in Central California*. Ph.D. Dissertation, Department of Anthropology, Stanford University.

———. 1989. Late Prehistoric Obsidian Production and Exchange in the North Coast Ranges, California. In R. E. Hughes, (ed.), *Current Directions in California Obsidian Studies*, pp. 79–94. Contributions of the University of California Archaeological Research Facility no. 48.

Jurmain, R. 1983. *The Skeletal Biology of CA-ALA-342*. Salinas, CA: Coyote Press.

King, C. D. 1978. Historical Indian Settlements in the Vicinity of the Holiday Inn Site. In J.C. Winter (ed.), *Archaeological Investigations at CA-SCL-128, the Holiday Inn Site*.

Kroeber, A. L. 1955. Nature of the Land-Holding Group. *Ethnohistory* 2:303–314.

Levy, R. 1978. Costanoan. In *California*, R. F. Heizer (ed.), pp. 485–495. Handbook of North American Indians, Vol. 8, W.C. Sturtevant, general ed. Washington, D.C.: Smithsonian Institution.

LSA Associates, Inc. 2012. Section K: Cultural Resources. In *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. Final. June. SCH No. 2011012069. Prepared for City of Mountain View, CA. Available: http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp.

Milliken, R. 1995. A Time of Little Choice: The Disintegration of the Tribal Culture in the San Francisco Bay Area 1769–1810. In Thomas C. Blackburn, (ed.), *Ballena Press Anthropological Papers* No. 43. Novato, California.

Milliken, R. T. and J. A. Bennyhoff. 1993. Temporal Changes in Beads as Prehistoric California Grave Goods. In G. White et al. (eds.). *There Grows a Green Tree: Papers in Honor of David A. Fredrickson*, pp. 381–395. Davis, CA: Center for Archeological Research at Davis no. 11.

Milliken, R., R. T. Fitzgerald, M. G. Hylkema, R. Groza, T. Origer, D. G. Bieling, A. Leventhal, R. S. Wiberg, A. Gottsfield, D. Gillette, V. Bellifemine, E. Strother, R. Cartier, and D. A. Fredrickson. 2007. Chapter 8: Punctuated Change in the San Francisco Bay Area. Pages 99–123 in Terry L. Jones and Kathryn A. Klar, (eds.), *California Prehistory: Colonization, Culture, and Complexity*. New York: Altamira Press.

Rosenthal, J. S. and J. Meyer 2004. *Landscape Evolution and the Archaeological Record: A Geoarchaeological Study of the Southern Santa Clara Valley and Surrounding Region*. Center for Archaeological Research at Davis Publication no. 14. University of California, Davis.

Society of Vertebrate Paleontology Conformable Impact Mitigation Guidelines Committee. 1995. Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontologic Resources: Standard Guidelines. *Society of Vertebrate Paleontology News Bulletin* 163:22–27. Available: <http://www.vertpaleo.org/ConformableImpactMitigationGuidelinesCommittee.htm>.

Vellanoweth, R. L. 2001. AMS Radiocarbon Dating and Shell Bead Chronologies: Middle Holocene Trade and Interaction in Western North America. *Journal of Archaeological Science* 28:941–950.

7.5 Geology and Soils

Association of Bay Area Governments. 2010. *ABAG Multi-Jurisdictional Local Hazard Mitigation Plan for the Bay Area*. Available: <http://www.abag.ca.gov/bayarea/eqmaps/mitigation/plan.html>. Accessed: November 2012.

Bullard, T., K. L. Hanson, H. A. Ward. 2004a. *Quaternary Investigations to Evaluate Seismic Source Characteristics of the Frontal Thrust Belt, Palo Alto Region*, *California*. (External award number 01HQGR0015 [Desert Research Institute] and 01HQGR0016 [Geomatrix Consultants].) Desert Research Institute, Reno, NV and Geomatrix Consultants, Inc., Oakland, CA.

Bullard, T, K. H. Hanson, H. A. Ward, M. Angell, and J. Wesling. 2004b. Updated assessments of the activity and slip rate for the Stanford fault zone and Pulgas faults, Frontal thrust fault system, Palo Alto region, California. In D. G. Kennedy and C. S. Hitchcock (eds.), *AEG field trip guidebook: Seismic hazard of the range front thrust faults northeastern Santa Cruz Mountains/southwestern Santa Clara Valley*. March 27. Association of Engineering Geologists, San Francisco Section. Available: <http://earthquake.usgs.gov/research/external/reports/01HQGR0015.pdf>. Accessed: October 2012.

California Department of Water Resources. 2003. *San Francisco Bay Hydrologic Region California's Groundwater Update Bulletin 118.* Available: http://www.water.ca.gov/pubs/ groundwater/bulletin_118/california's_groundwater__bulletin_118_-_update_2003_/bulletin118_2-sf.pdf. Accessed: November 26, 2013.

California Geological Survey. 2006a. *Seismic Hazard Zone Report for Mountain View Quadrangle.* California Department of Conservation. October 18, 2006. Available: <http://gmw.consrv.ca.gov/shmp/download/evalrpt/mview_eval.pdf>. Accessed: October 2012.

———. 2006b. *Seismic Hazard Zones Mountain View Quadrangle Map.* California Department of Conservation. October 18, 2006. Available: <http://gmw.consrv.ca.gov/shmp/ download/pdf/ozn_mview.pdf>. Accessed: October 2012.

———. 2007. *Fault-Rupture Hazard Zones in California. Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps*. (Special Publication 42, Interim Revision 2007.) California Department of Conservation. Sacramento, CA: California Geological Survey. Available: <ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sp/Sp42.pdf>. Accessed: October 2012.

City of Mountain View. 2012a. *Mountain View 2030 General Plan.* Prepared by City of Mountain View Community Development Department, Mountain View, CA. Adopted July 10. Available: http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp. Accessed: November 26, 2013.

———. 2012b. *Disaster Preparedness*. Prepared by City of Mountain View Fire Department, Office of Emergency Services. Available: https://www.mountainview.gov/city_hall/fire/ programs_n_services/disaster_preparedness.asp. Accessed: January 8, 2013.

ICF International. 2013. Cited on p. 12

LSA Associates. 2011. *City of Mountain View Draft 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. November. Public Review Draft. SCH No. 2011012069. Prepared for City of Mountain View, CA.

Natural Resources Conservation Service. No date. *Custom soil resource report for Santa Clara area, California, western part*. Available: <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. Accessed: August 2013.

Santa Clara Valley Urban Runoff Pollution Prevention Program. 2013. *Storm Water Pollution Prevention Plan.* Available: http://www.scvurppp-w2k.com/swppp.shtml. Accessed: November 26, 2013.

U.S. Department of Agriculture. 2013. *Web Soil Survey*. Available: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed: January 6, 2014

U.S. Geological Survey. 2006. *San Francisco Bay Region Geology and Geologic Hazards.* Last revised: August 18, 2006. Available: http://geomaps.wr.usgs.gov/sfgeo/liquefaction/susceptibility.html. Accessed: November 26, 2013.

———. 2008. *The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF 2).* Last revised: 2008. Available: http://pubs.usgs.gov/of/2007/1437/of2007-1437_text.pdf. Accessed: January 7, 2014.

———. 2012. *Earthquake Glossary – Seismic Moment.* Last revised: July 18, 2012. Available: http://earthquake.usgs.gov/learn/glossary/?term=seismic%20moment. Accessed: November 26, 2013.

7.6 Greenhouse Gas Emissions and Climate Change

AECOM. 2012. *Mountain View Greenhouse Gas Reduction Program*. Available:http://www.mountainview.gov/civica/filebank/blobdload.asp?BlobID=10700. Accessed: November 20, 2013.

Bay Area Air Quality Management District. 2010. *Source Inventory of Bay Area Greenhouse Gas Emissions.* Updated: February 2010. Available: http://www.mtc.ca.gov/planning/ climate/Bay_Area_Greenhouse_Gas_Emissions_2-10.pdf. Accessed: June 6, 2013.

———. 2011. *California Environmental Quality Act Air Quality Guidelines*. May. San Francisco, CA.

Blasing, T. J. 2013. *Recent Greenhouse Gas Concentrations*. Available: http://cdiac.ornl.gov/pns/current_ghg.html. February. Accessed: November 27, 2013.

California Air Resources Board. 2013. *Climate Change Scoping Plan First Update – Discussion Draft for Public Review and Comment*. Available: http://www.arb.ca.gov/cc/scopingplan/ document/updatedscopingplan2013.htm. October.

California Energy Commission. 2009. *The Future Is Now: An Update on Climate Change Science Impacts and Response Options for California*. (CEC-500-2008-071.) May. Available: http://www.energy.ca.gov/publications/searchReports.php. Accessed: September 2011.

Center for Climate and Energy Solutions. 2011. The Greenhouse Effect. Available: http://www.c2es.org/facts-figures/basics/greenhouse-effect.

Georgetown Climate Center. 2012. *Summary of the Federal District Court's Order Enjoining California's Low Carbon Fuel Standard*. Available: http://www.georgetownclimate.org/ sites/default/files/Summary_of_Court_Enjoining_CA_LCFS.pdf. Accessed: May 1, 2012.

Intergovernmental Panel on Climate Change. 1996. *1995: Science of Climate Change. (Second Assessment Report)*. Cambridge, U.K.: Cambridge University Press.

———. 2001. Atmospheric Chemistry and Greenhouse Gases. In *Climate Change 2001: Working Group I: The Scientific Basis.* Available: http://www.ipcc.ch/ipccreports/tar/wg1/pdf/TAR-04.PDF. Accessed: September 22, 2009.

———. 2007a. Introduction. In B. Metz, O. R. Davidson, P. R. Bosch, R. Dave, L. A. Meyer, (eds.), *Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007*. Cambridge, U.K. and New York, NY, USA: Cambridge University Press. Available: http://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-chapter1.pdf. Accessed: August 11, 2009.

———. 2007b. *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.). Available: http://www.ipcc.ch/ipccreports/ar4-wg1.htm. Accessed: September 22, 2009.

LSA Associates. 2011. *City of Mountain View Draft 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. November. Public Review Draft. SCH No. 2011012069. Prepared for City of Mountain View, CA.

LSA Associates. 2012. *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. Final. June. SCH No. 2011012069. Prepared for City of Mountain View, CA. Available: http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp.

National Highway Traffic Safety Administration 2012. *Regulatory Announcement: EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017–2025 Cars and Light Trucks*. August. Available: http://www.epa.gov/otaq/climate/documents/420f12051.pdf.

National Oceanic and Atmospheric Administration. 2005. *Greenhouse Gases: Frequently Asked Questions*. Available: http://lwf.ncdc.noaa.gov/oa/climate/gases.html. Accessed: September 22, 2009.

———. 2013. *Trends in Atmospheric Carbon Dioxide*. Available: http://www.esrl.noaa.gov/gmd/ccgg/trends/. Accessed: November 27, 2013.

PRBO Conservation Science. 2011. *Projected Effects of Climate Change in California: Ecoregional Summaries Emphasizing Consequences for Wildlife*. Version 1.0. February.

U.S. Environmental Protection Agency. 2011. *Emission Facts: Greenhouse Gas Emissions from a Typical Passenger Vehicle*. December. Available: http://www.epa.gov/otaq/climate/documents/420f11041.pdf. Accessed: June 2012.

———. 2013. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2011*. April. Available: http://epa.gov/climatechange/emissions/usinventoryreport.html. Accessed: November 20, 2013.

United States Geological Survey. 2012. *Shoreline Areas Potentially Exposed to Sea Level Rise: South Bay*. Available: http://www.bcdc.ca.gov/planning/climate_change/maps/16_55/south_bay.pdf. Accessed: August 8, 2012.

7.7 Hazards and Hazardous Materials

California Department of Forestry and Fire Protection. 2012. *Wildland Hazard & Building Codes Santa Clara County FHSZ Map.* Last revised: October 2008. Available: http://www.fire.ca.gov/fire_prevention/fhsz_maps_santaclara.php. Accessed: November 20, 2013.

City of Mountain View. 2012. *Mountain View 2030 General Plan*. Prepared by City of Mountain View Community Development Department, Mountain View, CA. Adopted July 10. Available: http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp. Accessed: November 20, 2013.

———. 2013. *Disaster Preparedness.* Available: http://www.ci.mtnview.ca.us/city_hall/fire/programs_n_services/disaster_preparedness.asp. Accessed: November 20, 2013.

Santa Clara County. 2006. *Filing a Notice of Intent*. Available: http://www.sccgov.org/sites/planning/PermitsDevelopment/Permits/Documents/NOI_Packet.pdf. Accessed: November 20, 2013.

———. 2013a. *Department of Environmental Health Hazardous Materials Compliance Division Home.* Last revised: November 13, 2013. Available: http://www.sccgov.org/sites/deh/HMCD/Pages/HMCD.aspx. Accessed: November 20, 2013.

———. 2013b. *Department of Environmental Health Site Mitigation Program*. Last revised: November 5, 2013. Available: http://www.sccgov.org/sites/deh/HMCD/Site%20Mitigation%20Program/Pages/Site-Mitigation-Program.aspx. Accessed: November 20, 2013.

State Water Resources Control Board. 2013. *Geotracker.* Available: https://geotracker.waterboards.ca.gov/. Accessed: December 3, 2013.

Windus, W. B. 2008. *Comprehensive Land Use Plan Santa Clara County Palo Alto Airport.* Last revised: November 19, 2008. Available: http://www.sccgov.org/sites/planning/PlansPrograms/ALUC/Documents/ALUC_20081119_PAO_CLUP.pdf. Accessed: November 20, 2013.

———. 2012. *Comprehensive Land Use Plan Santa Clara County Moffett Federal Airfield.* Last revised: November 2, 2012. Available: http://www.sccgov.org/sites/planning/PlansPrograms/ALUC/Documents/ALUC_20121128_NUQ_CLUP_adopted.pdf. Accessed: November 20, 2013.

7.8 Hydrology and Water Quality

Association of Bay Area Governments. 1995. *Dam Inundation Maps*. Available: http://www.abag.ca.gov/bayarea/eqmaps/eqfloods/fpickc.html. Accessed: October 24, 2013.

California Department of Conservation. 2009. *Tsunami Inundation Maps*. *Santa Clara County. Mountain View Quadrangle*. July 31, 2009. Available: http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/SantaClara/Documents/Tsunami_Inundation_MountainView_Quad_SantaClara.pdf. Accessed: October 28, 2013.

California Department of Water Resources. 2004. Santa Clara Valley Groundwater Basin, Santa Clara Subbasin. *California's Groundwater Bulletin* 118. Available: www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/2-9.02.pdf. Accessed: October 2013.

City of Mountain View. 2011. *2010 Urban Water Management Plan*. June 14. Available: https://www.mountainview.gov/civica/filebank/blobdload.asp?BlobID=8497. Accessed: October 28, 2013.

Federal Emergency Management Agency. 2009. *Flood Insurance Rate Map (FIRM), Santa Clara County, California and Incorporated Areas.* Panel 38 of 830. Map Number FM06085C0038H. Effective Date: May 18, 2009. Available: msc.fema.gov. Accessed: October 2013.

LSA Associates. 2012. *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. Final. June. SCH No. 2011012069. Prepared for City of Mountain View, CA. Available: http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp.

San Francisco Bay Regional Water Quality Control Board. 2011. *San Francisco Bay Basin Water Quality Control Plan*. December 31, 2011. Available: http://www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml. Accessed: October 24, 2013.

State Water Resources Control Board. 2010. 2010 *Integrated Report*. Available: http://www.swrcb.ca.gov/water_issues/programs/tmdl/integrated2010.shtml. Accessed: October 24, 2013.

7.9 Land Use and Planning

City of Mountain View. 1998. *San Antonio Center Precise Plan*. November. Available: <http://www.ci.mtnview.ca.us/civica/filebank/blobdload.asp?BlobID=2760>. Accessed: November 6, 2013.

———. 2012a. *General Plan Land Use Map*. August. Available: <http://www.ci.mtnview.ca.us/civica/filebank/blobdload.asp?BlobID=10701>. Accessed November 1, 2013.

———. 2012b. *Mountain View 2030 General Plan*, *Land Use and Design Element.* Available: <http://www.mountainview.gov/civica/filebank/blobdload.asp?BlobID=10692>. Accessed November 1, 2013.

———. 2013a. *San Antonio Area Visioning Report*. January. Berkeley, CA. Available: <http://www.mountainview.gov/civica/filebank/blobdload.asp?BlobID=10766>. Accessed November 1, 2013.

———. 2013b. *Zoning Map*. May. Available: <http://www.mountainview.gov/civica/filebank/blobdload.asp?BlobID=10990>. Accessed November 1, 2013.

LSA Associates. 2011. *City of Mountain View Draft 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. November. Public Review Draft. SCH No. 2011012069. Prepared for City of Mountain View, CA.

7.10 Noise

California Department of Transportation. 2009. Caltrans Technical Noise Supplement. November. Available: http://www.dot.ca.gov/hq/env/noise/. Accessed: August 14, 2012.

California Governor's Office of Planning and Research. 2003. *Guidelines for the Preparation and Content of the Noise Element of the General Plan*. Appendix A in State of California General Plan Guidelines. Sacramento, CA.

City of Mountain View. 2013a. *865 and 881 East El Camino Real Residential Development Project Draft Environmental Impact Report*.

City of Mountain View. 2013b. *100 Moffett Boulevard Residential Project Initial Study*.

City of Santa Ana. 2010. *City of Santa Ana Transit Zoning Code (SD 84A and SD 84B) Final Environmental Impact Report*. May.

Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054. January.

Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. FTA-VA-90-1003-06. Office of Planning and Environment.

LSA Associates. 2012. *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. Final. June. SCH No. 2011012069. Prepared for City of Mountain View, CA. Available: http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp.

Santa Clara County. 2012. *Comprehensive Land Use Plan, Moffett Federal Airfield*. November 2. Prepared for Airport Land-Use Commission. Available: http://www.sccgov.org/sites/planning/PlansPrograms/ALUC/Documents/ALUC_20121128_NUQ_CLUP_adopted.pdf. Accessed: August 25, 2013.

7.11 Population and Housing

Association of Bay Area Governments. 2009. *Projections 2009*. Available: http://www.abag.ca.gov/planning/currentfcst/.

———. 2010. *Bay Area Census*. Available: http://www.bayareacensus.ca.gov/cities/MountainView.htm. Accessed: November 14, 2013.

California Department of Finance. 2013. *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011–2013*. January. Available: http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php. Accessed: December 12, 2013.

California Employment Development Department. 2013. *Labor Force and Unemployment Rate for Cities and Census Designated Places*. August. Available: http://www.labormarketinfo.edd.ca.gov/Labor_Force_Unemployment_Data_for_Cities_and_Census_Areas.html. Accessed: October 30, 2013.

City of Mountain View. 2010. *Draft Housing Element 2007–2014.* Available: http://www.ci.mtnview.ca.us/civica/filebank/blobdload.asp?BlobID=9464. Accessed: August 28, 2013.

———. 2012. *Mountain View 2030 General Plan*. Prepared by City of Mountain View Community Development Department, Mountain View, CA. Adopted July 10. Available: http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp. Accessed: August 23, 2013.

LSA Associates. 2012. *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. Final. June. SCH No. 2011012069. Prepared for City of Mountain View, CA. Available: http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp.

7.11.1 Personal Communications

Williams, Stephanie, AICP. Senior Planner, City of Mountain View, California. November 8, 2013—Letter to Matthew Jones, ICF International concerning City Guidelines.

7.12 Public Services and Recreation

California Department of Education. 2013a. *Covington Elementary Enrollment by Grade for 2012–2013*. Data as of 5/30/2013. Available: <http://dq.cde.ca.gov/dataquest/Enrollment/GradeEnr.aspx?cType=ALL&cGender=B&cYear=2012-13&Level=School&cSelect=COVINGTON+ELEMENTARY%2D%2DLOS+ALTOS+ELEME%2D%2D4369518%2D6047401&cChoice=SchEnrGr>. Accessed: November 15, 2013.

———. 2013b. *Ardis G. Egan Junior High Enrollment by Grade for 2012–2013*. Data as of 5/30/2013. Available: <http://dq.cde.ca.gov/dataquest/Enrollment/GradeEnr.aspx?cType=ALL&cGender=B&cYear=2012-13&Level=School&cSelect=COVINGTON+ELEMENTARY--LOS+ALTOS+ELEME--4369518-6047401&cChoice=SchEnrGr≥. Accessed: November 15, 2013.

———. 2013c. *Los Altos High School Enrollment by Grade for 2012–2013*. Data as of 5/30/2013. Available: <http://dq.cde.ca.gov/dataquest/Enrollment/GradeEnr.aspx?cType=ALL&cGender=B&cYear=2012-13&Level=School&cSelect=Los+Altos+High%2D%2D4369609%2D4334116&cChoice=SchEnrGr≥. Accessed: November 15, 2013.

City of Mountain View. n.d. *Mountain View Police Department 2012 Annual Report*. Available: <http://www.mountainview.gov/city_hall/police/crime_prevention/crime_statistics.asp>. Accessed: November 4, 2013.

———. 2008. *City of Mountain View Parks and Open Space Plan*. Adopted June 24, 2008.

———. 2010. *Precise Plan Amendments and San Antonio Center Project Environmental Impact Report*. SCH No 2010072044. Prepared by LSA Associates, Inc. December.

———. 2012a. *Schools and Education*. Available: <http://www.mountainview.gov/services/learn_about_our_city/schools.asp>. Accessed: November 4, 2013.

———. 2012b. *Mountain View 2030 General Plan*. Prepared by City of Mountain View Community Development Department, Mountain View, CA. Adopted July 10. Available: <http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp>. Accessed: August 2013.

City of Mountain View. 2013. *CEQA Data Table 2013*. Updated July.

Los Altos School District. 2007. *Los Altos School District Attendance Boundaries*. Adopted June 18, 2007 for implementation Fall 2008. Available: <http://lasdschools.org/files/user/1/file/Adopted_attendance_boundaries_6_18_07.pdf>. Accessed: November 15, 2013.

LSA Associates. 2011. *City of Mountain View Draft 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. November. Public Review Draft. SCH No. 2011012069. Prepared for City of Mountain View, CA.

MIG, Inc., Bay Area Economics, Economic & Planning Systems, Fehr & Peers, LSA Associates, Inc., Mundie & Associates, Nelson/Nygaard, Araimi & Associates, and Sandis. 2009. *Mountain View General Plan Update Current Conditions Report*. August. Available: <http://www.mountainview2030.com/Content/10017/CurrentConditionsReport.html>.

Schoolhouse Services. 2012. *Mountain View-Los Altos Union High School District Review and Update of the Development Impact Fee Justification Study*. May.

7.12.1 Personal Communications

Groves, Barry. Superintendent. Mountain View-Los Altos Union High School District, Mountain View, CA. November 15, 2013—Email to Tanya Jones, ICF International.

Kenyon, Randy. Assistant Superintendent of Business Services. Los Altos School District, Mountain View, CA. December 10, 2013 – Email to Tanya Jones, ICF International.

McKenzie, Duncan. Senior Administrative Analyst. Mountain View Police & Fire Department, Mountain View, CA. November 6 —Email to Tanya Jones, ICF International.

7.13 Transportation and Circulation

City of Mountain View. 2012. *Mountain View 2030 General Plan*. Mobility Chapter. Prepared by City of Mountain View Community Development Department, Mountain View, CA. Adopted July 10. Available: http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp.

Institute of Transportation Engineers. 2012. *Trip Generation Manual*. 9th edition. Washington DC: Institute of Transportation Engineers.

Santa Clara Valley Transportation Authority. 2003. *Traffic Level of Service Analysis Guidelines for Congestion Management Program*. June.

———. 2009. *Transportation Impact Analysis Guidelines for Congestion Management Program*. Adopted May 1998, updated March 2009.

———. 2012. *2011 Annual Monitoring and Conformance Report*. June

Transportation Research Board. 2000. *Highway Capacity Manual*. Special Report 209. Washington, DC: National Research Council.

7.14 Utilities and Service Systems

CalRecycle. 2013. *Facility/Site Summary Details: Kirby Canyon Recycle & Disposal Facility* (43-AN-0008). Available: <http://www.calrecycle.ca.gov/SWFacilities/Directory/43-AN-0008/Detail/>. Accessed: November 13, 2013.

City of Mountain View. 2011a. *2010 Urban Water Management Plan*. June 14. Available: <https://www.mountainview.gov/civica/filebank/blobdload.asp?BlobID=8497>. Accessed: November 13, 2013.

———. 2011b. *Sewer System Management Plan*. March 1.

———. 2013. *Our Water Sources*. Available: http://www.mountainview.gov/city_hall/public_works/water_conservation/our_water_source.asp. Accessed: November 13, 2013.

———. 2014. *Zero Waste & Collection Services Agreement*. Available: https://www.mountainview.gov/city_hall/public_works/garbage_and_recycling/zero_waste.asp. Accessed: January 9, 2014.

City of Palo Alto. 2011. *2010 Urban Water Management Plan*. Utilities Department. June.

Infrastructure Engineering Corporation, 2010. *Water System Master Plan*. Final Report. August. Oceanside, CA. Prepared for: City of Mountain View.

———. 2011. *General Plan Update Utility Impact Study.* Prepared for City of Mountain View. October.

LSA Associates. 2012. *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. Final. June. SCH No. 2011012069. Prepared for City of Mountain View, CA. Available: http://www.mountainview.gov/city_hall/community_development/planning/plans_regulations_and_guidelines/general_plan.asp.