Attachment 3

Draft Environmental Impact Report

East Whisman Precise Plan Project

SCH# 2017082051

Prepared by the

CITY OF MOUNTAIN VIEW

In Consultation with

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ENVIRONMENTAL CONSULTANTS & PLANNERS

June 2019

CITY OF MOUNTAIN VIEW

NOTICE OF AVAILABILITY
Draft Environmental Impact Report and Public Hearing

Project Title: East Whisman Precise Plan
City: City of Mountain View, California
County: Santa Clara County
Public Review Period: June 7, 2019 to July 22, 2019

NOTICE IS HEREBY GIVEN that the Draft Environmental Impact Report (EIR) for the East Whisman Precise Plan is available for review and comment by the public and all interested persons, agencies and organizations for a period of 45 days, ending July 22, 2019. All comments must be received by that date.

Project Location. The 412-acre East Whisman Precise Plan (Precise Plan) area is located on the eastern border of the City of Mountain View, in northern Santa Clara County. It is bounded by US Route 101 to the north; North Whisman Road to the west; the southern edge of parcels fronting on East Middlefield Road, State Route 237, and Central Expressway to the south; and the Sunnyvale City Limits to the east. A group of commercial and vacant properties west of North Whisman Road at East Middlefield Road are also included.

Project Description. The Precise Plan would include up to 2.3 million net new square feet of office uses, 100,000 net new square feet of retail uses. 200 hotel rooms, and 5,000 multi-family residential units. Increased office intensities and new neighborhood commercial uses would be allowed throughout the Plan area, while housing would now be allowed in a central area of the Plan (the "Mixed-Use Character Area" and the "Village Center Character Area"). The East Whisman Precise Plan would also include new parks, new pedestrian/bicycle paths, new public streets, and recreational facilities. The Precise Plan will require approval of a General Plan Text and Map Amendment and a Precise Plan Zoning and Zoning Map Amendment by the City.

Copies of the Draft EIR will be available for review beginning on June 7, 2019 at:

City of Mountain View
Community Development Department
500 Castro Street
Mountain View, CA 94039

Mountain View Library
585 Franklin Street
Mountain View, CA 94041

City of Mountain View Website
http://www.mountainview.gov/eastwhisman

Comments may be provided in writing to:

Eric Anderson, Senior Planner
Mountain View Community Development Department
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Mountain View, California, 94039
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Comments may also be provided at the following Study Sessions, both located in the Council Chambers, City Hall, 500 Castro Street:

Environmental Planning Commission - June 19, 2019, 7:00 p.m.
City Council - June 25, 2019, 6:30 p.m.

The proposed project would have significant and unavoidable impacts in Transportation and Circulation. Sites within the project area are included in a hazardous materials/contaminated sites lists compiled pursuant to Government Code Section 65962.5.

Signature:  Date: June 7, 2019

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ACRONYMS AND ABBREVIATIONS

$\mu g/m^3$	Micrograms per Cubic Meter
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACM	Asbestos-containing materials
AFY	Acre Feet per Year
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
APN	Assessor's Parcel Number
AST	Aboveground Storage Tank
BAAQMD	Bay Area Air Quality Management District
BCDC	San Francisco Bay Conservation and Development Commission
bgs	Below Ground Surface
BMP	Best Management Practice
Btu	British Thermal Unit
CAA	Clean Air Act
2017 CAP	2017 Clean Air Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Standards Code
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CLUP	Comprehensive Land Use Plan
CMP	Congestion Management Program
CNEL	Community Equivalent Noise Level
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	Decibel
dBA	A-weighted Decibel
DPM	Diesel Particulate Matter
DPR	California Department of Pesticide Regulation
DTSC	Department of Toxic Substances Control

EIR	Environmental Impact Report
EPA	Environmental Protection Agency
Phase I ESA	Phase I Environmental Site Assessment
ESL	Environmental Screening Level
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Maps
GGRP	Greenhouse Gas Reduction Program
GHG	Greenhouse Gas
GPUUIS	General Plan Update Utility Impact Study
GW	Gigawatt
HCP/NCCP	Habitat Conservation Plan/Natural Community Conservation Plan
HFC	Hydrofluorocarbon
ITE	Institute of Transportation Engineers
kWh	Kilowatt Hour
Ldn	Day-Night Level
LEED	Leadership in Energy and Environmental Design
Leq	Noise Equivalent Level
LID	Low Impact Development
LOS	Level of Service
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MGD	Million Gallons per Day
mpg	Miles per Gallon
MT	Metric Tons
MTC	Metropolitan Transportation Commission
MVFD	Mountain View Fire Department
MVGBC	Mountain View Green Building Code
MVPD	Mountain View Police Department
NAHC	California Native American Heritage Commission
NFIP	National Flood Insurance Program
NO_2	Nitrogen Dioxide
NOI	Notice of Intent

NOP	Notice of Preparation
NOT	Notice of Termination
NO_x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
PCE	Tetrachloroethylene (also known as perchloroethylene)
PM	Particulate Matter
RCRA	Resource Conservation and Recovery Act
R&D	Research and Development
ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board
RWQCP	Palo Alto Regional Water Quality Control Plant
SB	Senate Bill
Valley Water	Santa Clara Valley Water District
SDWA	Safe Drinking Water Act
SFPUC	San Francisco Public Utilities Commission
SLIC	Spills, Leaks, Investigations and Cleanup
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TCE	Trichloroethene
TDM	Transportation Demand Management
TA	Transportation Analysis
TMA	Transportation Management Agency
USACE	U.S. Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
V/C	Volume to Capacity (ratio)
Habitat Plan	Santa Clara Valley Habitat Plan
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VTA	Santa Clara Valley Transportation Authority

EXECUTIVE SUMMARY

PROJECT LOCATION

The 412-acre East Whisman Precise Plan (Precise Plan) area is located on the eastern border of the City of Mountain View, in northern Santa Clara County. The Precise Plan area is generally bordered by United States Highway 101 (US 101) and Moffett Federal Airfield/NASA Ames Research Center to the north, North Whisman Road to the west, Central Expressway to the south, and the City of Sunnyvale to the east.

EXISTING SITE CONDITIONS

East Whisman is a major employment center with approximately 5.7 million square feet of office, research and development (R&D), and light-industrial uses. The area is distinguished from the surrounding neighborhoods by its campus-style development (generally with large surface parking lots surrounding office buildings that vary in height from one story for older structures to six stories for more recent buildings). Commercial and retail uses are present at the intersection of North Whisman Road and East Middlefield Road, but are otherwise limited in the rest of the Precise Plan area. One single-family residential unit currently exists in the plan area.

In 2012, the City of Mountain View adopted a new general plan to guide development and growth through 2030. East Whisman is identified specifically as a "change area" in the Mountain View 2030 General Plan (General Plan) where increased development is planned to occur.[1] The General Plan identified the need to update the area's zoning and development standards to accommodate the General Plan vision through this Precise Plan process.

PROJECT OVERVIEW

The East Whisman Precise Plan envisions a sustainable, transit-oriented area with complete mixed-use neighborhoods and enhanced area mobility. It would include up to 2.3 million square feet of net new office uses, 100,000 square feet of retail uses, 200 hotel rooms, and 5,000 multi-family residential units (with goal of making 20 percent of the total residential units affordable). Additionally, the project assumes that 2.2 million square feet of existing industrial and R&D space would be rebuilt/reoccupied as office space. The Precise Plan also includes new and enhanced parks, trail corridors, and public streets.

General Plan

The East Whisman Precise Plan also establishes the area's broad land use and development regulations. The majority of the Precise Plan area is General Plan designated *High Intensity Office* with a small area along East Middlefield Road west of North Whisman Road designated *Neighborhood Mixed-Use*. One parcel is designated *Medium Density Residential*. The proposed project consists of City-initiated text and map amendments to the General Plan to allow the addition of residential uses, as well as increased intensity of commercial and office development.

[1] The 17.5-acre area south of Evelyn Avenue/Central Expressway known as the *111 Ferry-Morse Way Precise Plan (P29)*, which was included in the East Whisman Change Area identified in the 2030 General Plan, is not included in the currently proposed East Whisman Precise Plan.

Zoning

The existing zoning districts in the East Whisman Precise Plan area include *Limited Industrial* (ML), *Limited Industrial with a Transit Overlay Zone* (ML-T), *Planned Community* (P), Commercial-*Office* (CO), *Commercial/ Residential-Arterial* (CRA), *Commercial-Neighborhood* (CN), and *Multi-family Residential* (R3-2). An East Whisman Precise Plan zoning district is proposed to allow for residential uses, hotel uses, and increased office development consistent with the General Plan text and map changes described above.

SUMMARY OF SIGNIFICANT IMPACTS WITH MITIGATION

The following table summarizes the significant impacts of the Precise Plan that (with the implementation of mitigation measures) would be reduced to a less than significant level. Impacts that are less than significant are not included in this summary but can be found in the text of this EIR.

Significant Impact	Mitigation Measures
Air Quality	
Impact AQ-3: Emissions of criteria pollutants during construction of future project under the Precise Plan could exceed Bay Area Air Quality Management District (BAAQMD) thresholds and result in a significant impact.	**MM AQ-3.1:** Construction criteria pollutant and toxic air contaminant quantification shall be required on individual projects developed under the Precise Plan once construction equipment and phasing details are available through modeling to identify impacts and, if necessary, include measures to reduce emissions below the applicable BAAQMD construction thresholds. Reductions in emissions can be accomplished through, not limited to, the following measures: • Construction equipment selection for low emissions; • Use of alternative fuels, engine retrofits, and added exhaust devices; • Low-VOC paints; • Modify construction schedule; and • Implementation of BAAQMD Basic and/or Additional Construction Mitigation Measures for control of fugitive dust.
Hazardous Materials	
Impact HAZ-3: Future construction and demolition activities could expose construction workers, the environment, and area residents to potentially unacceptable health risks from contaminated	**MM HAZ-3.1:** Prior to the start of any redevelopment activity, a property-specific Phase I Environmental Site Assessment (ESA) shall be completed in accordance with ASTM Standard Designation E 1527-13 to identify Recognized Environmental Conditions, evaluate the property history, and establish if the property is likely to have been impacted by chemical releases. Soil, soil vapor, and/or groundwater quality studies shall subsequently be conducted, if warranted based on the findings of the property-specific Phase I ESAs, to evaluate if mitigation measures are needed to protect the health and safety of construction workers, the environment, and area residents.

groundwater, soils, and soil gas.	At properties identified as being impacted or potentially impacted by Recognized Environmental Conditions as part of the property-specific Phase I ESA or subsequent studies, a Site Management Plan (SMP) shall be prepared prior to development activities to establish management practices for handling contaminated soil, soil vapor, groundwater, or other materials during construction activities. The SMP shall be prepared by an Environmental Professional and submitted to the overseeing regulatory agency (e.g., United States Environmental Protection Agency, Regional Water Quality Control Board and/or County Department of Environmental Health) for review and approval prior to commencing construction activities. Management of site risks during earthwork activities in areas where impacted soil, soil vapor, and/or groundwater are present or suspected, shall be described. Worker training requirements, health and safety measures and soil handling procedures shall be described. The SMP shall also be submitted to the City of Mountain View Planning Division for review.
Noise	
Impact NOI-4: Construction activities during implementation of the Precise Plan could result in significant groundborne vibration-related impacts to existing structures.	**MM NOI-4.1:** Use drilled piles (which cause lower vibration levels) where geological conditions permit their use. In areas where project construction is anticipated to include vibration-generating activities, such as pile driving or use of vibratory rollers, in close proximity to existing structures, site-specific vibration studies should be conducted to determine the area of impact and to identify appropriate mitigation measures which may include the following: • Identification of sites that would include vibration compaction activities such as pile driving and have the potential to generate ground-borne vibration, and the sensitivity of nearby structures to ground-borne vibration. Vibration limits should be applied to all vibration-sensitive structures located within 200 feet of the project. A qualified structural engineer should conduct this task. • Development of a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions. • Construction contingencies would be identified for when vibration levels approached the limits. • At a minimum, vibration monitoring should be conducted during initial demolition activities and during pile driving activities. Monitoring results may indicate the need for more or less intensive measurements.

	• When vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures. • Conduct post-survey on structures where either monitoring has indicated high levels or complaints of damage has been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities.
Transportation	
Impact TRA-4: Street C would result in increased light rail vehicle delay due to the slower train speeds through the crossing, disrupting the existing facility.	**MM TRA-4.1:** The proposed Street C shall be removed from the Precise Plan and replaced with a grade-separated multi-use path (public pedestrian and bicycle access). This improvement would eliminate disruption of the existing light rail facility and there would be no impact.
Utilities and Service Systems	
Impact UTL-1: Future large-scale, site-specific development projects associated with implementation of the Precise Plan could result in impacts to the existing water, sewer, and storm drainage infrastructure. Proposed new development may require upsizing and/or improvements to nearby water distribution, sewer, and storm drainage infrastructure to accommodate growth associated with larger projects.	**MM UTL-1.1:** The City shall require, determined on a project by project basis, the preparation of a site-specific utility analysis of applicable water, sewer, and stormwater infrastructure systems adjacent to and downstream of the project site to identify capacity issues. The utility impact analysis will be submitted to the Planning Division as part of future project applications. The analysis will determine the proportional utility impact fees to be paid under the nexus study and will identify any other utility infrastructure improvements required as a result of individual projects.

SIGNIFICANT UNAVOIDABLE IMPACTS

The project would result in a significant unavoidable impact with regard to:

- Transit delay at intersections with a deficient level of service
- Project-level and cumulative-level VMT impact due to project generated vehicle miles traveled (VMT) on both a citywide and countywide basis.

UNAVOIDABLE TRANSPORTATION DEFICIENCIES

The Precise Plan would result in unavoidable peak-hour automobile level of service (LOS) deficiencies at two intersections under existing plus project condition and 11 intersections under cumulative plus project conditions where LOS improvements are not feasible. Under existing plus project conditions, there are 151 cases where the addition of project traffic results in unacceptable freeway operations (for HOV lanes, normal travel lanes, and in the AM and PM peak hours) and 281 cases under cumulative plus project conditions where freeway segments operate unacceptably. These deficiencies are not considered significant unavoidable impacts under CEQA as a result of recent state legislation. However, for consistency with City of Mountain View, neighboring city, and Congestion Management Agency policies, this analysis is included and disclosed in Section 3.15 Transportation and the project-level Transportations Analysis included as Appendix H.

SUMMARY OF ALTERNATIVES

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) identify alternatives to the project as proposed. The CEQA Guidelines state that an EIR must identify alternatives that would feasibly attain the most basic objectives of the project, but avoid or substantially lessen significant environmental impacts, or further reduce impacts that are considered less than significant with the incorporation of mitigation measures. A summary of project objectives and project alternatives follows. A full analysis of project alternatives is provided in Section 6.0 Alternatives.

Project Objectives

Pursuant to CEQA Guidelines Section 15124, the EIR must include a statement of the objectives. The Precise Plan specified objectives are as follows:

- Create a sustainable, transit-oriented residential neighborhood and employment center with an increased diversity of land uses, multiple mobility choices, numerous high-quality open spaces, vibrant local and local-serving businesses, and housing options for all incomes and stages of life.
- Ensure East Whisman is anchored by a central open space, surrounded by the area's highest-intensity transit-oriented commercial and residential buildings. Buildings would be smallest adjacent to existing neighborhoods and designed to respect their scale and character.
- Develop a central Mixed-Use Area featuring a complete neighborhood, with stores, services and restaurants for residents, neighbors, and workers, and a range of plazas and open spaces throughout the area. Office and residential buildings would be integrated compatibly, and older industrial buildings remodeled or redeveloped into attractive developments that further support the area's vision.
- Foster North and South Employment Areas containing office campuses with significant landscaping and open areas and limited surface parking. These campuses would buffer the residential areas from major freeways and Moffett Field, but still provide public spaces that serve the surrounding community.
- Enliven East Whisman through the presence of the Village Center, a cluster of local-serving retail and services located at East Middlefield and North Whisman Roads. The Village Center

would be a welcoming gateway into the neighborhood and provides convenient access to shopping and other daily needs and services for residents and employees who live in and around East Whisman.

- Enhance pedestrian and bicycle connections to the surrounding region, light rail, services, housing, and employers, creating a range of new public spaces and transportation options. Active transportation would be promoted through wide sidewalks covered with tree canopy, ample bicycle lanes on public streets, and an active, vibrant, and interesting streetscape.

Alternatives Considered but Rejected

Location Alternative

Since no suitable alternative site was found that could meet the basic objectives specified in the Precise Plan and General Plan and suitably reduce the significant traffic and transit delay impacts, a Location Alternative was not analyzed further.

Design Alternative – Reduced Parking

Reduction in the commercial and residential parking maximums from the parking ratios described in the Precise Plan was not considered feasible at this time given the currently limited multi-modal infrastructure and services available to the area. Further, it would not be guaranteed that a parking reduction would eliminate the project VMT impact given that increased traffic from rideshare companies would potentially occur if car ownership was not feasible due to an overall lack of parking. For these reasons, a Design Alternative with reduced Parking was not further considered.

Analyzed Alternatives

No Project Alternative

This alternative would include the construction of small amounts of new office under the existing zoning standards. The No Project Alternative would lessen the transit delay impact to less than significant because increases in traffic would not occur. While feasible, it would be unlikely to reduce the significant, unavoidable vehicle miles traveled (VMT) impact associated with the existing project-generated VMT per service population. The No Project Alternative would not meet any project objectives related to creating a mixed-use, transit-oriented development.

Additional Housing Alternative

This alternative would reduce the significant and unavoidable VMT impact to a less than significant level. The transit delay impact would remain significant due to increases in area traffic. The already less than significant GHG impact would be further lessened. The Additional Housing Alternative would meet project objectives related to creating a mixed-use, transit-oriented development; however, the lack of office development would not be consistent with the specified General Plan East Whisman Change area policies calling for greater office intensity.

Reduced Office Alternative

The Reduced Office Alternative would increase the severity of the VMT impact. Further, the transit delay impact would remain significant due to increases in area traffic. GHG emissions per service population would also increase. The Reduced Office Alternative would meet project objectives related to creating a mixed-use, transit-oriented development; though with lesser office intensity.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines state than an EIR shall identify an environmentally superior alternative. If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (Section 15126.6(e)(2)).

The Additional Housing Alternative would be the environmentally superior alternative because it would reduce significant, unavoidable VMT impact to a less than significant level.

AREAS OF KNOWN CONTROVERSY

The traffic impacts of higher density development have been raised as concerns by members of the public during public meetings. The need for open space and multimodal transportation infrastructure have been raised as issues at community workshops held in 2016. Known areas of controversy also include:

- Jobs-Housing Balance issues (e.g., long commutes, VMT, regional equity)
- Housing costs
- Residential and small-business displacement
- Need for adequate open space and neighborhood commercial uses to serve the new residents
- Impacts to school facilities
- Preservation of adjacent neighborhood character
- Groundwater contamination within and outside of the identified Superfund site

SECTION 1.0 INTRODUCTION

The City of Mountain View, as the Lead Agency, has prepared this Draft Environmental Impact Report (EIR) for the East Whisman Precise Plan in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

1.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

As described in CEQA Guidelines Section 15121(a), an EIR is an informational document that assesses potential environmental impacts of a proposed project, as well as identifies mitigation measures and alternatives that could reduce or avoid adverse environmental impacts. As the CEQA Lead Agency for this project, the City of Mountain View is required to consider the information in this EIR (along with other available information) in deciding whether to approve the project. It is not the intent of an EIR to recommend either approval or denial of a project.

1.1.1 Purpose of an EIR

The purpose and role of an EIR are detailed in CEQA and the CEQA Guidelines. This document provides a program-level environmental review appropriate for the East Whisman Precise Plan project in accordance with CEQA Guidelines Sections 15121, 15145, 15146, 15151, and 15168. The CEQA Guidelines state that the advantage of program-level analysis is that an EIR can avoid duplicate consideration of basic policy considerations and look at broad policy alternatives and program-wide mitigation measures at an early time when there is greater flexibility to deal with basic problems or cumulative impacts.

The following CEQA Guidelines clarify the role of an EIR.

Section 15121(a). Informational Document. An EIR is an informational document, which will inform public agency decision makers, and the public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR, along with other information which may be presented to the agency.

Section 15145. Speculation. If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impacts.

Section 15146. Degree of Specificity. The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.

(a) An EIR on a construction project will necessarily be more detailed in the specific effects of a project than will an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy.

(b) An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction project that might follow.

Section 15151. Standards for Adequacy of an EIR. An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently considers environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good-faith effort at full disclosure.

Section 15168. Program EIR.

(a) General. A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either: (1) Geographically, (2) A

logical parts in the chain of contemplated actions, (3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

(b) Advantages. Use of a program EIR can provide the following advantages. The program EIR can: (1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action, (2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis, (3) Avoid duplicative reconsideration of basic policy considerations, (4) Allow the Lead Agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and (5) Allow reduction in paperwork.

(c) Use with Later Activities. Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared. (1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration. (2) If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required. (3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program. (4) Where the subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR. (5) A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within

the scope of the project described in the program EIR, and no further environmental documents would be required.

(d) Use with Subsequent EIRs and Negative Declarations. A program EIR can be used to simplify the task of preparing environmental documents on later parts of the program. The program EIR can: (1) Provide the basis in an Initial Study for determining whether the later activity may have any significant effects. (2) Be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole. (3) Focus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before.

(e) Notice with Later Activities. When a law other than CEQA requires public notice when the agency later proposes to carry out or approve an activity within the program and to rely on the program EIR for CEQA compliance, the notice for the activity shall include a

statement that: (1) This activity is within the scope of the program approved earlier, and (2) The program EIR adequately describes the activity for the purposes of CEQA.

Section 15152. Tiering.

(a) "Tiering" refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.

(b) Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including general plans, zoning changes, and development projects. This approach can eliminate repetitive discussions of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy, or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration.

1.2 EIR PROCESS

1.2.1 Notice of Preparation and Scoping

The City of Mountain View, as required under CEQA, encourages public participation in the environmental review process. Opportunities for comments by public agencies and the public include responding to the Notice of Preparation (NOP), written comments on this Draft EIR, and presentation of written or verbal comments at public hearings.

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, the City of Mountain View prepared a NOP for this EIR. The NOP was circulated to local, state, and federal agencies on August 17, 2017. The standard 30-day comment period concluded on September 15, 2017. The NOP provided a general description of the proposed project and identified possible environmental impacts that could result from its implementation. The City of Mountain View also held a public scoping meeting on September 7, 2017 to discuss the project and solicit public input as to the scope and contents of this EIR. The meeting was held at Mountain View City Hall. Appendix A of this EIR includes the NOP and comments received on the NOP.

1.2.2 Review Process and Tiering

This Draft EIR includes descriptions of the physical environment in the vicinity of the project, as those conditions existed at the time the NOP was circulated. The consideration and discussion of environmental impacts that follow evaluate whether the environmental effects are significant; that is: do those effects exceed stated levels, or "thresholds of significance." Mitigation measures, proposed to minimize the identified significant environmental effects, are also described in the discussion of environmental impacts and mitigation measures, per CEQA Guidelines Section 15126.

The City of Mountain View adopted the Mountain View 2030 General Plan and Greenhouse Gas Reduction Program (GGRP) and certified the General Plan and Greenhouse Gas Reduction Program

EIR in July 2012. The General Plan is the guiding document for future growth of the City. The GGRP is a separate but complementary document and long-range plan that implements the greenhouse gas emissions reduction goals of the General Plan and serves as a programmatic greenhouse gas reduction strategy for CEQA tiering purposes. In accordance with the CEQA Guidelines Section 15152, this EIR tiers off of and incorporates by reference the City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report (SCH No. 2011012069), including all appendices thereto (General Plan EIR), certified by the Mountain View City Council on July 10, 2012.

1.2.3 Draft EIR Public Review and Comment Period

Under CEQA, the Lead Agency is required, after completion of a Draft EIR, to solicit comments from public agencies having jurisdiction by law with respect to the proposed project, and to provide the general public with an opportunity to comment on the Draft EIR. Written comments concerning the environmental review contained in this Draft EIR must be received by the Lead Agency at the following address before 5:00 p.m. on the last day of the 45-day public review and comment period, which will run from June 7, 2019 through July 22, 2019. Notice of this Draft EIR will be sent directly to every agency, person, and organization that commented on the NOP.

Written and verbal comments may also be presented at scheduled public hearings as part of certification of the Final EIR; however, only comments received during the specified 45-day public review and comment period will be provided written responses in the Final EIR. Written comments can be directed to the City of Mountain View, Community Development Department:

City of Mountain View
Community Development Department
Attention: Eric Anderson, AICP, Senior Planner
500 Castro Street
Mountain View, CA 94039
(650) 903-6306
Eric.Anderson2@mountainview.gov

This EIR is available for review as follows:

City of Mountain View
Community Development Department
City Hall, 1st Floor
500 Castro Street
Mountain View, CA 94041
Main Phone Number: (650) 903-6306
Website:
https://www.mountainview.gov/depts/comdev/planning/activeprojects/eastwhisman.asp

Counter and Phone Hours:
Monday to Friday: 8:00 a.m. to 4:00 p.m.

Mountain View Public Library

585 Franklin Street
Mountain View, CA 94041
Phone: 650-903-6887

Library Hours:
Monday to Thursday: 10:00 a.m. to 9:00 p.m.
Friday to Saturday: 10:00 a.m. to 6:00 p.m.
Sunday: 1:00 p.m. to 5:00 p.m.

1.2.4 Final EIR/Responses to Comments

Following the conclusion of the 45-day public review period, the City of Mountain View will prepare a Final EIR in conformance with CEQA Guidelines Section 15132. The Final EIR will consist of:

- Revisions to the Draft EIR text, as necessary;
- List of individuals and agencies commenting on the Draft EIR;
- Responses to comments received on the Draft EIR, in accordance with CEQA Guidelines (Section 15088);
- Copies of letters received on the Draft EIR.

Section 15091(a) of the CEQA Guidelines stipulates that no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings. If the lead agency approves a project despite it resulting in significant adverse environmental impacts that cannot be mitigated to a less than significant level, the agency must state the reasons for its action in writing. This Statement of Overriding Considerations must be included in the record of project approval.

1.2.5 Notice of Determination

If the project is approved, the City of Mountain View will file a Notice of Determination (NOD), which will be available for public inspection and posted within 24 hours of receipt at the County Clerk's Office for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA Guidelines Section 15094(g).

SECTION 2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The 412-acre East Whisman Precise Plan (Precise Plan) area includes approximately 100 parcels and is located on the eastern border of the City of Mountain View in northern Santa Clara County. The Precise Plan area is generally bordered by US 101 and Moffett Federal Airfield/NASA Ames Research Center to the north, North Whisman Road to the west, Central Expressway to the south, and the City of Sunnyvale to the east (where a municipal golf course, office, and residential uses currently exist). A regional map, vicinity map, and aerial photo of the Precise Plan area are shown on Figure 2.2-1, Figure 2.2-2, and Figure 2.2-3, respectively.

The Santa Clara Valley Transit Authority (VTA) Light Rail Transit (LRT) line travels across the Precise Plan area in the north/south direction. The Middlefield LRT Station is located within the Precise Plan area. State Route (SR) 237 passes through the southeastern portion of the Precise Plan area.

2.2 BACKGROUND AND OVERVIEW

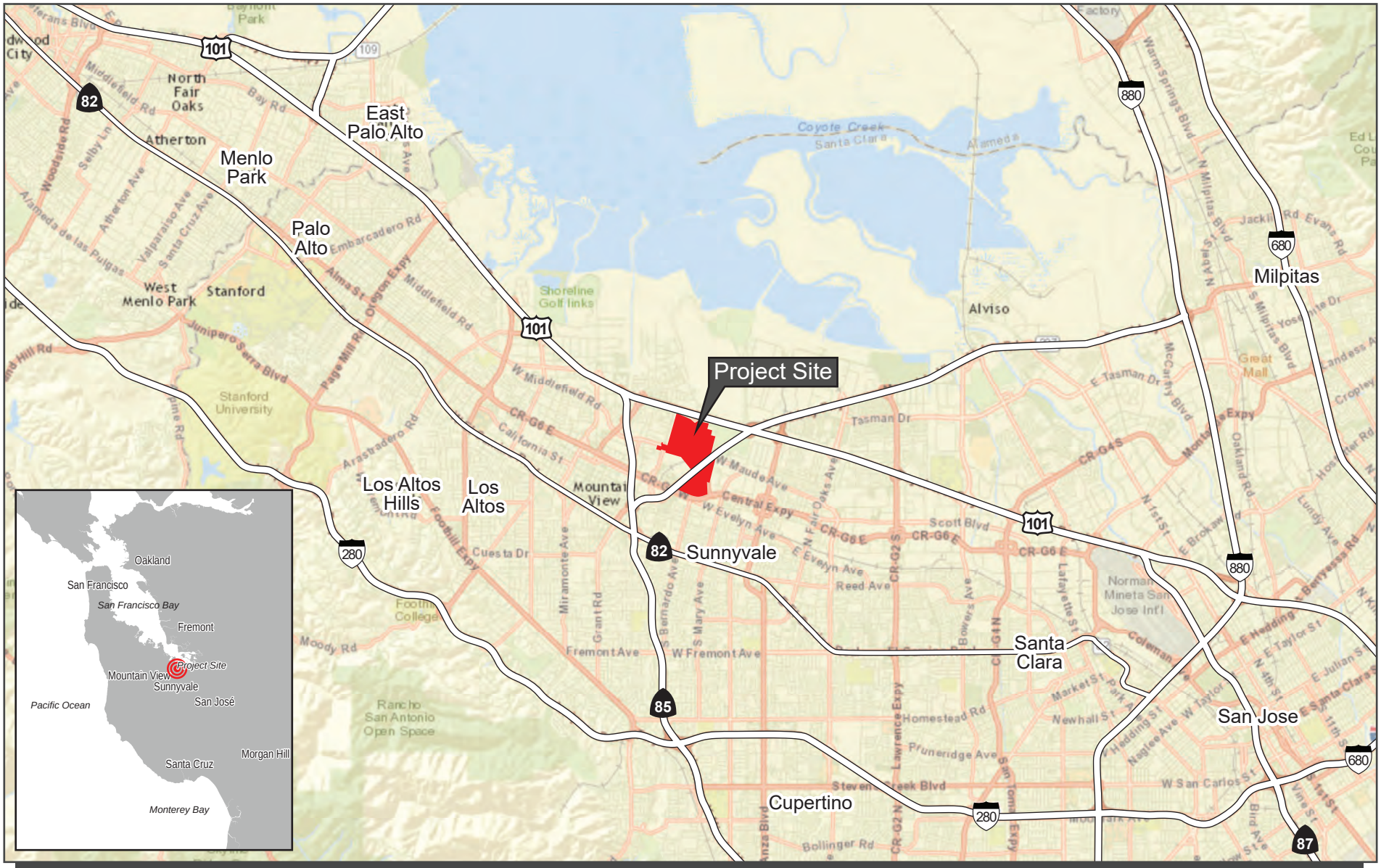
East Whisman is a major employment center in the City of Mountain View with approximately 5.7 million square feet of office, R&D, and light-industrial uses. The area is distinguished from the surrounding (mostly residential) neighborhoods by its campus-style development, generally with large surface parking lots surrounding office buildings that vary in height from one story for older structures to six stories for more recent buildings. These office buildings are located on large blocks with limited internal multimodal and vehicular interconnectivity.

Commercial service and retail uses are present at the intersection of North Whisman Road and East Middlefield Road, but are otherwise limited in the rest of the Precise Plan area. One single-family residential unit currently exists in the plan area (on Middlefield Road) but there are no hotels.
In 2012, the City of Mountain View adopted a new general plan to guide development and growth through 2030. East Whisman is identified specifically as a "change area" in the Mountain View 2030 General Plan (General Plan).[2]

Envisioned in this change area was an improved multimodal transportation network, a specific, transit-oriented center around the Middlefield Station, and a greater diversity and density of land uses. The General Plan identified the need to update the area's zoning and development standards to accommodate the General Plan vision through a Precise Plan process.

Precise Plans are defined in Section 36.70 of the Mountain View Municipal Code. The City has 32 active Precise Plans. Most recently, the San Antonio, El Camino, and North Bayshore Precise Plans were adopted in 2014 to provide zoning and design standards for those change areas identified in the General Plan.

[2] The 17.5-acre area south of Evelyn Avenue/Central Expressway known as the *111 Ferry-Morse Way Precise Plan (P29)*, which was included in the East Whisman Change Area identified in the 2030 General Plan, is not included in the currently proposed East Whisman Precise Plan.



REGIONAL MAP | FIGURE 2.2-1

VICINITY MAP | FIGURE 2.2-2

AERIAL PHOTOGRAPH | FIGURE 2.2-3

2.3 PROJECT DESCRIPTION

The proposed project is a City-initiated Precise Plan for the area identified in the Mountain View 2030 General Plan as the East Whisman Change Area. The Precise Plan provides a vision and guiding principles, development standards, and design guidelines for the properties in this area, in conformance with the General Plan vision. The public draft East Whisman Precise Plan is attached to this Draft EIR as Appendix B.

The majority of the Precise Plan area is General Plan designated *High Intensity Office* with a small area along East Middlefield Road west of North Whisman Road designated *Neighborhood Mixed-Use*, and a single property on Middlefield Road designated *Medium Density Residential*. The proposed Precise Plan would update the General Plan, adding a new *East Whisman Mixed-Use* designation. It would also consolidate the zoning designations included in the project area into a single East Whisman Precise Plan zoning district, under Section 36.22 of the City's Municipal Zoning Ordinance. The existing zoning districts in the East Whisman Precise Plan area include *Limited Industrial* (ML), *Limited Industrial with a Transit Overlay Zone* (ML-T), *Planned Community* (P), Commercial-*Office* (CO), *Commercial/ Residential-Arterial* (CRA), *Commercial-Neighborhood* (CN), and *Multi-family Residential* (R3-2).

The proposed Precise Plan would allow an increase in the intensity of office, commercial, hotel, and residential uses within the area. Specifically, the proposed Precise Plan would include up to 2.3 million square feet of net new office uses (and assumes conversion of approximately 2.2 million square feet of industrial and R&D space to office uses), 100,000 square feet of retail uses, 200 hotel rooms, and 5,000 multi-family residential units (with goal of 20 percent of the residential units being affordable).

The existing and proposed land use growth allocations for the Precise Plan area are included in Table 2.3-1 below.

Table 2.3-1: Approximate Precise Plan Growth Allocation by Land Use

Land Use Type	Unit	Existing (2017)	Existing with Precise Plan	Change
Office	Square Feet	3,097,116	7,609,932	+4,512,816
R&D		2,461,140	396,396	-2,064,744
Light Industrial		196,020	47,480	-148,540
Retail		43,124	103,237	+60,113
Restaurant		10,454	50,530	+40,076
Hotel	**Rooms**	**0**	**200**	**+200**
Total Commercial Uses	**Acres**	**133.3**	**188.4**	**+55.1**
Single-Family Residential	Units	1	100	+99
Multi-Family Residential		0	4,900	+4,900
Total Residential	**Units**	**1**	**5,000**	**+4,999**
Source: City of Mountain View GIS. 2017.				

The Precise Plan also includes new and enhanced parks, trail corridors, and public streets. The Precise Plan establishes an overall goal of 30 acres of publicly accessible open space to serve the projected 10,000 residents of the Precise Plan area (meeting the City's standard of three acres of dedicated public park land per 1,000 residents).

2.3.1 Precise Plan Land Use and Design

The proposed Precise Plan area includes three zones (known as Character Areas), as shown in Figure 2.3-1. Character Areas establish numerical targets to facilitate a mix of land uses, activities, public open spaces, and amenities. Each Character Area sets explicit targets for residential units, office development, neighborhood commercial, and open space. The allowed land uses, development standards, and building placement and massing regulations are also dictated by the Character Areas.

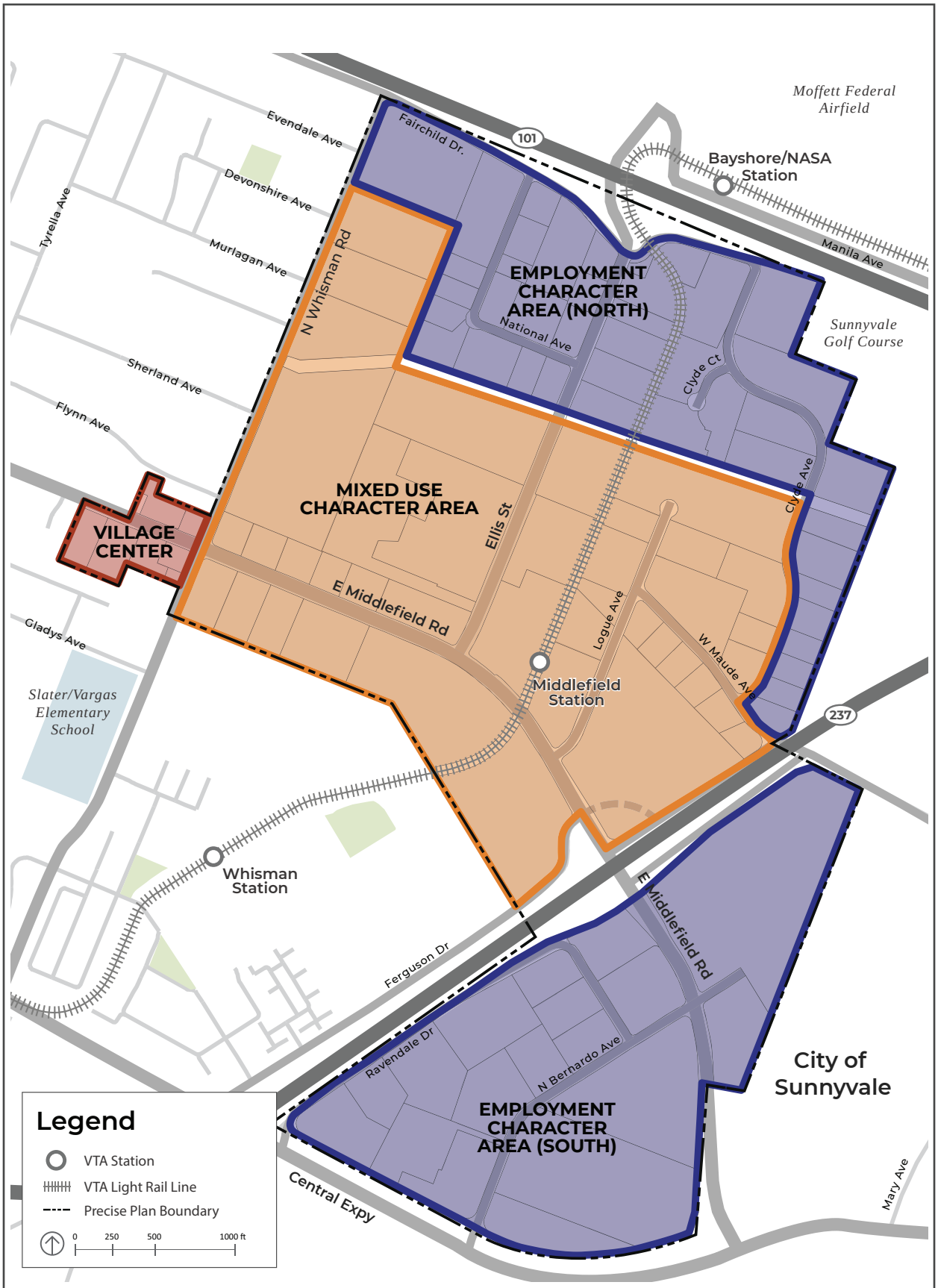
- **Mixed-Use Area.** This area is centered on the Middlefield Station and is bounded by the San Francisco Public Utilities Commission (SFPUC) right-of-way, SR 237, North Whisman Road, and Clyde Ave. A mix of neighborhood commercial and office uses would be allowed, as well as the majority of the 5,000 residential units associated with the Precise Plan.

  The Mixed-Use area is envisioned as a transit-oriented district focused around the light-rail station. Building facades would be continuous near the street. Active, pedestrian-oriented ground floors with variation and interest, including stoops, frequent entrances, and storefronts would be required. The highest intensity buildings would be located near the Middlefield Light Rail Station, transitioning to lower intensities near North Whisman Road. Neighborhood commercial uses would be allowed anywhere but would be focused on Middlefield Road near Ellis Street and the light-rail station.

- **Village Center.** This small area includes several parcels west of North Whisman Road along Middlefield Road. The Village Center Character Area would include a mix is uses, with a focus on neighborhood-serving retail and service uses; as well as small amounts of residential and office uses. At a minimum, the existing amount of retail and service uses would be maintained and ground-floor neighborhood commercial uses are required. Development at the edges of the Village Center would be consistent in scale with surrounding neighborhoods.

- **Employment Area North.** The Employment Area North includes parcels north of the SFPUC right-of-way, near the Bayshore/NASA light-rail station. A mix of moderate-and higher-intensity office uses are envisioned. Hotels would be allowed in certain locations. Additional neighborhood commercial uses would be allowed anywhere but would be focused near Ellis Street Highway 101 in the north. New buildings in the area would be subject to applicable height limits established by the Moffett Field Comprehensive Land Use Plan (CLUP), 182 feet above mean sea level.

Employment Area South. The Employment Area South encompasses parcels south and west of SR 237. A mix of low- to high-intensity office, R&D, and light industrial or similar employment uses would be allowed. Additionally, neighborhood commercial uses would be allowed anywhere in the Employment Area South Character Area but would be focused near North Bernardo Avenue and East Middlefield Road. New multimodal connections would be provided to surrounding neighborhoods.

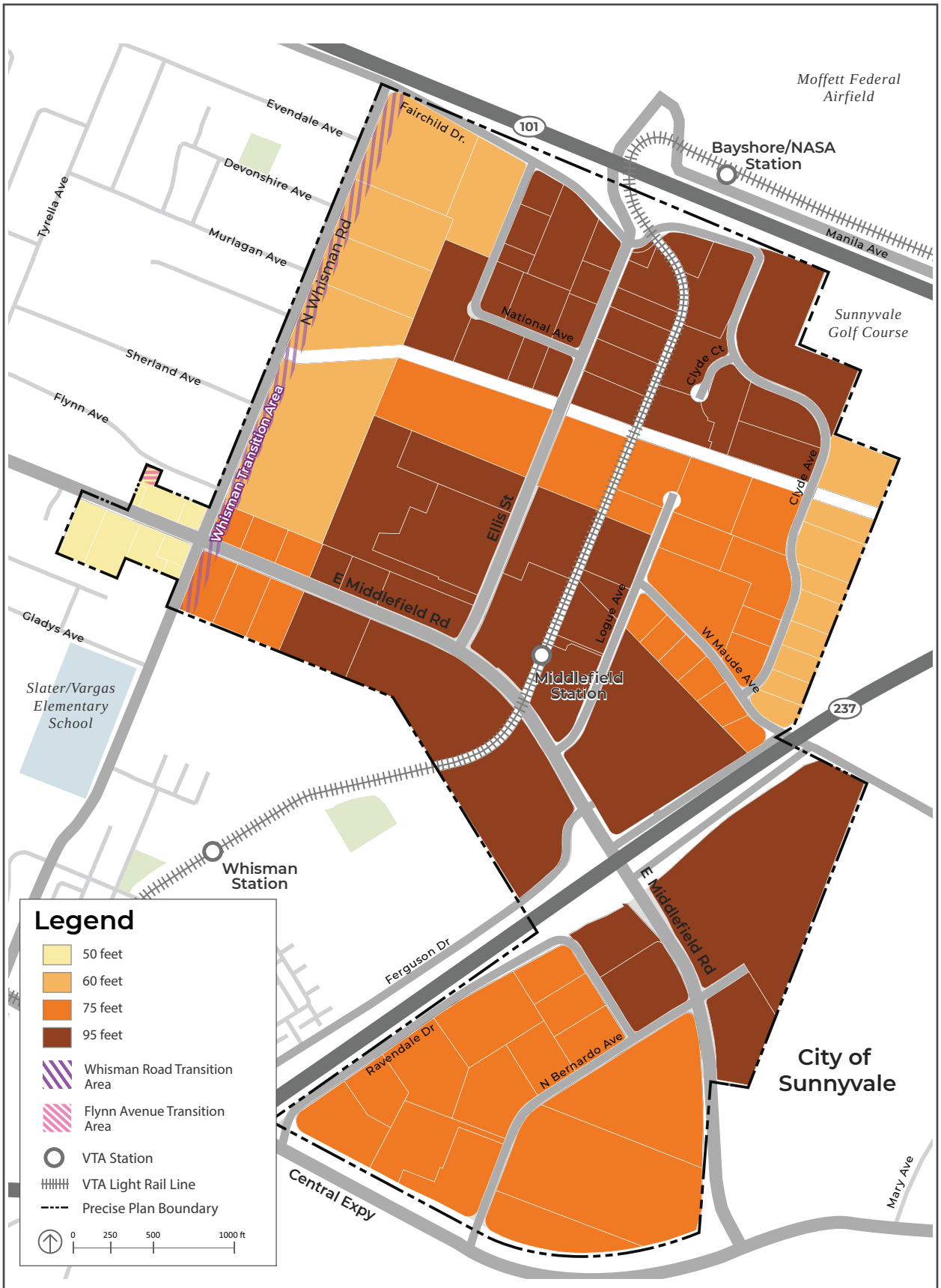


PROPOSED CHARACTER AREAS | FIGURE 2.3-1

The development targets for each of the three Character Areas are summarized in the Table 2.3-2, which follows. Maximum allowed building heights are shown in Figure 2.3-2. To achieve balanced growth, the Precise Plan contains phased benchmarks to ensure that office and residential growth occur in tandem to achieve a jobs/housing balance for the area. This strategy is described as the Jobs/Housing Linkage within the Precise Plan (see Section 3.12 Population and Housing for more information).

Table 2.3-2: Character Area Development Summary

Character Area	General Land Use	FAR	Building Height	Open Space	Block Pattern and Circulation
Mixed Use Area	4,900 multi-family residential units, 250,000 to 500,000 square feet of office, 40,000 to 60,000 square feet of neighborhood commercial	Varies from 0.40 to 1.0 for non-residential uses, 1.0 to 3.5 for residential and mixed-use projects, and 2.0 for hotels	Varies from 45 feet (Whisman Road Transition Area) to 95 feet	Target of 14 to 20 acres	400-foot average block lengths, with transit crossings, and new streets connecting Fairchild Drive to East Middlefield Road and connecting North Whisman Road to Logue Avenue
Village Center	100 residential units, 10,000 square feet of office, 20,000 to 40,000 square feet of neighborhood commercial	Varies from 0.40 for non-residential uses, 0.9 to 1.35 for residential and mixed-use projects	Varies from 30 feet (within 100 feet of Flynn Avenue) to 50 feet	Target 0.50-acre	250-foot average block lengths with new multimodal connections
Employment Area North	600,000 to 1,000,000 square feet of offices, 200 hotel rooms, 10,000 square feet of neighborhood commercial	Varies from 0.40 to 1.0 for non-residential uses, and 1.0 to 2.5 for mixed-use hotels	Varies from 45 feet (for the Whisman Road Transition Area) to 100 feet	Target of two to four acres	500-foot average block lengths with new crossings of the SFPUC right-of-way and Clyde Court connected to Logue Avenue
Employment Area South	800,000 to 1,350,000 million square feet of office, 10,000 square feet of neighborhood commercial			Target of four to six acres	600-foot average block lengths



MAXIMUM BUILDING HEIGHTS | FIGURE 2.3-2

2.3.2 Precise Plan Strategies

The Plan includes planning and policy strategies that provide direction and guidance related to land use targets, height and floor area ratios, multimodal circulation, open space, transportation demand management (TDM), jobs-housing balance, and schools. Several of these strategies are described below.

2.3.2.1 *Height and FAR*

The Precise Plan allows taller buildings and greater development intensity near both light-rail stations. To respect existing context, building heights near the residential neighborhood west of North Whisman Road and development in the Village Center would be less intense and tall than in the mixed-use core. New buildings would conform to the height limits established by the Moffett Field CLUP. Further, development on the east side of North Whisman Road (the Whisman Transition area) would be subject to a reduced maximum height for the first 50 feet, as measured from the back of the sidewalk. This transition area requires that taller buildings step down toward the existing neighborhoods.

To achieve the maximum height and intensities specified in Table 2.3-2, projects must be granted additional bonus FAR. Residential bonus FAR projects would meet the requirements for higher building-level sustainability performance and contribution to public benefits. Office bonus FAR projects would need to facilitate residential development within the Precise Plan area, meet green building requirements, and/or contribute to public benefits.

2.3.2.2 *Jobs-Housing Linkage*

Residential uses in the Precise Plan area would create opportunities for people to live closer to where they work, support greater services and retail, and help to reduce traffic congestion by internalizing trips. The Precise Plan contains a Jobs-Housing Linkage program to ensure that residential development keeps pace with office and R&D growth. New office development requesting bonus FAR would help to facilitate residential development by dedicating land for housing, partnering with a housing development to support its feasibility, and/or other strategies to support housing development. The City would continuously monitor the amount of residential and office growth in East Whisman, especially as it relates to the Development Reserve (which contains 2,200,000 square feet of office, R&D, and industrial floor area).

2.3.2.3 *Affordable Housing*

The development of housing, including affordable housing, is of great importance to the City. The Previse Plan envisions a mixed-use, mixed-income community in East Whisman. The Precise Plan establishes a goal of 20 percent affordable housing that would be achieved through a 15 percent inclusionary housing requirement, which will be required from all residential bonus FAR projects. Additionally, an office development reserve set-aside for the creation of affordable units would be created to provide an incentive for office development to facilitate the construction of affordable housing.

2.3.2.4 *Neighborhood Commercial*

The Precise Plan's Neighborhood Commercial Strategy would support convenient resident and employee access to goods and services. Neighborhood commercial uses include retail, personal services, restaurants, small medical or professional offices, indoor recreation and fitness, and community gathering spaces. Neighborhood commercial uses would be encouraged along major corridors to promote street-level activity through FAR exemptions, parking requirement reductions, and by allowing developers to receive credit towards their community benefits requirements by supporting local neighborhood-serving businesses.

2.3.2.5 *Public Open Space*

New development would be required to address the open space requirement by dedicating land, consistent with the City's Park Land Dedication Ordinance and the requirements of the Precise Plan (as summarized previously in Table 2.3-2 and shown within the Precise Plan). The Precise Plan open space network includes several small mini-parks, a central park or gathering space, and a neighborhood park; with a goal of 30 acres of open space areawide. Linear parks and greenways would also provide recreation opportunities, as would publicly accessible open spaces and plazas at office developments.

2.3.2.6 *Schools*

Residential growth in the Precise Plan area would result in additional demand at the Mountain View-Whisman School District and Mountain View Los Altos High School District. Under the Precise Plan, bonus FAR projects would submit a Local School District Agreement Proposal intended to support new local schools serving the area. Proposals could include (but are not limited to) land dedication for new school development, funding for new school development, and Transfer of Development Rights (TDR) strategies that provide new school facilities.

The City has supported new school development, for example, by authorizing a TDR program that allows the sale of development rights from a Los Altos School District school site to property owners/developers for use at another property. Some projects in the Precise Plan area have been allowed to proceed through the development review process, exceeding the maximum allowed FAR, as a result of the acquisition of school TDR square footage. If repeated, this process may provide additional resources to assist school districts with land acquisition

2.3.2.7 *Streetscapes and Frontages*

The Precise Plan contains design standards and guidelines to foster neighborhood identity. Elements include well-defined streetscapes and corners and building and street frontages that support activity and interest. In order to foster a pedestrian-focused environment, projects along major streets are required to create high-quality public spaces to foster mobility, recreation, and activity.

2.3.2.8 *Multimodal Circulation Network*

The Precise Plan area would have interlinked circulation networks; including light rail, shuttle and bus transit systems; complete streets; multi-use paths, and regional highways. When completed, these circulation networks would increase access to other areas in Mountain View and Sunnyvale, while

facilitating travel within the East Whisman area. Design standards and guidelines for each street in East Whisman are specified within the Precise Plan. High-level mobility goals specified in the Precise Plan include:

- Development of a multimodal area with a focus on complete streets and bicycle and pedestrian connections;
- Establishment of a circulation system that supports transit use (including light-rail transit);
- Creation of safe street and rail crossings; and
- Alignment of the circulation network with City goals to support non-auto travel.

2.3.2.9 *Transportation Demand Management*

Development in the East Whisman area as envisioned in the Precise Plan has the potential to cause traffic impacts. To reduce potential impacts, the Precise Plan includes a long-term trip-reduction target for new office and R&D uses of 0.7 peak-hour trips per 1,000 square feet of floor area in order to reduce congestion at six major "gateways" to the East Whisman area (shown in Figure 2.3-3).[3] This number of trips is lower than the current rate of 1.1 trips per 1,000 square feet of floor area. Vehicle trips into the East Whisman area would be reduced through enforcement of project-specific peak-hour trip caps for new Precise Plan includes priority transportation improvements that focus on ways to enhance walking and bicycling, transit usage, and local street circulation, in order to support TDM targets within the Precise Plan Area.

2.3.3 Precise Plan Design Standards

The following Precise Plan standards would apply to all new development in East Whisman. Standards are requirements that must be followed by project applicants, unless an exception to a standard is noted.

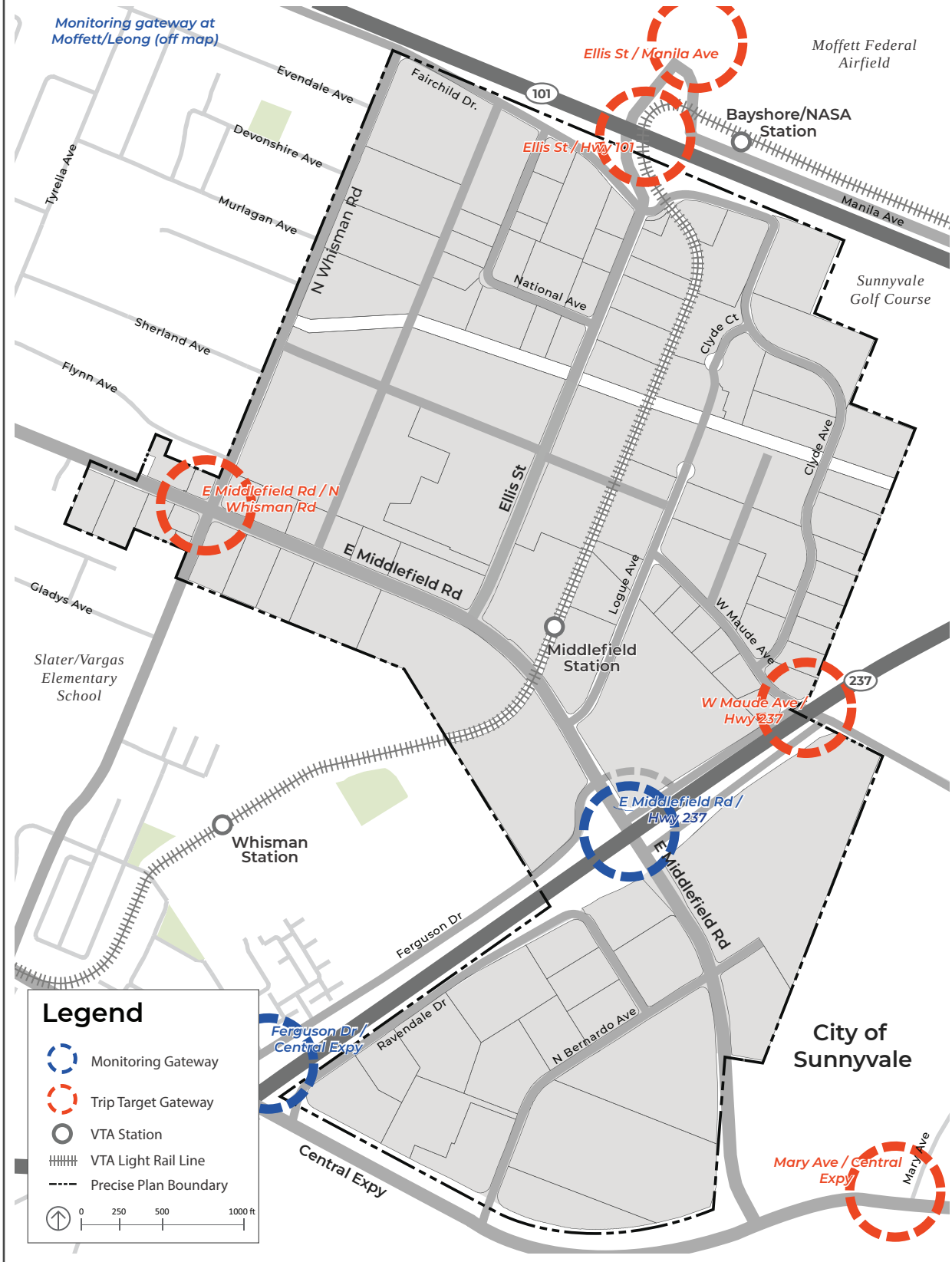
2.3.3.1 *Civic Spaces*

Civic spaces are publicly accessible areas provided by private development. The Precise Plan includes new public streets, publicly accessible paths and service streets, public parks, and other public open spaces. These elements are described further below.

Blocks and Streets

The Precise Plan outlines the existing and proposed circulation network consisting of light rail, complete streets, greenways, multi-use paths, and regional highways. These circulation networks would increase access to other areas in Mountain View and Sunnyvale, as well as facilitating increased access within the Precise Plan area itself.

[3] The modeling in the Transportation Analysis studied an area-wide average a.m. peak-hour rate of 0.92 trips per 1,000 square feet, and an average p.m. peak-hour rate of 0.85. This is more conservative (a greater number of trips) than the Draft Precise Plan target.



EAST WHISMAN TRIP CAP GATEWAYS | FIGURE 2.3-3

Blocks and Streets

The Precise Plan outlines the existing and proposed circulation network consisting of light rail, complete streets, greenways, multi-use paths, and regional highways. These circulation networks would increase access to other areas in Mountain View and Sunnyvale, as well as facilitating increased access within the Precise Plan area itself. Overall block standards for new public pedestrian connections within the proposed Precise Plan are summarized in Table 2.3-2 (above) and new streets and multi-modal connections are shown in Figure 2.3-4. Street typologies are also specified in the Precise Plan. These improvements and/or land dedications would be triggered as part of approval of a development permit, as specified in the Precise Plan.

Parks and Open Space

Neighborhood public open space is included in the Precise Plan, as described in Table 2.3-2, previpously Urban plazas, neighborhood greens/parks, linear parks, playgrounds, pocket parks, tot lots, performance spaces, or other park types are envisioned. Figure 2.3-5 shows the priority open space improvements. The specific locations and sizes for new public parks, plazas, and linear parks would follow the Precise Plan requirements but may be adjusted as part of the City's development permit approval process, as specified in the Precise Plan.

2.3.3.2 *Transportation Demand Management*

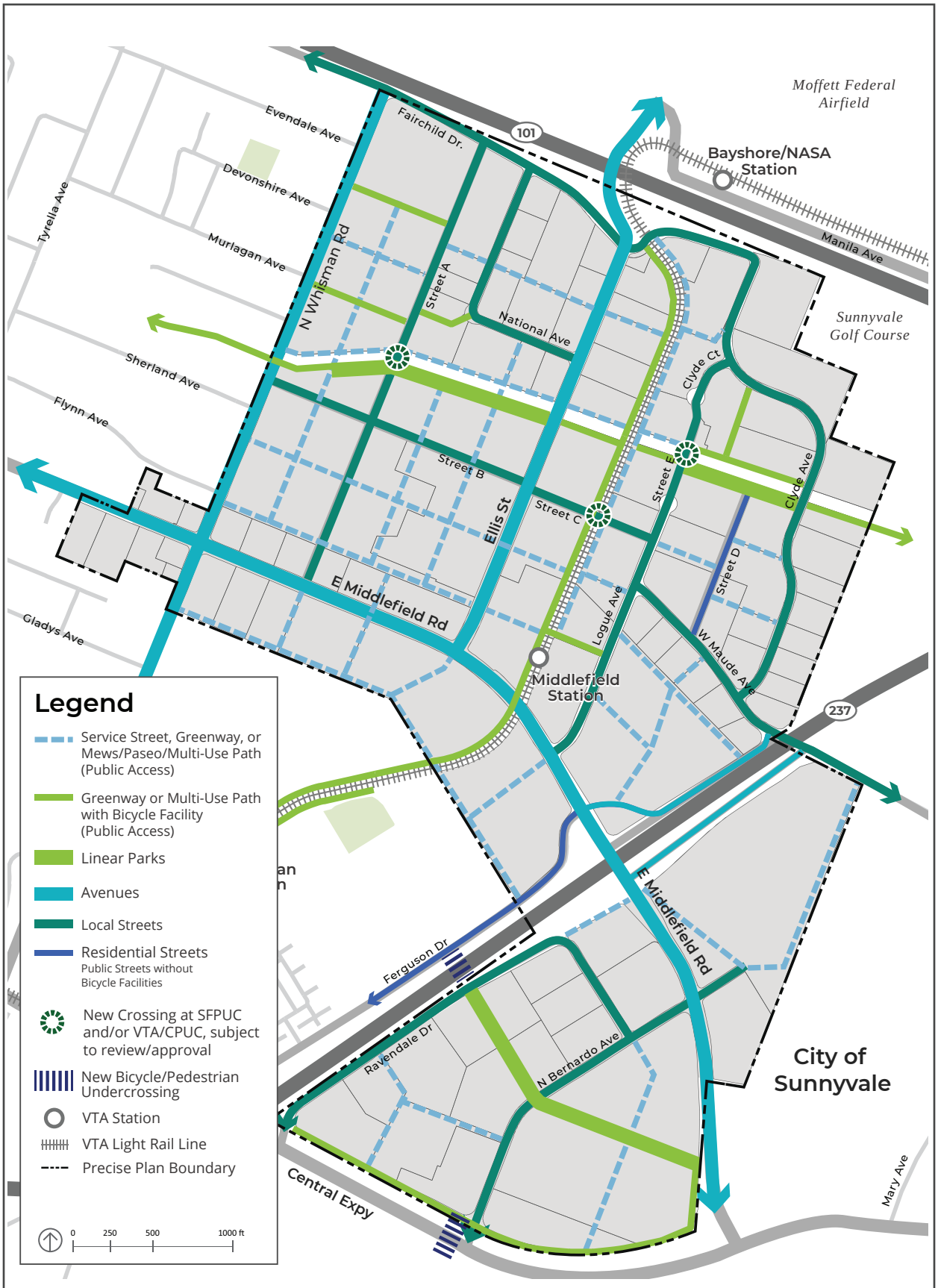
Non-Residential Standards

As specified within the Precise Plan, office and R&D projects with at least 10,000 square feet of new building area and all other non-residential projects with 20,000 square feet of new building area will be required to prepare and implement a TDM plan to reduce vehicle trips. Annual TDM monitoring (based on driveway counts) will be conducted with a report submitted to the City. Non-residential TDM plans will include the following measures:

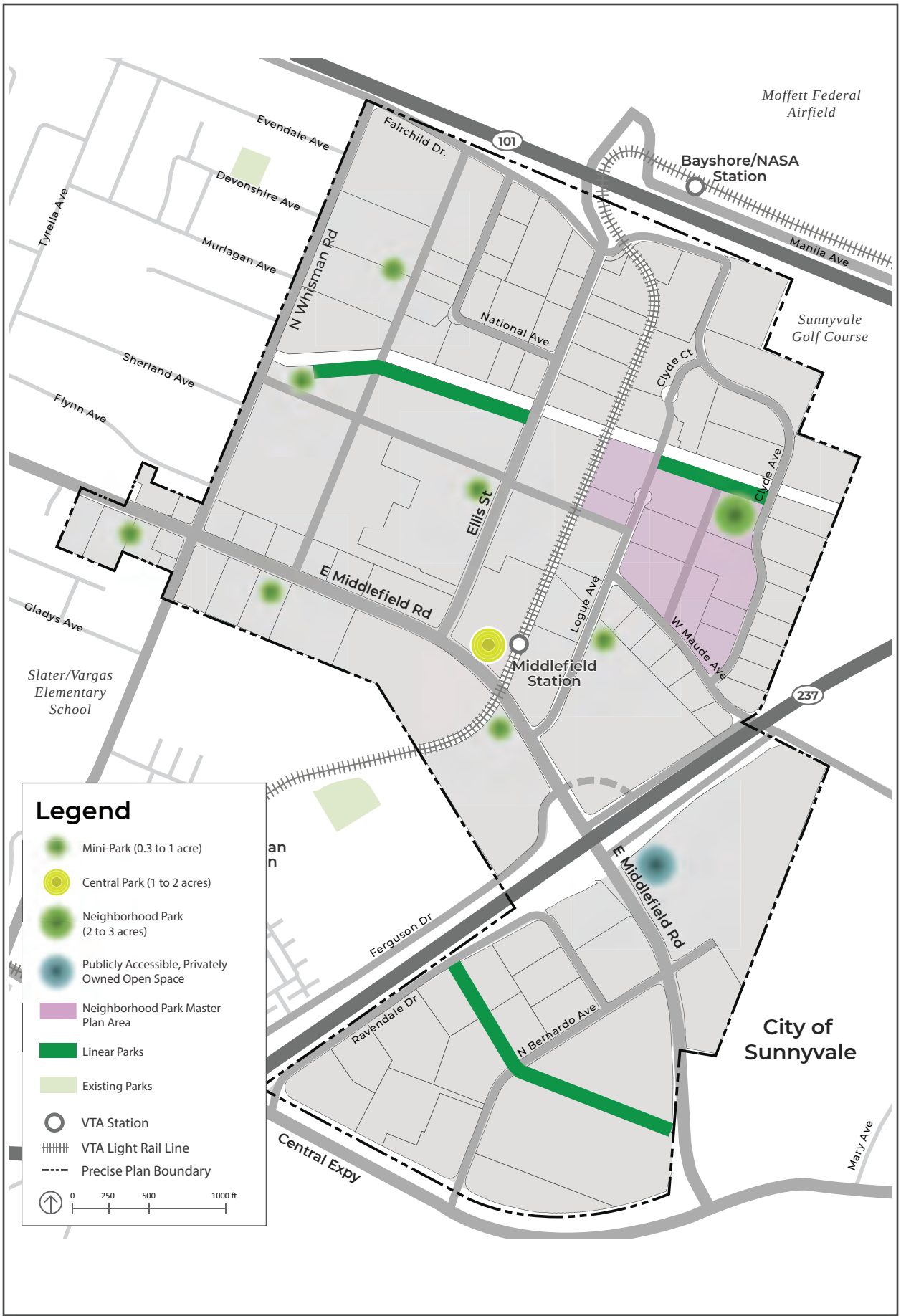
- Priority parking for carpools and vanpools
- Bicycle parking and shower and changing facilities
- Parking maximums and carshare parking
- Site design that supports alternative transportation modes, such as orienting building entrances toward sidewalks, transit stops, and bicycle routes
- TDM coordination, marketing and events
- Transportation Management Agency (TMA) membership
- Monetary incentives, such as subsidized transit passes for employees
- Parking cash out or parking fees.

The TDM plan may also include shared bicycles if a bikeshare service is not already available nearby, parking cash-out, or paid parking program, guaranteed ride program, telecommute support, and alternative work schedules.

The long-term trip cap requirement will be 0.7 peak-hour trips per 1,000 square feet, which may be increased based on capacity-increasing improvements at the gateways identified in Figure 2.3-3.



COMPLETE STREET NETWORK | FIGURE 2.3-4



OPEN SPACE IMPROVEMENTS | FIGURE 2.3-5

Trip-cap requirements in any given year will be established through the Office Trip Cap Phasing Program. Flexibility in meeting the trip-cap requirements in the near-term will be allowed. The trip cap will be adjusted to account for capacity increasing improvements and physical changes in the area, such as the number of residential units, floor area of neighborhood commercial uses, and the extent of constructed multimodal infrastructure. When required trip-cap rates change, TDM plans for existing development will be responsible for lowering their vehicle trips in compliance with the Office Trip Cap Phasing Program.

Residential Standards

New residential projects will be required to prepare and implement a TDM plan with programs and measures to achieve trip-reduction measures consistent with the City's Greenhouse Gas Reduction Program (GGRP), or other most current trip-reduction standard. Annual monitoring will be required with a summary report submitted to the City for review. New residential development will be required to design the following TDM strategies into sites as specified by the Precise Plan:

- Parking maximums, carshare parking, and bicycle parking;
- Provision of a shared, common workspace for residential projects over 100 units;
- Secure storage space for deliveries; and
- Orienting building entrances toward sidewalks, transit stops, and bicycle routes.

Residential TDM plans shall include the following operational measures, or similar:

- TMA membership for residential projects over 100 units;
- Provision of access to shared bicycles;
- Distribution of local transportation information to residents;
- Support for Safe Routes to Schools programs, including coordination of walking school buses and/or bike trains; and
- Monetary incentives such as subsidized transit passes for residents.

2.3.3.3 *Green Building Standards*

The Precise Plan outlines specific standards and guidelines for sustainable planning, building, and design, and encourages new construction to achieve high levels of environmental performance. The Precise Plan builds on the California Green Building Standards Code (CalGreen), the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system, and Build It Green Green-Point rating program. These programs outline performance-based targets and prescriptive measures for site planning and design, energy efficiency, renewable energy, water efficiency and conservation, material conservation and efficiency, and environmental quality.

Green buildings improve air and water quality, conserve natural resources, reduce solid waste, optimize building performance, and minimize the strain on existing infrastructure. The incorporation of green-building standards in the Precise Plan area is a strategy to achieve long-term sustainability and reach General Plan and GGRP-specified goals. As such, the following standards will be required for development occurring under the Precise Plan.

1. **Non-Residential Green Building Standard.** New non-residential construction shall meet the intent of LEED BD+C Gold and implement mandatory CalGreen requirements.
2. **Non-Residential Green Building Bonus FAR Program.** New non-residential construction participating in the Bonus FAR Program shall achieve LEED BD+C Platinum or equivalent.
3. **Residential Green Building Standards Bonus FAR Program.** New residential construction participating in the Bonus FAR Program shall achieve 120 points on the Green Point Rated system or equivalent, and submeter (or use other appropriate technology) to track energy use for each residential unit.
4. **Water Use Performance.** New construction shall meet the baseline indoor and outdoor water performance standards defined by LEED BD+C prerequisites and mandatory CalGreen requirements.
5. **Dual-Plumbed Buildings.** New construction shall install dual plumbing for potable and recycled water use, with potable back-up systems in the event of recycled water outages.
6. **Connection to the Recycled Water System.** When the recycled water system is adjacent to a property, new construction shall install the necessary connective infrastructure. If recycled water is not available, new construction is required to construct the on-site irrigation to be recycled-water-conversion ready, and to connect to the recycled water system once the system is complete.

2.3.3.4 *Bird Safe Building Standards*

To minimize adverse effects on native and migratory birds, new construction and major renovations will be required to incorporate design measures to promote bird safety. These measures reduce building collision fatalities and will apply to development projects in the Precise Plan area.

1. **Façade Treatments.** No more than 10 percent of the surface area of a building's total exterior façade shall have bird-friendly glazing between the ground and 60 feet above ground. Examples of bird-friendly glazing treatments include opaque glass, covering of clear glass surface with patterns, use of paned glass with fenestration patterns, and use of external screens over non-reflective glass.
2. **Occupancy Sensors.** For non-residential development, occupancy sensors or other switch control devices shall be installed on non-emergency lights. These lights should be programmed to shut off during non-work hours and between 10:00 p.m. and sunrise.
3. **Funneling of Flight Paths.** New construction shall avoid funneling of flight paths along buildings or trees towards a building façade.
4. **Skyways, Walkways, or Glass Walls.** New construction and building additions shall avoid building glass skyways or walkways, freestanding glass walls, and transparent building corners. New construction and building additions should minimize the use of glass at tops of buildings, especially when incorporating a green roof into the design.
5. **Exceptions to the Bird Safe Design Requirements.** The City may waive or reduce any of this chapter's bird safe design requirements based on analysis by a qualified biologist indicating that proposed construction will not pose a collision hazard to birds.

2.3.3.5 *Utilities and Service Systems*

Utility improvements are required in East Whisman to support existing and future land uses. Utility studies were completed for the Precise Plan development to ensure that water, sewer, and stormwater infrastructure has capacity to serve future development under the Precise Plan. To serve new development, new and upgraded utilities and infrastructure are required in several locations, as described in Section 3.12 Utilities and Service Systems of this Draft EIR. Additional infrastructure upgrades in East Whisman have been identified separately as part of the City's Storm Drain Master Plan (September 2017) and Citywide Capital Improvement Program activities.

In addition to future land use growth, demand for future utilities is directly related to the effectiveness of the sustainability measures. The Precise Plan includes measures to reduce potable water use, increase recycled water use, reduce energy demand, and capture and treat stormwater runoff, as described in subsequent sections of this EIR.

2.3.3.6 *Project Implementation and Phasing*

As described previously, the proposed East Whisman Precise Plan is intended to facilitate the development envisioned within the General Plan. Individual projects will be evaluated for their conformance with the Precise Plan as they are proposed. Any necessary, site-specific analysis to conform with CEQA requirements will be completed at that time. Implementation of the Precise Plan will require a comprehensive approach that combines future development from the private sector with City actions and resources. Development standards will guide future development, with larger projects contributing to community benefit improvements.

Funding for Infrastructure Improvements

New capital improvements needed to support existing and future development will be funded by a variety of sources with future development contributing to infrastructure costs. A combination of sources will fund the proposed transportation, utility infrastructure, streetscape, and parks and open space improvements that are necessary. The Precise Plan identifies a funding strategy for these various improvement projects. Future private development projects in the Precise Plan area would be required to contribute to infrastructure improvements through the payment of development impact fees and other City-required fees.

Beyond the payment of impact fees and City-required fees, developers may also choose to provide additional community benefit contributions to access Bonus FAR. Further, the City may explore establishment of district-based funding sources for ongoing operations and maintenance needs, such as special assessment and/or facilities maintenance districts.

Environmental Review of Infrastructure Improvements

Many of the infrastructure and transportation improvements will be funded by the development in the Precise Plan area and will be built in existing roadways and utility rights-of-way. These improvements will be constructed as properties are proposed for redevelopment and are not expected to impact sensitive habitat areas or result in other environmental impacts, aside from short-term construction disturbance, including temporary construction noise and air quality impacts. These

improvements include the sewer, water, and stormwater infrastructure upgrades; new streets within the Precise Plan area; and transportation improvements.

Infrastructure improvements will be funded in part by the Precise Plan development. This EIR does not provide CEQA review for these improvements, which would require separate and specific environmental review at the time of implementation.

2.4 PROJECT OBJECTIVES

Pursuant to CEQA Guidelines Section 15124, the EIR must include a statement of the objectives. The Precise Plan specified objectives are as follows:

- Create a sustainable, transit-oriented residential neighborhood and employment center with an increased diversity of land uses, multiple mobility choices, numerous high-quality open spaces, vibrant local and local-serving businesses, and housing options for all incomes and stages of life.
- Ensure East Whisman is anchored by a central open space, surrounded by the area's highest-intensity transit-oriented commercial and residential buildings. Buildings would be smallest adjacent to existing neighborhoods and designed to respect their scale and character.
- Develop a central Mixed-Use Area features a complete neighborhood, with stores, services and restaurants for residents, neighbors, and workers, and a range of plazas and open spaces throughout the area. Office and residential buildings would be integrated compatibly, and older industrial buildings are remodeled or redeveloped into attractive developments that further support the area's vision.
- Foster North and South Employment Areas containing office campuses with significant landscaping and open areas and limited surface parking. These campuses would buffer the residential areas from major freeways and Moffett Field, but still provide public spaces that serve the surrounding community.
- Enliven East Whisman through the presence of the Village Center, a cluster of local-serving retail and services located at East Middlefield and North Whisman Roads. The Village Center would be a welcoming gateway into the neighborhood and provides convenient access to shopping and other daily needs and services for residents and employees who live in and around East Whisman.
- Enhance pedestrian and bicycle connections to the surrounding region, light rail, services, housing, and employers, creating a range of new public spaces and transportation options. Active transportation would be further promoted through wide sidewalks covered with tree canopy, ample bicycle lanes on public streets, and an active, vibrant, and interesting streetscape.

2.5 USES OF THE EIR

This EIR provides program-level review, that, in conformance with CEQA Guidelines Section 15168, is being prepared to address a series of actions that can be characterized as one large project and will be carried out as individual activities under the same authorizing statutory and regulatory authority and have generally similar environmental effects which can be mitigated in similar ways.

This EIR is intended to be an informational document and is subject to public review, agency review, and consideration by the City of Mountain View. The purpose of this EIR is to identify potentially significant effects of the project on the physical environment, to determine the extent to which these effects could be reduced or avoided, and to identify feasible alternatives to the project. The EIR is an informational document and in itself does not determine whether a project should or will be approved.

This EIR would provide decision-makers in the City of Mountain View (the CEQA Lead Agency), responsible agencies, and the general public with relevant environmental information to use in considering the project. Future development projects and other activities proposed under the Plan will be examined in light of this EIR to determine whether or what additional environmental review is needed. If the Precise Plan is approved, the EIR could be used by the City in conjunction with future land use approvals including, but not limited to, the following:

- Planned Community Permits
- Development Review Permits
- Heritage Tree Removal Permits
- Subdivision Maps
- Capital Improvement Projects

In addition to the City of Mountain View, various responsible governmental agencies will use this EIR when reviewing, approving, and/or permitting various components of the North Bayshore Precise Plan, including, but not limited to those shown in Table 2.5-1.

Table 2.5-1: CEQA Responsible and Trustee Agencies

Agency	Role
U.S. Environmental Protection Agency (EPA)	Oversight of federal hazardous materials cleanup sites
Federal Aviation Administration (FAA)	Compliance with Part 77 of Federal Aviation Regulations
California Department of Transportation (Caltrans)	Encroachment Permit for any work within the Caltrans right-of-way
California Department of Toxic Substances Control (DTSC)	Oversight of Hazardous Materials cleanup sites.
San Francisco Bay Regional Water Quality Control Board (RWQCB)	Oversight of Hazardous Materials cleanup sites
Santa Clara Valley Transportation Authority (VTA)	Roadway system improvements, transit system improvements
Santa Clara County Department of Roads and Airports	Acceptance and construction of traffic mitigation
Santa Clara County Airport Land Use Commission	Consistency determination with the CLUP

Table 2.5-1: CEQA Responsible and Trustee Agencies	
Agency	**Role**
Santa Clara County Department of Environmental Health	Oversight of Hazardous Materials cleanup, including Leaking Underground Storage Tank (LUST) sites

SECTION 3.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

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

3.1	Aesthetics	3.9	Hydrology and Water Quality
3.2	Air Quality	3.10	Land Use and Planning
3.3	Biological Resources	3.11	Noise and Vibration
3.4	Cultural Resources	3.12	Population and Housing
3.5	Energy	3.13	Public Services and Recreation
3.6	Geology, Soils, and Minerals	3.14	Transportation
3.7	Greenhouse Gas Emissions	3.15	Tribal Cultural Resources
3.8	Hazards and Hazardous Materials	3.16	Utilities and Service Systems

The discussion for each environmental subject includes the following subsections:

ENVIRONMENTAL SETTING

This subsection: 1) provides a brief overview of relevant plans, policies, and regulations that compose the regulatory framework for the project and 2) describes the existing, physical environmental conditions at the project site and in the surrounding area, as relevant.

IMPACTS

This subsection includes thresholds of significance for determining impacts and discusses the project's consistency with those thresholds. For significant impacts, feasible mitigation measures are identified. "Mitigation measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered using an alphanumeric system that identifies the environmental issue. For example, **Impact HAZ-1** denotes the first potentially significant impact discussed in the Hazards and Hazardous Materials section. Mitigation measures are also numbered to correspond to the impact they address. For example, **MM NOI-2.3** refers to the third mitigation measure for the second impact in the Noise section.

Cumulative Impacts

The project's cumulative impact on the resource is also discussed. Cumulative impacts refer to two or more individual effects, which when combined, compound or increase other environmental impacts. Cumulative impacts may result from individually minor, but collectively significant effects taking place over a period of time. CEQA Guidelines Section 15130 states that an EIR should discuss cumulative impacts "when the project's incremental effect is cumulatively considerable." The discussion does not need to be as detailed as is necessary for project impacts but is to be "guided by the standards of practicality and reasonableness." The purpose of the cumulative analysis is to allow decision makers to better understand the impacts that might result from approval of past, present, and reasonably foreseeable future projects, in conjunction with implementation of the Precise Plan.

The CEQA Guidelines advise that a discussion of cumulative impacts should reflect both their severity and the likelihood of their occurrence. To accomplish these two objectives, the analysis should include either a list of past, present, and probable future projects or utilize projections from an adopted general plan or similar document. The analysis must then determine whether the project's contribution to any cumulatively significant impact is cumulatively considerable, as defined by CEQA Guidelines Section 15065(a)(3).

For this EIR, the cumulative analysis in each section reflects the overall buildout of the 2030 General Plan, as adopted in July 2012, which is periodically updated and amended, and regional growth per Association of Bay Area Governments (ABAG) estimates. The cumulative baseline condition also includes square footage formally approved as part of the Los Altos School District (LASD) TDR to the Precise Plan area (153,000 square feet of office space and 70 residential units). This does not include the 291-339 Bernardo Avenue project, for which a formal authorization has not been granted, but is expected by 2023. The LASD TDR square footage would be approved through separate legislative actions and is not part of the Precise Plan, which is why that square footage is not being analyzed as part of the Project. LASD TDR projects may need to conduct a separate CEQA analysis to determine whether their specific TDR square footage contributes to the specific impacts that could occur as a result of the TDR floor area.

The cumulative discussion for each environmental issue addresses two aspects of cumulative impacts: 1) would the effects of combined development result in a cumulatively significant impact on the resources in question? And, if that cumulative impact is likely to be significant, 2) would the contributions to that impact from the proposed project be cumulatively considerable such that a significant impact would occur?

For each environmental issue, cumulative impacts may occur over different geographic areas. The geographic area that could be affected by the proposed project varies depending upon the type of environmental issue being considered. Section 15130(b)(3) of the CEQA Guidelines states that lead agencies should define the geographic scope of the area affected by the cumulative effect. The following Table 3.0-1 provides a summary of the different geographic areas used to evaluate cumulative impacts.

Table 3.0-1: Geographic Considerations in Cumulative Analysis

Environmental Issue	Geographic Area
Aesthetics	Precise Plan area and adjacent parcels
Air Quality	San Francisco Bay Area Air Basin
Biological Resources	Precise Plan area and adjacent parcels
Cultural Resources	Precise Plan area and adjacent parcels
Energy	Silicon Valley Clean Power service area
Geology and Soils	Precise Plan area and adjacent parcels
GHGs	Planet-wide
Hazards and Hazardous Materials	Precise Plan area and adjacent parcels
Hydrology and Water Quality	Permanente Creek/Calabazas Creek watershed

Table 3.0-1: Geographic Considerations in Cumulative Analysis	
Environmental Issue	**Geographic Area**
Land Use and Planning/Population and Housing	Precise Plan area and City of Mountain View
Noise and Vibration	Precise Plan area and adjacent parcels
Public Services and Recreation	Precise Plan area and City of Mountain View
Transportation	Traffic Impact Analysis study area
Utilities and Service Systems	Precise Plan area and City of Mountain View

Geographic considerations will be discussed under the individual issue areas. It is assumed that all future development projects in the City of Mountain View will comply with existing regulations and statutes and will incorporate mitigation and avoidance measures to reduce potential impacts to a less than significant level, if feasible and necessary. For example, all projects are required to incorporate best management practices and comply with local and regional regulations to reduce impacts to hydrology and water quality.

CONCLUSION

This subsection provides a summary of the project's impacts on the resource.

3.1 AESTHETICS

3.1.1 Environmental Setting

3.1.1.1 *Regulatory Framework*

State

Senate Bill 743

Senate Bill (SB) 743 was adopted in 2013 and states that automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment. SB 743 further states that agencies need to follow guidelines from the Office of Planning and Research for determining the significance of transportation impacts of projects. This guidance identifies vehicle miles traveled as the new metric for evaluating transportation impacts. Additionally, under SB 743, a project's aesthetic impacts will no longer be considered significant impacts on the environment if:

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

SB 743 also states that aesthetic impacts do not include impacts on historical or cultural resources. Further, it clarifies that local governments retain their ability to regulate a project's transportation, aesthetics, and parking impacts outside of the CEQA process.

Scenic Highways Program

The California Scenic Highway Program is managed by Caltrans. The program is intended to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. State laws governing the Scenic Highway Program are found in the Streets and Highway Code, Sections 260 through 263. There are no state-designated scenic highways in the City of Mountain View.

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

[4] An "infill site" is defined as "a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses." A "transit priority area" is defined as "an area within 0.5 mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." A "major transit stop" means "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." Source: Office of Planning and Research. "Changes to CEQA for Transit Oriented Development – FAQ." October 14, 2014. Accessed April 26, 2019. http://www.opr.ca.gov/ceqa/updates/sb-743/transit-oriented.html.

Local

City of Mountain View 2030 General Plan

General Plan policies related to visual and aesthetic resources applicable to the proposed project and the East Whisman Change Area include the following.

Policy	Description
LUD 6.1	**Neighborhood character**. Ensure that new development in or near residential neighborhoods is compatible with neighborhood character.
LUD 6.3	**Street presence**. Encourage building facades and frontages that create a presence at the street and along interior pedestrian paseos or pathways.
LUD 9.1	**Height and setback transitions**. Ensure that new development includes sensitive height and setback transitions to adjacent structures and surrounding neighborhoods
LUD 9.3	**Enhanced public space.** Ensure that development enhances public spaces: • Encourage strong pedestrian-oriented design with visible, accessible entrances and pathways from the street. • Encourage pedestrian-scaled design elements such as stoops, canopies and porches. • Encourage connections to pedestrian and bicycle facilities. • Locate buildings near the edge of the sidewalk. • Encourage design compatibility with surrounding uses. • Locate parking lots to the rear or side of buildings. • Encourage 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.
LUD 9.6	**Light and glare**. Minimize light and glare from new development
LUD 19.6	**Residential transitions.** Require development to provide sensitive transitions to adjacent residential uses.

City of Mountain View City Code

The City of Mountain View Zoning Ordinance (Chapter 36) sets forth specific design guidelines, height limits, building density, building design and landscaping standards, architectural features, sign regulations, and open space and setback requirements. These requirements would be superseded and augmented by the requirements in the Precise Plan.

To promote the careful planning of development projects to enhance the visual environment, the City's development review process includes the review of preliminary plans, the consideration of public input at and by the Development Review Committee (DRC), Zoning Administrator, Environmental Planning Commission (EPC), and the City Council. The City's Planning Division reviews private and public development applications for conformance with City plans, ordinances, and policies related to zoning, urban design, subdivisions, and CEQA.

The Zoning Administrator makes recommendations to the City Council for large development projects and makes final decisions on permits and variances. The DRC reviews the architecture and site design of new development and provides project applicants with appropriate design comments/direction. The development review process ensures the architecture and urban design of new developments would protect the City's visual environment.

3.1.1.2 *Existing Conditions*

East Whisman Precise Plan Area

The Precise Plan area is generally bordered by US 101 and Moffett Federal Airfield/NASA Ames Research Center to the north, North Whisman Road to the west, Central Expressway to the south, and the City of Sunnyvale to the east (where a municipal golf course, office, and residential uses currently exist). The area is visible from the immediate surrounding area and roadways, including North Whisman Road, Middlefield Road, SR 237, and US 101.

The Precise Plan area is relatively flat and located within a developed, urban area of Mountain View. The Precise Plan area is developed with single- to multi-story office buildings, as well as similar looking R&D, light-industrial, and commercial buildings. Buildings tend to have a large front and side setbacks occupied by surface parking and landscaped areas. The Precise Plan area contains numerous mature trees, throughout the building parking lots, in various landscaped areas, and in the public right-of-way along streets and sidewalks. Office buildings in the Precise Plan area exhibit a variety of styles. Older office buildings are one- to two-stories and made of brick, stucco, or concrete. Newer office buildings are more contemporary in style (with glass expanses, stone facades, and metal details) and are up to five-stories. The older commercial and retail buildings in the Village Center neighborhood are brick and wood, one-story structures.

Surrounding Area

The Precise Plan area is surrounded by single-family homes and two- to three-story apartment buildings on the west, south, and east. The Sunnyvale Municipal Golf Course borders the northeast boundary and US 101 borders the north boundary of the Precise Plan area. There are no designated scenic view corridors or State Scenic Highways in the surrounding area, though distant views include the Santa Cruz Mountains to the west and the Diablo Range to the east.

Light and Glare

Streetlights and other lighting are found throughout the area in the vicinity of the project. Sources of light and glare in the surrounding area are those typical in developed urban areas, including headlights, streetlights, parking lot lights, security lights, and reflective surfaces (such as windows).

Location within a Transit Priority Area

The majority of the Precise Plan area is located within a transit priority area as defined by SB 743 and shown in Figure 3.1-1.

TRANSIT PRIORITY AREA | FIGURE 3.1-1

3.1.2 Aesthetic Impacts

3.1.2.1 *Thresholds of Significance*

For the purposes of this EIR, an aesthetic impact is considered significant if the project would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The project would allow mixed-use residential and/or employment center projects in the Precise Plan area. The majority of the Precise Plan area is an infill site located within a transit priority area, with the exception of the southeast corner of the Precise Plan area (see Figure 3.1-1). Pursuant to SB 743, "aesthetic and parking impacts of a residential, mixed-use residential, or employment center on an infill site within a transit priority area shall not be considered significant impacts on the environment"; therefore, the aesthetics impacts of future developments in the defined transit priority area would be less than significant. The following discussion would apply to potential future projects in the southeast corner of the Precise Plan area (i.e., the portion not located within a transit priority area).

3.1.2.2 *Impacts to Scenic Vistas and Scenic Resources*

There are no officially designated State Scenic Highways in the Precise Plan area, and no portions of the Precise Plan encompass the viewshed of a State Scenic Highway. Future development within the Precise Plan area would not, therefore, damage scenic resources within a State Scenic Highway.

The Precise Plan does not specifically propose any new development; however, it would allow increased building heights in portions of the Precise Plan area, and future projects allowed by the Precise Plan may propose development or redevelopment with the potential to affect scenic resources. Conformance with General Plan Policy LUD 9.1, however would ensure that significant viewsheds would be preserved. In addition, Chapter 3 and Chapter 4 of the Precise Plan contain regulations and design guidelines to ensure that heights are in keeping with the goals for the plan area, including goals to limit building heights to respect the character and scale of existing neighborhoods and preserve key views. For these reasons, the impact would be less than significant.

Impact AES-1: Future development projects in the East Whisman Precise Plan area would not result in significant impacts to scenic vistas or scenic resources. **[Less Than Significant Impact]**

3.1.2.3 *Impacts to Visual Character and Quality*

Future Precise Plan development consistent with policies in the 2030 General Plan would ensure that the pedestrian-level design of new development is high quality and site-sensitive and does not adversely affect the visual character of adjacent areas. The General Plan also contains numerous policies designed to protect and enhance visual character. These include Policy LUD 6.3, which encourages building facades and frontages that create a presence at the street and along pathways, Policy LUD 9.1 ensures that new development includes sensitive height and setback transitions, and Policy LUD 9.3 encourages enhanced public spaces. Policy LUD 9.6 seeks to preserve views and viewsheds and minimize light and glare from new development.

As described previously, Chapter 3 and Chapter 4 of the Precise Plan contain development standards and design guidelines that apply to the Precise plan area. The standards will ensure consistent urban design and include development requirements for allowed density/intensity, physical character, building form, building massing, and site design to create overall visual cohesion and quality. The design guidelines envision engaging streets and sidewalks and development consistent with the existing and future land uses of the area.

The City's development review process, which includes the City Zoning Administrator and the Development Review Committee, would ensure that the architecture and urban design of new developments would protect the City's visual environment. The Zoning Administrator makes recommendations to the City Council for large development projects and makes final decisions for permits and variances, and the Development Review Committee reviews the architecture and site design of new development and improvements and provides project applicants with appropriate design comments. As a result, implementation of the Precise Plan would result in less than significant impacts to the City's visual character.

The Precise Plan does not specifically propose any new development; however, future projects in the East Whisman Precise Plan area may propose development or redevelopment that has the potential to affect the existing visual character or quality of the site and its surroundings. Currently, few buildings in the southeast corner of the Precise Plan area are taller than two stories, so new buildings up to 75 feet under the Precise Plan would be more visible from throughout the area.

Because future development projects would be required to be consistent with the Precise Plan standards and guidelines, it would not substantially degrade the existing visual character or quality of the site and its surroundings.

Impact AES-2: Future development projects in the Precise Plan area would not substantially degrade the existing visual character or quality of the site and its surroundings. **[Less than Significant Impact]**

3.1.2.4 *Light and Glare*

Future development projects within the Precise Plan could result in increased amounts of lighting associated with more intensive uses. Future development projects would, however, be subject to the Development Review process prior to submittal of construction drawings for a building permit. The DRC review will ensure the proposed design and construction materials will not adversely affect the

visual quality of the area or create a substantial new source of light and glare. The proposed site lighting would comply with ratings listed in the California Building Standards Code (CBC), which minimizes light pollution that is disruptive to the environment by reducing the amount of backlight, uplight, and glare generated by luminaires.

Bird Safe Design

Chapter 4 of the Precise Plan incorporates Bird Safe Design requirements and guidelines, including façade treatments, occupancy sensors, and bird collision best management practices (see Section 3.5 of the Precise Plan). Bird Safe Design standards and guidelines in the Precise Plan would help diminish the likelihood of bird collision fatalities through window coverings, façade treatments and light pollution reduction. While the intent is to limit bird strike impacts, the guidelines also limit the amount of glare and lighting within the Precise Plan area. The Bird Safe Design guidelines would reduce the likelihood of light and glare impacts.

Impact AES-3: Future development projects in the Precise Plan area would not result in significant a significant impact from light and glare. **[Less than Significant Impact]**

3.1.3 Cumulative Impacts

The cumulative projects analyzed in this Draft EIR in Mountain View and neighboring jurisdictions may demolish existing buildings, construct taller buildings, and possibly affect views of the Santa Cruz Mountains and other scenic resources. As discussed previously, the General Plan and Precise Plan includes standards and guidelines to reduce impacts to scenic views or scenic resources.

All cumulative projects occurring within Mountain View or nearby cities would be subject to the design guidelines, lighting standards, and signage regulations of their respective jurisdictions. Implementation of these measures and requirements would minimize or reduce visual impacts associated with community or urban design to a less than significant level. For these reasons, the cumulative projects, including the Precise Plan, would not result in significant cumulative aesthetic or visual impacts.

Impact C-AES-1: The proposed project, along with the cumulative projects in the area, would not result in a significant cumulative aesthetic impact. **[Less than Significant Cumulative Impact]**

3.1.4 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
AES-1: Future development projects in the East Whisman Precise Plan area would not result in significant impacts to scenic vistas or scenic resources.	Less than Significant	No mitigation required	Not Applicable (NA)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
AES-2: Future development projects in the Precise Plan area would not substantially degrade the existing visual character or quality of the site and its surroundings.	Less than Significant	No mitigation required	NA
AES-3: Future development projects in the Precise Plan area would not result in significant a significant impact from light and glare.	Less than Significant	No mitigation required	NA
C-AES-1: The proposed project, along with the cumulative projects in the area, would not result in a significant cumulative aesthetic impact.	Less than Significant	No mitigation required	NA

3.2 AIR QUALITY

This section is based on an air quality analysis prepared for the Precise Plan by Illingworth & Rodkin, Inc. in December 2018. This report is included as Appendix D to this Draft EIR.

3.2.1 Environmental Setting

3.2.1.1 *Regulatory Framework*

Federal and State

Federal, state, and regional agencies regulate air quality in the San Francisco Bay Area Air Basin, within which the proposed project is located. At the federal level, the United States Environmental Protection Agency (EPA) is responsible for overseeing implementation of the Clean Air Act and its subsequent amendments. The California Air Resources Board (CARB) is the state agency that regulates mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act.

Regional and Local Criteria Pollutants

The federal Clean Air Act requires the EPA to set national ambient air quality standards for six common air pollutants (referred to as criteria pollutants), including particulate matter (PM), ground-level ozone (O_3), carbon monoxide (CO), sulfur oxides, nitrogen oxides (NO_x), and lead. The EPA and the CARB have adopted ambient air quality standards establishing permissible levels of these pollutants to protect public health and the climate. The health effects and typical sources for the major criteria pollutants are summarized in Table 3.2-1 below.

Table 3.2-1: Common Sources of Health Effects for Criteria Air Pollutants

Pollutant	Source	Health Effects
O_3	Atmospheric reaction of organic gases with nitrogen oxides in sunlight	Aggravation of respiratory and cardiovascular diseases; reduced lung function; increased cough and chest discomfort
$PM_{2.5}$ and PM_{210}	Combustion of solid fuels; construction activities; industrial processes; atmospheric chemical reactions	Reduced lung function; aggravation of respiratory and cardiovascular diseases; increases in mortality rate; reduced lung function growth in children
NO_2	Vehicle exhaust; high temperature combustion; atmospheric reactions	Aggravation of respiratory illness
CO	Incomplete combustion of fuels and other carbon-containing substances, such as motor vehicle exhaust; natural events, such as decomposition of organic matter	Aggravation of some heart diseases; reduced tolerance for exercise; impairment of mental function; birth defects; death at high levels of exposure
SO_2	Combination of sulfur-containing fossil fuels; smelting of sulfur bearing metal ore; industrial processes	Aggravation of respiratory diseases; reduced lung function

Table 3.2-1: Common Sources of Health Effects for Criteria Air Pollutants		
Pollutant	**Source**	**Health Effects**
Lead	Contaminated soil	Behavioral and hearing disabilities in children; nervous system impairment
Source: BAAQMD. CEQA Air Quality Guidelines. 2017. Appendix C, Table C-2.		

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduce lung function, and increase coughing and chest discomfort.

Violations of ambient air quality standards are based on air pollutant monitoring data and are determined for each air pollutant. Attainment status for a pollutant means that a given air district meets the standard set by the EPA and/or CARB. The project is located in the northern portion of Santa Clara County, which is in the San Francisco Bay Area Air Basin. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions.

Toxic Air Contaminants

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer), but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, diesel fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs. Diesel exhaust is a complex mixture of gases, vapors, and fine particles. CARB has adopted regulations for stationary and mobile sources to reduce emissions of diesel exhaust and DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks, which represent the bulk of DPM emissions from California highways. The majority of DPM is small enough to be inhaled into the lungs. Most inhaled particles are subsequently exhaled, but some deposit on the lung surface or are deposited in the deepest regions of the lungs (most susceptible to injury).[5] Chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by CARB, and are known carcinogens.

[5] CARB. "Overview: Diesel Exhaust and Health". Accessed December16, 2018. https://www.arb.ca.gov/research/diesel/diesel-health.htm.

$PM_{2.5}$ is a TAC composed of a mix of substances, such as carbon and metals, compounds such as nitrates, organics, and sulfates, and mixtures such as diesel exhaust and wood smoke. Because of their small size, $PM_{2.5}$ can lodge deeply into the lungs. According to BAAQMD, $PM_{2.5}$ is the air pollutant most harmful to the health of Bay Area residents. Sources of $PM_{2.5}$ include gasoline stations, dry cleaners, diesel vehicles, and diesel backup generators. Local risks associated with TACs and $PM_{2.5}$ are evaluated on the basis of risk to human health rather than comparison to an ambient air quality standard or emission-based threshold.

Regional

2017 Clean Air Plan

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

CEQA Air Quality Guidelines

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

Sensitive Receptors

BAAQMD defines sensitive receptors as groups of people that are more susceptible to pollutant exposure (i.e., children, the elderly, and people with illnesses). Locations that may contain a high concentration of sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, schools, parks, and places of assembly. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer-causing TACs. Residential locations are assumed to include infants and small children for the purposes of TAC analyses.

Local

City of Mountain View 2030 General Plan

The following General Plan policies were adopted to promote clean, breathable air and control sources of air pollution in the City of Mountain View.

Policy	Description
INC 20.1	**Pollution prevention.** Discourage mobile and stationary sources of air pollution.
INC 20.6	**Air quality standards.** Protect the public and construction workers from construction exhaust and particulate emissions.
INC 20.7	**Protect sensitive receptors.** Protect the public from substantial pollutant concentrations.
INC 20.8	**Offensive odors.** Protect residents from offensive odors.
MOB 8.3	**Multi-modal transportation monitoring.** Monitor the effectiveness of policies to reduce VMT per service population by establishing transportation mode share targets and periodically comparing travel survey data to established targets.
MOB 9.2	**Reduced vehicle miles traveled.** Support development and transportation improvements that help reduce greenhouse gas emissions by reducing per capita VMT.
MOB 10.2	**Reducing travel demand.** Promote effective Transportation Demand Management programs for existing and new development.

3.2.1.2 *Existing Conditions*

The project is located in northern Santa Clara County, which is in the San Francisco Bay Area Air Basin. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, PM_{10}, and $PM_{2.5}$. The Bay Area is considered in attainment, or unclassified, for all other pollutants.

Pollutant emissions in the Precise Plan area include vehicular (mobile) emissions from workers traveling to and from the area. The Precise Plan area also has numerous permitted stationary sources (as shown in Figure 3.2-1), located throughout the area. TAC sources were identified within a 1,000-foot radius from the Precise Plan area. These sources include stationary sources permitted by BAAQMD, roadways with more than 10,000 annual average daily trips, and freeways. The Caltrain rail line located about 200 feet south of the Precise Plan area.[6]

There is one single-family residence in the Precise Plan area on Middlefield Road, just west of North Whisman Road. The nearest sensitive receptors to the Precise Plan area are located west across North Whisman Road and adjacent to the southeast corner of the Precise Plan area. The nearest schools are Slater Special Education School, located at 220 North Whisman Road, approximately 0.2 mile southwest of the Precise Plan area, and Vargas Elementary School, located at 1054 Carson Drive in Sunnyvale, approximately 0.3 mile southeast of the Precise Plan area. A daycare center is located at 205 East Middlefield Road, within the Precise Plan area.

[6] Caltrain is currently undergoing a modernization plan that would transition the rail line to mostly electric-powered trains over the next five years.

BAAQMD 2012 Stationary Source

BAAQMD 2014 Stationary Source

Source: Illingworth & Rodkin. East Whisman Specific Plan and EIR – Air Quality and Greenhouse Gas Assessment. December 13, 2018.

STATIONARY AIR POLLUTANT SOURCES | FIGURE 3.2-1

3.2.2 Air Quality Impacts

3.2.2.1 *Thresholds of Significance*

For the purposes of this EIR, an air quality impact is considered significant if the project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in substantial emissions (such as odors or dust) adversely affecting a substantial number of people.

Impacts from the Project

As discussed in CEQA Guidelines Section 15064(b), the determination of whether a project may have a significant impact on the environment calls for judgment on the part of the lead agency and must be based to the extent possible on scientific and factual data. The City of Mountain View has considered the 2017 BAAQMD Air Quality Significance Thresholds (identified below in Table 3.2-2) and regards these thresholds to be based on the best scientific information available and conservative in terms of the assessment of health effects associated with TACs and $PM_{2.5}$.

Table 3.2-2: BAAQMD Air Quality Significance Thresholds

Pollutant	Construction	Operation	
	Average Daily Emissions (pounds/day)	Annual Daily Emissions (pounds/year)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG, NO_x	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
CO	Not Applicable	9.0 ppm (eight-hour) or 20.0 ppm (one-hour)	
Fugitive Dust	Dust-Control Measures	Not Applicable	
Health Risks and Hazards for New Sources (within a 1,000-foot Zone of Influence)			
Health Hazard	**Single Source**	**Combined Cumulative Sources**	
Excess Cancer Risk	10 per one million	100 per one million	
Hazard Index	1.0	10.0	
Incremental Annual $PM_{2.5}$	0.3 µg/m^3	0.8 µg/m3 (average)	

3.2.2.2 *Consistency with Plans*

Clean Air Plan Control Measures

Consistency of the Precise Plan with the 2017 CAP is demonstrated by assessing whether the proposed Plan implements the applicable CAP control measures intended to reduce air pollutant emissions.

The CEQA Air Quality Guidelines set forth criteria for determining consistency with 2017 CAP control measures. In general, a plan is considered consistent if a) the plan supports the primary goals of the 2017 CAP; b) includes control measures; and c) does not interfere with implementation of the CAP measures. The Precise Plan would be generally consistent with 2017 CAP measures intended to reduce VMT and energy use, as discussed below in Table 3.2-3.

Table 3.2-3: 2017 Clean Air Plan Control Measures

Measure	Consistency
Transportation Control Measures	
TR1: Clean Air Teleworking Initiative	Consistent—The Precise Plan would require implementation of TDM programs for most new commercial uses, which would include measures such as increased support for telecommuting
TR2: Trip Reduction Programs	Consistent—The Precise Plan would require implementation of TDM programs, which would include measures such as transit subsidies, carpool incentives, bicycling incentives, carshare memberships, trip caps, and/or vanpools.
TR 5: Transit Efficiency and Use	Consistent—While this is mostly a regionally implemented control measure, the Precise Plan would provide connections to regional and local transit with its convenient location near the Middlefield Road transit station.
TR7: Safe Routes to Schools and Safe Routes to Transit	Consistent—The Precise Plan would ensure clear and safe pedestrian circulation, including coordination with Safe Routes to School programs as part of residential TDM plans. Convenience, safety, and integrated access would be prioritized for all modes of transportation through Complete Street design and implementation.
TR8: Ridesharing, Last-Mile Connection	Consistent—The Precise Plan would require implementation of a TDM program, which may include measures such as carpool incentives, carshare memberships, additional last mile services, and/or vanpools.
TR9: Bicycle and Pedestrian Access and Facilities	Consistent—The Precise Plan would result in a dense, walkable environment, simplify wayfinding, and ensure clear and safe bicycle and pedestrian circulation through implementation of Complete Streets.
TR10: Land Use Strategies	Consistent—The Precise Plan would design new buildings around walkable streets and close to transit, creating opportunity for more sustainable transportation modes less reliant on the car.
TR13: Parking Policies	Consistent—The Precise Plan would reduce demand for parking through design, transit accessibility, and TDM programs.

Table 3.2-3: 2017 Clean Air Plan Control Measures	
Measure	**Consistency**
Building Control Measures	
BL1: Green Buildings	Consistent—Precise Plan developments would meet new Title 24 standards, as well as City and Precise Plan green-building guidelines and requirements.
BL2: Decarbonize Buildings	Consistent—The electricity provider, Silicon Valley Clean Energy, provides carbon-free electricity to their Mountain View customers. Further, new construction would meet LEED standards and implement CalGreen requirements, as relevant and required by the Precise Plan.
BL4: Urban Heat Island Mitigation	Consistent—The Precise Plan would reduce cooling load by maximizing shade through tree planting and natural foliage.
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	Consistent—The Precise Plan would provide a comfortable, well-shaded environment defined by a consistent, linear planting plan along the streets and a variety of trees in parks and greenways.
Waste Management Control Measures	
WA4: Recycling and Waste Reduction	Consistent— Precise Plan developments would include visible recycling and composting stations in the public realm and include public awareness campaigns for all users. Developments would provide means for waste separation at point of collection, as required by the City.
Water Control Measures	
WR2: Support Water Conservation	Consistent—Precise Plan buildings would reduce water fixture use through efficient device installation. Irrigation water would rely on recycled water (where available) and be minimized with use of drip systems. Dual plumbing would be installed in all buildings to use reclaimed water for toilet/urinal flushing.

Clean Air Plan Projections

To assess plan-level impacts, the BAAQMD CEQA Air Quality Guidelines recommend that the projected VMT or vehicle trip increase be compared to the projected population increase. Impacts would be considered significant if the VMT increase is greater than population increase. Consistent with the guidelines, Table 3.2-4 compares VMT, population, and employment for the existing conditions and the Precise Plan Plus 2030 Cumulative Conditions.

The GHG-related results show the Precise Plan increases absolute VMT for the geographic areas analyzed but decreases VMT per service population for the Precise Plan area and City of Mountain View. VMT per service population for the Precise Plan area under Cumulative with Project Conditions is approximately five percent lower with the Precise Plan. These results support the concept that providing housing near jobs increases the likelihood that trips can remain within a local area, thus shortening travel distances and increasing residents' ability to accomplish some travel needs by walking, cycling, or using short-distance transit.

Most of the VMT is due to the employee travel because a majority of the daily vehicle trips are due to the employment uses and the average employee trip length is twice as far as residential trip lengths in East Whisman due to the longer commute distances. Under Existing Conditions and Cumulative Conditions without the Precise Plan, employee trips contribute 88 percent of the total East Whisman daily trips while residential trips contribute to the remaining 12 percent. Due to the longer trip lengths, however, employees contribute 93 percent of the total area-wide VMT.[7] With the addition of 5,000 units under Existing with Project Conditions and Cumulative with Project Conditions, the proportion of employee trips decreases from 88 percent to 66 percent and the VMT generated by employees decreases from 93 percent to 77 percent.

Table 3.2-4: 2017 CAP VMT Analysis

	Existing Conditions	Existing with Project Conditions	Cumulative Conditions	Cumulative with Project Conditions
East Whisman Area				
Vehicle Miles Traveled (A)	338,310	668,250	403,850	728,730
Service Population (B)	17,700	37,200	20,710	40,180
VMT per Service Population (A/B = C)	19.11	17.96	19.50	18.14
City of Mountain View				
Vehicle Miles Traveled (D)	2,677,380	2,986,500	3,373,710	3,679,850
Service Population (E)	147,520	167,020	199,390	218,860
VMT per Service Population (D/E = F)	18.15	17.88	16.92	16.81
Santa Clara County				
Vehicle Miles Traveled (G)	36,452,920	36,720,680	51,374,240	51,714,720
Service Population (H)	2,733,420	2,752,920	3,206,610	3,226,080
VMT per Service Population (G/H = I)	13.3	13.3	16.0	16.0

Source: Fehr & Peers East Whisman Precise Plan. Transportation Analysis. May 2019. Appendix H.

Thus, the rate of VMT growth would be the same (countywide) or less than Precise Plan areawide and Citywide) the rate of population growth and, therefore, the precise Plan would be consistent with the 2017 CAP from a VMT perspective.

The Precise Plan would include implementing policies and measures that are consistent with the 2017 CAP. In addition, implementation of the Precise Plan would not increase VMT at a rate faster

[7] Based on data derived from the *2012 California Household Travel Survey*, the average trip length of City of Mountain View employees are 70 percent longer than the average trip length of a City of Mountain View residents.

than population growth. For these reasons, there would be no conflict with the 2017 CAP nor any interference with its implementation and the impact would be less than significant.

Impact AQ-1: There would be no conflict with the 2017 CAP nor any interference with its implementation, and the impact would be less than significant. **[Less than Significant Impact]**

3.2.2.3 *Criteria Pollutant Emissions – Air Quality Violations or Exceedances*

Construction

Implementation of the Precise Plan would result in short-term emissions from construction activities associated with subsequent development, including site grading, asphalt paving, building construction, and architectural coating. Emissions commonly associated with construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust (the dominant source of PM_{10} and $PM_{2.5}$ emissions) is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working in the vicinity. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_X emissions, in addition to PM_{10} and $PM_{2.5}$ emissions. Worker commute trips and architectural coatings are dominant sources of ROG emissions.

Fugitive Dust

The BAAQMD CEQA Air Quality Guidelines do not identify plan level thresholds that apply to construction. Although construction activities at individual project sites are expected to occur during a relatively short time period, the combination of temporary dust from activities and diesel exhaust from construction equipment poses both a health and nuisance impact to nearby receptors. Without application of appropriate control measures to reduce construction dust and exhaust, construction period impacts would be considered a potentially significant impact.

The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are implemented to reduce these emissions. These measures will be required of the project as City of Mountain View standard conditions of approval, consistent with General Plan policies INC 20.1, 20.6, and 20.7.

Standard Conditions of Approval

- AIR QUALITY CONSTRUCTION MEASURES: The applicant shall require all construction contractors to implement the basic construction mitigation measures recommended by BAAQMD to reduce fugitive dust emissions. Emission reduction measures will include, at a minimum, the following measures. Additional measures may be identified by BAAQMD or contractor as appropriate, such as:

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

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

Impact AQ-2: The proposed project would not result in a significant impact a result of fugitive dust during construction of future projects under the Precise Plan. **[Less than Significant Impact]**

Criteria Pollutants

Off-road construction equipment is often diesel-powered and can be a substantial source of NO_X emissions, in addition to PM_{10} and $PM_{2.5}$ emissions. Worker commute trips and architectural coatings are dominant sources of ROG emissions. Emissions during grading and soil import/export for large projects may exceed the BAAQMD criteria pollutant construction thresholds.

Impact AQ-3: Emissions of criteria pollutants during construction of future project under the Precise Plan could exceed BAAQMD thresholds and result in a significant impact. **[Significant Impact]**

Mitigation Measure:

MM AQ-3.1: Construction criteria pollutant and TAC quantification shall be required on individual projects developed under the Precise Plan once construction equipment and phasing details are available through modeling to identify impacts and, if necessary, include measures to reduce emissions below the applicable BAAQMD construction thresholds. Reductions in emissions can be accomplished through, not limited to, the following measures:

- Construction equipment selection for low emissions;
- Use of alternative fuels, engine retrofits, and added exhaust devices;
- Low-VOC paints;
- Modify construction schedule; and
- Implementation of BAAQMD Basic and/or Additional Construction Mitigation Measures for control of fugitive dust.

Implementation of MM AQ-3.1 during development of future projects under the Precise Plan would reduce criteria pollutants to a less than significant level. **[Less than Significant Impact with Mitigation]**

Operation

Implementation of the Precise Plan would result in long-term pollutant emissions from building operation and vehicle use. Implementation of the Precise Plan could also include stationary sources of pollutants that would be required to obtain permits to operate in compliance with BAAQMD rules. These sources include, but are not limited to, gasoline stations, dry cleaners, generators, and surface coating operations. The BAAQMD permit process ensures that these sources would be equipped with the required emission controls and that, individually, these sources would result in a less than significant impact.

The BAAQMD Air Quality Guidelines do not have thresholds related to direct and indirect regional criteria pollutant emissions resulting from plan implementation; rather, they only require emissions computations for project-level analysis. From a planning standpoint, this impact would be considered less than significant, since the Precise Plan would not cause significant increases in vehicle trips compared to population growth and would not interfere with 2017 CAP control measures. For informational purposes, estimated operational period emissions in tons per year and pounds per day are summarized in Table 3.2-5. Future projects under the Precise Plan will be reviewed against BAAQMD construction and operational criteria pollutant thresholds.

Table 3.2-5: 2030 Operational Air Pollutant Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2017 Existing Annual Operational Emissions	47.33 tons	65.65 tons	20.69 tons	7.05 tons
2030 Operational Annual Emissions	39.63 tons	46.75 tons	10.78 tons	4.27 tons
2030 Precise Plan Operational Annual Emissions	68.92 tons	89.73 tons	20.64 tons	7.82 tons
2030 Net New Annual Operational Emissions	29.29 tons	42.98 tons	9.86 tons	3.55 tons
Average Daily Net New Operational Emissions[1]	160.5 lbs	235.5 lbs	54.0 lbs	19.5 lbs

[1] Assumes 365-day operation.

Carbon Monoxide (CO)

Even though current CO levels in the Bay Area are well below ambient air quality standards, and there have been no exceedances of CO standards in the Bay Area since 1991, elevated levels of CO still warrant analysis. CO hotspots (occurrences of localized high CO concentrations) could still occur near busy congested intersections. Recognizing the relatively low CO concentrations experienced in the Bay Area, the BAAQMD's CEQA Air Quality Guidelines state that a project would have a less-than-significant impact if it would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. Peak hour traffic volumes at intersections affected by implementation of the Precise Plan area would be less than 20,000 per hour.

3.2.2.4 *Sensitive Receptor Pollution Exposure*

Subsequent land use activities associated with implementation of the Precise Plan could potentially include short-term construction sources of TACs. There are existing sensitive receptors located near the Precise Plan area. In addition, projects constructed under the Precise Plan would place more sensitive receptors in the area. These sensitive receptors could potentially be exposed to construction TACs during construction activity.

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. A community risk assessment of the construction activities would need to be conducted at a project level to address these impacts. Since specific construction plans and schedules for construction are not known, it is not possible to quantify the impacts and determine the significance at this time. Because residential development at the project site would be developed over time, there would be on-site residences (new sensitive receptors) occupied while construction would be occurring in other areas of the plan area. Community health risks to nearby off-site and future on-site sensitive receptors associated with temporary construction of the future development is considered potentially significant.

Impact AQ-4: Health risks associated with exposure to TACs during temporary construction activities associated with development under the Precise Plan could significantly impact sensitive receptors. **[Significant Impact]**

Implementation of City standard conditions of approval for fugitive dust and exhaust control and MM AQ-3.1 during development of future projects under the Precise Plan would reduce TAC-related health impacts at sensitive receptors to a less than significant level. **[Less than Significant Impact with Mitigation]**

3.2.2.5 *Odors*

Future construction activities in the Precise Plan area could result in odorous emissions from diesel exhaust associated with construction equipment. Because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, exposure of sensitive receptors to these emissions would be limited. Uses that might result in significant sources of odors are not proposed as part of the Precise Plan. Further, the City would implement General Plan Policy INC 20.8 as part of the future development review process to ensure that residents or other sensitive receptors are protected from odors that might be associated with implementation of the Precise Plan.

Impact AQ-5: Implementation of the Precise Plan would not result in substantial emissions of odors adversely affecting a substantial number of people. **[Less than Significant Impact]**

3.2.3 Cumulative Impacts

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to result in the region being in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Because the proposed project's operational air quality impact would be less than significant, (per BAAQMD thresholds) the project's contribution to a cumulative impact is also considered less than significant. Implementation of the Precise Plan would not conflict with the 2017 CAP or increase VMT at a higher rate than population growth; therefore, cumulative Impacts would also not occur.

Impact C-AQ-1: Implementation of the Precise Plan would not result in significant cumulative regional air quality impacts. **[Less than Significant Cumulative Impact]**

3.2.3.1 *Construction-Related Impacts*

As discussed previously, the project could contribute to cumulative impacts on sensitive receptors by generating substantial construction emissions (i.e., dust, TACs) that affect sensitive receptors within the Precise Plan area. Construction emissions could also combine to result in significant short-term impacts to sensitive receptors due to dust fall or elevated concentrations of TACs. The potential for construction activities to cause a local air quality impact would be greatest if multiple construction projects occur simultaneously in the vicinity.

Construction emissions are generally focused in the immediate area of the development site. All future development projects under the Precise Plan will be required to implement dust and exhaust control measures during demolition and construction activities (per the City's standard conditions of approval, MM AQ-3.1). For these reasons, implementation of the Precise Plan would not result in a new cumulative impact or make a cumulatively considerable contribution to a previously identified construction-related significant cumulative air quality impact.

Impact C-AQ-2: Implementation of the Precise Plan would not result in a new cumulative impact or make a cumulatively considerable contribution to a previously identified construction-related significant cumulative air quality impact. **[Less than Significant Cumulative Impact]**

3.2.3.2 *Air Quality Issues Not Covered Under CEQA*

As described previously, the California Supreme Court issued an opinion in *CBIA v. BAAQMD* holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project's future users or residents. As such, while not a CEQA issue, the General Plan identifies the need to protect sensitive receptors from TAC emissions. The City utilizes the criteria listed in Table 3.2-6 to determine whether new receptors at a project would be affected by ambient TAC emissions.

Substantial sources of TACs that can affect receptors include freeways, highways, busy surface streets, and stationary sources (identified by BAAQMD) that are within 1,000 feet of a project site, as described in the following discussion.

Stationary Pollutant Sources

The Precise Plan would permit and facilitate the development of new sensitive receptors, such as new homes, in locations near arterial and collector roadways, highways, and stationary sources of TAC emissions. Screening levels indicate that sensitive receptors within the Precise Plan area would be exposed to levels of TACs and/or $PM_{2.5}$ that could cause an unacceptable cancer risk or hazard near highways and stationary sources. Though not necessarily a CEQA issue due to the *CBIA v. BAAQMD* decision, the potential effect of existing TAC sources on future projects is discussed to comply with General Plan Policy INC 20.7 to "protect the public from substantial pollutant concentrations."

When siting new sensitive receptors, the BAAQMD Guidelines advise that lead agencies examine existing or future proposed sources of TAC and/or $PM_{2.5}$ emissions that would adversely affect individuals within the planned project. New residences and sensitive receptors could be located near stationary sources of TACs located throughout the Precise Plan area, such as gasoline dispensing stations, emergency back-up diesel generators, and dry cleaners. Without proper setbacks or mitigation measures, these sources could result in TAC levels that are considered significant for new sensitive receptors.

Table 3.2-6 identifies the approximate setback distances from stationary sources that have potentially significant impacts using the screening data provided by BAAQMD. Some stationary sources listed below could be removed as part of implementation of the Precise Plan, thus removing their associated community risk.

Future projects under the Precise Plan within the identified significant TAC exposure areas, shown in Table 3.2-6, are required to be further analyzed using emissions and source information provided by BAAQMD. If the source still has significant community risk impacts following this level of effort, then risk reduction strategies would have to be implemented by the project on a case-by-case basis.

Table 3.2-6: Screening Setback Distances for Stationary TAC Sources (in Feet)

Source	Cancer Risk Threshold Screening Distance	$PM_{2.5}$ Threshold Screening Distance
Stratify, Inc.: Plant 18243, 501 Ellis Street	495	<50
Access Closure: Plant 19662, 645 Clyde Avenue	No data	No data
AOL, Inc.: Plant 17688, 475 Ellis Street	1,000	83
Hitachi Chemical Diagnostics, Inc.: Plant 8392, 630 Clyde Court	495	<50
SolFocus, Inc.: Plant 19108, 510 Logue Avenue	495	<50
Renault & Handley: Plant 19428, 401 East Middlefield Road	330	<50

Table 3.2-6: Screening Setback Distances for Stationary TAC Sources (in Feet)		
Source	**Cancer Risk Threshold Screening Distance**	**$PM_{2.5}$ Threshold Screening Distance**
KPMG: Plant 19476, 500 East Middlefield Road	231	<50
PalmOne Inc.: Plant 17035, 950 W. Maude Avenue	264	<50
RREEF Property Management: Plant 19879, 501 Macara Avenue, Sunnyvale	No data	No data
Rotten Robbie: Plant G8702, 310 Whisman	148	0
VeriSign, Inc.: Plant 17275, 685 E. Middlefield Road	793	<50
DePuy Spine: Plant 15390, 365 Ravendale Drive	727	<50
MTV Research LLC c/o Parkway Properties: Plant 18838, 350 Bernardo Avenue	462	<50
MedImmune Vaccines, Inc.: Plant 15088, 319 North Bernardo Avenue	528	<50
MedImmune Vaccines, Inc.: Plant 15087, 297 North Bernardo Avenue	661	<50

Local Surface Streets

Traffic on high volume roadways is a source of TAC emissions that may adversely affect sensitive receptors in close proximity to the roadway. Table 3.2-7 identifies the approximate screening setback distance to the roadway segment, for the Precise plan area (based on the BAAQMD screening calculator). Future projects under the Precise Plan within the identified significant TAC exposure areas, shown in Table 3.2-7, are required to be further analyzed using emissions and source information provided by BAAQMD. If the source still has significant community risk impacts following this level of effort, then risk reduction strategies would have to be implemented by the project on a case-by-case basis.

Table 3.2-7: Screening Setback Distances for Roadway TACs (in feet)		
Street/Segment	**Cancer Risk Threshold Screening Distance**	**$PM_{2.5}$ Threshold Screening Distance**
East Middlefield Rd / west of N. Whisman	North: <25 South: <25	North: <25 South: 25
East Middlefield Rd / west of Ellis St	North: <25 South: <25	North: <25 South: 35
East Middlefield Road/west of SR 237	North/east: 75 South/west: 25	North/east: 75 South/west: 50

Table 3.2-7: Screening Setback Distances for Roadway TACs (in feet)		
Street/Segment	**Cancer Risk Threshold Screening Distance**	**$PM_{2.5}$ Threshold Screening Distance**
East Middlefield Road/west of Central Expressway	North/east: 75 South/west: 30	North/east: 75 South/west: 60
N. Whisman Road/south of East Middlefield	East: 60 West: <25	East: 75 West: <25
N. Whisman Road/north of East Middlefield	East: 35 West: <25	East: 50 West: <25
Ellis Street/north of East Middlefield	East: 35 West: <25	East: 45 West: <25
Central Expressway at Bernardo Ave	North: 100	North: <100

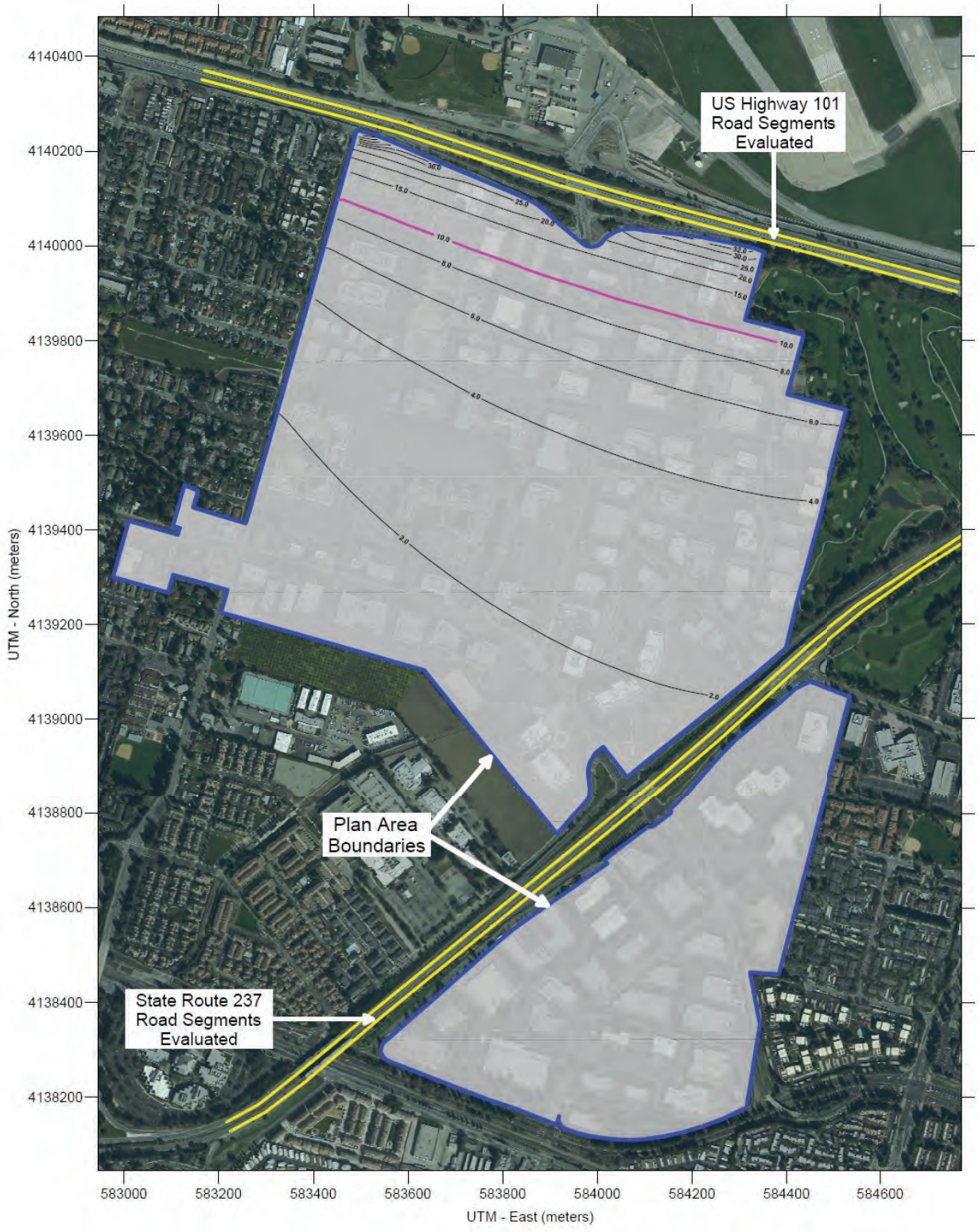
US 101 and SR 237

The primary source of TAC emissions for both US 101 and SR 237 is diesel trucks that emit DPM. Additional TAC emissions come from gasoline fueled vehicles, which emit organic TAC compounds. $PM_{2.5}$ is emitted from vehicle exhaust, tire and brake wear, and from re-suspended roadway dust.

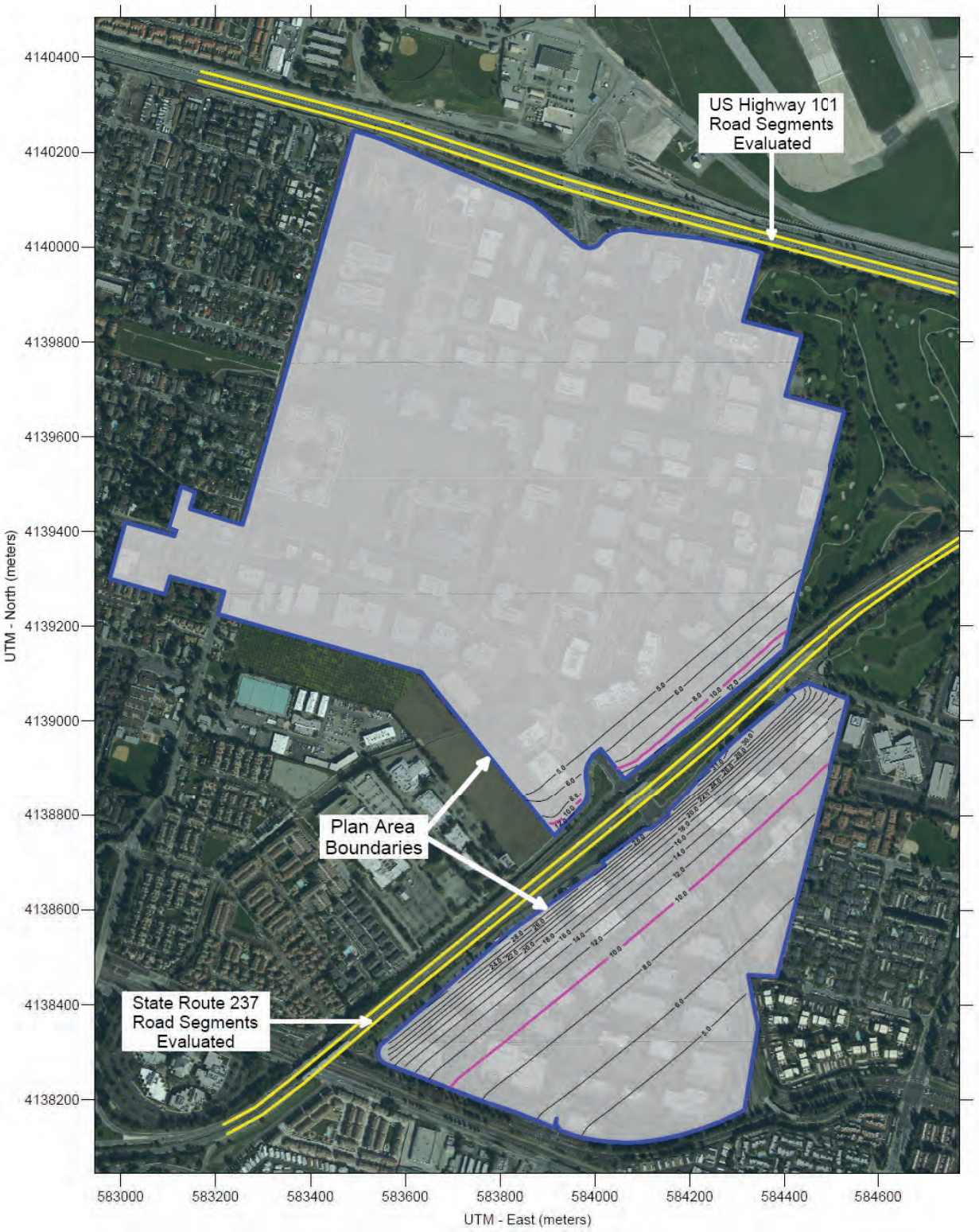
The increased cancer risks in portions of the Precise Plan area from traffic on US 101 and SR 237 were calculated to be greater than the BAAQMD significance threshold of an increased cancer risk of more than 10 in one million. Figure 3.2-2 and Figure 3.2-3 show the Precise Plan area and contour lines of maximum increased cancer risk from traffic on US 101 and SR 237.

In addition to evaluating the cancer risks from TACs, potential $PM_{2.5}$ impacts from vehicle traffic were evaluated. Figure 3.2-4 and Figure 3.2-5 show the Plan Area and contours lines of maximum annual $PM_{2.5}$ concentration. As shown in the figures, to evaluate potential non-cancer health effects due to $PM_{2.5}$, BAAQMD adopted a significance threshold of an annual average $PM_{2.5}$ concentration greater than 0.3 $\mu g/m^3$. $PM_{2.5}$ concentrations exceeded standards in portions of the Precise Plan area near US 101 but would be less than the specified standard at all locations in the Precise Plan area north of SR 237.

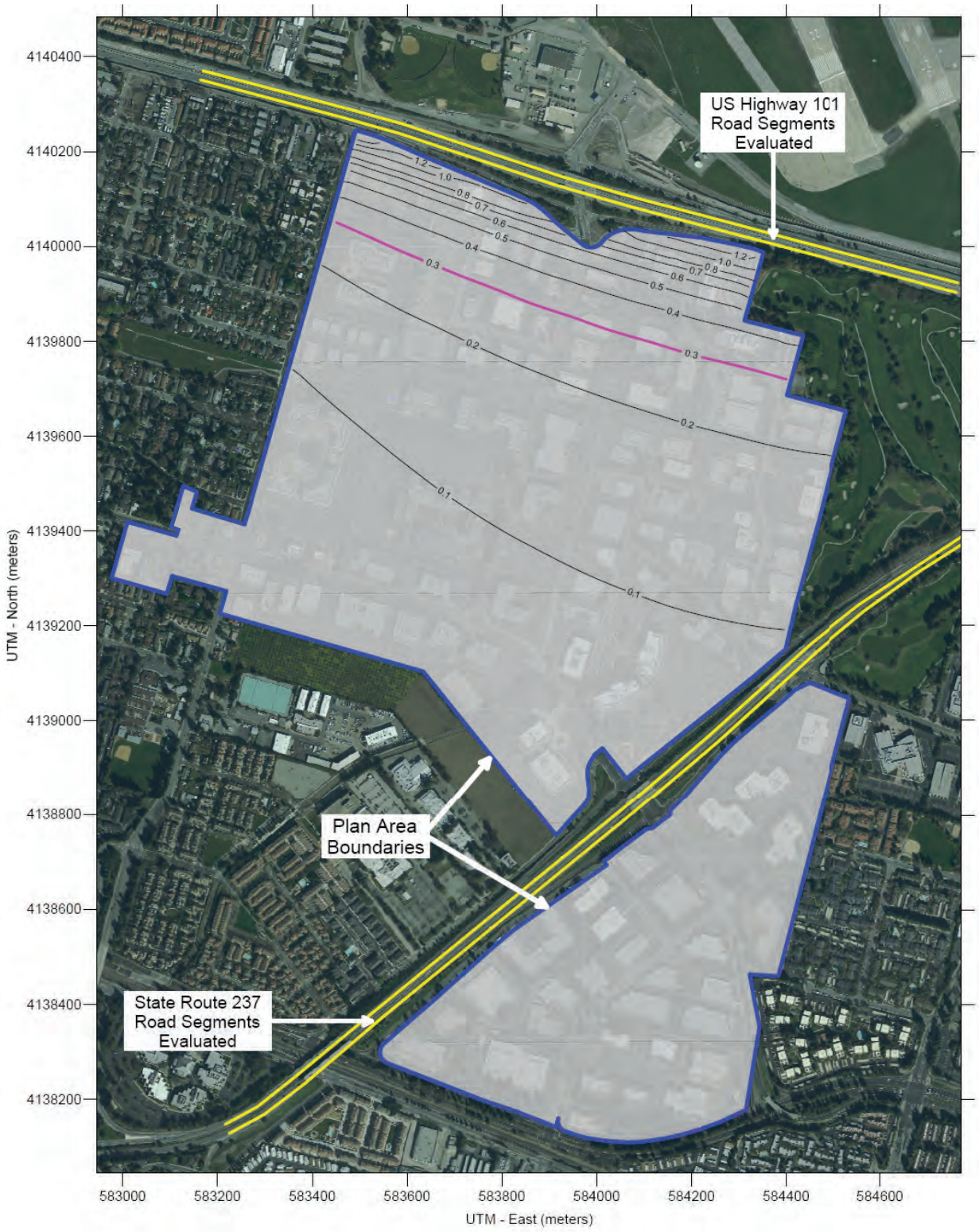
The Precise Plan would allow growth of new residential land uses that would be sensitive receptors and new non-residential land uses that are potential new emissions sources. Typically, these new sources would be evaluated through the BAAQMD permit process and/or CEQA review process to identify and mitigate any significant exposures. However, some sources that would not undergo such a review, such as truck loading docks or truck parking areas, may have the potential to cause significant increases in TAC exposure.



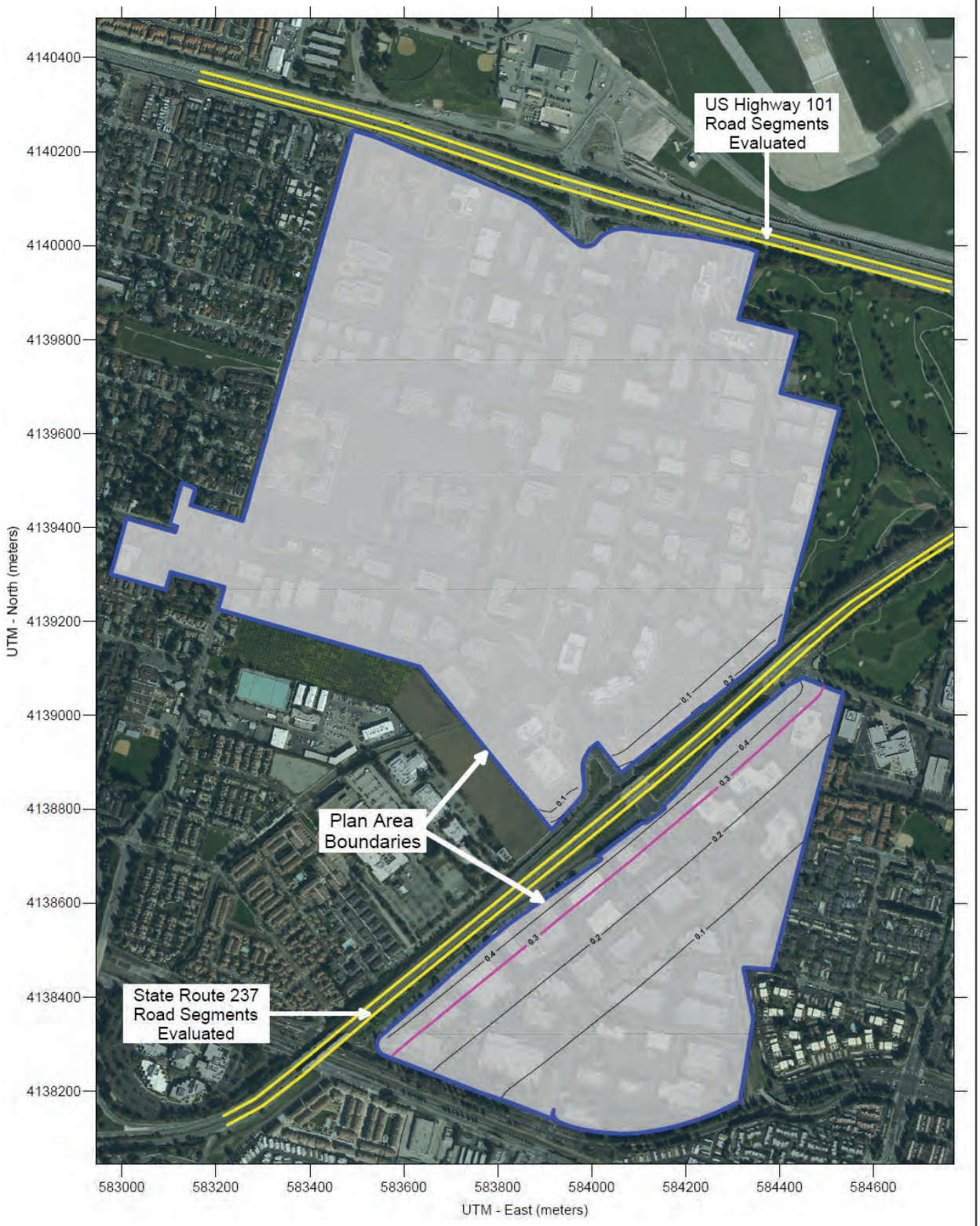
INCREASED CANCER RISKS (HIGHWAY 101) | FIGURE 3.2-2



INCREASED CANCER RISKS (HIGHWAY 237) | FIGURE 3.2-3



PM2.5 CONCENTRATIONS (HIGHWAY 101) | FIGURE 3.2-4



PM2.5 CONCENTRATIONS (HIGHWAY 237) | FIGURE 3.2-5

Future projects under the Precise Plan within the identified significant TAC exposure areas, shown in Figure 3.2-2 through Figure 3.2-5, are required to be further analyzed using emissions and source information provided by BAAQMD. If the source still has significant community risk impacts following this level of effort, then risk reduction strategies would be implemented on a case-by-case basis as conditions of approval for projects, consistent with General Plan Policy INC 20.7 and the Precise Plan. Project-specific conditions of approval would include measures to reduce long-term exposure to TAC and $PM_{2.5.}$ With preparation of project-specific air quality assessments and implementation of conditions of approval to reduce health risks to future sensitive receptors, future projects would be consistent with General Plan Policy INC 20.7.

3.2.4 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
AQ-1: There would be no conflict with the 2017 CAP nor any interference with its implementation, and the impact would be less than significant.	Less than Significant	No mitigation required	NA
AQ-2: The proposed project would not result in a significant impact a result of fugitive dust or diesel exhaust emissions during construction of future projects under the Precise Plan.	Less than Significant	No mitigation required	NA
AQ-3: Emissions of criteria pollutants during construction of future project under the Precise Plan could exceed BAAQMD thresholds and result in a significant impact.	Significant	MM AQ-3.1, construction emissions reduction	Less than Significant
AQ-4: Health risks associated with exposure to TACs during temporary construction activities associated with development under the Precise Plan could significantly impact sensitive receptors.	Significant	MM AQ-3.1, construction emissions reduction	Less than Significant
AQ-5: Implementation of the Precise Plan would not result in substantial emissions or odors adversely affecting a substantial number of people.	Less than Significant	No mitigation required	NA
C-AQ-1: Implementation of the Precise Plan would not result in significant cumulative regional air quality impacts.	Less than Significant	No mitigation required	NA
C-AQ-2: Implementation of the Precise Plan would not result in a new cumulative impact or make a cumulatively considerable contribution to a previously identified construction-related significant cumulative air quality impact.	Less than Significant	No mitigation required	NA

3.3 BIOLOGICAL RESOURCES

3.3.1 Environmental Setting

3.3.1.1 *Regulatory Framework*

Federal and State

Special-Status Species

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

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

Migratory Bird and Birds of Prey Protections

The federal Migratory Bird Treaty Act (MBTA) prohibits pursuing, hunting, taking, capturing, killing of migratory birds, their nests or their eggs; except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA applies to whole birds, parts of birds, and bird nests and eggs. Construction during the breeding season could result in direct damage to fertile eggs or nestlings. Additionally, nesting birds are considered special-status species and are protected by the USFWS. The CDFW also protects migratory and nesting birds under California Fish and Game Code Sections 3503, 3503.5, and 3800. The CDFW defines taking as causing abandonment and/or loss of reproductive efforts through disturbance.

Sensitive Habitats

Wetland and riparian habitats are considered sensitive habitats under CEQA. They are also afforded protection under applicable federal, state, and local regulations, and are generally subject to regulation by the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), CDFW, and/or USFWS under provisions of the federal Clean Water Act (e.g., Sections 303, 304, 404) and State of California Porter-Cologne Water Quality Control Act.

CDFW Stream/Riparian Habitat

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

Regional and Local

Habitat Conservation Plans

The Santa Clara Valley Habitat Plan/Natural Community Conservation Plan (Habitat Plan) is a conservation program to promote the recovery of endangered species in portions of Santa Clara County while accommodating planned development, infrastructure, and maintenance activities. The City of Mountain View is not included within the Habitat Plan covered area.

City of Mountain View 2030 General Plan

General Plan policies related to biological resources that are applicable to the project include the following.

Policy	Description
LUD 10.2	**Low impact development.** Encourage development to minimize or avoid disturbing natural resources and ecologically significant features.
INC 16.3	**Habitat.** Protect and enhance nesting, foraging and habitat for special-status species and other wildlife.
INC 16.6	**Built environment habitat.** Integrate biological resources, such as green roofs and native landscaping, into the built environment.

Mountain View Tree Preservation Ordinance

The City of Mountain View tree regulations protect trees designated as Heritage trees (Chapter 32, Article 2). A Heritage tree is defined as any one of the following:

- A tree which has a trunk with a circumference of 48 inches or more measured at 54 inches above natural grade;
- A multi-branched tree which has major branches below 54 inches above the natural grade with a circumference of 48 inches measured just below the first major trunk fork.
- Any *Quercus* (oak), *Sequoia* (redwood), or *Cedrus* (cedar) tree with a circumference of 12 inches or more when measured at 54 inches above natural grade;
- A tree or grove of trees designated by resolution of the City Council to be of special historical value or of significant community benefit.

A tree removal permit is required from the City of Mountain View for the removal of Heritage trees.

3.3.1.2 *Existing Conditions*

Along with most of the City of Mountain View, the Precise Plan area is composed of developed urban habitat. Urban habitats include street trees, ornamental and landscaping, lawns, and ruderal

vegetation. Little or no native vegetation or habitat is present; therefore, the Precise Plan area contains wildlife able to adapt to the modified urban environment.

No rare, threatened, endangered, or special-status species are known to inhabit Precise Plan area. There are no undisturbed areas or sensitive habitats, and the Precise Plan area itself does not contain any streams, waterways, or wetlands. The nearest waterway, Stevens Creek, is located approximately 0.5 mile west of the Precise Plan area. Because of its urban setting and isolation from larger areas of undeveloped lands and riparian corridors, the site does not function as a movement corridor for local wildlife.

The majority of the Precise Plan area consists of developed or landscaped features. Developed areas include buildings, paved walkways and roadways, and parking lots. Landscaping in the Precise Plan area is dominated by lawn grasses and a wide variety of ornamental street trees (including introduced redwood trees). Developed and landscaped areas in the project area provide habitat for common, urban-adapted wildlife species, especially birds. A number of migrating birds and wintering species occur seasonally throughout the predominantly ornamental vegetation that dominates the project area. Some redwood, oak, and cedar trees within the Precise Plan area likely meet the definition of "Heritage" trees as defined by the City of Mountain View Heritage Tree Ordinance. A Heritage Tree Removal Permit would need to be obtained prior to the removal of any ordinance-sized Heritage tree with the Precise Plan area.

The Precise Plan area is approximately 1.5 miles south of the San Francisco Bay. The San Francisco Bay estuary is an extremely productive, diverse ecosystem. The estuary supports very high wildlife diversity, with more than 250 species of birds, 120 species of fish, 81 species of mammals, 30 species of reptiles, and 14 species of amphibians regularly occurring in the estuary. San Francisco Bay supports populations of a number of species that are of regional, hemispheric, or even global importance, and a number of endemic, endangered, threatened, and rare wildlife species or subspecies reside in the San Francisco Bay Area.

3.3.2 Biological Resources Impacts

3.3.2.1 *Thresholds of Significance*

For the purposes of this EIR, a biological resource impact is considered significant if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal filling, hydrological interruption, or other means;

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.3.2.2 *Impacts to Special-Status Plants and Animals*

Based on the highly urbanized and developed nature of the Precise Plan area, no natural communities or habitats for special-status plant and animal species are present and implementation of the project would not result in impacts to special-status species or sensitive habitats.

Impact BIO-1: The proposed project would not result in a significant impact to special-status plant or animal species. **[No Impact]**

Nesting Birds

The Precise Plan area supports buildings, mature trees, and vegetation that provide foraging and nesting opportunities for a variety of bird species. Raptors (birds of prey) and nesting birds are protected by the MBTA and CDFW. Urban-adapted raptors or other avian nests present in the trees could be disturbed by future construction activities and result in the loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes abandonment and/or loss of reproductive effort is considered a taking by the CDFW and would constitute an impact. The Precise Plan does not propose any specific development or landscape changes; however, future development projects within the Precise Plan area are likely to result in changes to the existing landscape and removal of trees and demolition and/or modifications to existing buildings.

In compliance with the MBTA and the CDFW code, future development projects within the Precise Plan area shall implement the following City standard condition of approval, to reduce or avoid construction-related impacts to nesting raptors and their nests.

Standard Condition of Approval

- PRECONSTRUCTION NESTING BIRD SURVEY: To the extent practicable, vegetation removal and construction activities shall be performed from September 1 through January 31 to avoid the general nesting period for birds. If construction or vegetation removal cannot be performed during this period, preconstruction surveys will be performed no more than two days prior to construction activities to locate any active nests as follows:

  The applicant shall be responsible for the retention of a qualified biologist to conduct a survey of the project site and surrounding 500' for active nests -with particular emphasis on nests of migratory birds. If construction (including site preparation) will begin during the bird nesting season, from February 1 through August 31. If active nests are observed on either the project site or the surrounding area, the project applicant, in coordination with the appropriate

City staff, shall establish no-disturbance buffer zones around the nests, with the size to be determined in consultation with the CDFW (usually 100' for perching birds and 300' for raptors). The no-disturbance buffer will remain in place until the biologist determines the nest is no longer active or the nesting season ends. If construction ceases for two 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.

Impact BIO-2: With the incorporation of standard conditions of approval, impacts to nesting birds would be less than significant. **[Less than Significant Impact]**

3.3.2.3 *Bird Strike Hazards*

To minimize adverse effects on native and migratory bird species, new construction and major renovations in the Precise Plan will incorporate design measures to promote bird safety. Bird Safe Design measures included in the Precise Plan are intended to help diminish the likelihood of building collision fatalities through façade treatments and light pollution reduction. These measures apply to both residential and non-residential land uses, except where the City waives or reduces any requirements based on analysis by a qualified biologist indicating that proposed construction will not pose a collision hazard to birds. Additional details regarding these standards can be found in Chapter 4 of the Precise Plan.

East Whisman Precise Plan Standards

1. **Façade Treatments.** No more than 10 percent of the surface area of a building's total exterior façade shall have bird-friendly glazing between the ground and 60 feet above ground. Examples of bird-friendly glazing treatments include opaque glass, covering of clear glass surface with patterns, use of paned glass with fenestration patterns, and use of external screens over non-reflective glass.
2. **Occupancy Sensors.** For non-residential development, occupancy sensors or other switch control devices shall be installed on non-emergency lights. These lights should be programmed to shut off during non-work hours and between 10:00 p.m. and sunrise.
3. **Funneling of Flight Paths.** New construction shall avoid funneling of flight paths along buildings or trees towards a building façade.
4. **Skyways, Walkways, or Glass Walls.** New construction and building additions shall avoid building glass skyways or walkways, freestanding glass walls, and transparent building corners. New construction and building additions should minimize the use of glass at tops of buildings, especially when incorporating a green roof into the design.
5. **Exceptions to the Bird Safe Design Requirements.** The City may waive or reduce any of this chapter's bird safe design requirements based on analysis by a qualified biologist indicating that proposed construction will not pose a collision hazard to birds.

Impact BIO-3: Future development projects in the Precise Plan area would implement Bird Safe Design standards of the Precise Plan and would not result in a significant impact to bird species due to collisions. **[Less than Significant Impact]**

3.3.2.4 *Impacts to Riparian and Wetland Habitats*

As discussed previously, the Precise Plan area does not contain any streams, rivers, or wetlands; therefore, the project would have no effect on any riparian areas or protected wetlands.

Impact BIO-4: Implementation of the Precise Plan would not result in significant impacts to riparian areas or protected wetlands. **[No Impact]**

3.3.2.5 *Plan or Policy Conflict*

General Plan

The Precise Plan incorporates standards and guidelines to integrate native and drought-tolerant landscaping into future projects (consistent with General Plan policies LUD 10.2 and INC 16.6). In addition, development within the Precise Plan area would be required to follow standard conditions of approval to protect nesting birds during construction (consistent with General Plan policy INC 16.3). As a result, there would be no conflict with policies to protect biological resources.

Tree Ordinance

The Precise Plan area includes a variety of ornamental trees along streets and as part of landscaping. Implementation of the Precise Plan would result in the removal of various trees throughout the Precise Plan area to facilitate redevelopment. Mountain View regulations require a permit to remove or move any tree over 48-inches in circumference or any *Quercus*, Sequoia or *Cedrus* over 12-inches in circumference (measured at 54-inch above grade). A City of Mountain View Heritage tree removal permit is required before any trees could be removed from the site. To reduce impacts due to the loss of Heritage trees, and reduce the potential for impacts to off-site trees, development projects within the Precise Plan area will implement the following measures as standard City conditions of approval.

Standard Conditions of Approval

- REPLACEMENT: The applicant shall offset the loss of each Heritage tree with a minimum of two new trees. Each replacement tree shall be no smaller than a 24-inch box and shall be noted on the landscape plans submitted for building permit review as Heritage replacement trees.

  TREE PROTECTION MEASURES: The tree protection measures listed in the arborist' s report prepared by and dated shall be included as notes on the title sheet of all grading and landscape plans. These measures shall include, but may not be limited to, six-foot chain link fencing at the drip line, a continuous maintenance and care program, and protective grading techniques. Also, no materials may be stored within the drip line of any tree on the project site.
- TREE MITIGATION AND PRESERVATION PLAN: The applicant shall develop a tree mitigation and preservation plan to avoid impacts on regulated trees and mitigate for the loss of trees that cannot be avoided. The plan shall also outline measures to be taken to preserve off-site trees. Routine monitoring for the first five years and corrective actions for trees that consistently fail the performance standards shall be included in the tree mitigation and

preservation plan. The tree mitigation and preservation plan shall be developed in accordance with Chapter 32, Articles I and II, of the City Code, and subject to approval of the Zoning Administrator prior to removal or disturbance of any Heritage trees resulting from project activities, including site preparation activities.

- SECURITY BOND: The applicant shall post a security bond to ensure that replacement trees are planted and become established (one year after planting) and to compensate for the trees that were lost due to illegal removal.

Impact BIO-5: With the incorporation of standard City conditions of approval, impacts to Heritage trees as a result of removal would be less than significant. **[Less than Significant Impact]**

3.3.2.6 *Habitat Conservation Plan Conflict*

The Precise Plan area is not covered by the Habitat Plan; therefore, there would be no conflict and no impact.

Impact BIO-6: The proposed project would not result in a significant impact due to a conflict with the Habitat Plan. **[No Impact]**

3.3.3 Cumulative Impacts

3.3.3.1 *Nesting Birds*

As described previously, there is a potential for nesting and migratory birds to occur in the Precise Plan area. Cumulative projects may also impact nesting birds and raptors. The project would implement standard conditions of approval to avoid nesting bird impacts, which would reduce the project's contribution to cumulative impacts to nesting birds. It is assumed all projects in the cumulative scenario would implement similar protective measures in conformance with the MBTA and CDFW regulations. For these reasons, the cumulative impact to nesting and migratory birds and raptors would be less than significant.

Impact C-BIO-1: The proposed project would not result in a cumulatively considerable contribution to a significant impact to nesting and migratory birds and raptors. **[Less than Significant Cumulative Impact]**

3.3.3.2 *Indirect Nitrogen Deposition*

The Habitat Plan identified nitrogen deposition as an indirect cause of impacts to rare species in southern Santa Clara County, particularly those located on serpentine soils. Nonpoint air pollution sources such as automobiles emit nitrogen compounds into the air. Because serpentine soils tend to be nutrient poor, and nitrogen deposition artificially fertilizes serpentine soils, nitrogen deposition from vehicle traffic and other sources facilitates the spread of invasive plant species. Non-native annual grasses grow rapidly, enabling them to out-compete serpentine species.

The displacement of these species, and subsequent decline of the several federally listed species, including the Bay Checkerspot butterfly and its larval host plants, has been documented on Coyote

Ridge in central Santa Clara County (the last remaining major population of these butterflies). The invasion of native grasslands by invasive and/or non-native species is now recognized as one of the major causes of the decline of the federally endangered Bay Checkerspot butterfly.

Modeling completed as a part of the development of the Habitat Plan identifies cumulative effects to serpentine habitats and serpentine species on Coyote Ridge and other areas in central and southern Santa Clara County. Nitrogen deposition effects from areas of outside of the Habitat Plan area represent approximately 17 percent of the cumulative effects on the serpentine habitats. The development proposed by the project would represent an extremely small portion of these emissions.

Conservation strategies included in the adopted Habitat Plan account for the indirect impacts of nitrogen deposition and identify measures to conserve and manage serpentine areas over the term of the Habitat Plan, such that cumulative impacts to this habitat and Bay Checkerspot butterfly would not be significant and adverse.[8] A mitigation program for indirect impacts on Bay Checkerspot butterfly habitat is being implemented independently by others (i.e., Santa Clara Valley Habitat Agency) and there is no requirement for an individual project outside of the area covered by the Habitat Plan to pay impact fees to this mitigation program.

Impact C-BIO-2: The cumulative projects, including the proposed project, would not result in significant cumulative impacts from indirect nitrogen deposition. **[Less than Significant Cumulative Impact]**

3.3.3.3 *Heritage Trees*

A tree removal permit is required from the City of Mountain View for the removal of any Heritage trees, and similar restrictions are present in the municipal code for the City of Sunnyvale (for Protected Trees). Projects are required to mitigate for the removal of Heritage trees/Protected Trees and protect any trees that remain in place from potential construction damage. For this reason, the proposed project in combination with cumulative scenario projects would not result in a significant impact to trees or conflict with the tree ordinance.

Impact C-BIO-3: The proposed project, together with the cumulative projects, would not result in a cumulatively considerable impact due to loss of Heritage trees. **[Less than Significant Cumulative Impact]**

3.3.4 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
BIO-1: The proposed project would not result in a significant impact to special-status plants or animals.	No Impact	No mitigation required	NA

[8] The Santa Clara Valley Habitat Plan Final EIR/EIS (August 2012) identifies a beneficial cumulative effect of implementing the Santa Clara Valley Habitat Plan.

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
BIO-2: With the incorporation of standard conditions of approval, impacts to nesting birds would be less than significant.	Less than Significant	No mitigation required	NA
BIO-3: Future development projects in the Precise Plan area would implement Bird Safe Design standards of the Precise Plan (as applicable) and would not result in a significant impact to bird species due to collisions.	Less than Significant	No mitigation required	NA
BIO-4: Implementation of the Precise Plan would not result in significant impacts to riparian areas or protected wetlands.	No Impact	No mitigation required	NA
BIO-5: With the incorporation of standard City conditions of approval, impacts to Heritage trees would be less than significant.	Less than Significant	No mitigation required	NA
BIO-6: The proposed project would not result in a significant impact due to a conflict with the Habitat Plan.	No Impact	No mitigation required	NA
C-BIO-1: The proposed project would not result in a cumulatively considerable contribution to a significant impact to nesting and migratory birds and raptors.	Less than Significant	No mitigation required	NA
C-BIO-2: The cumulative projects, including the proposed project, would not result in significant cumulative impacts from indirect nitrogen deposition.	Less than Significant	No mitigation required	NA
C-BIO-3: The proposed project, together with the cumulative projects, would not result in a cumulatively considerable impact due to loss of Heritage trees.	Less than Significant	No mitigation required	NA

3.4 CULTURAL RESOURCES

The information in this section is based in part upon an archaeological literature review and Native American consultation report completed by Holman & Associates in February 2017. This report is confidential but can be viewed at the Mountain View Community Development, Planning Division.

3.4.1 Environmental Setting

3.4.1.1 *Regulatory Framework*

Federal

National Historic Preservation Act

The National Register of Historic Places (NRHP), established under the National Historic Preservation Act, is a comprehensive inventory of known historic resources throughout the United States. The NRHP is administered by the National Park Service and includes buildings, structures, sites, objects and districts that possess historic, architectural, engineering, archaeological or cultural significance. For a resource to be eligible for listing, it also must retain integrity of those features necessary to convey its significance. CEQA requires evaluation of project effects on properties that are listed in or eligible for listing in the NRHP.

State and Regional

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is a guide to cultural resources that must be considered when a government agency undertakes a discretionary action subject to CEQA. The CRHR aids government agencies in identifying, evaluating, and protecting California's historical resources, and indicates which properties are to be protected from substantial adverse. The CRHR is administered through the State Office of Historic Preservation, which is part of the California State Parks system. A historic resource listed in, or formally determined to be eligible for listing in, the NRHP is, by definition, included in the CRHR.[9]

Archaeological Resources and Human Remains

Archaeological sites are protected by a number of state policies and regulations under the California Public Resources Code, California Code of Regulations (Title 14 Section 1427), and California Health and Safety Code. California Public Resources Code Sections 5097.9-5097.991 require notification of discoveries of Native American remains and provides for the treatment and disposition of human remains and associated grave goods.

Both state law and County of Santa Clara County Code (Sections B6-19 and B6-20) require that the Santa Clara County Coroner be notified if cultural remains are found on a site. If the Coroner determines the remains are those of Native Americans, the Native American Heritage Commission (NAHC) and a "most likely descendant" must also be notified.

[9] Refer to Public Resources Code Section 5024.1(d)(1)

Local

City of Mountain View 2030 General Plan

General Plan policies related to cultural resources applicable to the proposed project include the following.

Policy	Description
LUD 11.5	**Protect important archaeological and paleontological sites.** Utilize the development review process to identify and protect archaeological and paleontological deposits.
LUD 11.6	**Protect Human Remains.** Utilize the development review process to identify and protect human remains and follow the appropriate procedures outlined under Health and Safety Code Section7050.5 and Public Resources Code Section 5097.98.

City of Mountain View Zoning Ordinance

Division 15, Designation and Preservation of Historic Resources of the City's Zoning Ordinance includes a process for recognizing, preserving, and protecting historical resources. Division 15, Section 36.54.55 establishes the Mountain View Register of Historic Resources as the City's official list of historically significant buildings, structures, and sites that are considered during the development review process. The Mountain View Register has similar criteria for listing as the CRHR.

3.4.1.2 *Existing Conditions*

Prehistoric Resources

Mountain View is situated within territory once occupied by Costanoan (also commonly referred to as Ohlone) language groups. Mountain View lies on the approximate ethnolinguistic boundary between the Tamyen and Ramaytush languages. No cultural resources are recorded within the project area. The closest Native American archaeological site was located approximately 0.5 mile to the west. The site consisted of remnants of an ashy midden with shell fragments, consistent with Native American shellmounds once situated at the San Francisco Bay margins.

Areas that are near natural water sources, (e.g., riparian corridors and tidal marshland) should be considered highly sensitivity for prehistoric archaeological deposits and associated human remains. The project site is approximately 0.5 mile east of Stevens Creek and approximately 1.5 miles south of the San Francisco Bay, and is considered to be a moderately archaeologically sensitive area.

Historic Resources

There are no known historical resources located within the Precise Plan area. Thirty-three properties were identified as being constructed before 1971. Of these, one was constructed in 1959, another in 1970, and the remainder were constructed in the 1960s. None of these properties are listed on federal, state, or local historic registers.

3.4.2 Cultural Resources Impacts

3.4.2.1 *Thresholds of Significance*

For the purposes of this EIR, a cultural resources impact is considered significant if the project would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5; or
- Disturb any human remains, including those interred outside of dedicated cemeteries.

3.4.2.2 *Historic Resources*

As previously discussed, there are no known historic structures on or adjacent to the Precise Plan area; however, some of the existing buildings could be eligible for listing on the NRHP and/or the CRHR. The City will review future development proposals on a project-by-project basis to ensure that that historic resources are identified early in the development review process. If historic resources are identified in the future during the buildout of the Precise Plan area, they will be subject to General Plan policies and standard conditions of approval (where relevant), including the following:

Standard Conditions of Approval

- SECRETARY OF THE INTERIOR STANDARDS: All construction activities, including maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation, or reconstruction of the historical resource, shall be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (Weeks and Grimmer 1995).

- DOCUMENTATION OF HISTORIC RESOURCE: Prior to issuance of building permit for any work being done on the historic structure, the applicant shall provide the following documentation: (1) two copies of each historical assessment, printed on archival paper; and (2) two complete sets of photographs of the existing property (including the immediate neighborhood to establish context), the site (including any non-historic structures), all exterior elevations and features, and all interior spaces and features. The applicant shall utilize a 35-mm camera with black and white film only. The photographs shall be printed on fiber paper, and all negatives and prints must meet the Historic American Building Survey Photographic Standards for archival processing. All documentation shall be forwarded to the Planning Division (one copy of which will be forwarded to the Mountain View History Center) prior to the issuance of any building or demolition permits for the property.

- SALVAGE PROGRAM: The applicant shall undertake a salvage program to save and promote reuse of the building's historically significant materials and features to the extent reasonably feasible. Salvage allows for the removal of individual architectural elements for

potential reuse. Salvaged elements could be reused at the project site or another project, or be given to an architectural salvage company. Salvage has the added benefit of landfill and waste diversion.

With implementation of the standard conditions of approval, construction of future projects under the Precise Plan would not result in significant impacts to historic resources.

Impact CUL-1: Implementation of the proposed project would not result in significant impacts to historic resources. **[Less than Significant Impact]**

3.4.2.3 *Archaeological Resources and Human Remains*

The majority of the Precise Plan area has already been developed, and it is unlikely that buried historical or prehistoric resources are present in most developed areas. Although the likelihood of encountering buried archaeological resources is low, the disturbance of these resources, if they are encountered during excavation and construction, may result in an impact. Future development will be required to comply with the City's standard conditions of approval, which will include the following measures to avoid or reduce impacts to unknown cultural resources. Tribal consultation is addressed in Section 3.15 Tribal Cultural Resources.

Standard Conditions of Approval

- DISCOVERY OF ARCHAEOLOGICAL RESOURCES. If prehistoric, or historic-period cultural materials are unearthed during ground-disturbing activities, it is recommended that all work within 100 feet of the find 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 wall, 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.

  DISCOVERY OF HUMAN REMAINS. In the event of the discovery of human remains during construction or demolition, there shall be no further excavation or disturbance of the site within a 50-foot radius of the location of such discovery, or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his/her authority, he/she shall notify the NAHC, which shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this state law, then the landowner shall reinter 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 shall be submitted to the City's Community Development Director prior to release of a Certificate of Occupancy. This report shall contain a description of the mitigation programs 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 shall verify completion of the mitigation program to the satisfaction of the City's Community Development Director.

Impact CUL-2: With the implementation of standard City conditions of approval, the proposed project would result in a less than significant impact to unknown archaeological resources. **[Less than Significant Impact]**

3.4.3 Cumulative Impacts

Historic Resources

The cumulative projects analyzed in this EIR in Mountain View and neighboring cities may contain historic resources, whether or not they are currently recognized. The project would, however, not result in an impact to a known historic resource. If a resource is identified in the future as part of a specific development project, City standard conditions of approval would be implemented to avoid potential impacts. Further, historic impacts are localized at individual properties; therefore, a cumulative historic impact would not be likely to occur in the cumulative scenario.

Impact C-CUL-1: Implementation of the Precise Plan project would result in a less than significant cumulative impact to cultural resources. **[Less than Significant Cumulative Impact]**

Archaeological Resources

The cumulative projects analyzed in this EIR in Mountain View and neighboring cities may require excavation and grading or other activities that may affect unknown archaeological resources. Cumulative projects occurring within Mountain View or neighboring cities, however, would be required to implement conditions of approval or mitigation measures that would avoid impacts to archaeological resources and human remains and/or reduce them to a less than significant level. Additionally, these impacts are also localized (similar to historic resources) and are unlikely to occur in a cumulative scenario. For these reasons, the cumulative projects, including the Precise Plan, would not result in significant cumulative impacts to prehistoric resources.

Impact C-CUL-2: Implementation of the Precise Plan project would result in a less than significant cumulative impact to archaeological resources. **[Less than Significant Cumulative Impact]**

3.4.4 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
CUL-1: Implementation of the proposed project would not result in significant impacts to historic resources.	No Impact	No mitigation required	NA
CUL-2: With the implementation of standard City conditions of approval, the proposed project would result in a less than significant impact to unknown cultural resources.	Less than Significant	No mitigation required	NA
C-CUL-1: Implementation of the Precise Plan would result in a less than significant cumulative impact to historic resources.	Less than Significant	No mitigation required	NA
C-CUL-2: Implementation of the Precise Plan project would result in a less than significant cumulative impact to archaeological resources.	Less than Significant	No mitigation required	NA

3.5 ENERGY

This section is based on the air quality and GHG analysis prepared for the project by Illingworth & Rodkin, Inc. in June 2018. This report is included as Appendix D to this Draft EIR.

3.5.1 Environmental Setting

3.5.1.1 *Regulatory Framework*

Federal

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

State

Renewables Portfolio Standard Program

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

Building Codes

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the California Code of Regulations (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years, and the 2016 Title 24 updates went into effect on January 1, 2017.[10] Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.[11]

The California Green Building Standards Code (CalGreen) establishes mandatory green building standards for buildings in California. CalGreen was developed to reduce GHG emissions from buildings, promote environmentally responsible and healthier places to live and work, reduce energy and water consumption, and respond to state environmental directives. The most recent update to CalGreen went into effect on January 1, 2017, and covers five categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.

[10] California Building Standards Commission. "Welcome to the California Building Standards Commission". Accessed February 6, 2018. http://www.bsc.ca.gov/.
[11] California Energy Commission (CEC). "2016 Building Energy Efficiency Standards". Accessed February 6, 2018. http://www.energy.ca.gov/title24/2016standards/index.html.

Local

Mountain View Green Building Code

At the local level, the Mountain View Green Building Code (MVGBC) amends the state-mandated CalGreen standards to include local green building standards and requirements for private development. The MVGBC does not require formal certification from a third-party organization, but requires projects to be designed and constructed to meet the intent of a third-party rating system.[12] For residential projects proposing over five units, the MVGBC requires that those buildings meet the intent of 70 GreenPoint Rated points from the Build it Green certification program, as well as compliance with mandatory CalGreen requirements. For non-residential projects proposing buildings between 5,000 and 25,000 square feet, the MVGBC requires that those buildings meet the intent of LEED Certified and mandatory CalGreen requirements. For buildings over 25,000 square feet, the MVGBC requires that those buildings meet the intent of LEED Silver and mandatory CalGreen requirements.

3.5.1.2 *Existing Conditions*

Total energy usage in California was approximately 7,830 trillion Btu in the year 2016, the most recent year for which this data was available. Out of the 50 states, California is ranked 2nd in total energy consumption and 48th in energy consumption per capita. The breakdown by sector was approximately 18 percent for residential uses, 19 percent for commercial uses, 24 percent for industrial uses, and 40 percent for transportation.[13] This energy is primarily supplied in the form of natural gas, petroleum, nuclear electric power, and hydroelectric power.

The Precise Plan area contains a mix of office, R&D, industrial, commercial, and residential uses, all of which consume electricity, natural gas, and gasoline. Given the nature of the proposed land uses in the Precise Plan area, the remainder of this discussion will focus on the these three most relevant sources of energy: electricity, natural gas, and gasoline for vehicles.

Electricity

Electrical energy is expressed in units of kilowatts (kW) and kilowatt-hours (kWh). Growth in annual electricity consumption increased between 2016 and 2017 reflecting increased electricity consumption by light-duty electric vehicles (EV) and high levels of manufacturing electricity consumption. Per-capita electricity consumption, despite increasing EV use, is projected to be relatively flat due to small-scale residential and commercial photovoltaic generation.[14] Due to population increases, however, it is estimated that future demand in California for electricity would grow at approximately 1.27 percent each year through 2030, and that approximately 339,160 gigawatt hours (GWh) of electricity would be utilized in the state in 2030.[15]

[12] City of Mountain View. *Mountain View Green Building Code.* 2017. Accessed December 18, 2018. http://www.mountainview.gov/depts/comdev/building/construction/mvgbc.asp.
[13] United States Energy Information Administration. "State Profile and Energy Estimates, 2016." https://www.eia.gov/state/?sid=CA#tabs-2.
[14] CEC. *California Energy Demand 2018-2030 Revised Forecast.* https://efiling.energy.ca.gov/getdocument.aspx?tn=223244
[15] Ibid.

Electricity in Santa Clara County in 2016 was consumed primarily by the commercial sector (77 percent), followed by the residential sector consuming 23 percent. In 2016, a total of approximately 16,800 GWh of electricity was consumed in Santa Clara County.[16]

The community-owned SVCE is the electricity provider for the City of Mountain View.[17] SVCE sources the electricity and the Pacific Gas and Electric Company (PG&E) delivers it to customers over their existing utility lines. Customers are automatically enrolled in the GreenStart plan, which generates its electricity from 100 percent carbon free sources; with 50 percent from solar and wind sources, and 50 percent from hydroelectric. Customers have the option to enroll in the GreenPrime plan, which generates its electricity from 100 percent renewable sources, such as wind and solar. Customers must opt-out of SVCE service if they prefer to have PG&E provide their electricity.

Natural Gas

Energy usage is typically quantified using the British thermal unit (Btu). PG&E provides natural gas services within the City of Mountain View. In 2017, approximately 10 percent of California's natural gas supply came from in-state production, while 90 percent was imported from other western states and Canada.[18] In 2017, approximately 1.4 percent of California's natural gas supply came from in-state production, while the remaining supply was imported from other western states and Canada.[19] Residential and commercial customers in California used 29 percent, power plants used 32 percent, and the industrial sector used 37 percent. Transportation accounted for one percent of natural gas use in California. In 2017, Santa Clara County used approximately 3.5 percent of the state's total consumption of natural gas.[20]

Overall natural gas demand in California is anticipated to decrease slightly through 2028. This decline is due to on-site residential, commercial, and industrial electricity generation; aggressive energy efficiency programs; and a decrease in demand for electrical power generation as a result of state-mandated RPS targets (as the state moves to power generation resources that result in less GHG emissions than natural gas). [21]

Fuel for Motor Vehicles

In 2017, 15 billion gallons of gasoline were sold in California.[22] The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about

[16] CEC. Energy Consumption Data Management System. "Electricity Consumption by County". Accessed February 16, 2019. http://ecdms.energy.ca.gov/elecbycounty.aspx.
[17] SVCE. "Frequently Asked Questions". Accessed October 9, 2018. https://www.svcleanenergy.org/faqs.
[18] California Gas and Electric Utilities. *2017 California Gas Report.* https://www.socalgas.com/regulatory/documents/cgr/2017_California_Gas_Report_Supplement_63017.pdf
[19] California Gas and Electric Utilities. *2018 California Gas Report.* https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf.
[20] CEC. "Natural Gas Consumption by County". Accessed February 16, 2019. http://ecdms.energy.ca.gov/gasbycounty.aspx.
[21] California Gas and Electric Utilities. *2017 Natural Gas Market Trends and Outlook*. http://docketpublic.energy.ca.gov/PublicDocuments/17-IEPR-04/TN222400_20180131T074538_STAFF_FINAL_REPORT_2017_Natural_Gas_Market_Trends_and_Outlook.pdf.
[22] California Department of Tax and Fee Administration. Net Taxable Gasoline Gallons. Accessed February 16, 2019. http://www.cdtfa.ca.gov/taxes-and-fees/MVF_10_Year_Report.pdf.

13.1 miles-per-gallon (mpg) in the mid-1970's to 22 mpg in 2016.[23] Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. That standard, which originally mandated a national fuel economy standard of 35 miles per gallon by the year 2020, was subsequently revised to apply to cars and light trucks Model Years 2011 through 2020. [24,25]

3.5.2 Energy Impacts

3.5.2.1 *Thresholds of Significance*

Based on Appendix F of the CEQA Guidelines, and for the purposes of this EIR, a project will result in a significant energy impact if the project will:

- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.5.2.2 *Energy Waste or Inefficiency*

Construction

Construction of future development under the Precise Plan would require energy for the manufacture and transportation of building materials, preparation of the project sites (e.g., demolition and grading), and the construction of buildings. Full build-out of the Precise Plan would occur over several years as older buildings are slowly replaced. The project does not quantify construction energy use because estimating diesel and gasoline consumption for vehicles, equipment, and generators; and electricity use for tools would be overly speculative. In addition, construction energy usage is temporary. There is no currently acceptable standard model or accurate way to predict construction energy usage (in terms of fuel or electricity usage).

Construction processes are generally designed to be efficient in order to avoid excess monetary costs. That is, equipment and fuel are not typically used wastefully on the site because of the added expense associated with renting the equipment, as well as maintenance and fuel. Further, project development in urbanized areas (such as the Precise Plan area) with close access to roadways, construction supplies, and workers is already more efficient than construction occurring in outlying areas. For these reasons, the construction process is already efficient and opportunities for increasing energy efficiency during construction are limited.

Future projects constructed within the Precise Plan area will be required to implement BAAQMD Best Management Practices, included as standard permit conditions in Section 3.2 Air Quality, restricting equipment idling times and requiring the applicant to post signs on the project site reminding workers to shut off idle equipment, thus reducing the potential for energy waste. In

[23] U.S. EPA. Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles. Accessed February 16, 2019. https://www.bts.gov/content/average-fuel-efficiency-us-light-duty-vehicles.
[24] U.S. Department of Energy. Energy Independence & Security Act of 2007. http://www.afdc.energy.gov/laws/eisa.
[25] Public Law 110–140—December 19, 2007. Energy Independence & Security Act of 2007. http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf.

addition, consistent with mitigation measure MM AQ-3.1, equipment would be carefully selected to reduce emissions during construction; therefore, energy would not be wasted or used inefficiently by construction equipment and waste from idling. Future projects would also comply with the City's requirements to recycle and/or salvage for reuse a minimum of 65 percent of nonhazardous construction and demolition waste, minimizing energy impacts from the creation of excessive waste. For these reasons, construction activities would not use fuel or energy in a wasteful manner.

Operation

Occupation and operation of future buildings under the Precise Plan would consume energy for multiple purposes, including building heating and cooling, lighting, and appliance use. Operational energy would also be consumed by resident, employee, and customer vehicle use to and from the Precise Plan area. The increase in energy use upon buildout of the Precise Plan is shown below in Table 3.5-1.

Table 3.5-1: Estimated Year 2030 Energy Usage

Energy Type	Existing	Existing Plus Project
Electricity (kWh)	91,754,700	156,050,540
Natural Gas (kBtu)	155,815,080	188,215,539
Gasoline (gallons)	2,013,000	1,622,000

As shown above, the Precise Plan's relatively minor increase in energy demand as compared to statewide energy supplies would not represent a wasteful or inefficient use of energy resources because new construction under the Precise Plan will be required to meet specified green building standards, including meeting the intent of LEED BD+C Gold (or equivalent) and CalGreen requirements for non-residential projects and LEED BD+C Platinum (or equivalent) for FAR Bonus projects. Dual plumbing for recycled water, submetering for residential units, and water efficient landscape fixtures and plants are required; all of which reduce overall energy demand and the potential for inefficiency or waste.

Compliance with the above standards would meet or exceed state-required Title 24 energy efficiency standards and further decrease the potential for energy waste and increase building efficiency. In addition, development under the Precise Plan would occur within an infill area and would take advantage of existing infrastructure, which reduces the energy required to provide utilities and services to the site. For these reasons, inefficient or wasteful use of electricity or natural gas would not occur as part of development under the Precise Plan.

Introduction of residential uses and intensification of commercial uses increases the opportunity for alternatives to single-occupancy vehicular travel modes, which reduce gasoline consumption. Overall gasoline use in the Precise Plan area is expected to decrease by approximately 391,000 gallons per year, as shown in Table 3.5-1. This reduction is achieved due to the Precise Plan's proximity to existing transit, the Precise Plan's requirement for development projects to include TDM plans (as described in detail Section 2.0 Project Description), the proposed mix of land uses in the Precise Plan area and placing residential development near jobs. Thus, the Precise Plan would not result in inefficient or wasteful use of gasoline.

Impact ENG-1: The proposed project would not result in inefficient or wasteful use of energy during construction or operation. **[Less than Significant Impact]**

3.5.2.3 *Consistency with Plans*

As required under the City of Mountain View Greenhouse Gas Reduction Program (GGRP), TDM Plans are required to be prepared for commercial, office, and residential uses and would be implemented in the Precise Plan area. Project under the Precise Plan would obtain electricity from SVCE, which is 100 percent GHG-emission free energy from renewable and hydroelectric sources, consistent with the state's RPS program and SB 350. In addition, the Precise Plan includes building standards that meet or exceed state mandated Title 24 energy efficiency standards, CalGreen standards, and MVGBC standards; especially with the inclusion of water efficiency and LEED (or equivalent) requirements. Thus, the proposed project would not obstruct a state or local plan for renewable energy or energy efficiency.

Impact ENG-2: The proposed project would not obstruct a state or local plan for renewable energy or energy efficiency. **[Less than Significant Impact]**

3.5.2.4 *Cumulative Impacts*

Future development within the SVCE service area will increase residential, commercial, office, and other non-residential needs for electricity and gas. SVCE is expected to meet future energy demand and will continue its reliance on renewable and GHG-emissions free resources in response to regulatory requirements intended to address global climate change.

The energy demand of the proposed project, together with the cumulative projects, would be considered less than significant due to the small increment of increased energy demand, as compared to county-wide usage, resulting from energy conservation requirements and programs that have been established under the General Plan and GGRP and other energy conservation programs in neighboring jurisdictions. Additionally, with the implementation of AB 32 and Title 24 requirements, future development throughout California would be required to integrate energy efficiency measures that would reduce the potential for waste or inefficiency.

All cumulative development would be required to meet Title 24 energy efficiency standards and would not encourage wasteful or inefficient use of energy, cumulative development in the City of Mountain View and surrounding cities of Palo Alto and Sunnyvale would be required to conform to adopted green building standards. Therefore, implementation of the proposed project would not make a significant cumulative contribution to impacts on energy inefficiency or waste, and cumulative energy impacts would be less than significant.

Impact C-ENG-1: Implementation of the proposed project when combined with cumulative projects, would not result in a cumulatively significant energy impact due to increased demand or waste. **[Less than Significant Cumulative Impact]**

3.5.3 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
ENG-1: The proposed project would not result in inefficient or wasteful use of energy during construction or operation.	Less than Significant	No mitigation required	NA
ENG-2: The proposed project would not obstruct a state or local plan for renewable energy or energy efficiency.	Less than Significant	No mitigation required	NA
C-ENG-1: Implementation of the proposed project when combined with cumulative projects, would not result in a cumulatively significant energy impact due to increased demand or waste.	Less than Significant	No mitigation required	NA

3.6 GEOLOGY, SOILS, AND MINERALS

3.6.1 Environmental Setting

3.6.1.1 *Regulatory Framework*

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed following the 1971 San Fernando earthquake. The act ensures public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute a potential hazard to structures from surface faulting or fault creep. Alquist-Priolo maps are created by the State Geologist and distributed to affected cities, counties, and state agencies for their use in planning and reviewing new construction.

Seismic Hazards Mapping Act

Following the 1989 Loma Prieta earthquake, the Seismic Hazards Mapping Act (SHMA) was passed. The SHMA directs the California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. It also requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the identified hazard is present and requires the inclusion of measures to reduce earthquake-related hazards.

California Building Standards Code

The CBC contains state-mandated regulations that govern the construction of buildings in California and prescribes standards for constructing safer buildings. The CBC contains provisions for earthquake safety based on factors including occupancy type, soil and rock profile, ground strength, and distance to seismic sources. The CBC requires that a site-specific geotechnical investigation report be prepared by a licensed professional for proposed developments to evaluate seismic and geologic conditions that may affect a project, such as surface fault ruptures, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. The CBC is updated every three years; the current version is the 2016 CBC.

California Division of Occupational Safety and Health Regulations

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

Paleontological Resources Regulations

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. They range from mammoth and dinosaur bones to impressions of ancient animals and plants, trace remains, and microfossils. These are in part valued for the information they yield about the history of the earth and its past ecological settings. The California Public Resources Code (Section 5097.5) specifies that unauthorized removal of a paleontological resource is a

misdemeanor. Under the CEQA Guidelines, a project would have a significant impact on paleontological resources if it will disturb or destroy a unique paleontological resource or site or unique geologic feature.

Local

City of Mountain View 2030 General Plan

The following General Plan policies related to geology and soils are applicable to the Precise Plan.

Policy	Description
INC 2.3	**Emergency-prepared infrastructure design.** Require the use of available technologies and earthquake-resistant materials in the design and construction of all infrastructure projects, whether constructed by the City or others.
PSA 4.2	**Natural disasters**. Minimize impacts of natural disasters.
PSA 5.1	**New development.** Ensure new development addresses seismically induced geologic hazards.
PSA 5.2	**Alquist-Priolo zones.** Development shall comply with the Alquist-Priolo Earthquake Fault Zoning Act.
PSA 5.3	**Technology.** Use effective technologies to inform the community about potential hazards and emergency response.
PSA 5.4	**Utility design.** Ensure new underground utilities, particularly water and natural gas lines, are designed to meet current seismic standards.
LUD 11.5	**Protect important archaeological and paleontological sites**. Utilize the development review process to identify and protect archaeological and paleontological deposits.

City of Mountain View Municipal Code

The City of Mountain View has adopted the CBC, with amendments, as the reference building code for all projects in the City under Chapter 8 of the City's Code of Ordinances. The City of Mountain View's Building Inspection Department is responsible for reviewing plans, issuing building permits, and conducting field inspections. Project-specific geotechnical investigation reports, as required by the CBC, would be required for projects as a City standard condition of approval. Reports would be reviewed by the City of Mountain View's Building Inspection Division prior to issuance of building permits to ensure compliance.

3.6.2 Existing Setting

3.6.2.1 *Geology, Soils, and Topography*

Regional Geology

The project site is located in the Santa Clara Valley, an alluvial basin bounded by the Santa Cruz Mountains to the west, the Diablo Range to the east, and the San Francisco Bay to the north. The Valley was formed when sediments derived from both mountain ranges were exposed by tectonic uplift and regression of the inland sea which previously inundated this area. The Upper Quaternary

sediments that comprise most of this basin consist of up to 1,000 feet of poorly sorted gravel, sand, and clay which were deposited in alluvial fan and deltaic depositional environments.

Soils

The Precise Plan area is primarily underlain by Urbanland-Hangerone complex soils of zero to two percent slopes. These soils are clay alluvium soils derived from metamorphic or sedimentary rock. The Precise Plan area also contains Urbanland-Stevens Creek complex soils of zero to two percent slopes. These soils are sandy loam, silt loam, and silty clay loam alluvium derived from metamorphic and sedimentary rock and/or alluvium derived from metavolcanics. A small portion of the Precise Plan area is underlain by Urbanland-Bayshore complex soils of zero to two percent slopes. These soils are sandy clay loam, and gravelly sandy loam from metamorphic and sedimentary rock and/or alluvium from metavolcanics. [26]

Expansive soils shrink and swell as a result of moisture changes. These changes can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. The soils in the Precise Plan area exhibit moderate to high shrink-swell (i.e., expansive) behavior.[27] [28]

Site Topography

The Precise Plan area is relatively flat and as a result, the risk of erosion or landslide is low. There are no hillsides or steep embankments within the Precise Plan area that require consideration for current or future development of the site. The elevation of the Precise Plan area ranges from 30 to 60 feet above mean sea level.[29]

Groundwater

The City of Mountain View overlies the Santa Clara Valley Subbasin, a groundwater subbasin that is 225 square miles in area. Approximately three percent of Mountain View's drinking water comes from local groundwater supply, while the rest is supplemented by water purchases from the Santa Clara Valley Water District (Valley Water) and the SFPUC.[30] Valley Water conducts an artificial groundwater recharge program that involves releasing locally conserved or imported water to in-stream and off-stream facilities to augment groundwater supplies in the Santa Clara groundwater basin. The project site is not located within or adjacent to any groundwater recharge facilities used by Valley Water.[31]

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[26] United States Department of Agriculture. Natural Resources Conservation Service. *Web Soil Survey: Santa Clara Area, California, Western Part (CA641)* Accessed October 22, 2018. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.
[27] Ibid.
[28] USDA. NRCS. *Supplement to the Soil Survey of Santa Clara Area, California, Western Part.* Accessed October 22, 2018. http://soils.usda.gov/survey/printed_surveys/
[29] Google Earth. 2018.
[30] City of Mountain View. *Groundwater.* Accessed October 22, 2018. https://www.mountainview.gov/depts/pw/services/conserve/supply/ground.asp.
[31] SCVWD. *2016 Groundwater Management Plan*. Figure 1-3. 2016.

Depth to groundwater will vary throughout the Precise Plan area depending on site-specific conditions, such as variations in rainfall, temperature, runoff, and irrigation. Soil borings were performed as part of a site-specific geotechnical investigation for a recent project at 700 East Middlefield Road, which is located in the Employment Area South Character Area. Soil borings encountered groundwater at the depth of 15 to 20.5 feet below grade at the project site.[32] Additionally, groundwater was estimated to occur at 39 to 41 feet below grade during sampling conducted for a recent residential project at 555 East Evelyn Avenue, at the southern boundary of the Precise Plan area.[33] Groundwater levels would be confirmed during site-specific geotechnical investigations performed for development projects proposed within the Precise Plan area.

3.6.2.2 *Seismic and Seismic-Related Hazards*

Earthquake Faults

The project site is located within the seismically active San Francisco Bay region and within the general vicinity of three known major active faults. These faults include the San Andreas Fault, located approximately eight miles to the southwest; the Calaveras Fault, 14 miles to the east; and the Hayward Fault, 10 miles to the northeast.[34] The project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone.

Liquefaction

Soil liquefaction can be defined as ground failure or loss of strength that causes otherwise solid soil to take on the characteristics of a liquid. This phenomenon is triggered by earthquake or ground shaking that causes saturated or partially saturated soils to lose strength, potentially resulting in the soil's inability to support structures. The site is located within a State of California Seismic Hazard Zone for liquefaction, as well as a Santa Clara County Liquefaction Hazard Zone. [35,36]

Other Geologic Hazards

The Precise Plan area is not located within a Santa Clara County Geologic Hazard Zone for compressible soil, landslides, or fault rupture.[37]

3.6.2.3 *Paleontological Resources*

There have been no recorded fossils discovered within the City of Mountain View, though two fossils have been discovered within two miles of City boundaries (which is outside of Mountain View's City limits). Fossiliferous deposits do exist in the City. Soils within the Precise Plan area could have paleontological sensitivity.[38]

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[32] City of Mountain View. *700 East Middlefield Road LinkedIn Office Project Administrative Draft EIR.* April 2018.
[33] City of Mountain View. *555 East Evelyn Avenue Residential Project Draft EIR.* June 2018.
[34] US Geological Survey. *The San Andreas and Other Bay Area Faults*. Accessed October 22, 2018. http://earthquake.usgs.gov/regional/nca/virtualtour/bayarea.php.
[35] County of Santa Clara. *County Geologic Hazard Zones. Maps 2 and 10*. September 2002. Accessed October 22, 2018. https://www.sccgov.org/sites/dpd/PlansOrdinances/GeoHazards/Pages/GeoMaps.aspx.
[36] California Geological Survey. *Seismic Hazard Zones: Mountain View Quadrangle.* October 2006. Accessed October 22, 2018. http://gmw.consrv.ca.gov/shmp/download/pdf/ozn_mview.pdf.
[37] Ibid.
[38] City of Mountain View. *Draft 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report.* September 2012.

3.6.2.4 *Mineral Resources*

Based on mapping conducted by the California Division of Mines and Geology, as well as the California Department of Conservation, there have been no mineral or aggregate sources of statewide importance identified within the Mountain View city limits.

3.6.3 Geology, Soils, and Minerals Impacts

3.6.3.1 *Thresholds of Significance*

For the purposes of this EIR, a geology, soils, and minerals impact is considered significant if the project would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
    - Strong seismic ground shaking;
    - Seismic-related ground failure, including liquefaction;
    - Landslides;
- Result in substantial soil erosion or the loss of topsoil; or
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Section 1803.5.3 of the CBC creating substantial direct or indirect risks to life or property;
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state; or
- Result in the loss of availability of locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

3.6.3.2 *Seismicity and Seismic Hazards*

The Precise Plan area is located within a seismically active region. It can be reasonably anticipated that the Precise Plan area would experience strong ground shaking during the lifetime of future development projects. The Precise Plan area is not located within the fault rupture zones of any of the nearby faults; however, strong ground shaking from seismic activity could damage structures and infrastructure. Furthermore, the Precise Plan area is located in a liquefaction hazard zone, which can pose a risk to the integrity of structures at the site.

To avoid or minimize potential damage from ground shaking and seismically induced liquefaction, future projects in the Precise Plan area would be designed and constructed in accordance with seismic design requirements. Individual projects will be reviewed on a project-by-project basis for conformance with Precise Plan policies, CBC requirements, and General Plan policies PSA 4.2, PSA 5.1, PSA 5.2, PSA 5.3, PSA 5.4, and INC 2.3. Additionally, the following standard conditions of approval would be required for projects in the Precise Plan area.

Standard Condition of Approval

- GEOTECHNICAL REPORT: The applicant shall have a design-level geotechnical investigation prepared which includes recommendations to address and mitigate geologic hazards in accordance with the specifications of California Geological Survey special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards, and the requirements of the Seismic Hazards Mapping Act. The report will be submitted to the City prior to the issuance of building permits, and the recommendations made in the geotechnical report will be implemented as part of the project. Recommendations may include considerations for design of permanent below-grade walls to resist static lateral earth pressures, lateral pressures caused by seismic activity, and traffic loads; method for backdraining walls to prevent the buildup of hydrostatic pressure; considerations for design of excavation shoring system; excavation monitoring; and seismic design.

  Specific recommendations contained in the geotechnical report prepared for the future development projects shall also be implemented to the satisfaction of the City of Mountain View Building Inspection Division.

Impact GEO-1: Potential seismic impacts to projects would be reduced to a less than significant level or avoided with conformance to the CBC and City requirements, including preparation and implementation of a design-level geotechnical investigation. **[Less than Significant Impact]**

3.6.3.3 *Other Geologic Impacts*

Expansive Soils

Soils underlying the Precise Plan area have a moderate to high potential for expansion. The shrink-swell actions of these soils can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Expansive soils must be considered during project design for future developments within the Precise Plan area to ensure that potential adverse effects are avoided.

During implementation of the Precise Plan, individual projects will be reviewed on a project-by-project basis to demonstrate compliance with the CBC and applicable General Plan policies. As discussed previously, standard conditions of approval require the preparation of a site-specific geotechnical investigation, which will take into account the expansive soils underlying the Precise Plan area and make recommendations for building design and engineering practices that address potential impacts from expansive soils on-site.

Other Soils-Related Hazards

The Precise Plan area is located on relatively flat, stable ground and would not be exposed to slope instability, erosion, or landslide related hazards. Thus, the project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, and death involving landslide or erosion-related hazards. Standard conditions of approval would be required for future projects within the Precise Plan area to ensure that erosion would not occur during construction and operation of future projects, as described in detail in Section 3.9 Hydrology and Water Quality.

Impact GEO-2: Compliance with the CBC, General Plan policies, and the City's standard conditions of approval will ensure that soils impacts would be less than significant. **[Less than Significant Impact]**

3.6.3.4 *Mineral Resources Impacts*

No minerals or aggregate resources of statewide importance are located in the vicinity of Mountain View. Implementation of the Precise Plan would not result in the loss of availability of a known mineral resource.

Impact GEO-3: Implementation of the Precise Plan would not result in an impact to mineral resources. **[No Impact]**

3.6.3.5 *Paleontological Resources Impacts*

Although no paleontological resources have been identified in the City of Mountain View and the likelihood of encountering buried paleontological resources in the Precise Plan is low, the disturbance of these resources during excavation and construction, could result in an impact. Future development will be required to comply with the following standard condition of approval, which to avoid or reduce impacts to unknown paleontological resources.

Standard Condition of Approval

- DISCOVERY OF PALEONTOLOGICAL RESOURCES: In the event a fossil is discovered during construction of the project, excavations within 50 feet of the find shall be temporarily halted or delayed until the discovery is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. If the find is determined to be significant and if avoidance is not feasible, the paleontologist shall design and carry out a data recovery plan consistent with the Society of Vertebrate Paleontology standards.

Impact GEO-4: Implementation of the project would result in a less than significant impact to paleontological resources. **[Less than Significant Impact]**

3.6.3.6 *Cumulative Impacts*

The cumulative projects analyzed in this Draft EIR will be subject to similar geology, soils, and seismicity impacts as the proposed project. All cumulative projects occurring within Mountain View and neighboring cities, would implement conditions of approval, mitigation measures, and ensure consistency with the CBC in order to avoid impacts from seismicity and geology and soils hazards, and/or reduce them to a less than significant level.

Adhering to the standard conditions of approval for discovery of paleontological resources would ensure that these resources are not impacted by implementation of the Precise Plan. Projects in the cumulative scenario would also be subject to similar CEQA requirements and conditions of approval as projects under the Precise Plan.

For these reasons, the cumulative projects, including the proposed project, would not result in significant cumulative geology and soils impacts.

Impact C-GEO-1: The proposed project, together with cumulative projects, would not result in a significant cumulative impact to geology, soils, or paleontological resources. **[Less than Significant Cumulative Impact]**

3.6.4 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
GEO-1: Potential seismic impacts to projects would be reduced to a less than significant level or avoided with conformance to the CBC and City requirements, including preparation and implementation of a design-level geotechnical investigation.	Less than Significant	No mitigation required	NA
GEO-2: Compliance with the CBC, General Plan policies, and the City's standard conditions of approval will ensure that soils impacts would be less than significant.	Less than Significant	No mitigation required	NA
GEO-3: Implementation of the Precise Plan would not result in an impact to mineral resources.	No Impact	No mitigation required	NA
GEO-4: Implementation of the project would result in a less than significant impact to paleontological resources.	Less than Significant	No mitigation required	NA
C-GEO-1: The proposed project, together with cumulative projects, would not result in significant cumulative geology and soils impact.	Less than Significant	No mitigation required	NA

3.7 GREENHOUSE GAS EMISSIONS

This section is based on the air quality and greenhouse gas (GHG) analysis prepared for the project by Illingworth & Rodkin, Inc. in December 2018. This report is included as Appendix D to this Draft EIR.

3.7.1 Environmental Setting

Global temperatures are affected by naturally occurring and human-generated atmospheric gases, such as water vapor, carbon dioxide, methane, and nitrous oxide. Gases that trap heat in the atmosphere are called GHGs. Solar radiation enters the earth's atmosphere from space, and a portion of the radiation is absorbed at the surface. GHGs are effective in absorbing radiation and redirecting some of this back to the earth's surface. As a result, warming of the atmosphere occurs. This is known as the greenhouse effect.

Emissions of GHGs from human activities, such as electricity production, motor vehicle use, and agriculture, are elevating the concentration of GHGs in the atmosphere, and have led to a trend of unnatural warming, known as global warming or global climate change. GHG emissions are typically measured and reported in terms of equivalent CO_2 (CO_2e). The primary GHGs contributing to global climate change include the following:

- Carbon dioxide (CO_2), primarily a byproduct of fuel combustion;
- Nitrous oxide, a byproduct of fuel combustion and agricultural operations;
- Methane, commonly created by off-gassing from agricultural practices (e.g. livestock), wastewater treatment and landfill operations;
- Chlorofluorocarbons were used as refrigerants, propellants and cleaning solvents, but their production has been mostly prohibited by international treaty;
- Hydrofluorocarbons are now widely used as a substitute for chlorofluorocarbons in refrigeration and cooling; and
- Perfluorocarbons and sulfur hexafluoride emissions are created by manufacturing.

Global warming is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates. In California, increased precipitation and sea level rise could increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

3.7.1.1 *Regulatory Framework*

State

Global Warming Solutions Act

Under the California Global Warming Solution Act, also known as Assembly Bill (AB) 32, the California Air Resources Board (CARB) established a statewide GHG emissions cap for 2020,

adopted mandatory reporting rules for significant sources of GHG, and adopted a comprehensive plan, known as the Climate Change Scoping Plan, identifying how emission reductions would be achieved from significant GHG sources.

In 2016, SB 32 was signed into law, amending the California Global Warming Solution Act. SB 32, and accompanying Executive Order B-30-15, require CARB to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its Climate Change Scoping Plan in December of 2017 to express the 2030 statewide target in terms of million metric tons of carbon dioxide equivalent (MMTCO2e). Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 MMTCO2e.

Senate Bill 375

SB 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 builds upon AB 32 by requiring CARB to develop regional GHG reduction targets for automobile and light truck sectors for 2020 and 2035, as compared to 2005 emissions levels. The per-capita GHG emissions reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.

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

Advanced Clean Cars Program

CARB adopted the Advanced Clean Cars program in 2012 in coordination with the EPA and National Highway Traffic Safety Administration. The program combines the control of smog-causing (criteria) pollutants and GHG emissions into a single coordinated set of requirements for model years 2015 through 2025. The program promotes development of environmentally superior passenger cars and other vehicles, as well as saving the consumer money through fuel savings.[39]

Regional

Bay Area 2017 Clean Air Plan

Regional air quality management districts, such as BAAQMD, must prepare air quality plans specifying how state and federal air quality standards would be met. BAAQMD's most recently adopted plan is the Bay Area 2017 Clean Air Plan (2017 CAP). The 2017 CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect the climate, the 2017 CAP includes control measures designed to reduce emissions of methane and other super-

[39] CARB. "California's Advanced Clean Cars Midterm Review". Accessed December 6, 2018. https://www.arb.ca.gov/msprog/acc/mtr/acc_mtr_summaryreport.pdf?_ga=2.154400126.733319003.1545107253-1387084617.1539978077.

GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

CEQA Air Quality Guidelines

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

Local

2030 General Plan and Greenhouse Gas Reduction Program

The City of Mountain View certified the General Plan Program EIR and adopted the Mountain View 2030 General Plan and Greenhouse Gas Reduction Program (GGRP) in July 2012. The GGRP is a separate but complementary document to the General Plan that implements the long-range GHG emissions reduction goals of the General Plan and serves as a programmatic GHG reduction strategy for CEQA tiering purposes. The GGRP includes goals, policies, performance standards, and implementation measures for achieving GHG emission reductions, to meet the requirements of AB 32. The program includes a goal to improve communitywide emissions efficiency by 15 to 20 percent over 2005 levels by 2020 and by 30 percent over 2005 levels by 2030.

Implementation of the policies in the 2030 General Plan programmatically, and as a part of the City's development permitting process, also provide for meeting standards for energy efficiency, recycling, and water conservation, consistent with laws and regulations to reduce GHG emissions.

The following GHG-emissions related policies from the General Plan would apply to the Precise Plan.

Policy	Description
INC 12.1	**Emissions reduction target.** Maintain a GHG emissions reduction target.
INC 12.2	**Emissions reduction strategies.** Develop cost-effective strategies for reducing GHG emissions.
INC 12.3	**Adaptation strategies.** Develop strategies for adapting to climate change in partnership with local and regional agencies.

The City's GGRP meets the requirements of a GHG Reduction Strategy under State CEQA Guidelines Section 15183.5.[40] The program includes a goal to improve communitywide emissions efficiency (per-service population – residents and full-time employees) by 15 to 20 percent over 2005 levels by 2020 and by 30 percent over 2005 levels by 2030. The GGRP implements the following actions from the General Plan Mobility Element Policy MOB 9.1:

[40] AECOM. 2012. City of Mountain View Greenhouse Gas Reduction Program. August.

- Action MOB 9.1.1 Greenhouse Gas Inventory: Maintain and regularly update the City's municipal and community Greenhouse Gas Inventory to track emissions.
- Action MOB 9.1.2 Greenhouse Gas Reduction Program: Regularly update the Greenhouse Gas Reduction Program to address transportation emissions reductions.

Other Plans and Policies

The City has developed several plans that serve as GHG emissions reduction strategies, including the following:

- Climate Protection Roadmap (CPR): The CPR, completed in 2015, presents a projection of GHG emissions through 2050 and several strategies that would help the City reduce absolute communitywide GHG emissions 80 percent below 2005 levels by 2050.
- Municipal Operations Climate Action Plan (MOCAP): This plan, approved in 2015, guides the City's municipal operations GHG emissions reduction efforts. Like the CPR, the MOCAP provides specific strategies for reducing absolute emissions 80 percent below 2005 levels by 2050.
- Environmental Sustainability Action Plans (ESAPs): The first two plans, ESAP-1 and ESAP-2, guided the City's actions to meet general sustainability goals, and grew out of the City-appointed 2008 Environmental Sustainability Task Force. The current plan, ESAP-3, was developed based on actions in the CPR and MOCAP.

3.7.1.2 *Existing Conditions*

Citywide GHG Emissions Overview

In 2015, the City prepared a 2015 Community Greenhouse Gas Emissions Inventory that found GHG emissions to be about 9 percent higher than the City's adjusted GGRP target. The City's 2005 emission inventory was adjusted for the 2015 modeling to include updated modeling methodologies. The City had established a goal to reduce the estimated 2005 emissions by 10 percent in 2015. The majority of 2015 emissions were associated with transportation. While substantial reductions occurred with emissions associated with energy, solid waste and water, there was a 22 percent increase in transportation-related emissions.

Transportation emissions, which make up nearly 60 percent of the inventory, increased by 22 percent over 2005 levels as employment in Mountain View increased at a much greater rate than population. Employees, many that travel substantial distances to Mountain View, now outnumber residents. Balancing employment and housing are key to achieving the GGRP goal.

Energy-related emissions made up nearly 33 percent of the inventory. These emissions are primarily associated with electricity and natural gas consumption. Energy emissions decreased by nearly 15 percent, with the greatest reductions occurring recently. In 2017, Silicon Valley Clean Energy (SVCE) began providing 100 percent carbon-free electricity to residents and businesses in Mountain View, with over 98-percent participation. The reduction in electricity GHG emissions is not reflected in the 2015 inventory but will be reflected in subsequent inventories.

Precise Plan Area GHG Emissions

The Precise Plan area (located within a designated PDA) is developed primarily with office, light industrial, and R&D uses. These uses generate direct GHG emissions from the vehicle trips of employees and visitors, natural gas used for cooking and building heating, operation of stationary equipment (such as back-up generators), and indirect GHG emissions from operational electricity, water use, and other sources.

3.7.2 Greenhouse Gas Emissions Impacts

3.7.2.1 *Thresholds of Significance*

For the purposes of this EIR, a GHG emissions impact is considered significant if the project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

The City of Mountain View has adopted a qualified GGRP, which meets the requirements of a GHG Reduction Strategy under State CEQA Guidelines Section 15183.5. The program includes a goal to improve communitywide emissions efficiency (per service population—residents and full-time employees) by 30 percent over 2005 levels by 2030. The City intends to achieve GHG reductions from new land use developments to close the gap between projected regional emissions with AB 32 scoping plan measures and the AB 32 targets. Application of a 2030 GHG efficiency threshold of 4.5 metric tons of CO_2 equivalent per year ($MTCO_2e$/year) per service population (S.P.) is specified in the GGRP. Projects with emissions above this threshold would be considered to have a project-level and cumulatively significant impact.

3.7.2.2 *GHG Emissions Impact*

Construction

Construction GHG emissions estimates are not included as part of this analysis due to the speculative nature and lack of a BAAQMD or industry-standard model for calculating emissions on a program-level basis. Further, neither BAAQMD nor CEQA have an adopted threshold of significance for construction-related GHG emissions. BAAQMD encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable, including using alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment for at least 15 percent of the fleet, using local building materials of at least 10 percent, and recycling or reusing at least 65 percent of construction waste or demolition materials. The Precise Plan, consistent with current City requirements, would require that all new construction, additions, and alterations recycle or salvage 65 percent of nonhazardous construction and demolition debris generated.

Operation

The CalEEMod model (included with Appendix D) was used to predict GHG emissions associated with operation of fully developed sites under the Precise Plan. For vehicle emissions, daily trip

generation rates for each specific land use combined with daily vehicle miles traveled (VMT) data (from Appendix H) and the CARB EMFAC2017 emissions factor model was used to estimate vehicle emissions associated with operation of Precise Plan developments.

Development under the Precise Plan is anticipated to occur in 2020 or subsequent years. New construction would be subject to 2019 Title 24 building standards that would greatly increase energy efficiency. According to the California Energy Commission, low-rise homes built with the 2019 standards are anticipated to use about seven percent less energy due to energy efficiency measures versus those built under the 2016 standards.[41] Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.[42] To account for these new standards, an overall improvement of 30 percent in Title 24 energy usage was assumed in CalEEMod.

In 2017, Silicon Valley Clean Energy (SVCE) began providing 100 percent carbon-free electricity to residents and businesses, with over 98-percent participation in Mountain View. There are essentially no electricity-related emissions with SVCE-provided power. A 10-percent non-participation rate was assumed for build-out of the Precise Plan in the event that homes or businesses opt out of the SVCE provided power and choose the (currently) more expensive, carbon-intensive PG&E energy alternative. For these emissions, PG&E CO_2 emissions rates were assumed in CalEEmod.[43]

Table 3.7-1 below presents the results of GHG emissions analysis in terms of annual metric tons of equivalent CO_2e emissions ($MTCO_2e$/year) and service population values. Full build-out and operation of projects under the Precise Plan would result in 2030 annual service population emissions of 2.43 $MTCO_2e$/year/ service population, which would be below the City GGRP threshold of 4.5 $MTCO_2e$/year/service population.

[41] Low-rise residential buildings include single family homes and multi-family buildings of three stories or less; therefore, apartments and condos are included in the new standards.
[42] California CEC. 2018. 2019 Building Energy Efficiency Standards. Accessed December 13, 2018. https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf
[43] Pacific Gas & Electric. *Greenhouse Gas Emission Factors: Guidance for PG&E Customers*. 2015.

Table 3.7-1: 2030 Precise Plan GHG Emissions ($MTCO_2e$)			
Source Category	**Existing 2017**	**Existing 2030**	**Existing Plus Precise Plan 2030**
Area (heating and cooling equipment or other individual appliances)	72	56	310
Energy Consumption	11,044[a]	9,581 [a]	12,130 [a,b]
Mobile	39,924	34,644	69,858
Solid Waste Generation	1,759	1,759	5,050
Water Usage	5,927	4,094	3,079
Total	**58,726**	**50,134**	**90,427**
Service Population – Residents[c]	2,070	2,070	12,640
Service Population – Workers	15,630	15,630	24,560
Efficiency Metric ($MTCO_2e$/Service Population)	**3.32**	**2.83**	**2.43**
City GGRP 2030 Threshold	*4.5 MT CO_2e/year/service population*		
Significant Impact	***No***		

[a] Includes adjustment for SVCE carbon-free electricity

[b] Assumes 2019 Title 24 Standards for energy efficiency apply

[c] There are existing residents because the analysis includes portions of neighborhoods outside the Precise Plan area, based on the configuration of transportation analysis zones.

Impact GHG-1: The project's operational emissions would not exceed the City's GGRP 2030 threshold of 4.5 $MTCO_2e$/year/service population. For this reason, the impact is less than significant. **[Less than Significant Impact]**

3.7.2.3 *Consistency with Plans, Policies, and Regulations*

2017 Clean Air Plan

The project would be consistent with the 2017 CAP, as discussed in Section 3.2 Air Quality.

Plan Bay Area

East Whisman is partially located within a PDA identified by the City of Mountain View in the regional Plan Bay Area document. Upon adoption of the East Whisman Precise Plan, the whole area will be incorporated into a PDA. Plan Bay Area calls for an intensification of highly sustainable and innovative development and includes standards for environmental performance in the area of transportation. For example, office development under the Precise Plan will be required to meet or exceed standards for a reduction in peak-hour drive alone vehicle trips in the form of a trip-cap. The Precise Plan also includes robust TDM requirements for both commercial and residential uses. The Precise Plan specifically increases the amount of residential and commercial development allowed in the Precise Plan area, consistent with the concentrated growth that is envisioned for PDAs in Plan Bay Area. The Precise Plan is, therefore, consistent with Plan Bay Area.

City of Mountain View Greenhouse Gas Reduction Strategy

As required under the City of Mountain View GGRP, TDM Plans are required for commercial and residential uses in the Precise Plan area. Examples of the trip-reduction measures that would be included within TDM Plans include formal ride-sharing and bike-sharing programs; the provision of short-distance shuttles to and from offices, commercial uses, and the Mountain View Transit Center; pedestrian improvements; and bicycle amenities and infrastructure.

While future development under the Precise Plan would increase overall GHG emissions in the City, the Precise Plan contains standards and guidelines to ensure that future development use fuel or energy efficiently, consistent with the GGRP. The proposed project has a 2030 horizon, and energy fuel efficiency is expected to improve over time. Implementation of TDM Plans for development projects under the Precise Plan would also reduce GHG emissions from traffic trips to and from the site.

The GGRP identifies a series of GHG emissions reduction measures to be implemented by development projects that would help the City achieve its GHG reduction goals. The following GGRP measures in Table 3.7-2 would apply to future development within the proposed Precise Plan area.

Table 3.7-2: Precise Plan GGRP Consistency

Requirement	Measure	Consistency
Mandatory	**Measure E-1.3:** Non-Residential Lighting Retrofit	Development must meet the intent of LEED BD+C Gold and CalGreen/MVGBC requirements. Precise Plan FAR bonus projects must achieve LEED Platinum or equivalent. These include energy-efficient lighting standards.
Mandatory	**Measure E-1.7:** Exceed State Energy Standards in New Non-Residential Development	Precise Plan FAR bonus projects must achieve LEED Platinum or equivalent, as well as comply with CalGreen and the MVGBC, which would likely result in projects exceeding the future 2019 Title 24 energy standards.
Voluntary	**Measure E-2.2:** Non-Residential Solar Water Heaters	Installation of solar water heater systems would assist future Precise Plan Projects in attaining energy use and renewable energy goals required for meeting the intent of LEED BD+C Gold and/or Platinum status (for the FAR bonus).
Voluntary	**Measure E-2.4:** Non-Residential Solar Photovoltaic Systems	While SVCE electricity is already GHG-emission free. installation of solar photovoltaic systems would assist future applicants in meeting the intent of LEED BD+C Gold and/or Platinum status (for the FAR bonus).
Mandatory	**Measure T-1.1:** TDM	Future developments under the Precise Plan would be required to prepare, implement, and provide annual reporting on their TDM programs, as well as meet trip-cap requirements for office projects.

The Precise Plan includes a description of TDM measures for commercial and residential uses (specifically Section 4.3 Transportation Demand Management). Commercial TDM plans will include

TMA membership, priority parking for carpools and vanpools, bicycle parking, shower and changing facilities, parking maximums, site design that supports alternative modes of transportation, and monetary incentives such as free or subsidized transit passes for employees.

Office and R&D projects with TDM plans will be subject to a site-specific trip cap that limits gateway congestion (gateways are shown in Figure 2.3-3), as well as enforcement penalties. TDM plans must also show that the parking provided is adequate to serve the needs of the development considering the project's trip-reduction measures. Phased trip reductions will apply, which lower the allowed number of trips based on changes to the transportation system (such as the addition of housing and the construction of new pedestrian and bicycle connections).

New residential projects will also prepare and implement TDM plans per the Precise Plan, including TMA membership, parking maximums, carshare parking, and bicycle parking, provision of shared workspace for residential projects over 100 units, and site design to orient building entrances toward sidewalks, transit stops, and bicycle routes. Annual TDM plan monitoring will be required with a summary report submitted to the City for review.

California Transportation Plan 2040

The California Transportation Plan 2040 defines performance-based goals, policies, and strategies to achieve the state's collective vision for California's future statewide, integrated, multimodal transportation system. Transportation policies in the Precise Plan and the City's General Plan call for consideration of all modes of travel, the provision of complete streets to accommodate and encourage use of non-automobile transportation modes to reduce vehicle trip generation and VMT, and to actively coordinate with other agencies to ensure that regional GHG emission standards are met. The General Plan Mobility Element Goal MOB-9, and Policy MOB 9.1, and Actions MOB 9.1.1 and 9.1.2, as well as the Precise Plan transportation strategies, are in keeping with the goals and policies contained within the California Transportation Plan 2040.

Impact GHG-2: Implementation of the Precise Plan would not conflict with plans, policies, or regulations for reducing GHG emissions. **[Less than Significant Impact]**

3.7.2.4 *Cumulative Impacts*

Emissions of GHGs have a broader, global impact as they accumulate and move through the atmosphere. Many of the major GHGs remain in the atmosphere for tens to hundreds of years after being released. They become mix globally in the lower atmosphere. As the result of the extent of human sources of GHG worldwide, the stability of many of these compounds in the atmosphere, and the mixing that occurs in the atmosphere (and oceans), the effects of GHG emissions on climate are considered global, cumulative impacts.

The analysis of GHG emissions and global climate change is cumulative by nature. As described above, operational emissions from buildout of the Precise Plan would be below the City's GGRP established threshold and the project would implement relevant measures from the City's GGRP. According to BAAQMD Air Quality Guidelines, if emissions of operational-related GHGs do not exceed the threshold, the proposed project would not result in a cumulatively considerable contribution of GHG emissions or a cumulatively significant impact to global climate change.

Impact C-GHG-1: The proposed project would not result in a significant contribution to cumulative GHG impacts with implementation of the measures within the City's GGRP. **[Less than Significant Cumulative Impact]**

3.7.3 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
GHG-1: The project's operational emissions would not exceed the City's GGRP 2030 threshold of 4.5 $MTCO_2e$/year/service population. For this reason, the impact is less than significant.	Less than Significant	No mitigation required	NA
GHG-2: Implementation of the Precise Plan would not conflict with plans, policies, or regulations for reducing GHG emissions.	Less than Significant	No mitigation required	NA
C-GHG-1: The proposed project would not result in a significant contribution to cumulative GHG impacts with implementation of the measures within the City's GGRP.	Less than Significant	No mitigation required	NA

3.8 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based in part upon a Screening Level Phase I Environmental Site Assessment (ESA) completed for the project by Cornerstone Earth Group in July 2016. This report is attached to this Draft EIR as Appendix F.

3.8.1 Environmental Setting

3.8.1.1 *Regulatory Framework*

Federal and State

Hazardous materials Overview

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. Federal regulations and policies related to development include the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund, and the Resource Conservation and Recovery Act. A Superfund site is a polluted location requiring a long-term response to clean up hazardous material contaminations and pollutants. The EPA reviews and oversees the implementation of the clean-up plan for Superfund sites.

In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies including the County of Santa Clara and City of Mountain View have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

Division of Occupational Safety and Health

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

Cortese List (Government Code Section 65962.5)

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by the state, local agencies, and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by the Department of Toxic Substances Control (DTSC), State Water Resources Control Board (SWRCB), and CalRecycle.[44]

[44] DTSC. "Hazardous Waste and Substances Site List (Cortese)". Accessed October 19, 2018. https://calepa.ca.gov/sitecleanup/corteselist/Background/.

Asbestos

Federal and state laws and regulations pertain to building materials containing asbestos, exposure to which presents health risks. These existing laws and regulations prohibit emissions of asbestos during demolition or construction activities, require medical examinations and monitoring of employees engaged in activities that could disturb asbestos, specify precautions and safe work practices, and require notice to federal and local governmental agencies prior to beginning work that could disturb asbestos. Asbestos abatement contractors must follow state regulations (8 CCR. Section 1529, Section 341.6 et seq.) and notify BAAQMD and Cal/OSHA. Asbestos encountered during demolition of an existing building must be transported and disposed of at an appropriate facility.

Lead Paint

Regulations to manage and control exposure to lead-based paint are described in Title 29 of the CFR Section 1926.62 and in Title 8 of the CCR Section 1532.1. These regulations cover the demolition, removal, cleanup, transportation, storage and disposal of lead-containing material. The regulations outline the permissible exposure limit, protective measures, monitoring and compliance to ensure the safety of construction workers exposed to lead-based material.

Federal Aviation Administration

Restriction on the height of buildings, antennas, trees, and other objects near Moffett Federal Airfield is regulated by the Federal Aviation Administration (FAA), Federal Aviation Regulations (FAR) Part 77. The FAR Part 77 map is used by the FAA and the Santa Clara County Airport Land Use Commission (ALUC) to identify potential obstructions and hazards to aviation traffic. A Comprehensive Land Use Plan (CLUP) has been prepared by the Santa Clara County Airport Land Use Commission (ALUC). The CLUP seeks to protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable airspace.

Local

Certified Unified Program Agency

The routine management of hazardous materials in California is administered under the Unified Program. The CalEPA has granted responsibilities to the Santa Clara County Hazardous Materials Compliance Division (HMCD) for implementation and enforcement of hazardous material regulations under the Unified Program as a CUPA. Through a formal agreement with the HMCD, the Mountain View Fire Department (MVFD) implements hazardous materials programs for the City of Mountain View as a Participating Agency within the Unified Program. The MVFD coordinates with the HMCD to implement the Santa Clara County Hazardous Materials Management Plan and to ensure that commercial and residential activities involving classified hazardous substances are properly handled, contained, and disposed.

Hazardous Materials Business Plan Program

The MVFD requires any facility 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.

The HMBP informs the community on chemical use, storage, handling, and disposal practices. It is also intended to provide essential information to firefighters, health officials, planners, elected officials, workers, and their representatives so that they can plan for and respond to potential exposures to hazardous materials.

California Accidental Release Prevention Program

There are facilities within the Precise Plan area that handle more than the California Accidental Release Prevention Program (CalARP) threshold quantity of regulated hazardous substances, such as federally listed extremely hazardous toxic and flammable substances and State listed acutely hazardous materials. Under the CalARP program, these facilities must 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. No extremely hazardous materials users are currently located in the Precise Plan area.

Underground Storage Tank Program

Due to fire hazards, flammable liquids, such as gasoline, have historically been stored in USTs, which, over time, may leak, resulting in potential risks for the general public and the environment. The UST Program implemented by the MVFD requires that USTs be installed, monitored, operated, and maintained in a manner that protects public health and the environment. Tanks must be constructed with primary and secondary levels of containment and be designed to protect public health and the environment for the lifetime of the installation. The USTs must be monitored for leaks and built such that a leak from the primary container into the secondary container will be detected. When a UST is proposed to be removed, a detailed permit application must be submitted to MVFD. The MVFD oversees UST removal activities to identify potential evidence of leakage.

Aboveground Storage Tank Program

The Precise Plan area must comply with the Aboveground Petroleum Storage Act (APSA) which requires facilities with aboveground storage tanks (ASTs) greater than or equal to 55 gallons of petroleum and having an aggregate aboveground storage capacity greater than or equal to 1,320 gallons to prepare and implement a Spill Prevention, Countermeasure, and Control (SPCC) plan. The SPCC plan would address prevention, preparation, and response measures to prevent oil discharges into navigable water and adjoining shorelines (i.e., San Francisco Bay). There are facilities in the Precise Plan area with aboveground storage tanks with an aggregate capacity of 10 gallons or more of petroleum, and therefore, these facilities are required to operate under a Hazardous Materials Permit and submit a tank facility statement annually to the MVFD. At least once every three years, HMCD would inspect storage tanks in the Precise Plan area with a storage capacity of 10,000 gallons or more of petroleum to determine if the owner or operator is in compliance with the SPCC plan requirements of the APSA.

Hazardous Waste Generator Program

Generally, high intensity office/R&D and industrial developments within the Precise Plan area process hazardous materials (e.g., computer and electrical components, chemicals for laboratory testing and manufacturing) and what remains would be considered as hazardous waste. Facilities in the Precise Plan area that generate any quantity of hazardous waste are required to obtain and keep current a Hazardous Waste Generator Permit from the HCMD. Along with the Hazardous Waste Generator Permit, facilities that generate more than 100 kilograms of hazardous waste per month, or more than one kilogram of acutely hazardous waste, must be registered with U.S. EPA's RCRA program and are subject to extensive regulations regarding storage and disposal.

Hazardous Waste Tiered-Permitting Program

The Unified Program regulates a Tiered-Permitting Program for authorizing facilities that generate hazardous waste to treat eligible waste streams onsite. The tiers include the following permits: Permit by Rule (PBR), Conditionally Authorized (CA), and Conditionally Exempt (CE). PBR Tiered-Permitting facilities can treat any volume of hazardous waste, including hazardous wastes with more than one hazard. CA Tiered-Permitting facilities are only authorized to treat less than 5,000 gallons or 45,000 pounds per month of hazardous wastes with only one characteristic or hazard. CE Tiered-Permitting facilities are only authorized to treat less than 55 gallons per month of hazardous waste.

Tiered-Permitting facilities in the Precise Plan area must obtain and keep current a permit from the MVFD. All Tiered-Permitting facilities must characterize waste streams prior to treatment and PBR Tiered-Permitting facilities must prepare a waste analysis plan and are also required to submit annual notification to the MVFD, including an annual waste minimization certification.

City of Mountain View 2030 General Plan

The following General Plan policies related to hazards and hazardous materials and would be applicable in the Precise Plan area.

Policy	Description
PSA 3.2	**Protection from hazardous materials.** Prevent injuries and environmental contamination due to the uncontrolled release of hazardous materials through prevention and enforcement of fire and life safety codes.
PSA 3.3	**Development review.** Carry out development review procedures that encourage effective identification and remediation of contamination and protection of public and environmental health and safety.
PSA 3.4	**Oversight agencies.** Work with local, state and federal oversight agencies to encourage remediation of contamination and protection of public and environmental health and safety.
INC 18.1	**Contamination prevention.** Protect human and environmental health from environmental contamination.
INC 18.2	**Contamination clean-up.** Cooperate with local, state and federal agencies that oversee environmental contamination and clean-up.

LUD 2.5	**Moffett Federal Airfield.** Encourage compatible land uses within the Airport Influence Area for Moffett Federal Airfield as part of Santa Clara County's Comprehensive Land Use Plan.
LUD 3.10	**Zoning standards for sensitive uses.** Allow sensitive uses such as childcare in the North Bayshore and East Whisman Change Areas with measures to protect those uses from hazardous materials used by surrounding businesses.
MOB 10.4	**Emergency response.** Monitor emergency response times and review emergency response time standards.

3.8.1.2 *Existing Conditions*

Site History

The Precise Plan area was historically used for agricultural purposes (orchards and row crops) from 1939 until approximately 1968. During this time of agricultural usage, greenhouses and farmhouses were scattered around the Precise Plan area. Between 1968 and 1980, on-site office, manufacturing and R&D development began to replace the agricultural uses. By 1980, the majority of the Precise Plan area had been developed with office, industrial and R&D facilities. Starting in the late 1990's, some of the original office, industrial and R&D buildings were being demolished and replaced by new office and R&D buildings and corporate campuses; this redevelopment trend has continued in the area to the present day.

Middlefield-Ellis-Whisman Superfund Study Area

In the 1960s and 1970s, several companies in the Precise Plan area involved in semiconductor, electronic, and other manufacturing and research contaminated the soil and groundwater with volatile organic compounds (VOC), primarily trichloroethene (TCE). This area is shown in Figure 3.8-1 In 1981 and 1982, investigations in the area of these facilities indicated that significant levels of contaminants had been released to the soil and groundwater. Contaminated groundwater that bypassed the source control areas and has mixed together with other contaminated groundwater from other source areas is considered part of the regional groundwater contamination plume. The area was deemed a Superfund site and a clean-up plan was approved by the EPA in 1989.

The Middlefield-Ellis-Whisman (MEW) Superfund Study Area is named for the three streets that generally bound the source areas of this contamination: Middlefield Road, Ellis Street, and Whisman Road. It includes three separate Superfund sites: Fairchild Semiconductor Corporation; Raytheon Company; and Intel Corporation; and portions of the former Naval Air Station (NAS) Moffett Field Superfund Property.

The individual companies responsible for investigating and remediating soil and groundwater at their respective facilities are collectively referred to as the MEW Companies. The MEW Companies include Fairchild Semiconductor Corp, Raytheon Company, Intel Corp., Schlumberger Technology Corp (Schlumberger), NEC Electronics America, Inc. (NEC), SMI Holding LLC (SMI), Vishay General Semiconductor (Vishay), Sumitomo Mitsubishi Silicon America (SUMCO), National Semiconductor Corporation, Tracor X-Ray, and Union Carbide. Each individual MEW Company, the Navy, and NASA are responsible for investigation, clean up, and source control for soil and groundwater contamination at their properties.

Closed LUST Cases

1. Rotten Robbie
   310 N. Whisman Road
2. Roseburg Forest Prod.
   441 Logue Avenue
3. California Flower Shippers
   440 Logue Avenue
4. Yee Property
   636 Ellis Street
5. Stemcells, Inc.
   605 Fairchild Drive
6. National Development
   660-670 National Ave.
7. Chevron
   645 Ellis Street
8. 525-569 East Evelyn
9. Lynch Circuits
   1140 W. Evelyn Ave

Open Spill Incident Cases

10. Acurex Corp.
    485 Clyde Avenue
11. 303 Ravendale Drive
12. Cypress Business Park
    (current Samsung campus)
    625-685 Clyde Avenue

Other Spill Incidents

13. NEC
    501 Ellis Street
14. SILTEC
    405 National Avenue

MEW Study Area NPL Sites

15. Intel Corp.
    365 Middlefield Road
16. Raytheon Corp.
    350 Ellis Street
17. Fairchild Semiconductor
    313 Fairchild Drive and
    464 Ellis Street

HP and E/M Properties

18. Hewlett Packard (HP)
    690 East Middlefield Road
    (*a.k.a.*, 333 Logue Avenue)
19. E/M Lubricants
    875 Maude Avenue

Middlefield-Ellis-Whisman (MEW) plume

Hewlett Packard and E/M plume

Legend

- East Whisman Precise Plan Area
- Approximate extent of Total VOCs in Ground Water
- Open SLIC Cases
- Other Spill Incidents
- Closed LUST Cases
- NPL Properties associated with the MEW plume
- Source Properties for the HP and E/M plume

Base by Google Earth, dated 4/5/2016

0 1000 2000
APPROXIMATE SCALE (FEET)

SPILL INCIDENTS AND CONTAMINATED GROUNDWATER | FIGURE 3.8-1

The MEW Companies responsible for the soil and groundwater contamination no longer own or operate the former facilities. Several of the original buildings within the MEW Superfund Site Area have been demolished. The current tenants occupying the buildings overlying the TCE groundwater plume south of US 101 were not operating at the time of the contaminant releases to the environment and are not involved with the investigation and cleanup program.

Fairchild, Raytheon, and Intel implemented source control measures (such as soil excavation and treatment, installation of slurry walls, and soil vapor and groundwater extraction and treatment) in the 1980s before the final remedy was selected and approved by the EPA as part of its oversight. In the mid-1990s, Fairchild, Raytheon, Intel, and other MEW Companies (SMI, Vishay/SUMCO, NEC) implemented the soil remedy, including excavation, aeration, and soil vapor extraction. They also began operating or continued to operate the groundwater extraction and treatment systems to control source areas and remove VOCs from the groundwater aquifers.

New information has been developed regarding the toxicity of TCE and vapor intrusion into buildings overlying shallow groundwater contamination. A new vapor intrusion study area was designated by the EPA in 2010 to prevent site contamination from vapor intrusion. The EPA determined that vapor intrusion response actions were necessary to protect the health of building occupants in the vapor intrusion study area from actual or threatened releases of hazardous substances into the environment via the subsurface vapor intrusion pathway. The associated clean-up actions, which supplement already ongoing soil and groundwater clean-up work at MEW, represent one of the largest Superfund vapor intrusion clean-ups to date.

The EPA's selected remedy to address vapor intrusion and protect the health of building occupants in the vapor intrusion study area consists of the following:

- For Existing Buildings - The appropriate response action is determined by indoor air sampling and other lines of evidence for each building. If necessary, installation, operation, maintenance, and monitoring of an appropriate sub-slab/sub-membrane ventilation system.
- Alternative for Existing Commercial Buildings - Use of building's indoor air mechanical ventilation system if the property/building owner agrees to use, operate, and monitor the system to meet remedy performance criteria and the remedial action objectives.
- For Future (New Construction) Buildings – Installation of a vapor barrier and passive sub-slab ventilation system (with the ability to be made active).
- Implementation of institutional controls (ICs) and monitoring to ensure the long-term effectiveness of the remedy.

3.8.1.3 *Sources of Contamination*

A regulatory database search for the Precise Plan area was completed to identify and assess hazardous sources on-site and within one mile of the Precise Plan area. As shown in Table 3.8-1, the Precise Plan area contains 3 Superfund sites, 15 underground storage tanks with reported leakage on the LUST database, 15 sites in the cleanup process for spills and leaks on the Spills, Leaks, Investigations and Cleanup (SLIC) database, and 13 sites on the Envirostor database.

Table 3.8-1: Summary of Selected Database Listings		
Database Name and Description[1]	**Within Whisman Site Listings**[2]	**Off-Site Within One Mile**[3]
National Priority List (NPL)	3	4
Leaking Underground Storage Tank (LUST)	7	95
Spills, Leaks, Investigations and Cleanup (SLIC)	15	55
Envirostor	13	30
Voluntary Cleanup Program (VCP)	2	3
Resource Conservation and Recovery Act Large Quantity Generators (RCRA-LQG)	8	14
Resource Conservation and Recovery Act Small Quantity Generators (RCRA-SQG)	47	140
CUPA Listings	27	62
Underground Storage Tank (UST)	1	29
Aboveground Storage Tank (AST)	4	14
DEED	1	6
US INST CONTROL	3	1
US ENG CONTROLS	3	1
Historic UST Databases		
FID UST	13	62
HIST UST	13	42
SWEEPS UST	13	67
RGA LUST	15	116

[1] See Appendix F for a description of individual databases.

[2] Number of listings noted within the Precise Plan area.

[3] Number of listings noted outside the Precise Plan area within an approximate one-mile radius.

Asbestos Containing Material and Lead-Based Paint

The older buildings in the Precise Plan area, if constructed prior to 1978, may include asbestos-containing materials (ACMs) in building materials such as roofs, tiling, and insulation. Asbestos-containing materials are of concern because exposure to ACMs has been linked to cancer.

Lead was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. In 1972, the Consumer Products Safety Commission limited lead content in new paint to 0.5 percent, and to 0.06 percent in 1978. Similar to ACMs in buildings, lead may be present in older buildings within the Precise Plan area.

Agricultural Pesticides

Pesticides containing metals such as arsenic, mercury, copper, and lead were utilized in agriculture prior to 1950. Then DDT (dichloro-diphenyl-trichloroethane) and chlordane pesticides were used from 1950 to the mid-1970's. The Precise Plan area was primarily agricultural from 1939 to 1968. Soils in the Precise Plan area may contain residual pesticide contamination from previous agricultural activities.

3.8.1.4 *Other Hazards*

Airport Safety

The majority of the Precise Plan area is located within the mapped Part 77 182-foot mean sea level (msl) horizontal surface for Moffett Federal Airfield (refer to Figure 3.8-2). No buildings would be allowed in the Precise Plan area higher than 182 feet above msl without FAA approval. The northeast corner of the Precise Plan area is located within the mapped Part 77 157-foot and 132-foot msl horizontal surfaces for Moffett Federal Airfield. No buildings in these areas would be allowed higher than 157 feet or 132 feet above msl without FAA approval.

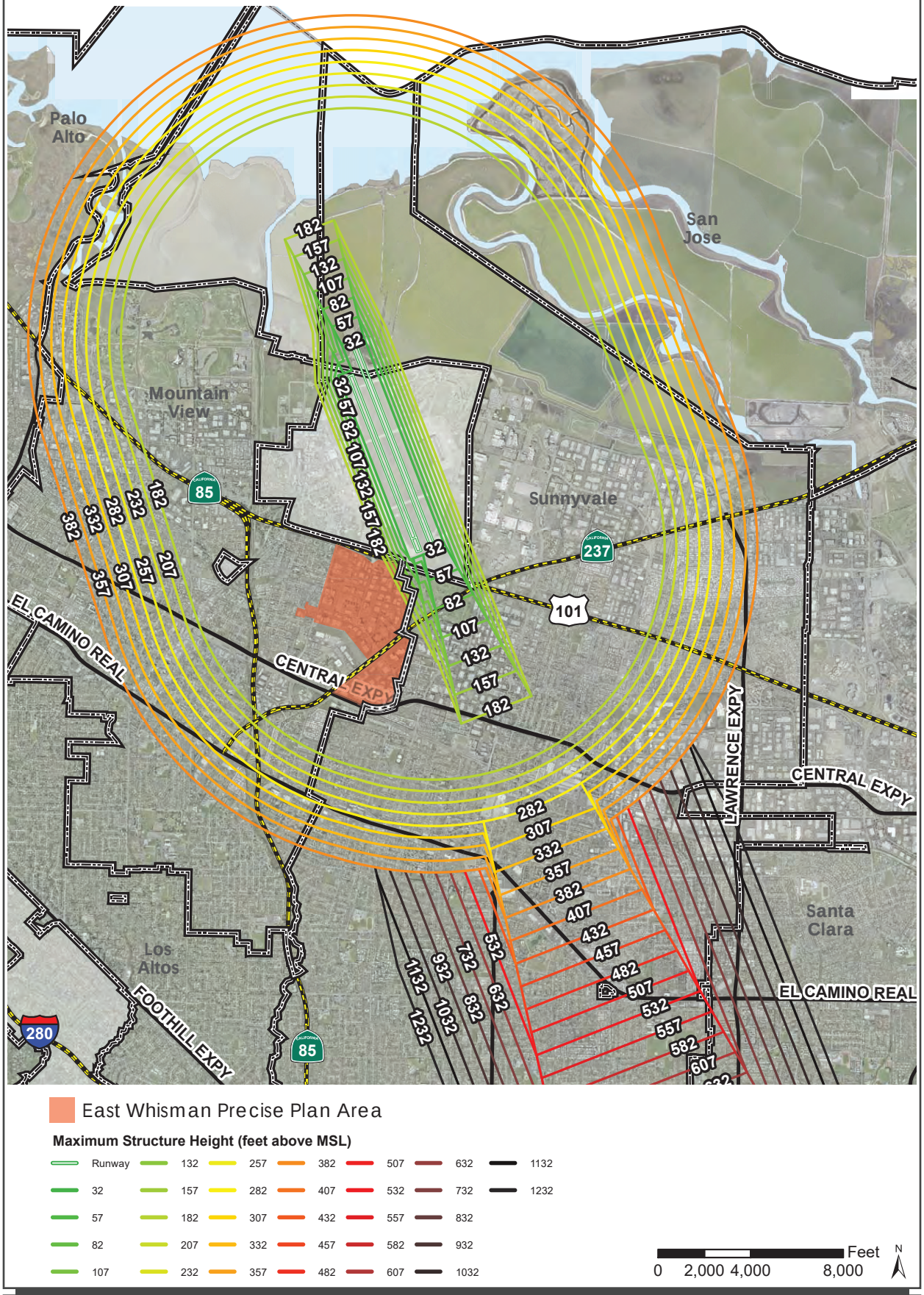
The Precise Plan will be subject to review by the ALUC for consistencies with the policies of the CLUP. Specifically, the Precise Plan area is located in the following two CLUP zones:

- **Airport Influence Area:** The Airport Influence Area (AIA) is a composite of the areas surrounding the airport that are affected by noise, height, and safety considerations (shown in Figure 3.8-3). Within the AIA, actions, regulations, and permits must be evaluated by local agencies to determine how CLUP policies may impact the proposed development. The Precise Plan area is within the AIA for Moffett Federal Airfield.

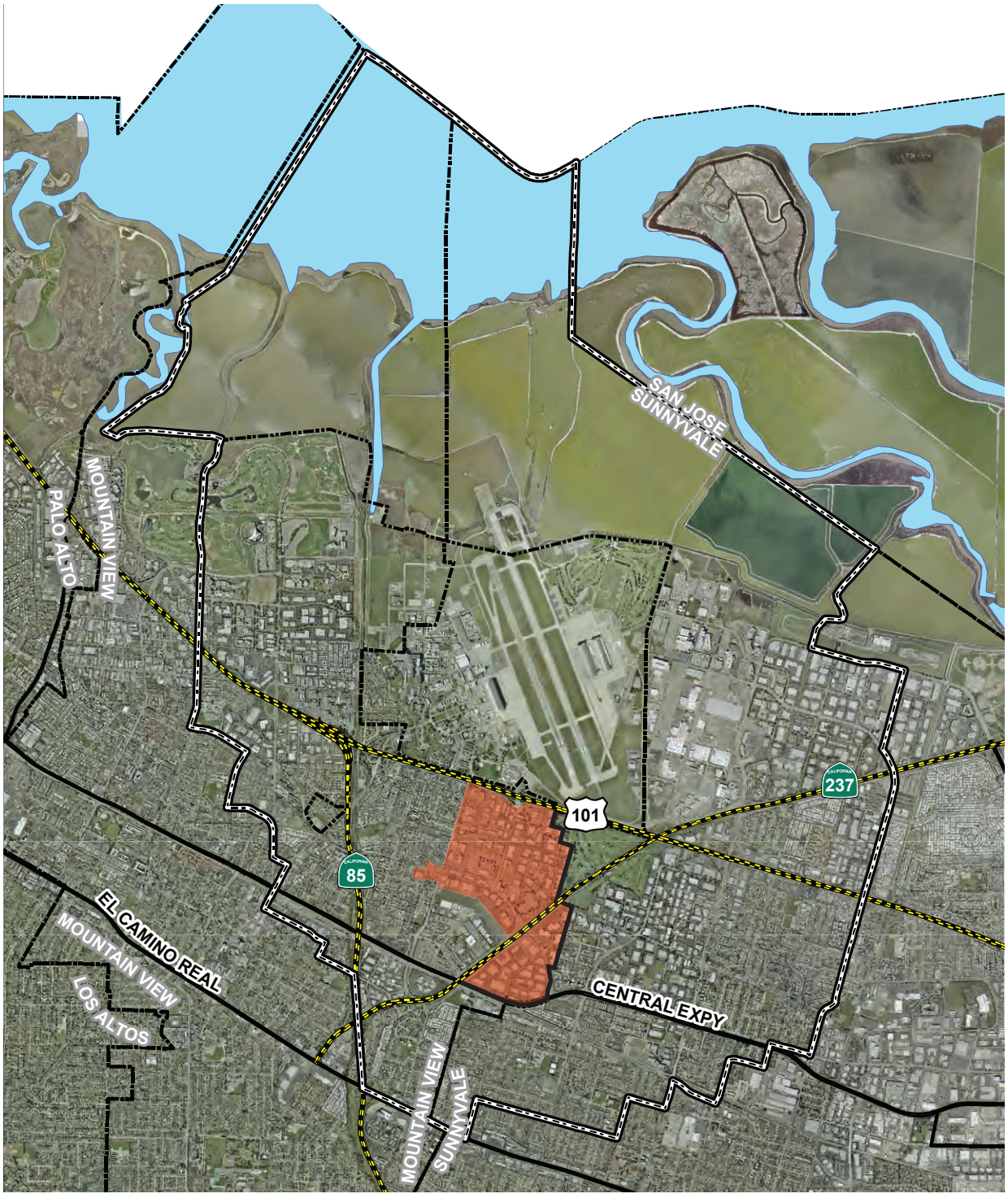
- **Airport Safety Zones:** Airport safety zones are established to minimize the number of people exposed to potential aircraft accidents in the vicinity of the airport by imposing density and use limitations within these zones related to runway length and expected use (refer to Figure 3.8-4). The northeast corner of the Precise Plan area site is located within an identified turning safety zone for Moffett federal Airfield.

3.8.1.5 *Emergency Response Plans*

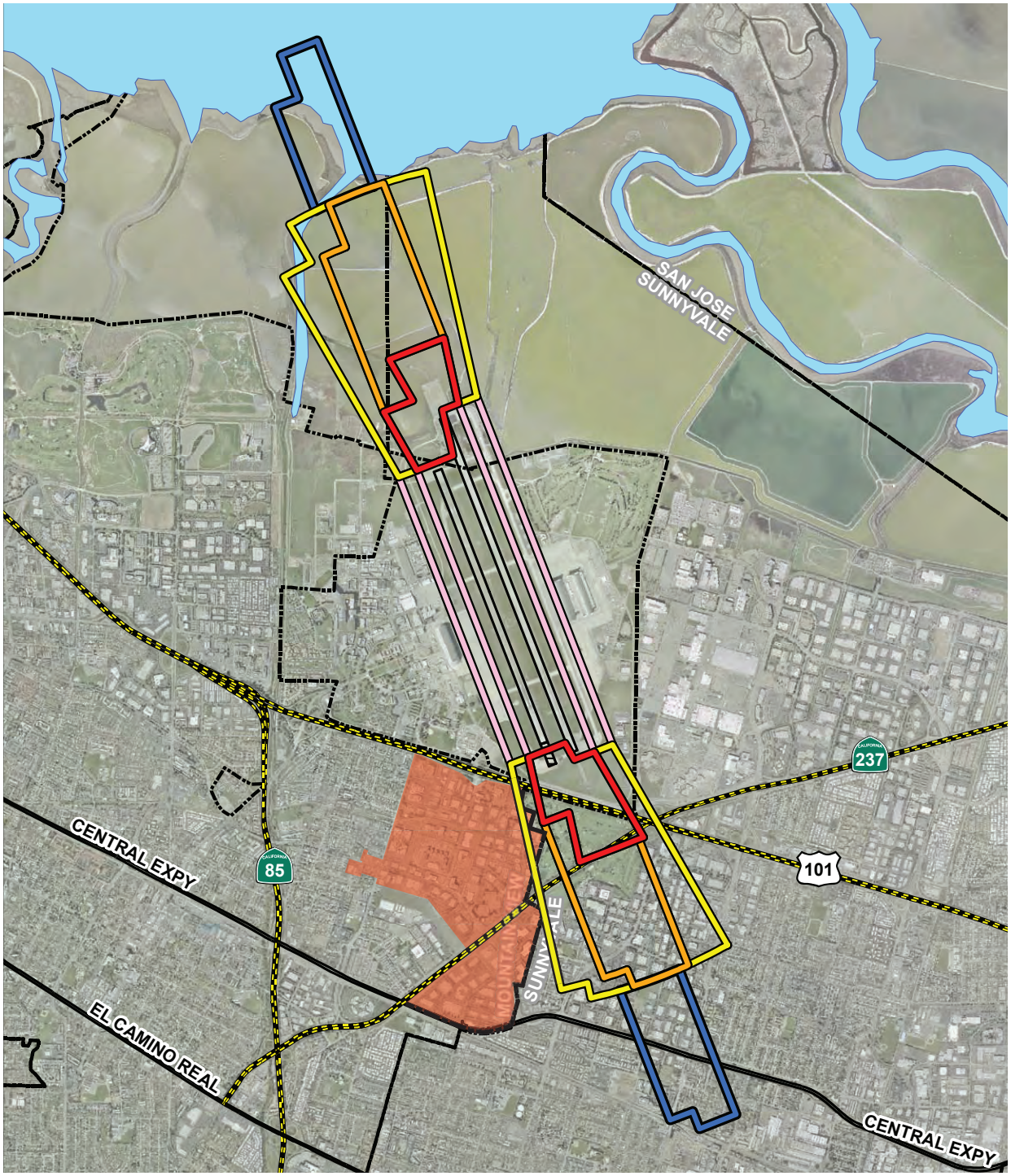
In the Precise Plan area, as well as in the rest of the City, the MVFD and Office of Emergency Services (OES) is responsible for responding to disasters or other large-scale emergencies. The OES Emergency Plan includes emergency response protocols and procedures for the entire City. In the Precise Plan area, the commuter train (VTA Light Rail), US 101, and State Route 237 could be used as evacuation routes.



MOFFETT FEDERAL AIRFIELD, FAA PART 77 SURFACES | FIGURE 3.8-2



MOFFETT FEDERAL AIRFIELD, AIRPORT INFLUENCE AREA | FIGURE 3.8-3



MOFFETT FEDERAL AIRFIELD, SAFETY ZONES | FIGURE 3.8-4

3.8.1.6 *Wildland Fires*

According to the California Department of Forestry and Fire Protection (CAL FIRE), the project site is not located in a fire hazard zone or the Wildland Urban Interface.[45]

3.8.1.7 *Existing Schools*

The nearest schools are Slater Special Education School, located at 220 North Whisman Road, approximately 0.2 mile southwest of the Precise Plan area, and Vargas Elementary School, located at 1054 Carson Drive in Sunnyvale, approximately 0.3 mile southeast of the Precise Plan area. A daycare center is located at 205 East Middlefield Road, within the Precise Plan area. The new Vargas Elementary School (located at 220 North Whisman Road) is expected to be open for the 2020/2021 school year and its enrollment area would include the Precise Plan area.

3.8.2 Hazards and Hazardous Materials Impacts

3.8.2.1 *Thresholds of Significance*

For the purposes of this EIR, a hazards and hazardous materials impact is considered significant if the project would:

- Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

3.8.2.2 *Routine Transport, Use, or Disposal of Hazardous Materials*

Existing industrial and R&D uses in the Precise Plan area involve the use, handling, and storage of hazardous materials and generation of hazardous waste. Fuels, paints, flammable liquids, cleaning solutions, and other potentially hazardous materials would continue to be delivered to and stored on-

[45] CAL FIRE. "Santa Clara County Fire Hazard Severity Zones in SRA". Accessed November 21, 2018. http://frap.fire.ca.gov/webdata/maps/santa_clara/fhszs_map.43.pdf.

site and used as part of ongoing operations. Fertilizers, pesticides, and herbicides used for landscaping in the future will also be used and stored on-site.

New development in the Precise Plan area could involve the routine use and storage of hazardous materials that could pose a threat to human health or the environment if not properly managed or accidently released. The storage, use, handling, generation, transport, and disposal of hazardous materials during site construction and operation activities are addressed by federal, state, and local laws, regulations, and programs. On the local level, the MVFD regulates the storage of hazardous materials in the City consistent with CUPA requirements and regulations. Even if a hazardous material is accidentally released, it does not necessarily have the potential for causing off-site consequences. Many such substances are only kept in small quantities that make an accidental release unlikely to result in a substantial concentration that would release very far from the source.

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. The MVFD requires any facility 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 Hazardous Materials Business Plan (HMBP). An HMBP must include measures for safe storage, transportation, use, and handling of hazardous materials. The HMBP must be approved by MVFD and include a contingency plan that describes the facility's response procedures in the event of a hazardous materials release.

Future development projects that comply with federal, state, local requirements, and the General Plan policies PSA 3.2 and PSA 3.3 listed above, will reduce the potential for hazardous materials impacts to existing and future residents, schools, and businesses in and near the Precise Plan area.

Impact HAZ-1: Compliance with federal, state, and local requirements and General Plan policies, would reduce the potential for hazardous materials impacts from use, transport, or disposal in the Precise Plan area. **[Less than Significant Impact]**

3.8.2.3 *Hazardous Materials Release*

As described above, the Precise Plan area contains the MEW Superfund site and various other LUST and SLIC contamination sites (including those that are on lists compiled pursuant to Government Code Section 65962.5). In addition, there are several contaminated sites located just outside the Precise Plan area whose contamination has migrated within the Precise Plan boundary (see Table 2 of Appendix F). As a result, elevated VOC and TCE concentrations are present. In addition, the Precise Plan area may contain residual pesticide contamination in the soil from the historical agricultural uses. These issues are discussed in detail below.

Contamination within the MEW Superfund Site

Future development in the Precise Plan area could encounter contaminated soils through the following activities: excavation and grading; subsurface utility installation, maintenance, or repair; landscaping, and building foundation construction. To ensure impacts do not occur within the MEW Study Area due to identified TCEMEW contamination, such as TCE, as part of the Superfund site,

project developers will be required to coordinate work activities with the EPA and MEW Responsible Parties (including identifying conditions that could affect the implementation and monitoring of the vapor intrusion remedy and on-going remedial efforts). These required coordination efforts have been approved by the EPA as part of the Record of Decision (ROD) Amendment for the Vapor Intrusion Pathway, MEW Superfund Study Area (2010) and the Statement of Work Remedial Design and Remedial Action to Address the Vapor Intrusion Pathway, MEW Superfund Study Area. The ROD coordination requirements are described further below.

At properties within the MEW Study Area, future project developers will be required to submit the following plans and controls to EPA for review and approval and will be required to implement the EPA-approved measures. Additionally, some properties are subject to activity and use limitations, such as institutional and engineering controls (a.k.a., deed restrictions). Institutional controls (ICs) are legal or regulatory restrictions on a property's use, while engineering controls are physical mechanisms that restrict property access or use.

- The Air Monitoring Plan assesses the exposure of construction workers and neighboring occupants adjoining the property to VOCs as part of the Air Monitoring Plan; this plan shall specify measures to be implemented if VOCs exceed regulatory threshold values.
- The Vapor Intrusion Control System Remedial Design describes the measures to be implemented to help prevent exposure of property occupants to VOCs in indoor air as a result of vapor intrusion. A Vapor Intrusion Mitigation Plan must be prepared, which requires future project developers to design the proposed occupied spaces with appropriate structural and engineering features to reduce risk of vapor intrusion into buildings. At a minimum, this design would include incorporation of vapor barrier and provisions of space to accommodate active ventilation equipment to help prevent indoor air contaminant concentrations exceeding EPA's indoor air cleanup levels. Future project developers will be required to submit the vapor intrusion remedial design (including the Vapor Intrusion Mitigation Plan) to the EPA for review and approval.
- The ROD Amendment for the Vapor Intrusion Pathway, MEW Superfund Study Area(EPA 2010) and the Statement of Work Remedial Design and Remedial Action to Address the Vapor Intrusion Pathway, MEW Superfund Study Area (EPA 2011)specify the selected remedy for all future buildings as 1) passive sub-slab ventilation with a vapor barrier (and with the ability to convert the system from passive to active ventilation), 2) monitoring to ensure the long-term effectiveness) except where multiple lines of evidence show that there is no potential for vapor intrusion into a particular building exceeding indoor air cleanup levels, 2) monitoring to ensure the long-term effectiveness of the remedy, and 3) the implementation of Institutional controls. Although active sub-slab/sub-membrane ventilation is considered to have a better long-term effectiveness than passive sub-slab ventilation systems, areas with lower groundwater VOC concentrations are considered to have a lower potential for vapor intrusion at levels exceeding indoor air cleanup levels. Because areas overlying higher VOC groundwater concentrations are considered to have a greater potential for vapor intrusion at levels exceeding indoor air cleanup levels, implementing an active sub-slab/sub-membrane ventilation system is acceptable because of its high rating in long-term effectiveness. Other design requirements would be subject to the EPA's determination of necessary measures based upon its Response Action Tiering System for future buildings.

- The Long-Term Operations, Maintenance, and Monitoring Plan describes actions to be taken following construction to maintain and monitor the vapor intrusion mitigation system as well as a contingency plan should the vapor system fail.
- The IC Implementation Plan describes non-engineered instruments of control, such as administrative and legal controls that help to minimize the potential for human exposure to contamination and/or protect the integrity of the response action. ICs will be implemented through the City's planning and permitting procedures which will ensure that the appropriate remedy is applied to particular building construction.
- The Financial Assurance provides proof that adequate funds are available for long-term maintenance and monitoring of the vapor intrusion mitigation system.

Prior to commencing any construction activities within the MEW Study Area, future project developers will be required to provide a Vapor Intrusion Response Action Completion Report to the EPA for review and approval, and to the City for review. The report will document installation of the vapor control measures identified in the Vapor Intrusion Mitigation Plan, including plans and specifications, and will include a long-term operations, maintenance and monitoring plan.

Within the MEW Study Area and potentially at other impacted properties, future project developers and subsequent owners and occupants will be required to provide access to the property, including ongoing access to monitoring wells for monitoring and sampling purposes, and cooperate with overseeing regulatory agencies and Responsible Parties during implementation of any subsequent groundwater and/or soil vapor investigations, or remediation as well as implementation of additional vapor intrusion remediation, if required. In addition, future project developers and subsequent property owners and occupants will be required to provide access for future indoor air vapor monitoring activities and not interfere with the implementation of required remedies.

Groundwater monitoring wells and remediation system components are located on some on-site parcels. These wells and systems must be protected during construction. Upon written approval from the overseeing regulatory agency, the wells could be destroyed under permit from Valley Water prior to development activities. Relocation of the wells may be required with approval of the overseeing regulatory agencies.

With implementation of the previously described EPA-required ROD measures for properties within the MEW Study Area, potential VOC-related impacts from MEW contaminants in soil and, soil vapor impacts and groundwater to construction workers, area residents, and the environment would be less than significant.

Impact HAZ-2: With implementation of the EPA-required ROD measures for properties within the MEW Study Area, VOC-related soil and vapor potential impacts from MEW contaminants to construction workers, area residents, and the environment would be less than significant. **[Less than Significant Impact]**

Other Potential Hazardous Materials

Given the results of the Screening Level Phase I ESA prepared for the Precise Plan, there is a potential that hazardous materials (i.e., past spills, LUST and SLIC sites, etc.) could be disturbed

during construction activities at future project sites. This could occur at sites within or outside of the MEW Study Area. Disturbance of hazardous materials could expose construction workers, the environment, and area residents to potentially unacceptable health risks from contaminated groundwater, soils, and soil gas.

Impact HAZ-3: Future construction and demolition activities could expose construction workers, the environment, and area residents to potentially unacceptable health risks from contaminated groundwater, soils, and soil gas. **[Significant Impact]**

Mitigation Measures: The following mitigation measures would reduce impacts from contaminated groundwater, soil, and soil gas to construction workers, the environment, and area residents to a less than significant level.

MM HAZ-3.1: Prior to the start of any redevelopment activity, a property-specific Phase I ESA shall be completed in accordance with ASTM Standard Designation E 1527-13 to identify Recognized Environmental Conditions, evaluate the property history, and establish if the property is likely to have been impacted by chemical releases. Soil, soil vapor, and/or groundwater quality studies shall subsequently be conducted, if warranted based on the findings of the property-specific Phase I ESAs, to evaluate if mitigation measures are needed to protect the health and safety of construction workers, the environment, and area residents.

At properties identified as being impacted or potentially impacted by Recognized Environmental Conditions as part of the property-specific Phase I ESA or subsequent studies, a Site Management Plan (SMP) shall be prepared prior to development activities to establish management practices for handling contaminated soil, soil vapor, groundwater, or other materials during construction activities. The SMP shall be prepared by an Environmental Professional and submitted to the overseeing regulatory agency (e.g., EPA, RWQCB and/or County Department of Environmental Health) for review and approval prior to commencing construction activities. Management of site risks during earthwork activities in areas where impacted soil, soil vapor, and/or groundwater are present or suspected, shall be described. Worker training requirements, health and safety measures and soil handling procedures shall be described. The SMP shall also be submitted to the City of Mountain View Planning Division for review.

Future development allowed by the Precise Plan will be evaluated on a project-by-project basis during the discretionary review process. Future projects will be required to comply with federal, state, and local requirements, General Plan policies, and mitigation measures listed above. Future projects that demonstrate consistency with these regulations, policies, and measures would reduce potential impacts associated with contaminated soil, soil vapor, and groundwater to a less than significant level. **[Less than Significant Impact with Mitigation]**

3.8.2.4 *Asbestos and Lead-Based Paint*

Based on the estimated age of various existing buildings in the Precise Plan area, ACMs and lead-based paint may be present in some building materials. Building demolition could result in the

release of these materials to the environment. Future development projects within the Precise Plan area will be required to comply with local, state, and federal laws, which require an asbestos building survey and a lead-based paint survey be completed by a qualified professional to determine the presence of ACMs and/or lead-based paint on the structures proposed for demolition.

Demolition activities will be undertaken in accordance with Cal/OSHA standards, contained in Title 8 of the California Code of Regulations Section 1529, to protect workers from exposure to asbestos. Materials containing more than one percent asbestos are also subject to BAAQMD regulations. To comply with these regulatory requirements, a registered asbestos abatement contractor will be retained to remove and dispose of all potentially friable asbestos-containing materials, in accordance with the National Emissions Standards for Hazardous Air Pollutants guidelines, prior to building demolition that may disturb the materials. Materials containing lead-based paint will be removed in accordance with Cal/OSHA Lead in Construction Standard, Title 8, CCR 1532.1, including employee training, employee air monitoring and dust control. Any debris or soil containing lead-based paint or coatings will be disposed of at landfills that meet acceptance criteria for the waste being disposed.

Impact HAZ-4: Compliance with local, state, and federal demolition and construction requirements would reduce impacts from potential release of ACMs and lead-based paint to a less than significant level. **[Less than Significant Impact]**

3.8.2.5 *Impacts to Schools*

There are no existing or proposed schools within the Precise Plan area, though the Slater Special Education School is approximately 0.2 mile southwest of the Precise Plan area, and Vargas Elementary School is located 0.3 mile southeast. The new Vargas Elementary School (expected to be open for the 2020/2021 school year) is immediately west of the Precise Plan area on Whisman Road. It is not currently known whether future development will include schools or other child-care facilities or where exactly they may be proposed. The applications for these uses would be reviewed on a project-by-project basis, to identify the suitability of the use and any potential impacts from hazardous materials in the area. Public schools are subject to state siting criteria to ensure they are not located on a hazardous materials site, and any future development within 0.25 mile of a school will be evaluated for potential impacts to school uses.

For these reasons, implementation of the Precise Plan would not result in impacts to existing or proposed schools and would not construct a school on a property that is subject to hazards from hazardous materials contamination, emissions, or accidental release.

Impact HAZ-5: Future projects will be evaluated for their potential impacts on schools. For this reason, implementation of the Precise Plan would not result in impacts to existing or proposed schools. **[Less than Significant Impact]**

3.8.2.6 *Airport Operations*

As discussed previously, the Precise Plan area is located within the mapped Part 77 182-foot msl horizontal surface for Moffett Federal Airfield. Any construction equipment or new structures that exceed the height restrictions of FAR Part 77 or land use policies from Moffett Federal Airfield's

adopted CLUP, could affect navigable airspace associated with the airport. Compliance with FAA notification requirements (including preparation of an aeronautical study by FAA, specified in FAR Part 77, for new development or redevelopment that exceed the height limits) would minimize the potential for development to create a significant hazard to navigable airspace. Furthermore, General Plan Policy LUD 2.5 encourage compatible land uses within the AIA for Moffett Federal Airfield as part of Santa Clara County's Comprehensive Land Use Plan.

The CLUP requires ongoing review of land uses within the AIA to ensure that land use changes are compatible with ALUC policies and plans. The City of Mountain View shall work closely with ALUC staff to establish and carry out review coordination with the ALUC. The following compatibility policies from the CLUP are used for determining consistency during the ALUC review:

General Compatibility

- G-1. In the case of conflicting policies, the most restrictive policy shall be applied.
- G-2. If a project falls into an area within two or more Airport Influence Areas (AIA), the most restrictive conditions from each separate airport shall apply to the project.
- G-3. The Airport is exempt from the policies of this CLUP for the development of projects on airport property.
- G-4. Local jurisdictions should encourage the conversion of land uses that are currently incompatible with this CLUP to uses that are compatible, where feasible.
- G-5. Where legally allowed, dedication of an avigation easement to the County of Santa Clara shall be required to be offered as a condition of approval on all projects located within an Airport Influence Area, other than reconstruction projects as defined in paragraph 4.3.7 of the CLUP.
- G-6. Any proposed uses that may cause a hazard to aircraft in flight are not permitted within the AIA. Such uses include electrical interference, high intensity lighting, attraction of birds (certain agricultural uses, sanitary landfills), and activities that may produce smoke, dust, or glare.

Noise Compatibility

- N-1. The Community Noise Equivalent Level (CNEL) method of representing noise levels shall be used to determine if a specific land use is consistent with the CLUP.
- N-2. In addition to the other policies herein, the Noise Compatibility Guidelines presented in Table 4-1 of the CLUP shall be used to determine if a specific land use is consistent with this CLUP.
- N-3. Noise impacts shall be evaluated according to the Aircraft Noise Contours presented on Figure 5 of the CLUP.
- N-4. No residential or transient lodging construction is recommended within the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels will be less than 45 dB CNEL and there are disclosures for any outdoor patios or outdoor activity areas associated with the residential portion of a mixed-use residential project of a multi-unit residential project. (Sound wall noise mitigation measures are not effective in reducing noise generated by aircraft flying overhead.)

- N-5. All property owners within the 65 dB CNEL contour boundary who rent or lease their property for residential use shall include in their rental/lease agreement with the tenant, a statement advising that they (the tenants) are living within a high noise area and the exterior noise level is predicted to be greater than 65 dB CNEL in a manner that is consistent with current state law including AB2776 (2002).
- N-6. Residential construction will not be permitted in the area between the 60 dB CNEL contour boundary and the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound level will be no greater than 45 dB CNEL.
- N-7. Noise level compatibility standards for other types of land uses shall be applied in the same manner as the above residential noise level criteria. Table 4-1 of the CLUP presents acceptable noise levels for other land uses in the vicinity of the Airport.
- N-8. Single-event noise levels (SENL) from single aircraft overflights are to be considered when evaluating the compatibility of highly noise-sensitive land uses such as schools, libraries, outdoor theaters, and mobile homes. Single-event noise levels are especially important in the areas regularly overflown by aircraft, but which may not produce significant CNEL contours.

Height Compatibility

- H-1. Any structure or object that penetrates the FAR Part 77 surface, as presented in Table 3-3 and illustrated on Figure 6 of the CLUP will be considered an incompatible land use.
- H-2. Any project that may exceed a FAR Part 77 surface must notify the FAA as required by FAR Part 77, Subpart B on FAA Form 7460-1, Notice of Proposed Construction or Alteration. (Notification to the FAA under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the FARs).

Tall Structure Compatibility

- T-1. The applicant for any proposed project anywhere in the County for construction or alteration of a structure (including antennas) higher than 200 feet above ground level shall submit to the FAA a completed copy of FAA Form 7460-1, Notice of Proposed Construction or Alteration. A copy of the submitted form shall be submitted to the Santa Clara County ALUC as well as a copy of the FAA's response to this form.
- T-2. Any proposed project anywhere in the County for construction or alteration of a structure (including antennas) higher than 200 feet above ground level shall comply with FAR 77.13(a)(1) and shall be determined inconsistent if deemed to be a hazard by the FAA or if the ALUC determines that the project has any impact on normal aircraft operations or would increase the risk to aircraft operations.

Safety Compatibility

- S-1. These policies and the Safety Zone Compatibility Policies presented in Table 4-2 shall be used to determine if a specific land use is consistent with the CLUP. Safety impacts shall be evaluated according to the Airport Safety Zones presented on Figure 7.

- S-2. Schools, hospitals, nursing homes, and other uses in which the majority of occupants are children, elderly, and/or disabled shall be prohibited within the Runway Protection Zones (RPZs), Inner Safety Zones (ISZs), Turning Safety Zones (TSZs), Sideline Safety Zones (SSZs), and Outer Safety Zones (OSZs) presented in Table 3-2. These uses should also be discouraged in the Traffic Pattern Zones (TPZs).
- S-3. Amphitheaters, sports stadiums and other very high concentrations of people shall be prohibited within the RPZs, ISZs, TSZs, SSZs, OSZs, and TPZs presented in Figure 7.
- S-4. Storage of fuel or other hazardous materials shall be prohibited in the Runway Protection Zone. Above ground storage of fuel or other hazardous materials shall be prohibited in the ISZ and TSZ. Beyond these zones, storage of fuel or other hazardous materials not associated with aircraft use should be discouraged.
- S-5. In addition to the requirements of Table 4-2, open space requirements, for sites which can accommodate an open space component, shall be established at the general plan level for each safety zone where feasible as determined by the local jurisdiction, as individual parcels may be too small to accommodate the minimum-size open space requirement. To qualify as open space, an area must be free of buildings, and have minimum dimensions of at least 75 feet wide by 300 feet ling along the normal direction of flight. The clustering of development and provision of contiguous landscaping and parking areas will be encouraged to increase the size of open space areas.
- S-6. The principal means of reducing risks to people on the ground is to restrict land uses so as to limit the number of people who might gather in areas most susceptible to aircraft accidents. A method for determining the concentration of people for various land uses is presented in Section 5.0, Implementation.
- S-7. The following uses shall be prohibited in all Airport Safety Zones:
  - Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.
  - Any use that would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.
  - Any use which would generate smoke or water vapor, or which would attract large concentrations of birds, or which may otherwise negatively affect safe air navigation within the area.
  - Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation, communication or navigation equipment.
- S-8. Buildings that would interfere with an aircraft gliding to an emergency landing in a safety zone open area are not permitted.
- S-9. In unique cases an exception can be granted, at the discretion of the ALUC, on the basis of mitigation measures proposed by the applicant which would result in the final project improving the overall safety in the safety zones in comparison to the situation existing prior to the project. An example of such a possible mitigation is the removal of existing

incompatible structures in exchange for constructing less incompatible structures. The following conditions must be met for this variance to be granted:

- There must be a clear, demonstrable net improvement in safety.
- The mitigation must provide a permanent improvement in safety. For instance, in the example above, the removed structures could not be replaced by other structures at a later date.

Overflight

- O-1. All new projects within the AIA that are subject to discretionary review and approval shall be required to dedicate an avigation easement to the County of Santa Clara. The avigation easement shall be similar to that shown as Exhibit 1 in Appendix A of the CLUP.

Reconstruction

- R-1. Reconstruction projects that are not subject to a previous avigation easement shall not be required to provide an avigation easement as a condition for approval.
- R-2. Residential reconstruction projects must include noise insulation to assure interior noise levels of less than 45 dB CNEL.
- R-3. An application for reconstruction increasing the structure's internal square footage, footprint square footage, height, and/or intensity of use may be approved if the local agency determines that such increase will have no adverse impact beyond that which existed with the original structure. However, a project approved under this policy shall require the property owner to offer and the local agency shall accept an avigation easement to the County of Santa Clara, similar to Exhibit 1 in the Appendix of the CLUP.

Infill

- I-1. Infill projects must comply with paragraph 4.3.5 and Table 4-2 of this CLUP with the exception of the land use density requirements.
- I-2. Infill projects may be approved if all of the following conditions are met:
  - The total contiguous undeveloped land area at this location is less than 0.25 acres in size. Note that this means the total contiguous undeveloped land area, not just the land area being proposed for development. Lots larger than 0.25 acres shall not be considered for infill.
  - The site is already surrounded on three sides and a street, or two sides and two streets, by the same land use as that being proposed.
  - The ALUC determines that the project will create no adverse safety impacts beyond those that already exist due to the existing incompatible land uses.
  - The property owner shall offer and the local agency shall accept an avigation easement to the County of Santa Clara, similar to Exhibit 1 in the Appendix of the CLUP.

Future development under the Precise Plan would be required to comply with existing FAA and the Moffett Federal Airfield CLUP, as well as applicable policies and actions from the 2030 General Plan. Compliance with these regulations and policies would ensure that potential impacts on airport safety operations for Moffett Federal Airfield are less than significant.

Impact HAZ-6: With required coordination with the ALUC and the FAA, the proposed project would not result in increased airport safety hazards. **[Less than Significant Impact]**

3.8.2.7 *Emergency Response*

The 2030 General Plan contains a number of policies and actions requiring maintenance of existing emergency response plans, development of a new emergency response plan for damaged utilities, development of a Local Hazard Mitigation Plan, emergency response training, and collaboration with local communities, large employers, and Moffett Federal Airfield to coordinate emergency response and preparedness. Increased traffic as a result of new development in the City of Mountain View could impair emergency response and evacuation procedures. However, the following General Plan policies require the maintenance of efficient automobile infrastructure and effective Transportation Demand Management (TDM) programs for existing and new developments.

> POLICY MOB 10.1: Efficient automobile infrastructure. Strive to maximize the efficiency of existing automobile infrastructure and manage major streets to discourage cut-through traffic on neighborhood streets.
>
> POLICY MOB 10.2: Reducing travel demand. Promote effective Transportation Demand Management programs for existing and new development.
>
> POLICY MOB 10.4: Emergency response. Monitor emergency response times and where necessary consider appropriate measures to maintain emergency response time standards. Measures to ensure provision of adequate response times may include the expanded use of emergency vehicle signal preemption, evacuation route modifications, or the construction of new facilities (e.g., fire stations).

Consistent with the General Plan, the proposed Precise Plan contains an extensive TDM program, as described in Section 3.14 Transportation, which would be required of all new development. In addition, the Precise Plan would not conflict with Policy MOB 10.4, which directs the City to monitor and maintain emergency response times as necessary.

Impact HAZ-7: Future development under the Precise Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **[Less than Significant Impact]**

3.8.2.8 *Wildland Fires*

The Precise Plan area is located in a developed urban area and would not expose people or structures to wildland fires.

Impact HAZ-8: The project would not result in a significant impact due to wildland fires. **[No Impact]**

3.8.3 Cumulative Impacts

Some of the projects that would be built out under the General Plan are proposed on properties that were previously developed with industrial or commercial uses. It is likely that hazardous materials may have been stored and used on, and/or transported to and from some of these properties as part of activities on the sites. These hazardous materials (such as gasoline, oil, propane, and various chemicals used in R&D and manufacturing) may have been stored on these sites in aboveground or underground tanks. Storage tanks can leak, often resulting in soil and/or groundwater contamination. If groundwater is affected, it can impact properties downgradient of the spill.

In addition, as many of the properties in Mountain View and surrounding cities (associated with the cumulative scenario) were used for agricultural purposes prior to their development for industrial and residential uses, agricultural chemicals such as pesticides and fertilizers may have been used on site in the past. The use of these chemicals on agricultural properties can result in widespread residual soil contamination, sometimes in concentrations that exceed regulatory thresholds. In addition, development of some of the sites would require demolition of existing buildings that may contain ACMs and/or lead paint. Demolition of these structures could expose construction workers or other persons in the vicinity to harmful levels of asbestos or lead.

Based on the previously described conditions, which are present on most project sites to varying degrees, potentially significant environmental impacts could occur under the cumulative scenario since such conditions can lead to the exposure of residents and/or workers to substances that have been shown to adversely affect health. For each of the projects that are under consideration, various mitigation measures will be implemented as a condition of development approval for the risks associated with exposure to hazardous materials. Measures would include incorporating the requirements of applicable existing local, state, and federal laws, regulations, and agencies such as DTSC and Cal/OSHA, during all phases of project development.

If chemical releases have occurred on these sites, and depending upon the extent of the release, contaminated soils could be excavated and transported to appropriate landfills or treated on-site. If groundwater is affected, remediation and ongoing groundwater sampling both on the site and on surrounding downgradient properties could be warranted. Further, all projects within the MEW Study Area or vapor intrusion area would be required to follow EPA groundwater and vapor clean up, vapor intrusion prevention, and monitoring requirements. Finally, determining the extent of asbestos and lead paint contamination would also be required prior to building demolition and site grading and, if present, such substances would be handled and disposed of in a manner that minimizes human exposure. Thus, the cumulative projects, including the proposed project, would not result in significant cumulative hazardous materials impacts.

Impact C-HAZ-1: Implementation of the Precise Plan, in addition to the buildout of the General Plan in the cumulative scenario, would not result in significant cumulative hazardous materials impacts. **[Less than Significant Cumulative Impact]**

3.8.4 Issues Not Covered Under CEQA

As previously discussed, the California Supreme Court issued an opinion in *CBIA vs. BAAQMD* holding that CEQA is primarily concerned with the impacts of a project on the environment and

generally does not require agencies to analyze the impact of existing conditions on a project's future residents. Nevertheless, the City has General Plan and that address conditions affecting projects, which are discussed below.

There is the potential for future residents and employees in East Whisman to be impacted by soil vapor from the previously discussed hazardous materials contamination in the vicinity. Phase I ESAs will be required to be prepared for future development projects in the Precise Plan area as part of the CEQA conformance checklist process. Based on the results of the Phase I ESAs and consistent with General Plan Policy NCC 18.1, which calls for the protection of human and environmental health from contamination, the following condition of approval would be implemented as part of future projects to reduce risks to future residents and employees of the site as a result of vapor intrusion. This condition would apply to future projects outside of the MEW Study where vapor intrusion is a Recognized Environmental Concern, either due to the site's proximity to the MEW area or due to other identified hazardous materials contamination.

Standard Condition of Approval

- VAPOR BARRIER: A vapor barrier shall be installed beneath all structures to mitigate any issues associated with the potential for vapor intrusion within the structure. The vapor barrier design shall be equivalent to those required for sites with known concerns in Mountain View that are also exposed to groundwater. Specifications for the vapor barrier included in the SMP shall include thickness, type, durability, and diffusion rates for VOCs of concern. The specifications shall also describe the effectiveness of the liner over the life of the building.

3.8.5 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
HAZ-1: Compliance with federal, state, and local requirements and General Plan policies, would reduce the potential for hazardous materials impacts from use, transport, or disposal in the Precise Plan area.	Less than Significant	No mitigation required	NA
HAZ-2: With implementation of the EPA-required ROD measures for properties within the MEW Study Area, VOC-related soil and vapor impacts to construction workers, area residents, and the environment would be less than significant.	Less than Significant	No mitigation required	NANA
HAZ-3: Future construction and demolition activities could expose construction workers, the environment, and area residents to potentially unacceptable health risks from contaminated groundwater, soils, and soil gas.	Significant	**MMMM HAZ-3.1,** preparation of Phase I and SMPs	Less than Significant

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
HAZ-4: Compliance with local, state, and federal demolition and construction requirements would reduce impacts from potential release of ACMs and lead-based paint to a less than significant level.	Less than Significant	No mitigation required	NA
HAZ-5: Future projects will be evaluated for their potential impacts on schools. For this reason, implementation of the Precise Plan would not result in impacts to existing or proposed schools.	Less than Significant	No mitigation required	NA
HAZ-6: With required coordination with the ALUC and the FAA, the proposed project would not result in increased airport safety hazards.	Less than Significant	No mitigation required	NA
HAZ-7: Future development under the Precise Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than Significant	No mitigation required	NA
HAZ-8: The project would not result in a significant impact due to wildland fires	No Impact	No mitigation required	NA
C-HAZ-1: Implementation of the Precise Plan, in addition to the buildout of the General Plan in the cumulative scenario, would not result in significant cumulative hazardous materials impacts.	Less than Significant	No mitigation required	NA

3.9 HYDROLOGY AND WATER QUALITY

3.9.1 Environmental Setting

3.9.1.1 *Regulatory Framework*

Federal, State, and Regional

Water Quality Overview

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

Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan or "Basin Plan". The Basin Plan lists the beneficial uses that the RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban runoff discharged by a City's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

Statewide Construction General Permit

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

Municipal Regional Stormwater Permit/C.3 Requirement

The San Francisco Bay RWQCB has issued a Municipal Regional Stormwater NPDES Permit (MRP) that covers the project area.[46] Under provisions of the NPDES Municipal Permit, redevelopment projects that disturb more than 10,000 square feet are required to design and construct stormwater treatment controls to treat post-construction stormwater runoff. The MRP requires regulated projects to include Low Impact Development (LID) practices, such as pollutant source control measures and stormwater treatment features aimed to maintain or restore the site's natural

[46] MRP Number CAS612008

hydrologic functions. The MRP also requires that stormwater treatment measures are properly installed, operated and maintained.

The MRP also requires the City to design and construct stormwater facilities into existing public infrastructure, such as streets, to achieve long-term "Green Stormwater Infrastructure" planning goals. Stormwater facilities, such as biotreatment, into drainage systems to retain and treat runoff may be incorporated into existing public streets and roads.

Local

City of Mountain View 2030 General Plan

The following General Plan policies are intended to protect water quality, avoid flooding and inundation hazards, and manage stormwater.

Policy	Description
LUD 8.7	**Sustainable streets.** Encourage sustainable streets that include drought- tolerant landscaping, natural stormwater treatment areas and other sustainable features.
INC 2.4	**Emergency preparedness and critical infrastructure**. Ensure emergency preparedness for all critical infrastructure including potable water, wastewater, stormwater, recycled water, telecommunications, energy and streets.
INC 3.3	**Street design for stormwater**. Encourage street designs that reduce storm- water flows and accomplish other City stormwater goals.
INC 8.1	**Citywide stormwater system.** Maintain the stormwater system in good condition.
INC 8.2	**National Pollutant Discharge Elimination System Permit**. Comply with requirements in the MRP.
INC 8.3	**Cost-effective strategies.** Encourage stormwater strategies that minimize additional City administrative and maintenance costs.
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.
INC 8.5	**Site-specific stormwater treatment**. Require post-construction stormwater treatment controls consistent with MRP requirements for both new development and redevelopment projects.
INC 8.6	**Green streets**. Seek opportunities to develop green streets and sustainable streetscapes that minimize stormwater runoff, using techniques such as on-street bio-swales, bio-retention, permeable pavement or other innovative approaches.
INC 8.7	**Stormwater quality**. Improve the water quality of stormwater and reduce flow quantities.
INC 8.8	**Stormwater infrastructure funding.** Develop permanent and ad hoc sources of funding to implement stormwater best practices in the city.
INC 17.1	**Flood prevention.** Provide and maintain City infrastructure to reduce localized flooding and protect community health and safety.

INC 17.2	**Natural hydrology in watersheds.** Promote an ecologically sensitive approach to flood protection, encouraging natural hydrology and preserving habitat and ecology within watercourses.
INC 17.3	**Floodway preservation.** Preserve floodways as a natural flood control mechanism.
INC 17.4	**National Flood Insurance Program**. Participate in the National Flood Insurance Program administered by the Federal Emergency Management Administration.
POS 9.1	**Sustainable design.** Promote sustainable building materials, energy-efficient and water-efficient designs, permeable paving and other low-impact features in new public buildings.

3.9.1.2 *Existing Conditions*

Stormwater Drainage

The Precise Plan area is located primarily within the Stevens Creek watershed, with small portions of the Precise Plan area located within the Calabazas Creek watershed.[47] The nearest waterway to the project site is Stevens Creek, located approximately 0.5 mile west of the project site's westernmost border. Stevens Creek flows into the San Francisco Bay near Long Point, north of NASA Ames Research Center/Moffett Federal Airfield. According to the Santa Clara Valley Permittees Hydromodification Management Applicability Map, the Precise Plan area is not subject to hydromodification requirements.[48]

Stormwater runoff from impervious surfaces within the Precise Plan area is collected by a municipal storm drain system consisting of storm drain inlets, conveyance pipes, culverts, channels and retention basins operated by the City of Mountain View Public Works Department. Drainage into the City system generally flows from south to north towards the San Francisco Bay, with over 80 percent of the City's storm drain system discharging to Stevens Creek and Permanente Creek. [49] Stormwater runoff from the Precise Plan area is primarily conveyed to Stevens Creek which flows into the Lower South Bay via Whisman Slough.[50]

Impervious surfaces located within the Precise Plan area consist of buildings, parking lots, streets and other hardscape areas. The majority of the Precise Plan area consists of impervious surfaces, with the exceptions being landscaped areas located within existing office parks, vacant unpaved parcels, and a variety of planters throughout the project site.

Water Quality

The water quality of streams, creeks, ponds, and other surface water bodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as non-point source pollutants, are washed from streets, construction sites, parking lots, and other exposed

[47] City of Mountain View. *Storm Drain Master Plan.* September 2017.
[48] Santa Clara Valley Urban Runoff Pollution Prevention Program. *Hydromodification Applicability Map City of Mountain View.* Accessed December 12, 2018. http://www.scvurppp-w2k.com/HMP_app_maps/Mountain_View_HMP_Map.pdf.
[49] City of Mountain View. *Draft 2030 General Plan and Greenhouse Gas Reduction Program EIR.* November 2011. Figure IV. H-1.
[50] California State Water Resources Control Board. *Stevens Creek Toxicity TMDL.* Accessed October 24, 2018. https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/stevenscktoxicity.html.

surfaces into storm drains. Urban stormwater runoff often contains contaminants such as oil and grease, plant and animal debris (e.g., leaves, dust, animal feces, etc.), pesticides, litter, and heavy metals. In sufficient concentration, these pollutants have been found to adversely affect the aquatic habitats to which they drain.

While there are no streams, creeks, ponds, or other surface water bodies located within the project site, Stevens Creek is located in proximity to the project boundaries. Stevens Creek is on the 2006 Clean Water Act Section (CWA) 303(d) list due to impairment from toxicity from unknown sources. The California Water Board is in the process of examining the current status of impairment, with Total Maximum Daily Load (TMDL) estimates to be developed by 2019.[51]

Groundwater

The Precise Plan Area overlies the Santa Clara subbasin, a 225 square-mile groundwater subbasin which extends from the northern border of Santa Clara County to the groundwater divide near the town of Morgan Hill. The Santa Clara groundwater basin provides municipal, domestic, industrial, and agricultural water supply to the area. Valley Water conducts an artificial groundwater recharge program that entails releasing locally conserved or imported water to in-stream and off-stream infiltration facilities. As a result of the recharge programs, as well a reduced reliance on groundwater pumping and the importation of surface water from the Hetch Hetchy Aqueduct and South Bay Aqueduct, groundwater levels have reached historically high levels in recent years. Groundwater recharge and conservation is recognized as being critically important to water resource sustainability in Santa Clara County, as future water shortages can reduce reliability of external sources and challenge the ability of Valley Water to supply water for the varied interests within its jurisdiction.[52]

Valley Water prepared a Groundwater Management Plan (GMP) for the Santa Clara and Llagas subbasins in 2016, describing its comprehensive groundwater management framework including objectives and strategies, programs and activities to support those objectives, and outcome measures to gauge performance. The GMP is the guiding document for how Valley Water will ensure groundwater basins within its jurisdiction are managed sustainably. The Santa Clara subbasin has not been identified as a groundwater basin in a state of overdraft.

Depth to groundwater will vary throughout the Precise Plan Area depending on site specific conditions, such as annual precipitation, irrigation, and fluctuations in temperature. Average depth to groundwater in the Precise Plan area is estimated to be between 15 and 40 feet below grade, based on prior geologic studies conducted for projects within the Precise Plan area. Groundwater levels would be confirmed by soil borings performed for project-specific geotechnical investigations, as required by the City of Mountain View for new development projects.

Flooding

The entirety of the Precise Plan area is located within a Flood Zone X, which is not a Special Flood Hazard Area as identified by FEMA FIRM. A Flood Zone X is defined as an area determined to be

[51] California State Water Resources Control Board. *Stevens Creek Toxicity TMDL.* Accessed October 24, 2018. https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/stevenscktoxicity.html.
[52] Santa Clara Valley Water District. *Annual Groundwater Report for Calendar Year 2016.* 2017.

outside the one percent and 0.2 percent annual chance floodplains, indicative of a minimal flood hazard.[53] Localized flooding has been observed in the City but has historically occurred outside of the Precise Plan area.[54]

Dam Failure

The ABAG compiles the dam failure inundation hazard maps submitted to the State Office of Emergency Services by dam owners throughout the Bay Area. The City of Mountain View is not located within any dam inundation areas.[55]

Sea Level Rise

According to sea level rise maps prepared for Santa Clara County by the San Francisco Bay Conservation and Development Commission (BCDC), the Precise Plan area is not located in an area subject to inundation following projected sea level rise.[56]

Seiches, Tsunamis, and Mudflows

A seiche is the oscillation of a body of water, typically caused by changes in atmospheric pressure, strong winds, earthquakes, tsunamis, or tidal movements. Seiches occur most frequently in enclosed or semi-enclosed basins such as lakes, bays, or harbors. A damaging seiche has not been recorded in the San Francisco Bay Area as far as records indicate.[57]

Tsunamis are long period water waves caused by underwater seismic events, volcanic eruptions, or undersea landslides. Areas that are highly susceptible to tsunami inundation tend to be low-lying coastal areas, such as tidal flats, marshlands, and former San Francisco Bay margins that have been artificially filled. The Precise Plan area is not located within an identified tsunami inundation area.[58]

Mudflows are earthflows consisting of material that is wet enough to flow rapidly and that contains at least 50 percent sand-, silt-, and clay-sized particles.[59] Mudflows can be caused by periods of intense rainfall or thawing of materials and typically occur on steep slopes where vegetation is not sufficient to prevent rapid erosion. The Precise Plan area is located on relatively stable, level ground and is comprised primarily of impervious surfaces; therefore, the risk of mudflow is low.

[53] Federal Emergency Management Agency. *Flood Insurance Rate Map. No. 06085C0045H.* May 2009.
[54] City of Mountain View. *Draft 2030 General Plan and Greenhouse Gas Reduction Program EIR.* November 2011.
[55] Santa Clara County. *Santa Clara County Hazard Mitigation Plan*. March 2012.
[56] BCDC. *Bay Area Sea Level Rise Analysis and Mapping Project.* January 2017.
[57] City of Mountain View. *City of Mountain View Draft 2030 General Plan and Greenhouse Gas Reduction Program EIR.* September 2012.
[58] California Emergency Management Agency, California Geological Survey, University of Southern California. *Tsunami Inundation Map for Emergency Planning – Mountain View Quadrangle.* 2009.
[59] United States Geological Survey. *Landslide Types and Processes.* July 2004. https://pubs.usgs.gov/fs/2004/3072/fs-2004-3072.html

3.9.2 Hydrology and Water Quality Impacts

3.9.2.1 *Thresholds of Significance*

For the purposes of this EIR, a hydrology and water quality impact is considered significant if the project would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impeded sustainable groundwater management of the basin;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - Result in substantial erosion or siltation on- or off-site;
    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    - Impeded or redirect flood flows.
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to inundation; or
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.9.2.2 *Water Quality Impacts*

Construction

Development occurring under the proposed Precise Plan would require excavation and grading of project sites, which could result in sediment and other pollutants being transported from active construction sites to nearby creeks, marshes and San Francisco Bay through soil erosion, stormwater runoff or wind-blown dust. Individual projects that would disturb one acre or more of soil would be subject to the requirements of the statewide Construction General Permit to reduce runoff and pollution in runoff from construction activities, including preparation of a SWPPP and implementation of stormwater control Best Management Practices.

Operation

Increased intensity of development allowed by the Precise Plan would result in greater water demand, wastewater discharge, and stormwater runoff within the Precise Plan area, factors which could impact water quality in the area. Future development would be analyzed on a project-by-project basis to ensure that water quality standards and waste discharge requirements are being met during construction and operation. Furthermore, the General Plan calls for the East Whisman Change Area to achieve highly sustainable development standards and the Precise Plan includes requirements

for highly sustainable site design, features, and materials. Green building measures would be included in future development within the Precise Plan area and would contribute to improving water quality within the City of Mountain View by reducing and improving the quality of stormwater runoff and sustainably managing the water resources required for future projects.

The following design guidelines and standards are included within the Precise Plan and are applicable to future development under the Precise Plan as it pertains to water quality impacts:

- Green infrastructure measures shall be placed into retrofitted streets as feasible, and as required by the MRP and the City's Green Stormwater Infrastructure Plan and other plans and goals.
- Green infrastructure measures are required in new streets, and as required by the Municipal Regional Permit and the City's Green Infrastructure Plan and other plans and goals. Green infrastructure measures may be integrated with complete street features, such as curb bulb-outs along a street or at an intersection. Other measures may include in-street landscape areas, tree wells, planters within the parking lane, and permeable pavements.
- New public open spaces would be designed to incorporate best practices in sustainability, including water use and conservation, stormwater management, landscaping, and drought tolerant planting.
- New construction shall meet the baseline indoor and outdoor water performance standards defined by LEED and mandatory CalGreen requirements.
- New construction shall install dual plumbing for potable and recycled water use, per the City's most current codes.
- When the recycled water system is adjacent to the property, new construction shall install the infrastructure necessary to connect to the recycled water system. If recycled water is not available, new construction is required to construct the on-site irrigation to be recycled-water-conversion ready per the City's standards and to connect to the recycled water system once the system is complete.

In addition to the requirements above, projects implemented under the Precise Plan would be required to meet the requirements of the MRP. Provision C.3 of the MRP requires post-construction stormwater controls on all development and redevelopment projects involving the creation or replacement of 10,000 square feet of impervious surface (5,000 square-feet for vehicle-related land uses). The stormwater treatment requirements for both new and existing streets are described in MRP provisions C.3.b.(ii)(4) and C.3.j. (i) through (ii). Typical "green street" design provides stormwater treatment of runoff in biotreatment areas contained in curb extensions (bulb-outs), but other treatment designs, such as tree trenches, may be considered.

Future development with greater than 10,000 square feet of impervious surfaces would be required to implement above described RWQCB requirements, to reduce impacts to water quality to a less than significant level.

Implementation of the Precise Plan stormwater management standards and guidelines, in combination with project conformance with MRP requirements, would ensure that post-construction stormwater runoff would not result in substantial additional sources of polluted runoff.

Impact HYD-1: Compliance with MRP requirements and the standard conditions of approval discussed above would ensure that development under the Precise Plan would not result in substantial sources of polluted runoff during construction or operation. **[Less than Significant Impact]**

3.9.2.3 *Groundwater*

Shallow groundwater is expected to be encountered during future site development which may require temporary dewatering. Dewatering of groundwater would not substantially impact groundwater supplies in the region, nor would it deplete or contaminate existing aquifers relied upon for potable water uses. Land uses proposed by the Precise Plan would rely on an existing water supply system and would not establish additional groundwater extraction for irrigation or other purposes. Based on the Water Supply Assessment for the proposed project, the City of Mountain View Public Works Department determined that its current and projected water supplies would be sufficient to meet the demands of development under the Precise Plan in normal, single dry, and multiple dry years (refer to Section 3.16 Utilities and Service Systems). Therefore, the project would not substantially decrease groundwater supplies by requiring additional groundwater extraction to meet new demands; nor would the project interfere with sustainable groundwater management.

Potentially polluted dewatered groundwater at properties identified as being within or in the immediate vicinity of the MEW Superfund Study Area, would be dealt with as part of the Site Management Plan (SMP) required as part of MM HAZ-2.1. The SMP would be prepared prior to development activities to establish management practices for handling contaminated soil, soil vapor, groundwater or other materials during construction. The SMP should be prepared by an Environmental Professional and be submitted to the overseeing regulatory agency (e.g., EPA, RWQCB, City of Mountain View, and/or County Department of Environmental Health) for review and approval prior to commencing construction activities. A Health and Safety Plan establishing appropriate protocols for working in hazardous materials shall also be prepared.

During construction within the MEW Superfund Study Area, future project developers will be required to implement the EPA-approved measures during dewatering (as applicable). Work activities would be coordinated with the EPA and MEW Responsible Parties, including identifying conditions that could affect the implementation and monitoring of the vapor intrusion remedy and on-going remedial efforts.

Impact HYD-2: New development under the Precise Plan would not substantially decrease groundwater supplies or interfere with sustainable groundwater management of the Santa Clara Valley subbasin or result in other groundwater-related impacts. **[Less than Significant Impact]**

3.9.2.4 *Drainage Pattern Alteration*

The City's Storm Drainage Master Plan evaluated the existing storm drain system and determined that the system performs adequately, although there are minor deficiencies in the system.[60] These deficiencies are primarily related to localized flooding, which has historically occurred outside of the Precise Plan area. Deficiencies have been identified in the eastern section of Mountain View along

[60] City of Mountain View. *Citywide Storm Drainage Master Plan*, Prepared by Schaaf & Wheeler. September 2017.

Fairchild Drive between North Whisman Road and SR 237 during 10- and 100-year rainfall events. These deficiencies in the stormdrain system are located at the northern edge of the Precise Plan area, making the surrounding areas susceptible to flooding. Improvements to the storm drain system to address localized flooding and other issues related to aging stormwater infrastructure have been incorporated into the City's CIPs and would correct deficiencies in the system to accommodate projected growth, build out, and development of vacant parcels.

As described previously, future projects in the Precise Plan area would develop over time, and impervious surfaces and stormwater facilities would be reviewed on a project-by-project basis. Any storm drains included as a component of development in the Precise Plan area would use the 10-year storm event as the basis of storm drain design.

The design guidelines for the proposed East Whisman Precise Plan require new landscaping to incorporate stormwater capture and treatment into landscaping design and for new public spaces to implement best practices for stormwater management. Furthermore, green stormwater infrastructure measures are to be included in new and retrofitted streets within the Precise Plan area, as required by the MRP and the City's Green Infrastructure Plan. Compliance with the design standards for new development within the Precise Plan area, in addition to state and local regulations regarding stormwater treatment and conveyance, would limit the amount of stormwater generated within the Precise Plan area and improve runoff quality from future development. Currently, the Precise Plan area is predominantly covered by impervious surfaces and the City's stormwater drainage system adequately conveys flows from within the Precise Plan area. As the proposed Precise Plan would not result in a substantial increase in impervious surfaces when compared to existing conditions, it is not anticipated that future development would significantly impact the capacity of the existing stormdrain system.

Impact HYD-3: With implementation of standard City conditions of approval, as well as compliance with the MRP and Precise Plan standards and guidelines, the proposed project would result in less than significant impacts to existing stormwater drainage systems. **[Less than Significant Impact]**

3.9.2.5 *Flood Hazard, Tsunamis, and Seiches*

The proposed Precise Plan is not located within a Special Flood Hazard Zone. The proposed Precise Plan is located within an area designated as a FEMA Flood Zone X, which is defined as an area determined to be outside the one percent and 0.2 percent annual chance floodplains. This designation is indicative of a minimal flood hazard. While localized flooding has been observed in the City of Mountain View, it has typically occurred outside of the Precise Plan area and is not anticipated to significantly impact future development under the Precise Plan or be exacerbated by the proposed uses.

The Precise Plan area is located outside of any dam inundation zones. Inundation from a seiche or tsunami is considered highly unlikely, due to its location outside of a tsunami inundation zone and the historical absence of damaging seiches. As described in Section 3.8 Hazards and Hazardous Materials, the MVFD requires any facility storing large quantities of any hazardous materials to prepare an HMBP. The HMBP must be approved by MVFD and include a contingency plan that describes the facility's response procedures in the event of a hazardous materials release. For these

reasons, a release of pollutants as a result of inundation of the Precise Plan area is not anticipated and any impact would be less than significant.

Impact HYD-4: The proposed project would not result increased flood hazards, increased tsunami or seiche risks, or increased risk of release of pollutants due to inundation. **[Less than Significant Impact]**

3.9.2.6 *Water Quality Control Plan or Groundwater Management Plan*

As mentioned previously, Valley Water prepared a GMP for the Santa Clara and Llagas subbasins in 2016, establishing recharge facilities, recycled water systems, and conservation strategies in order to proactively manage groundwater and surface water resources within its jurisdiction. There are no recharge facilities, pump plants, or drinking water treatment plants in the Precise Plan area; therefore, development under the Precise Plan would not impact any of these facilities.[61]

The City of Mountain View purchases approximately 85 percent of its drinking water from the SFPUC Hetch Hetchy system.[62] The SFPUC right-of-way signifying the presence of two pipelines carrying water from the Hetch Hetchy reservoir is located in the northern half of the Precise Plan area and crosses east to west across the Precise Plan area. Development under the Precise Plan would not prohibit the pipelines from conveying flows. Minor improvements, such as parking and open area, would be permitted above the pipes but these actions would not interfere with or obstruct the implementation of water quality plans with regard to imported water from the Hetch Hetchy system.

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

3.9.3 Cumulative Hydrology and Water Quality Impacts

The Precise Plan would result in an intensification of development within the Precise Plan area, potentially resulting in an increase in impervious surface areas when compared to current conditions. Future development under the proposed Precise Plan would be required to conform to applicable General Plan goals and policies regarding stormwater runoff and water quality. Impacts would be avoided with application of the Precise Plan standards and guidelines, City standard conditions of approval, and MRP requirements discussed within this section. These requirements would also apply to future development within the cumulative scenario. Furthermore, the Precise Plan design standards would be adhered to by future development, ensuring that landscape design and any required infrastructure improvements be designed in a manner that reduces the amount and improves the quality of stormwater runoff.

Additionally, future projects in the cumulative scenario would be required to implement construction-period stormwater pollution practices, and post-construction Low Impact Development measures to comply with the NPDES Municipal Regional Permit to reduce water quality impacts. For these reasons, the proposed project would not result in significant cumulative impacts to hydrology and water quality.

[61] SCVWD. *2016 Groundwater Management Plan.* 2016.
[62] City of Mountain View. *Water Quality Consumer Confidence Report 2016.* June 2017.

Impact C-HYD-1: The proposed project, together with projects built during the 2030 General Plan horizon (the cumulative scenario) would not result in significant cumulative hydrology impacts. **[Less than Significant Cumulative Impact]**

3.9.4 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
HYD-1: Compliance with MRP requirements and the standard conditions of approval discussed above would ensure that development under the Precise Plan would not result in substantial sources of polluted runoff during construction or operation.	Less than Significant	No mitigation required	NA
HYD-2: New development under the Precise Plan would not substantially decrease groundwater supplies or interfere with sustainable groundwater management of the Santa Clara Valley subbasin or result in other groundwater-related impacts.	Less than Significant	No mitigation required	NA
HYD-3: With implementation of standard City conditions of approval, as well as compliance with the MRP and Precise Plan standards and guidelines, the proposed project would result in less than significant impacts to existing stormwater drainage systems.	Less than Significant	No mitigation required	NA
HYD-4: The proposed project would not result increased flood hazards, increased tsunami or seiche risks, or increased risk of release of pollutants due to inundation	Less than Significant	No mitigation required	NA
HYD-5: The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than Significant	No mitigation required	NA
C-HYD-1: The proposed project, together with projects built during the 2030 General Plan horizon (the cumulative scenario) would not result in significant cumulative hydrology impacts	Less than Significant	No mitigation required	NA

3.10 LAND USE AND PLANNING

3.10.1 Environmental Setting

3.10.1.1 *Regulatory Framework*

Mountain View 2030 General Plan

East Whisman Change Area

The Precise Plan area generally consists of the East Whisman Change Area as set forth in the General Plan, with exceptions being the exclusion of the 17.5-acre area south of Evelyn Avenue/Central Expressway (111 Ferry-Morse Way Precise Plan) and the inclusion of the Village Center on East Middlefield Road. The General Plan identifies new land uses and increased allowable development intensities for change areas. The East Whisman Change Area establishes a vision of a transit-oriented employment center with a diversity of land uses. Change areas are intended to reinforce General Plan policies, guide zoning ordinance and Precise Plan updates, and provides direction for capital improvement projects in order to meet the form, character, and vision of the General Plan. The following policies from the General Plan are applicable to the East Whisman Change Area

Policy	Description
LUD 3.4	**Land use conflicts.** Minimize conflicts between different land uses.
LUD 3.7	**Upgraded commercial areas.** Encourage the maintenance, enhancement and redevelopment of older commercial districts, shopping centers and corridors
LUD 3.8	**Preserved land use districts.** Promote and preserve commercial and industrial districts that support a diversified economic base.
LUD 3.9	**Parcel assembly.** Support the assembly of smaller parcels to encourage infill development that meets City standards and spurs neighborhood reinvestment.
LUD 15.2	**Sustainable development focus**. Require sustainable site planning, building and design strategies.
LUD 15.3	**Highly sustainable development**. Encourage new or significantly rehabilitated development to include innovative measures for highly sustainable development.
LUD-15.4	**Wildlife friendly development**. Implement wildlife friendly site planning, building and design strategies.
LUD 16.4	**Innovative corporate campuses**. Encourage innovative corporate campus designs.
LUD 16.5	**Protect views**. Protect views by including open areas between tall buildings.
LUD 16.6	**Open space amenities**. Encourage development to include open space amenities, plazas and parks that are accessible to the surrounding transit, bicycle and pedestrian network.
LUD 17.2	**Transportation Demand Management strategies**. Require development to include and implement Transportation Demand Management strategies.
LUD 19.1	**Land use and transportation**. Encourage greater land use intensity and transit-oriented developments within a half-mile of light rail transit stations.
LUD 19.3	**Connectivity improvements.** Support smaller blocks, bicycle and pedestrian improvements and connections throughout the area.

LUD 19.5	**Village centers.** Promote new or expanded village centers that serve the area.
LUD 19.6	**Residential transitions.** Require development to provide sensitive transitions to adjacent residential uses.
LUD 19.7	**NASA Ames and Moffett Field area connections.** Create stronger connections between East Whisman and the NASA Ames and Moffett Field Areas.

Mountain View Zoning Ordinance

As a long-range planning document, the General Plan outlines a long-term vision, and sets forth policies designed to shape future development within Mountain View. The Zoning Ordinance serves as an implementing tool for the General Plan by establishing detailed, parcel-specific development regulations and standards. The Zoning Ordinance divides the City of Mountain View into zoning districts to guide future land uses.

Precise Plans

Precise Plans are a tool for coordinating future public and private improvements on specific properties where special conditions of size, shape, land ownership or existing or desired development require particular attention. Precise Plans are defined in Section 36.70 of the Mountain View Municipal Code. The City has 32 active Precise Plans. Adopted in late 2014, the San Antonio, El Camino, and North Bayshore Precise Plans were developed to provide zoning and design standards for three large Change Areas identified in the 2030 General Plan. The East Whisman Change Area is another Change Area identified in the 2030 General Plan. The East Whisman Precise Plan includes development standards, allowed land uses, urban design guidelines, and new public improvements for the Precise Plan area. Future development within the Precise Plan area would be directed by the standards and guidelines contained in the Precise Plan.

Moffett Field Comprehensive Land Use Plan

Moffett Federal Airfield is a joint civil-military airport located less than 0.1 mile north of the Precise Plan boundary. Moffett Federal Airfield is an operational facility currently used by NASA/Ames, various federal military groups, and private entities. The ALUC adopted the CLUP for Moffett Federal Airfield in November of 2012, which was amended in November of 2016. The CLUP is intended to protect the public from adverse effects created by aircraft noise, ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and ensure that structures or activities do not adversely affect navigable airspace. Adhering to the standards set forth by the CLUP ensures that development in the City of Mountain View would occur in a manner that is compatible with airport activities. The CLUP identifies physical and non-physical restrictions that apply to new projects within the Precise Plan area.

Plan Bay Area 2040

Plan Bay Area 2040 is a regional plan that aims to integrate sustainable land use, housing, and transportation strategies to reduce congestion, improve livability, and lower transportation-related emissions within the nine counties of the San Francisco Bay Area. East Whisman is partially located within a Priority Development Area (PDA) and will be fully incorporated into one upon adoption of

the Precise Plan. PDAs are defined as higher density, mixed use development areas near major public transit systems, consistent with the East Whsiman Precise Plan.

3.10.1.2 *Existing Conditions*

General Land Use Designations

The Precise Plan area includes General Plan land use designations of *High-Intensity Office* in the existing East Whisman Change Area (approximately 361 acres) and *Neighborhood Mixed-Use* and *Medium Density Residential* in the Village Center area (approximately 7 acres). The vast majority of the land contained within the Precise Plan area is designated as *High-Intensity Office*, which is intended to accommodate major corporations, financial and administrative offices, high-technology industries, and other scientific facilities, as well as supporting retail and service uses. The *High-Intensity Office* designation is further defined as follows:

- Allowed Land Uses: Office and ancillary commercial; light industrial, light manufacturing, startups and other commercial and industrial uses as appropriate.
- Density and Intensity: 0.35 floor area ratio (FAR); intensities above 0.35 FAR and up to 1.0 FAR may be permitted with measures for highly sustainable development specified within zoning ordinance or precise plan standards.
- Height Guideline: Up to eight stories.

The *Neighborhood Mixed-Use* land use designation is intended to support mixed-use village centers that provide a range of goods and services within a convenient distance of surrounding residential areas. This designation is intended to create retail centers with plazas and open space for social gathering and to promote pedestrian accessibility to goods and services. The *Neighborhood Mixed-Use* designation is further defined as follows:

- Allowed Land Uses: Commercial with retail and personal services, small offices; in addition, uses such as multi-family residential are allowed to increase the viability of neighborhood retail and services.
- Intensity: 1.05 FAR, of which up to 0.35 FAR can be office or commercial.
- Height Guideline: Up to two stories; three-story projects should be designed to provide appropriate transitions to surrounding properties and should create high-quality environments for social gathering.

The *Medium Density Residential* land use designation allows for a mix of single- and multi-family housing with a residential character appropriate to a range of densities and a broad mix of housing types.

- Allowed Land Uses: Single-family detached and attached residential, duplex residential, multi-family residential; parks and open space.
- Intensity: 13–25 DU/acre, approximately 27–60 residents/acre.
- Height Guideline: Up to three stories.

Mountain View Zoning Ordinance

The majority of the existing zoning districts in the proposed East Whisman Precise Plan area include *Limited Industrial* (ML), *Limited Industrial with a Transit Overlay Zone* (ML-T), and *Planned Community* (P). The Village Center area is zoned *Commercial-Office* (CO), *Commercial/Residential-Arterial* (CRA), *Commercial-Neighborhood* (CN) and *Multi-family Residential* (R3-2). These zoning designations in the Precise Plan area allow a broad range of commercial, office, and R&D uses. One parcel allows residential uses.

Existing Land Uses in the Precise Plan Area

Existing land uses within the Precise Plan area primarily consist of high-technology office, research and development, and light-industrial uses with scattered commercial and retail uses. There is currently no residential development within the Precise Plan area (except for one single-family residence on Middlefield Road), although the Precise Plan area is bordered on the east, south and west by residential development of varying intensities. The Precise Plan area is entirely developed and contains no public parks. Open space within the Precise Plan area is limited to turf and landscaped areas associated with existing office parks.

The VTA Middlefield light rail station is centrally located within the Precise Plan area and provides connections from nearby residential neighborhoods to regional employment centers that are within the Precise Plan area. The light-rail tracks run west to east along Evelyn Avenue before crossing North Whisman Road, at which point they run south to north through the Precise Plan area.

Surrounding Land Uses

The Precise Plan area is bordered by US 101 to the north, Sunnyvale Golf Course and the Sunnyvale city limits to the east, and residential development to the south and west. Surrounding residential development is comprised of a mix of single-family and multi-family residences. Several mobile home parks are located south of the Precise Plan area, between East Evelyn Avenue and El Camino Real. Moffett Federal Airfield and the NASA Ames Research Center are located across US 101 to the north and northwest of the Precise Plan area, respectively.

There are several public parks and open spaces located in the vicinity of the Precise Plan area, including Chetwood Park, Magnolia Park, Slater School Park, Encinal Park and Sylvan Park. Sunnyvale Golf Course is located adjacent to the northeastern corner of the Precise Plan area and is owned and operated by the City of Sunnyvale. Similarly, Encinal Park is owned by the City of Sunnyvale.

3.10.2 Land Use and Planning Impacts

3.10.2.1 *Thresholds of Significance*

A land use and planning impact is considered significant if the project would:

- Physically divide an established community;
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect;

3.10.2.2 *Physically Divide and Established Community*

The Precise Plan proposes 2.3 million net new square feet of office uses, 100,000 net new square feet of retail uses, 200 new hotel rooms, and 5,000 new multifamily residential units. Through the Precise Plan process, the General Plan and Zoning Ordinance would be amended to allow for the addition of residential units, increased office FAR, and increased commercial intensity. The proposed Precise Plan would consolidate the existing zoning districts within the area into an East Whisman Precise Plan zoning district. The City of Mountain View's Zoning Code would be amended to codify the land use regulations contained within the East Whisman Precise Plan zoning district. Additionally, the Precise Plan could include new parks, trails, public streets, and recreational facilities to accommodate the proposed increase in population.

The Precise Plan does not include the provision of dividing infrastructure such as highways or railways that could be expected to impact existing communities adjacent to the Precise Plan area. While several new street extensions are proposed, they would facilitate multimodal transportation use and break large blocks down into smaller and more walkable units. The Precise Plan would improve connectivity between existing communities by establishing complete streets, new parks and trails, improved access to transit, and new residential development in close proximity to regional employment centers. For these reasons, implementation of the Precise Plan would not physically divide an existing community.

Impact LU-1: The proposed project would not physically divide an established community. **[Less than Significant Impact]**

3.10.2.3 *Environmental Effects of Land Use Plan, Policy, and Regulation Conflict*

General Plan and Zoning Ordinance

Following adoption of the General Plan in July 2012, much of the East Whisman Precise Plan area received the General Plan land use designation of *High Intensity Office,* with the Village Center on East Middlefield Road designated as *Neighborhood Mixed-Use* and one parcel on East Middlefield Road designated as *Medium Density Residential.* The 2030 General Plan identifies a vision for the East Whisman Change Area, which encompasses the majority of the Precise Plan area, as a transit-oriented employment center with greater commercial intensity, pedestrian and bicycle connections, highly sustainable development, and commercial services to support residents and workers in the area. The Precise Plan is designed to implement the goals and policies of the General Plan by providing development guidelines and policies for the entire area.

The Precise Plan includes transportation demand management (TDM) measures for future development, as described in Section 3.15 Transportation and Traffic of this Draft EIR. Complete streets and complete neighborhoods are main components of the development guidelines set forth for the proposed Precise Plan. Integration of these features would parallel the goals and policies for development of the area as established by the General Plan.

The current land use designations within the Precise Plan area would be amended to be designated *East Whisman Mixed-Use* and promote a mix of offices, neighborhood-serving commercial, multi-family residential, lodging, and small businesses in the core of the Precise Plan area.

- Allowed Land Uses: Office, commercial, lodging, entertainment, residential, parks, and open space.
- Intensity (office): 0.40 FAR; intensities up to 0.5, 0.75 or 1.0 FAR may be permitted with measures for highly sustainable development and public benefits specified within zoning ordinance or precise plan standards.
- Intensity (residential): 1.0 FAR (approximately 40 DU/ac or 40 – 80 residents per acre). Residential FAR greater than 1.0 may be permitted if consistent with the East Whisman Precise Plan affordable housing strategies.
- Intensity (lodging): 2.0 FAR.
- Height Guideline: Up to eight stories.

Additionally, a new East Whisman Precise Plan zoning district would be created to encompass the entirety of the Precise Plan Area. Additionally, the proposed project includes standards and guidelines to minimize environmental impacts, including hazardous materials and biological resources impacts, and would be consistent with General Plan policies adopted to avoid or mitigate environmental effects.

Moffett Field Comprehensive Land Use Plan

The Moffet Field CLUP identifies restrictions to limit the potential for projects to interfere with airport activities and limit the level of noise exposure at new projects. The Precise Plan area is within the 182-foot mean sea level (msl) CLUP height restriction area. The maximum height of future buildings within the Precise Plan area would be 100 feet, which is below the height limits established by the CLUP; thus, impacts as a result of interference with airport operations would not occur.

Proposed land uses within the Precise Plan area would have varied levels of sensitivity to aircraft-generated noise. While the entirety of the Precise Plan area is located within the Airport Influence Area for Moffett Field, only the northeastern portion of the Precise Plan area is located within the established 65 dB and 70 dB noise contour. The Precise Plan would allow a mix of uses, including housing and parks. The CLUP allows residential if there is no outdoor space. The City's General Plan noise standards would conditionally allow residential uses and parks within the 65 dB and 70 dB noise range. Residential development within 60 dB noise contours would incorporate noise reduction requirements in order to mitigate airport noise to an acceptable level. Noise from airport activities is discussed further in Section 3.12 Noise and Vibration.

Plan Bay Area 2040

The Precise Plan is partially located in a PDA as identified by ABAG and the Metropolitan Transportation Commission in Plan Bay Area 2040. The Precise Plan area will be fully incorporated into one upon adoption of the Precise Plan, based on its consistency with the policy and intent of PDAs as mixed-use, transit-oriented, infill districts. Plan Bay Area 2040 focuses future growth in the Bay Area towards PDAs by streamlining the review process for projects proposed within PDAs and providing grants for projects in PDAs, thus contributing towards sustainable growth in the region. The Precise Plan will be located within a PDA and would therefore be consistent with Plan Bay Area 2040.

Impact LU-2: The Precise Plan includes standards and guidelines to minimize environmental impacts and would be consistent with relevant plans and policies adopted to mitigate environmental effects. **[Less than Significant Impact]**

3.10.3 Cumulative Land Use Impacts

While new roadways are proposed as part of the Precise Plan, they would be limited to connector streets to facilitate implementation of the multimodal transportation goals of the General Plan. New roadways, bike paths, and open space areas would not contribute considerably to physical divisions within an established community, rather they will improve connectivity and multimodal access. Further, all development projects in the City are subject to General Plan goals, policies, and action statements that require appropriate buffers, edges, and transition areas between land uses. In addition, setback, design, and operational requirements of the Mountain View City Code minimize land use compatibility issues that might result in physical land divisions. For these reasons, a cumulative impact would not occur.

All cumulative scenario projects in the City of Mountain View (and in the adjacent City of Sunnyvale) would go through the City development review process. Projects would be analyzed for conformance with applicable policies adopted for the purpose of avoiding or mitigating an environmental impact though the CEQA review process. The project, therefore, in combination with the cumulative development, would not result in significant policy conflict impacts and would not result in a significant cumulative land use impact.

Impact C-LU-1: The proposed project in combination with other cumulative projects would not result in a significant cumulative land use impact. **[Less than Significant Cumulative Impact]**

3.10.4 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
LU-1: The proposed project would not physically divide an existing community.	Less than Significant	No mitigation required	NA
LU-2: The Precise Plan includes standards and guidelines to minimize environmental impacts and would be consistent with relevant plans and policies adopted to mitigate environmental effects.	Less than Significant	No mitigation required	NA
C-LU-1: The proposed project in combination with other cumulative projects would not result in a significant cumulative land use impact.	Less than Significant	No mitigation required	NA

3.11 NOISE AND VIBRATION

The following discussion is based in part upon a noise assessment completed for the project by Illingworth & Rodkin, Inc. in November 2018. This report is included as Appendix G to this EIR.

3.11.1 Environmental Setting

3.11.1.1 *Background Information*

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

Since excessive noise levels can adversely affect human activities and human health, federal, state, and local governmental agencies have set forth criteria or planning goals to minimize or avoid these effects. Noise guidelines are almost always expressed using one of several noise averaging methods, such as L_{eq}, DNL, or CNEL.[63] Using one of these descriptors is a way for a location's overall noise exposure to be measured, given that there are specific moments when noise levels are higher (e.g., when a jet is taking off from an airport or when a leaf blower is operating) and specific moments when noise levels are lower (e.g., during lulls in traffic flows on freeways or in the middle of the night). L_{max} is the maximum A-weighted noise level during a measurement period.

3.11.1.2 *Regulatory Framework*

Federal

Federal Transit Administration Vibration Limits

The Federal Transit Administration (FTA) has developed vibration impact assessment criteria for evaluating vibration impacts associated with transit projects. The FTA has proposed vibration impact criteria based on maximum overall levels for a single event. The impact criteria for groundborne vibration are shown in Table 3.11-1 below. There are established criteria for frequent events (more than 70 events of the same source per day), occasional events (30 to 70 vibration events of the same source per day), and infrequent events (less than 30 vibration events of the same source per day). These criteria can be applied to development projects in jurisdictions that lack vibration impact standards.

[63] L_{eq} is a measurement of average energy level intensity of noise over a given period of time. Day-Night Level (DNL) is a 24-hour average of noise levels, with a 10 dB penalty applied to noise occurring between 10:00 p.m. and 7:00 a.m. Community Noise Equivalent Level (CNEL) is similar to the DNL except that there is an additional five dB penalty applied to noise occurring between 7:00 p.m. and 10:00 p.m. As a general rule of thumb where traffic noise predominates, the CNEL and DNL are typically within two dBA of the peak-hour L_{eq}.

Table 3.11-1: Groundborne Vibration Impact Criteria			
Land Use Category	**Groundborne Vibration Impact Levels (VdB inch/sec)**		
	Frequent Event	**Occasional Events**	**Infrequent Events**
Category 1: Buildings where vibration would interfere with interior operations	65	65	65
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime use	75	78	83
Source: Federal Transit Administration. *Transit Noise and Vibration Assessment Manual.* September 2018.			

State and Local

California Building Standards Code

The CBC establishes uniform minimum noise insulation performance standards to protect persons within new buildings housing people, including hotels, motels, dormitories, apartments, and dwellings other than single-family residences. Title 24 mandates that interior noise levels attributable to exterior sources not exceed 45 L_{dn}/CNEL in any habitable room. Exterior windows must have a minimum Sound Transmission Class (STC) of 40 or Outdoor-Indoor Transmission Class (OITC) of 30 when the property falls within the 65 dBA DNL noise contour for a freeway or expressway, railroad, or industrial source.

California Green Building Standards Code

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

City of Mountain View 2030 General Plan

The purpose of the City of Mountain View 2030 General Plan Noise Element is to guide policies for addressing exposure to current and projected noise sources in Mountain View. The Noise Element includes a land use compatibility section which outlines acceptable outdoor noise environment standards for land use categories, as shown below in Table 3.11-2.

Table 3.11-2: Outdoor Noise Acceptability Guidelines

Land Use Category	Community Noise Exposure in Decibels (CNEL) Day/Night Average Noise Level in Decibels (Ldn)						
	55	60	65	70	75	80	85
Residential–Single-Family, Duplex, Mobile Homes							
Residential–Multi-Family Transient Lodging–Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters, Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

NORMALLY UNACCEPTABLE
New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE
New construction or development clearly should not be undertaken.

Source: State of California General Plan Guidelines, 2003.

The following Noise Element policies are intended to reduce noise impacts and would be applicable to the proposed project.

Policy	Description
NOI 1.1	**Land Use Compatibility.** Use the Outdoor Noise Acceptability Guidelines as a guide for planning and development decisions.
NOI 1.2	**Noise-sensitive land uses.** Require new development of noise-sensitive land uses to incorporate measures into the project design to reduce interior and exterior noise levels to the following acceptable levels: • New single-family developments shall maintain a standard of 65 dBA L_{dn} for exterior noise in private outdoor active use areas. • New multi-family residential developments shall maintain a standard of 65 dBA L_{dn} for private and community outdoor recreation use areas. Noise standards do not apply to private decks and balconies in multi-family residential developments. • Interior noise levels shall not exceed 45 dBA L_{dn} in all new single-family and multi-family residential units. Where new single-family and multi-family residential units would be exposed to intermittent noise from major transportation sources such as train or airport operations, new construction shall achieve an interior noise level of 65 dBA through measures such as site design or special construction materials. This standard shall apply to areas exposed to four or more major transportation noise events such as passing trains or aircraft flyovers per day.
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 measures 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.
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.
NOI 1.6	**Sensitive uses.** Minimize noise impacts on noise-sensitive land uses, such as residential uses, schools, hospitals and child-care facilities
NOI 1.7	**Stationary sources.** Restrict noise levels from stationary sources through enforcement of the Noise Ordinance.
NOI 1.8	**Moffett Federal Airfield.** Support efforts to minimize noise impacts from Moffett Federal Airfield in coordination with Santa Clara County's Comprehensive Land Use Plan.

Santa Clara County Airport Land Use Commission Comprehensive Land Use Plan

The Santa Clara County Airport Land Use Commission (ALUC) prepares Comprehensive Land Use Plans (CLUP) for public airports in Santa Clara County. The CLUPs provide guidelines intended to minimize the public's exposure to excessive noise and safety hazards. Figure 3.11-1 shows the Moffett Federal Airfield noise contours. The following policies from the Moffett Federal Airfield CLUP would be applicable to the project.

MOFFETT AIRFIELD 2022 NOISE CONTOURS | FIGURE 3.11-1

Policy	Description
N-1	The Community Noise Equivalent Level (CNEL) method of representing noise levels shall be used to determine if a specific land use is consistent with the CLUP.
N-2	In addition to the other policies herein, the Noise Compatibility Guidelines presented in Table 3.11-2 shall be used to determine if a specific land use is consistent with this CLUP.
N-3	Noise impacts shall be evaluated according to the Aircraft Noise Contours.
N-4	No residential or transient lodging construction shall be permitted within the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels will be less than 45 dB CNEL and there are no outdoor patios or outdoor activity areas associated with the residential portion of a mixed use residential project of a multi-unit residential project. (Sound wall noise mitigation measures are not effective in reducing noise generated by aircraft flying overhead.)
N-5	All property owners within the 65 dB CNEL contour boundary who rent or lease their property for residential use shall include in their rental/lease agreement with the tenant, a statement advising that they (the tenants) are living within a high noise area and the exterior noise level is predicted to be greater than 65 dB CNEL in a manner that is consistent with current state law including AB2776 (2002).
N-6	Residential construction will not be permitted in the area between the 60 dB CNEL contour boundary and the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound level will be no greater than 45 dB CNEL.
N-7	Noise level compatibility standards for other types of land uses shall be applied in the same manner as the above residential noise level criteria. Table 4-1 below presents acceptable noise levels for other land uses in the vicinity of the Airport.
N-8	Single-event noise levels (SENL) from single aircraft overflights are to be considered when evaluating the compatibility of highly noise-sensitive land uses such as schools, libraries, outdoor theaters, and mobile homes. Single-event noise levels are especially important in the areas regularly overflown by aircraft, but which may not produce significant CNEL contours, such as the down-wind segment of the traffic pattern, and airport entry and departure flight corridors.

Table 4 - 1

NOISE COMPATIBILITY POLICIES

Moffett Federal Airfield

LAND USE CATEGORY	CNEL					
	55-60	60-65	65-70	70-75	75-80	80-85
Residential – low density Single-family, duplex, mobile homes	*	**	****	****	****	****
Residential – multi-family, condominiums, townhouses	*	**	****	****	****	****
Transient lodging - motels, hotels	*	*	**	****	****	****
Schools, libraries, indoor religious assemblies, hospitals, nursing homes	*	***	****	****	****	****
Auditoriums, concert halls, amphitheaters	*	***	***	****	****	****
Sports arena, outdoor spectator sports, parking	*	*	*	**	***	****
Playgrounds, neighborhood parks	*	*	***	****	****	****
Golf courses, riding stables, water recreation, cemeteries	*	*	*	**	***	****
Office buildings, business commercial and professional, retail	*	*	**	***	****	****
Industrial, manufacturing, utilities, agriculture	*	*	*	***	***	****
* Generally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. Mobile homes may not be acceptable in these areas. Some outdoor activities might be adversely affected.					
** Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Outdoor activities may be adversely affected. Residential: Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.					
*** Generally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor activities are likely to be adversely affected.					
**** Unacceptable	New construction or development should not be undertaken.					

Source: Based on General Plan Guidelines, Appendix C (2003), Figure 2 and Santa Clara County ALUC 1992 Land Use Plan, Table 1

Mountain View City Code

The City of Mountain View addresses noise regulations and goals in the Zoning Ordinance of the City Code. These regulations help protect the community from exposure to excessive noise and also specify how noise is measured and regulated. Noise is also regulated through project conditions of approval. The Mountain View Police Department and the City Attorney's office enforce noise violations.

Construction noise impacts primarily occur when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses (e.g., residences), and/or when construction duration lasts over an extended period of time. Section 8.70.1 of the City Code restricts the hours of construction activity to 7:00 a.m. to 6:00 p.m., Monday through Friday. No construction activity is permitted on Saturday, Sunday, or holidays without written approval from the City. Construction activities are defined to include any physical activity on the construction site or in the project's staging area, including the delivery of materials.

The City of Mountain View also identifies limits on noise from stationary equipment (such as heating, ventilation, and air conditioning mechanical systems, delivery truck idling, loading/unloading activities, recreation activities, and parking lot operations) in Section 21.26 of the City Code. The maximum allowable noise level is 55 dBA during the day and 50 dBA at night (10:00 p.m. to 7:00 a.m.), unless it has been demonstrated that such operation will not be detrimental to the health, safety, peace, morals, comfort or general welfare of residents subjected to such noise, and the use has been granted a permit by the Zoning Administrator.

3.11.1.3 *Existing Conditions*

The existing noise environment in the Precise Plan area results primarily from vehicular traffic along US 101, East Middlefield Road, North Whisman Road, Ellis Street, VTA light rail pass-bys, and aircraft associated with Moffett Federal Airfield. The northeast corner of the Precise Plan area is located within the 65 and 70 dBA CNEL noise contour, according to the 2022 Aircraft Noise Contours figure provided in the CLUP for Moffett Federal Airfield. The nearest sensitive receptors are residential homes located west across North Whisman Road from the Precise Plan area, and adjacent to the intersection of North Whisman Road and East Middlefield Road. The nearest school and park are southwest approximately 0.2 mile, located at 220 North Whisman Road.

Noise Monitoring Results

A noise monitoring survey was completed in November of 2018. The monitoring survey included nine short-term (ST-1 through ST-9) and four long-term (LT-1 through LT-4) noise measurements, as shown in Figure 3.11-2 and summarized in the following Table 3.11-3. Locations ST-2, ST-3, and LT-1 are affected primarily by US 101 traffic noise. Locations ST-7, ST-8, and LT-3 are affected primarily from SR 237 traffic noise. The remaining locations are affected by local traffic noise.

NOISE MEASUREMENT LOCATIONS | FIGURE 3.11-2

Vibration Measurements

Vibration measurements of individual heavy-rail train and light-rail train activity were measured for previous projects within or near the Precise Plan area. The data from the previous studies showed that Caltrain pass-bys could produce vibration levels of 65 VdB at a setback of 115 feet from the railroad track and 62 VdB at a setback of 145 feet from the railroad tracks. VTA light-rail train pass-bys could produce vibration levels ranging from 63 to 69 VdB at setback of 35 feet from the VTA tracks and from 57 to 61 VdB at a setback of 55 feet from the VTA tracks.

Table 3.11-3: Noise Measurements Summary (dBA)

Noise Measurement Location	Noise Source	L_{eq}	L_{max}	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{dn}
ST-1: 15 feet from Buena Vista Avenue centerline	Central Expressway Traffic	56	66	58	55	52	59
ST-2: Corner of National Avenue and Fairchild Drive	US 101 Traffic	70	76	71	70	67	73
ST-3: Corner of Evandale Avenue and North Whisman Road	US 101 Traffic	61	77	62	58	57	64
ST-4: Corner of Flynn Avenue and North Whisman Road	Local Traffic	56	69	61	53	49	60
ST-5: In front of 199 East Middlefield Road	Local Traffic	62	86	57	54	51	67
ST-6: In front of 437 Costa Mesa Terrace	Local Traffic	45	55	46	44	43	46
ST-7: In front of 365 Ravendale Drive	SR 237 Traffic	65	70	67	65	61	66
ST-8: Parking area east of 364 Ferguson Drive	SR 237 Traffic	56	62	58	56	54	58
ST-9: Parking area west of 516 Clyde Avenue	Local Traffic	50	60	51	49	47	52
LT-1: In front of 599 Fairchild Drive	US 101 Traffic	--	--	--	--	--	76
LT-2: In front of 500 East Middlefield Road	Local Traffic	--	--	--	--	--	70
LT-3: Frontage Road between East Middlefield Road and West Maude Avenue	SR 237 Traffic	--	--	--	--	--	72
LT-4: Southern parking lot of 280 North Bernardo Avenue	Central Expressway Traffic	--	--	--	--	--	74

3.11.2 Noise and Vibration Impacts

3.11.2.1 *Thresholds of Significance*

For the purposes of this EIR, a noise and vibration impact is considered significant if the project would result in:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance; or
- Generation of excessive groundborne vibration or groundborne noise levels;

CEQA does not define what noise level increase would be considered substantial. Typically, project-generated noise level increases of three dBA L_{dn} or greater would be considered significant where exterior noise levels would exceed the normally acceptable noise level standard (60 dBA L_{dn} for residential land uses). Where noise levels would remain at or below the normally acceptable noise level standard with the project, noise level increases of five dBA L_{dn} or greater would be considered significant.

3.11.2.2 *Project-generated Noise Level Increase*

Construction

Construction-related noise levels are normally highest during the demolition phase, grading, and during excavation, including installation of project infrastructure, such as underground utility lines. These phases of construction require heavy equipment (e.g., earth moving equipment and impact tools) that normally generate the highest noise levels during site redevelopment. Construction-related noise levels are normally less during building erection, finishing, and landscaping phases.

Hourly average noise levels generated by construction range from 81 to 88 dBA measured at a distance of 50 feet from the center of a busy construction site. Hourly average noise levels generated by residential construction range from about 65 dBA to 88 dBA measured at a distance of 50 feet. Construction-generated noise levels drop off at a rate of about six dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain often result in lower construction noise levels at distant receptors.

No specific development or construction is proposed as part of the Precise Plan; however, future development projects falling within the Precise Plan area would generate construction-related noise. Future development (including demolition of existing buildings) in the Precise Plan area and related short-term noise impacts would be evaluated on a project-by-project basis and will be required to comply with applicable provisions of Chapter 8 of the City Code, including:

- 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 term “construction activity” shall include any physical activity on the construction site or in the staging area, including the delivery of materials. In approving modified hours, the building official may

specifically designate and/or limit the activities permitted during the modified hours.

- At any time before commencement of or during construction activity, the building official may modify the permitted hours of construction upon twenty-four hours written notice to the contractor, applicant, developer or owner. The building official can reduce the hours of construction activity below the 7:00 a.m. to 6:00 p.m. time frame or increase the allowable hours.
- If the hours of construction activity are modified, then the general contractor, applicant, developer or owner shall erect a sign at a prominent location on the construction site to advise subcontractors and material suppliers of the working hours. The contractor, owner or applicant shall immediately produce upon request any written order or permit from the building official pursuant to this section upon the request of any member of the public, the police or city staff.

Projects that occur within the Precise Plan area will also be required implement the following standard conditions of approval to ensure that impacts from construction noise would be less than significant.

Standard Conditions of Approval

- CONSTRUCTION NOISE REDUCTION: The following noise reduction measures shall be incorporated into construction plans and contractor specifications to reduce the impact of temporary construction-related noise on nearby properties: (a) comply with manufacturer's muffler requirements on all construction equipment engines; (b) turn off construction equipment when not in use, where applicable; (c) locate stationary equipment as far as practical from receiving properties; (d) use temporary sound barriers or sound curtains around loud stationary equipment if the other noise reduction methods are not effective or possible; and (e) shroud or shield impact tools and use electric-powered rather than diesel-powered construction equipment.

- CONSTRUCTION PRACTICES AND NOTICING – DISTURBANCE COORDINATOR: The project applicant shall designate a "disturbance coordinator" who will be responsible for responding to any local complaints regarding construction noise. The coordinator (who may be an employee of the general contractor) will determine the cause of the complaint and will require that reasonable measures warranted to correct the problem be implemented. A telephone number of the noise disturbance coordinator shall be conspicuously posted at the construction site fence and on the notification sent to neighbors adjacent to the site. The sign must also list an emergency after-hours contact number for emergency personnel.

Impact NOI-1: Short-term construction-noise impacts would be less than significant with adherence to City Code requirements and standard conditions of approval. **[Less than Significant Impact]**

Operation

Traffic Noise

Increases in traffic noise gradually degrade the environment in areas sensitive to noise as development occurs and the population increases. A significant impact would result if traffic generated by development under the Precise Plan would substantially increase noise levels at sensitive receivers within the Precise Plan area or in the vicinity. A substantial increase would occur if: a) the noise level increase is five dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn}, or b) the noise level increase is three dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.

Traffic noise levels were projected for future conditions (including Precise Plan development as well as other background development outside of the Precise Plan area) for the year 2030, as shown below in Table 3.11-4.

Table 3.11-4: Project Traffic-Related Noise Level Increase

Location	Existing (dBA, L_{dn})	2030 Plus Project (dBA, L_{dn})	Noise Level Increase (dBA, L_{dn})
Ellis Street, north of U.S. 101 NB	75	76	1
Ellis Street, Fairchild to National	72	73	1
Ellis Street, Middlefield to National	68	70	2
Whisman Road, south of Whisman Station	67	69	2
Whisman Road, Whisman to Middlefield	66	68	2
Whisman Road, Middlefield to Fairchild	72	73	1
Clyde Avenue	66	67	1
Logue Avenue	63	64	1
Bernardo Avenue	64	65	1
Ferguson Drive, south of Middlefield Road	68	69	1
Fairchild Drive, west of Whisman (U.S. 101)	83	84	1
Fairchild Drive, Whisman to National (U.S. 101)	82	83	1
Fairchild Drive, National to Ellis (U.S. 101)	79	80	1
Fairchild, east of Ellis (U.S. 101)	78	79	1
National Avenue	68	69	1
Maude Avenue, west of Clyde Ave	65	66	1
Maude Avenue, Clyde to S.R. 237	70	71	1
Maude Avenue, west of S.R. 237	65	66	1
Middlefield Road, west of Whisman	64	66	2

Table 3.11-4: Project Traffic-Related Noise Level Increase			
Location	**Existing (dBA, L_{dn})**	**2030 Plus Project (dBA, L_{dn})**	**Noise Level Increase (dBA, L_{dn})**
Middlefield Road, Whisman to Ellis	65	66	1
Middlefield Road, Ellis to Logue	66	67	1
Middlefield Road, Logue to Ferguson	68	68	<1
Middlefield Road, Ferguson to S.R. 237	71	72	1
Middlefield Road, S.R. 237 WB to EB	81	82	1
Middlefield Road, S.R. 237 to Bernardo	69	70	1
Middlefield Road, east of Bernardo	65	66	1
Central Expressway, west of Whisman	72	73	1
Central Expressway, Whisman to Ferguson	72	73	1
Central Expressway, Ferguson to Bernard	72	73	1
Central Expressway, east of Bernardo	73	74	1
U.S. 101	86	87	1
S.R. 237	80	81	1
Bernardo Avenue, south of Middlefield	64	65	1

Traffic noise increases above existing levels would be one to two dBA L_{dn} or less at noise-sensitive receptors within and outside the Precise Plan area. Since the increase in traffic noise as a result of the Precise Plan buildout would be less than three dBA, project traffic noise would have a less than significant impact on noise-sensitive receptors in the area.

Impact NOI-2: The proposed project would not result in a substantial permanent noise level increase from increased traffic. **[Less than Significant Impact]**

Mechanical Equipment

Future development within the Precise Plan area would typically include mechanical equipment for heating, ventilation, and cooling purposes, exhaust fans, emergency generators, and other similar equipment that could produce noise levels exceeding the daytime and nighttime noise limits when located near residential land uses.

General Plan Policy NOI 1.7 restricts noise levels from stationary sources through enforcement of the Noise Ordinance, which states that stationary equipment noise from any property must be maintained at or below 55 dBA L_{eq} during daytime hours (i.e., between 7:00 a.m. and 10:00 p.m.) and at or below 50 dBA L_{eq} during nighttime hours (i.e., between 10:00 p.m. and 7:00 a.m.) as measured at residential land uses.

Future development under the Precise Plan would comply with Noise Ordinance requirements for stationary equipment. Replacement of existing equipment and operation of new mechanical equipment would be evaluated on a project-by-project basis, particularly for projects near existing residential or other noise-sensitive uses. Development occurring under the Precise Plan would be subject to the following City standard condition of approval. For these reasons, impacts from mechanical equipment noise would be less than significant.

Standard Condition of Approval

> MECHANICAL EQUIPMENT: The noise emitted by any mechanical equipment shall not exceed a level of 55 dBA during the day or 50 dBA during the night, 10:00 p.m. to 7:00 a.m., when measured at any location on the adjoining residentially used property.

Impact NOI-3: With implementation the City of Mountain View's limits for stationary noise sources and City of Mountain View's standard condition of approval, impacts from mechanical equipment noise on nearby noise-sensitive uses would be less than significant. **[Less than Significant Impact]**

3.11.2.3 *Groundborne Vibration*

Construction

Future project construction within the Precise Plan area may, in some cases, be located directly adjacent to or near existing structures. Construction activities may include demolition of existing structures, site preparation work, excavation of below-grade levels, foundation work, pile driving, and new building erection. Demolition for an individual site may last several weeks and at times may produce substantial vibration. Excavation for underground levels would also occur and vibratory pile driving could be used to stabilize the walls of excavated areas. Piles or drilled caissons may also be used to support building foundations.

Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate substantial vibration in the immediate vicinity. Jackhammers typically generate vibration levels of 0.035 in/sec PPV and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

As with any type of construction, vibration levels may at times be perceptible. Construction phases that have the highest potential of producing vibration (pile driving and use of jackhammers and other high-power tools) would be intermittent and would only occur for short periods of time for any individual project site. Depending on the proximity of existing structures, the structural soundness of the existing buildings, and the methods of construction used, vibration levels from construction sites may exceed the Caltrans vibration limit of 0.3 in/sec PPV for structurally sound buildings and 0.008 in/sec PPV for buildings that are not structurally sound. Given the proximity of many existing structures to the Precise Plan area, ground-borne vibration impacts would be potentially significant.

Impact NOI-4: Construction activities during implementation of the Precise Plan could result in significant groundborne vibration-related impacts to existing structures. **[Significant Impact]**

Mitigation Measures: The following mitigation measures would reduce ground-borne vibration impacts from future construction on nearby structures to a less than significant level.

MM NOI-4.1: Use drilled piles (which cause lower vibration levels) where geological conditions permit their use. In areas where project construction is anticipated to include vibration-generating activities, such as pile driving or use of vibratory rollers, in close proximity to existing structures, site-specific vibration studies should be conducted to determine the area of impact and to identify appropriate mitigation measures which may include the following:

- Identification of sites that would include vibration compaction activities such as pile driving and have the potential to generate ground-borne vibration, and the sensitivity of nearby structures to ground-borne vibration. Vibration limits should be applied to all vibration-sensitive structures located within 200 feet of the project. A qualified structural engineer should conduct this task.
- Development of a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions.
- Construction contingencies would be identified for when vibration levels approached the limits.
- At a minimum, vibration monitoring should be conducted during initial demolition activities and during pile driving activities. Monitoring results may indicate the need for more or less intensive measurements.
- When vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures.
- Conduct post-survey on structures where either monitoring has indicated high levels or complaints of damage has been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities.

Implementation of MM NOI-4.1 would reduce impacts on adjacent structures and sensitive receptors as a result of vibration to less than significant. **[Less than Significant Impact with Mitigation]**

3.11.2.4 *Cumulative Impacts*

The project would result in a significant cumulative traffic noise impact if noise levels at existing sensitive receivers substantially increased (e.g., three dBA Ldn above existing traffic noise where levels exceed 60 dBA Ldn) under cumulative conditions, and if the project would make a cumulatively considerable contribution to the overall traffic noise level increase. A cumulatively considerable contribution would be defined as an increase of one dBA Ldn or more attributable solely to the proposed project.

Construction

The General Plan EIR concluded that construction impacts of General Plan buildout would be reduced to a less than significant level through compliance with General Plan policies and applicable City requirements and standard conditions of approval. Development in the Precise Plan area would also result in less than significant construction noise impacts through conformance with the same policies, codes, and conditions of approval and, therefore, would not result in a cumulative construction noise impact.

Operation

For a substantial operational cumulative noise impact to occur, two qualifications must be met: 1) the 2030 cumulative plus project traffic volumes increase noise levels at sensitive receptors by five dBA L_{dn} or greater above existing conditions, with a future noise level of less than 60 dBA L_{dn}, or three dBA L_{dn} or greater above existing conditions, with a future noise level of 60 dBA L_{dn} or greater; and 2) the 2030 cumulative plus project traffic noise levels increase by one dBA L_{dn} or more as compared to 2030 cumulative (no project) conditions, which would be considered a cumulatively considerable contribution to the overall traffic noise increase.

Traffic noise levels shown in Table 3.11-5 were projected for cumulative conditions, with and without the Precise Plan, for the year 2030.

Table 3.11-5: Existing and 2030 Plus Project Noise Levels (dBA)

Location	L_{dn} at 75 feet, dBA L_{dn}			Noise Level Increase over Existing		Increase of 2030 Plus Project Over 2030 No Project
	Existing	2030 No Project	2030 Plus Project	2030 No Project	2030 Plus Project	
Ellis Street, north of U.S. 101 NB	75	76	76	1	1	0
Ellis Street, Fairchild to National	72	73	73	1	1	0
Ellis Street, Middlefield to National	68	70	70	2	2	0

Table 3.11-5: Existing and 2030 Plus Project Noise Levels (dBA)						
Location	**L_{dn} at 75 feet, dBA L_{dn}**			**Noise Level Increase over Existing**		**Increase of 2030 Plus Project Over 2030 No Project**
	Existing	**2030 No Project**	**2030 Plus Project**	**2030 No Project**	**2030 Plus Project**	
Whisman Road, south of Whisman Station	67	68	69	1	2	1
Whisman Road, Whisman to Middlefield	66	67	68	1	2	1
Whisman Road, Middlefield to Fairchild	72	73	73	1	1	0
Clyde Avenue	66	67	67	1	1	0
Logue Avenue	63	64	64	1	1	0
Bernardo Avenue	64	65	65	1	1	0
Ferguson Drive, south of Middlefield Road	68	69	69	1	1	0
Fairchild Drive, west of Whisman (U.S. 101)	83	84	84	1	1	0
Fairchild Drive, Whisman to National (U.S. 101)	82	83	83	1	1	0
Fairchild Drive, National to Ellis (U.S. 101)	79	80	80	1	1	0
Fairchild, east of Ellis (U.S. 101)	78	79	79	1	1	0
National Avenue	68	69	69	1	1	0
Maude Avenue, west of Clyde Ave	65	66	66	1	1	0
Maude Avenue, Clyde to S.R. 237	70	71	71	1	1	0
Maude Avenue, west of S.R. 237	65	66	66	1	1	0
Middlefield Road, west of Whisman	64	66	66	2	2	0
Middlefield Road, Whisman to Ellis	65	66	66	1	1	0
Middlefield Road, Ellis to Logue	66	67	67	1	1	0

Table 3.11-5: Existing and 2030 Plus Project Noise Levels (dBA)						
Location	**L_{dn} at 75 feet, dBA L_{dn}**			**Noise Level Increase over Existing**		**Increase of 2030 Plus Project Over 2030 No Project**
	Existing	**2030 No Project**	**2030 Plus Project**	**2030 No Project**	**2030 Plus Project**	
Middlefield Road, Logue to Ferguson	68	68	68	<1	<1	0
Middlefield Road, Ferguson to S.R. 237	71	72	72	1	1	0
Middlefield Road, S.R. 237 WB to EB	81	82	82	1	1	0
Middlefield Road, S.R. 237 to Bernardo	69	70	70	1	1	0
Middlefield Road, east of Bernardo	65	66	66	1	1	0
Central Expressway, west of Whisman	72	73	73	1	1	0
Central Expressway, Whisman to Ferguson	72	73	73	1	1	0
Central Expressway, Ferguson to Bernard	72	73	73	1	1	0
Central Expressway, east of Bernardo	73	74	74	1	1	0
U.S. 101	86	87	87	1	1	0
S.R. 237	80	81	81	1	1	0
Bernardo Avenue, south of Middlefield	64	65	65	1	1	0

Traffic noise levels would be increased by one dBA L_{dn} above existing traffic noise levels at noise-sensitive receptors along Whisman Road; however, the first qualification is not met—an increase of three dBA L_{dn} or greater above existing conditions. Thus, the project's contribution to a cumulative impact would not be considerable.

Impact C-NOI-1: The proposed project would not make a cumulatively considerable contribution to future noise levels. **[Less than Significant Cumulative Impact]**

3.11.2.5 *Noise Issues Not Covered Under CEQA*

As previously discussed, the California Supreme Court issued an opinion in *CBIA vs. BAAQMD* holding that CEQA is primarily concerned with the impacts of a project on the environment and not the impact of existing conditions on a project's future residents. Nevertheless, the City has policies that address existing noise conditions affecting the proposed project, which are discussed below.

Future Exterior Noise Environment

As established by Policy NOI 1.2 in the City's General Plan, exterior noise environments at private and community outdoor recreation use areas should be maintained at or below 65 dBA L_{dn} to be considered acceptable by the City of Mountain View. The noise standards do not apply to private decks and balconies in multi-family residential developments. Noise produced by vehicular traffic along Plan Area roadways would expose residential land uses to levels above the 65 dBA Ldn exterior compatibility threshold. Future exterior noise levels at a distance of 75 feet from the centerline of the primary roadways traversing the area would typically range from 65 to 75 dBA Ldn. Future exterior noise levels along Fairchild Drive adjoining US 101 would range from 80 to 84 dBA Ldn.

With the implementation of the Precise Plan, there may be potential noise and land use conflicts between the proposed residential land uses and other land uses that are or would be significant sources of noise within or near the Plan Area. Noise produced by existing or proposed noise-generating land uses may be audible and disruptive to future residences within the Precise Plan area and would have the potential to violate the Section 21.26 of the City Code if the noises generated by such uses are not regulated or adequately mitigated.

To ensure compliance with City Code requirements, future site-specific development noise levels will be evaluated. Noise-sensitive outdoor use could be located in areas away from major roadways and significant office or commercial noise sources. Noise-sensitive spaces could be shielded by buildings or noise barriers to reduce exterior noise levels. The heights and extent of proposed noise barriers would be reviewed as part of the development permit process.

Future Residential Interior Noise Environment

General Plan policies and the CBC provide the interior noise level standard of 45 dBA Ldn for new multi-family residential units. Additionally, where new residences would be exposed to intermittent noise from major transportation sources (such as train pass-bys), new construction must achieve an interior noise level of 65 dBA Lmax. To ensure the standards are met, a qualified acoustical specialist would prepare a detailed analysis of interior residential noise levels consistent with the following City-standard condition of approval.

Standard Condition of Approval

- INTERIOR NOISE LEVELS: Construction drawings must confirm that measures have been taken to achieve an interior noise level of 45 dBA Ldn that shall be reviewed and approved by a licensed acoustical engineer prior to building permit submittal.

Standard residential construction with the windows partially open for ventilation provides approximately 15 dBA of exterior to interior noise reduction. Standard residential construction assuming the incorporation of adequate forced-air mechanical ventilation (allowing the occupant to control noise by maintaining the windows shut) provides 20 to 25 dBA of outdoor to indoor noise reduction in interior spaces. To control interior maximum noise levels, noise insulation features such as stucco-sided walls and sound-rated windows and doors may be used. Feasible construction techniques such as these would adequately reduce interior noise levels to 45 dBA Ldn or lower.

Future Commercial Interior Noise Environment

CalGreen requires that commercial interior noise levels be maintained at 50 dBA $L_{eq(1\text{-}hr)}$ or less during hours of operation. To ensure the 50 dBA standard is met, a qualified acoustical specialist would prepare a detailed analysis of interior noise levels. As part of the City's building permit review process, construction drawings must confirm that measures have been taken to achieve a maximum interior noise level of 50 dBA Ldn for commercial tenant space.

Airport Noise

The CLUP for Moffett Federal Airfield categorizes as "unacceptable" residential development within the 65 dBA CNEL noise contour and new construction or development should not be undertaken. The northeastern corner of the Precise Plan area would fall within this category. In addition, a portion of this area would fall within the "conditionally unacceptable" category, where new development is discouraged and should only proceed after a detailed analysis of noise-control requirements is completed and appropriate measures are included in the design. Pursuant to Policy N-4 of the Moffett Federal Airfield CLUP, no residential or transient lodging construction is recommended within the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels will be less than 45 dB CNEL and there are disclosures for any outdoor patios or outdoor activity areas associated with the residential portion of a mixed-use residential project of a multi-unit residential project.

Consistency with the previously described condition of approval for interior residential noise levels would ensure interior noise levels of 45 dB CNEL (consistent with Policy N-4). The CLUP requires ongoing review of land uses within the AIA to ensure that land use changes are compatible with ALUC policies and plans. The City of Mountain View would work closely with ALUC staff to establish and carry out review coordination with the ALUC, including requiring disclosures for outdoor patios and activity areas within the 65 dB CNEL contour boundary.

3.11.3 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
NOI-1: Short-term construction-noise impacts would be less than significant with adherence to City standard conditions of approval.	Less than Significant	No mitigation required	NA

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
NOI-2: The proposed project would not result in a substantial permanent noise level increase from increased traffic noise.	Less than Significant	No mitigation required	NA
NOI-3: Impacts from mechanical equipment noise on nearby noise-sensitive uses would be less than significant impact with adherence to City standard conditions of approval.	Less than Significant	No mitigation required	NA
NOI-4: Construction activities during implementation of Precise Plan projects could result in significant groundborne vibration impacts to existing structures.	Significant	**MM NOI-4.1,** reduction in groundborne vibration	Less than Significant
C-NOI-1: The proposed project would not make a cumulatively considerable contribution to future noise levels at residential land uses in the vicinity.	Less than Significant	No mitigation required	NA

3.12 POPULATION AND HOUSING

3.12.1 Environmental Setting

3.12.1.1 *Regulatory Framework*

State

In order to attain the state housing goal, cities must make sufficient suitable land available for residential development, as documented in an inventory, to accommodate their share of regional housing needs. California's Housing Element Law requires each city to: 1) zone adequate lands to accommodate its Regional Housing Needs Allocation (RHNA); 2) produce an inventory of sites that can accommodate its share of the RHNA; 3) identify governmental and non-governmental constraints to residential development; 4) develop strategies and work plan to mitigate or eliminate those constraints; and 5) adopt a housing element and update it on a regular basis. The City of Mountain View Housing Element and related land use policies were last updated in 2014.

Regional

The Association of Bay Area Governments (ABAG) allocates regional housing needs to each city and county within the nine-county Bay Area, based on statewide goals. ABAG also develops forecasts for population, households, and economic activity in the Bay Area. ABAG, Metropolitan Transportation Commission, and local jurisdiction planning staff created the Regional Forecast of Jobs, Population and Housing (upon which Plan Bay Area 2040 is based), which is an integrated land use and transportation plan looking out to the year 2040 for the nine-county San Francisco Bay Area.

Plan Bay Area 2040 is a state-mandated, integrated long-range transportation, land-use and housing plan intended to support a growing economy, provide more housing and transportation choices, and reduce transportation-related pollution and GHG emissions in the Bay Area. Plan Bay Area promotes compact, mixed-use residential and commercial neighborhoods near transit, particularly within identified Priority Development Areas (PDAs).

The project site is partially located within a designated PDA and will be fully located within it upon Precise Plan adoption. PDAs are areas within existing communities that local city or county governments have identified for accommodating future growth. These areas typically are accessible by transit services; and they are often located near job centers, shopping areas, and other services. PDAs are expected to accommodate 78 percent of new housing (over 500,000 units) and 62 percent of employment growth (approximately 700,000 jobs) in the Bay Area through 2040.

Local

The Precise Plan area is an identified Change Area within the City's General Plan. The East Whisman Change Area is envisioned as a sustainable, transit-oriented employment center with an increased diversity of land uses including residential. Increased pedestrian and bicyclist connections to light rail, services, and employers will be present. Policies have been established in the General Plan (as described in Section 2.0 Project Description) to encourage transit-oriented and sustainable development while supporting diverse land uses to serve future workers and neighbors. Additionally, the General Plan Land Use Principles guide land use planning in Mountain View. Principle #4.

Strong and Diverse Economy specifically calls for a greater mix of land uses and increased intensities in change areas create incentives for land use redevelopment and support, as well as a more diversified tax base.

3.12.1.2 *Existing Conditions*

Housing and Population

Table 3.12-1 below, summarizes the existing and projected population and housing data from several sources for the City of Mountain View. The population and housing numbers are anticipated to increase through 2040.

Table 3.12-1: Population and Housing in Mountain View

	General Plan 2010[1]	Plan Bay Area 2013[2]	California Department of Finance[1]	General Plan 2030 Estimate[1]	Plan Bay Area 2030 Estimate[2]	Plan Bay Area 2040 Estimate[4]
Population	74,066[1]	74,066[2]	79,278[3]	88,570[1]	90,500[2]	N/A
Households/Dwelling Units	31,957[1]	31,957[2]	35,595[3]	42,240[1]	38,510[2]	58,500

[1] Based on 2030 General Plan Draft EIR. September 2012.

[2] ABAG. Plan Bay Area Projections 2013. December 2013.

[3] California Department of Finance, Table 2: E-5 City/County Population and Housing Estimates, for January 1, 2011-2017. May 2017

[4] Plan Bay Area 2040. Plan Bay Area 2040 Draft Preferred Land Use Scenario. September 2, 2016.

Employment

Overall job and employment numbers are shown in the following Table 3.12-2. Both the General Plan EIR and Plan Bay Area estimated that the number of jobs in the City would increase through 2030 and 2040; however, U.S. Census Bureau data from the 2017 American Community Survey (ACS) indicates that job growth in the City has increased at a much faster rate than assumed in the General Plan EIR and Plan Bay Area.

Table 3.12-2: Jobs and Employment in Mountain View

	General Plan EIR 2010	Plan Bay Area 2013[1]	ACS 2017[2]	General Plan EIR 2030 Estimate	Plan Bay Area 2030 Estimate[1]	Plan Bay Area 2040 Estimate[3]
Employed Residents	38,260	38,650	46,892	48,580	49,330	N/A
Jobs	60,460	47,950	96,026	82,230	59,390	69,600

[1] ABAG. Plan Bay Area Projections 2013. December 2013.

[2] U.S. Census Bureau. *American Community Survey 1-year Estimates*. 2017.

[3] Plan Bay Area 2040. Plan Bay Area 2040 Draft Preferred Land Use Scenario. September 2, 2016.

Population and job growth was previously estimated by Planning Area in the General Plan. As shown in the following Table 3.12-3, the City of Mountain View identified the Whisman area (including Moffett) as a location for both population and job growth, without the proposed Precise Plan or General Plan amendments.

Table 3.12-3: Population and Jobs in Mountain View by General Plan Planning Area

General Plan Planning Area	Population		Jobs	
	2009	2030	2009	2030
San Antonio	12,320	16,130	2,680	3,780
Moffett/Whisman	**13,740**	**16,560**	**13,860**	**19,190**
Central Neighborhoods/Downtown	11,400	12,440	6,510	7,400
Monta Loma/Farley/Rock	13,790	15,060	6,920	7,670
Miramonte/Springer	9,540	10,250	4,830	4,900
Grant/Sylvan Park	10,610	10,820	2,470	3,250
North Bayshore[1]	760	18,000	17,480	38,910
El Camino Real	1,700	4,350	5,710	6,550
Total	**73,860**	**103,610**	**60,460**	**91,650**

Source: City of Mountain View. *Mountain View 2030 General Plan*. Table 3.1. 2012.
[1] City of Mountain View. *North Bayshore Precise Plane Draft Subsequent EIR*. March 2017.

3.12.2 Population and Housing Impacts

3.12.2.1 *Thresholds of Significance*

For the purposes of this EIR, a population and housing impact is considered significant if the project would:

- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

3.12.2.2 *Population Growth*

The Precise Plan area is located in an urban, developed environment. It is within a designated Change Area (per the City of Mountain View General Plan). This plan specifically identifies East Whisman for accommodating future employment growth. It will also be included in a PDA upon adoption of the Precise Plan. PDAs are part of Plan Bay Area and are intended to accommodate a significant amount of the region's housing growth within infill, transit-oriented and job-accessible locations. The East Whisman Precise Plan is consistent with these Plan Bay Area goals.

The service population is the sum of the number of employees plus residents. Table 3.12-4 shows the service population for the Precise Plan area as compared to the City of Mountain View service population. The Precise Plan area service population is projected to be approximately 17 percent of the City's total service population based on General Plan projects for 2030.

Table 3.12-4: Employee and Resident Service Population[64]

	Existing Conditions	Existing with Project Conditions	Cumulative Conditions	Cumulative with Project Conditions
East Whisman Precise Plan Area				
Employees	15,630	24,560	18,430	27,360
Residents	0	10,570	180	10,750
Total Service Population	15,630	35,130	18,610	38,110
City of Mountain View				
Employees	96,026	104,956	119,400	128,330
Residents	80,484	91,054	106,500	117,070
Total Service Population	176,510	196,010	225,900	245,400

Service population is rounded to nearest 10.
Service population is defined as the sum of all residents and employees.
Source: City of Mountain View Travel Demand Model, Fehr & Peers, 2018.

The Precise Plan will include new residential uses for the area and would be adopted with a General Plan amendment that would do the same. This amendment to the General Plan has been assessed for its impact on utility and other systems (in this EIR).

The Jobs/Housing Linkage strategy calls for the provision of residential uses in East Whisman (which is currently an employment-only area) to create opportunities for people to live closer to where they work, support greater services and retail, and help to reduce traffic congestion by internalizing trips. The strategy sets an expectation that office development also facilitates residential development. Examples may include dedication of land for housing, partnership with a housing development to support its feasibility and other creative strategies that support housing. The City will monitor the amount of residential and office growth in East Whisman and require office developers to prepare a jobs/housing linkage plan containing programs and measures that support or facilitate housing development in East Whisman, including dedication of land for housing or partnerships with residential developers.

[64]Note that the employee and resident population numbers used in the Transportation Analysis (Appendix H) and Section 3.14 Transportation analysis differ from the most recent 2017 ACS numbers shown in the table above, in that the assumed populations are smaller at 72,700 employee and 74,820 residents. The Transportation Analysis population and employment numbers are from the City's traffic model and were used to ensure an adequate comparison of pre-project and post-project conditions in terms of consistency with other traffic studies completed in the City of Mountain View.

The Precise Plan provides for the extension of new internal roadway connections and bicycle and pedestrian paths, as well as new and upgraded utility facilities (e.g. stormdrains and wastewater lines). These facilities would be constructed within the Precise Plan area or other immediately adjacent developed areas. The facilities would support the development envisioned for the area in the General Plan and utility master plans for the area.

Office growth in the Precise Plan area has been assumed in the General Plan and other utility master plans. Based on significant job growth in the region, lower vacancy rates and increased density of office workers within existing buildings, the number of jobs in the Precise Plan area will likely be higher than was originally assumed in these plans. These factors can fluctuate unpredictably, and are generally outside the scope of zoning regulations, which generally focus on the size (or intensity) or development. The proposed Precise Plan would not increase the intensity of office buildings allowed relative to the adopted General Plan, so would not induce substantial unplanned employment growth. Other analyses in this EIR and concurrent updates to utility models incorporate projected employment increases based on job density and vacancy.

The Precise Plan would allow new residential development and population growth. The addition of housing in the East Whisman area would help provide housing for workers in Mountain View and regionally. Growth would occur within a developed area of Mountain View and the proposed project is consistent with the General Plan goals for focused and sustainable growth, because it supports the intensification of development in an urbanized area that is currently served by existing roads, transit, utilities, and public services. For these reasons, implementation of projects under the precise plan would not contribute to substantial growth inducement in Mountain View or in the region.

Impact POP-1: Implementation of the Precise Plan would provide housing near an employment center and would not induce population growth by extending or expanding infrastructure beyond areas planned for development. **[Less than Significant Impact]**

3.12.2.3 *Housing Displacement*

There is one single-family residence in the plan area, located in the Village Center. Residential uses are provisionally allowed in the Village Center area. If the site was to redevelop, the loss of one single-family unit in an area where 5,000 new residential units are planned would not result in a significant impact.

Impact POP-2: The proposed project would not displace substantial numbers of exiting housing or people. **[Less than Significant Impact]**

3.12.2.4 *Consistency with Plans and Policies*

The proposed project would allow construction of residential and employment uses in an identified Change Area of the City, consistent with the General Plan. The project would not conflict with General Plan policies related to providing housing near employment centers.

3.12.2.5 *Cumulative Impacts*

The proposed increase in the intensity of office development and the increase in dwelling units in the East Whisman Precise Plan area would add jobs and dwelling units in the City. While the increase in jobs may be more than previously envisioned, the amount of office and R&D development in the East Whisman area would generally be consistent with the intent, policies, and assumptions from the 2030 General Plan. The increase in dwelling units, well above the projections of the 2030 General Plan, would provide additional housing necessary for existing and projected employment in Mountain View and the region.

Impact C-POP-1: The proposed project would not contribute considerably to a cumulative population and housing impact. **[Less than Significant Cumulative Impact]**

3.12.3 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
POP-1: The proposed project would not induce unplanned population growth beyond areas already planned for development.	Less than Significant	No mitigation required	NA
POP-2: The proposed project would not displace substantial numbers of exiting housing or people.	Less than Significant	No mitigation required	NA
C-POP-1: The proposed project would not contribute considerably to a cumulative population and housing impact.	Less than Significant	No mitigation required	NA

3.13 PUBLIC SERVICES AND RECREATION

3.13.1 Environmental Setting

3.13.1.1 *Regulatory Framework*

State

Quimby Act

The Quimby Act (California Government Code Sections 66477) was approved by the California legislature to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees due in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two at the discretion of the City of Mountain View.

School Impact Fees

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

In accordance with California Government Code Section 65996, developers pay a school impact fee to the school district to offset the increased demands on school facilities caused by their proposed residential development project. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Regional and Local

Santa Clara County Parks and Recreation

The County of Santa Clara Parks and Recreation Department in responsible for the general oversight and protection of the County trail system and is responsible for implementing the Santa Clara County Countywide Trails Master Plan Update (Countywide Trails Plan). The Countywide Trails Plan is an element of the Parks and Recreation Section of the County of Santa Clara General Plan that was adopted in 1995. The Countywide Trails Plan identifies existing and proposed trial routes, identifies policies and guidelines for trail placement, construction, and provides general oversight and protection of the trail system.

City of Mountain View 2030 General Plan

The following General Plan policy relates to public services and would be applicable to the project.

PSA 1.1	**Adequate staffing.** Maintain adequate police and fire staffing, performance levels and facilities to serve the needs of the community.
PSA 1.2	**Design for safety.** Support and promote crime prevention and fire safety strategies in the design of new developments.

3.13.1.2 *Existing Conditions*

Fire Protection Services

Fire protection in the Precise Plan area is provided by the City of Mountain View Fire Department (MVFD), which serves a population of approximately 77,914 and an area of 12 square miles. The MVFD provides fire suppression and rescue response, hazard prevention and education, and disaster preparedness. In fiscal year 2015/2016, out of 5,958 emergency calls made to the MVFD, 4,053 of the calls were for medical aid, and 102 were for fire.[65] The MVFD has an established response time goal of six minutes for "Medical Code Three" calls (i.e., those requiring expedited transport). During the 2015/2016 fiscal year, the MVFD achieved this goal 94 percent of the time.

The City of Mountain View also participates in a mutual aid program with neighboring cities, including Palo Alto, Los Altos, and Sunnyvale. Through this program, one or more of the mutual aid cities would provide assistance to Mountain View in whatever capacity was needed.

Station Four is the closest fire station to the project site. Station Four is located at 229 North Whisman Road, approximately 0.2 mile south of the project site. The MVFD reviews applications for new projects to ensure that they comply with the City's current fire codes and standards.

Police Protection Services

Police protection services are provided to the project site by the Mountain View Police Department (MVPD). The MVPD consists of authorized staff of 90 sworn and 55 non-sworn personnel.[66] Officers patrolling the area are dispatched from police headquarters, located at 1000 Villa Street, approximately 1.3 miles west of the Precise Plan area.

The MVPD has a goal to respond to Priority E and Priority 1 calls in less than four minutes at least 55 percent of the time. Priority E and Priority 1 calls are considered the highest priority calls and signal emergency dispatch from the MVPD. Priority E calls are of higher importance, because they are often associated with violent crime incidents. MVPD has a mutual aid agreement with the surrounding jurisdictions, under which the other agencies would assist the MVPD in responding to calls, when needed.

[65] MVFD. "Stats/Response/Annual Report". Accessed November 8, 2018. http://mountainview.gov/depts/fire/about/report.asp.
[66] MVPD. "Annual Report 2017". Accessed November 8, 2018. https://www.mountainview.gov/civicax/filebank/blobdload.aspx?blobid=26646.

Schools

The project site is located within the Mountain View Whisman School District (MVWSD) and Mountain View-Los Altos Union High School District (MVLASD). The MVWSD serves grades kindergarten through eighth grade and the MVLASD serves high-school age students. Students in the project area attend Edith Landels Elementary School located at 115 West Dana Street (approximately 0.9 mile southwest of the site), Graham Middle School located 1175 Castro Street (approximately 1.8 miles southwest of the site), and Mountain View High School located at 3535 Truman Avenue (approximately 2.0 miles south of the site). Table 3.13-1 shows the existing school capacities at Edith Landels Elementary School, Graham Middle School, and Mountain View High School. The new Vargas Elementary School located at 220 North Whisman Road is expected to be open for the 2020/2021 school year and its enrollment area would include the Precise Plan area. The MVWSD limits elementary school capacities to 450 students, and the Vargas Elementary School would be built to that capacity. It is expected that 372 students will be enrolled when the school opens.

Table 3.13-1: 2018-2019 School Enrollment and Capacity

School	Current Enrollment	Existing Capacity
Edith Landels Elementary School[1]	483	450
Vargas Elementary School[1]	372	450
Graham Middle School[2]	871	1,294
Mountain View High School[3]	2,062	1,969

[1] Schreder, Jack. Jack Schreder & Associates, Inc. Personal Communication. January 17, 2019.

[2] Hermosillo, Michael. Principal, Graham Middle School. Personal Communication. November 14, 2018.

[3] Harding, Jeff. Superintendent. MVLASD. Personal Communication. November 19, 2018.

Parks and Open Space

The City of Mountain View currently owns or manages 993.07 acres of parks and open space facilities, including 22 urban parks and the Stevens Creek Trail. The urban parks are divided among 18 mini-parks (one undeveloped), 13 neighborhood/school parks (under joint-use agreements with local school districts), five neighborhood parks not associated with school sites, two community parks, and one regional park (Shoreline at Mountain View).[67] The City also maintains 10 parks under joint-use agreements with local school districts.

The proposed project site is located within the Whisman Planning Area of the City of Mountain View 2014 Parks and Open Space Plan. The Whisman Planning Area is 1,098 acres total and contains 15.41 acres of park and open space facilities located primarily at Whisman and Slater Schools and at four mini-parks: Magnolia, Chetwood, Creekside, and Devonshire Parks. The area contains 1.79 park acres per 1,000 residents and currently does not meet the City standard of 3.0 acres per 1,000 residents.[68] The nearest park or open space facility is Devonshire Park,

[67] City of Mountain View. 2014 Parks and Open Space Plan. Accessed December 12, 2018. http://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=14762.
[68] Ibid

approximately 500 feet west of the Precise Plan area. A new South Whisman Park has been dedicated to the City for future construction approximately 400 feet south of the Precise Plan area.

Libraries

The Mountain View Public Library, located at 585 Franklin Street, is the City's only library. It is located approximately 1.6 miles southwest of the Precise Plan area.

3.13.2 Public Services and Recreation Impacts

3.13.2.1 *Thresholds of Significance*

For the purposes of this EIR, a public services impact is considered significant if the impacts are associated with:

- The provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
  - Fire protection
  - Police protection
  - Schools
  - Parks
  - Other public facilities.
- An increase in 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; or
- Include recreational facilities or require the construction of expansion of recreational facilities which might have an adverse physical effect on the environment.

3.13.2.2 *Fire Protection Services*

The City of Mountain View Building Division is responsible for plan review of all new construction, additions, remodels, fire sprinklers, fire alarms, and suppressions systems for both commercial and residential properties and construction inspection services for all projects including building, fire, electrical, plumbing and mechanical installations. The MVFD reviews development project applications to ensure that they comply with the City's current codes and standards. Both agencies ensure compliance with state and local building codes, policies, guidelines, and standards for structures within the City limits.

While the Precise Plan would allow for future development and redevelopment and, therefore, may incrementally increase the needs for fire suppression and rescue response services, future projects under the Precise Plan would be constructed to current Fire Code standards. The MVFD does not anticipate the need to construct a new fire station to accommodate growth anticipated in the buildout

of the General Plan, of which the Precise Plan is a part.[69] Further, there is existing capacity at the nearby Station Four to respond to additional service calls created by projects implemented as part of the Precise Plan and no new facilities or expansion of existing facilities would be required.[70]

3.13.2.3 *Police Protection Services*

The proposed project would not substantially increase demand for police services in the Precise Plan area. MVPD maintains a staffing ratio of approximately 1.3 officers per 1,000 residents. The General Plan EIR concluded that buildout of the General Plan would increase the demand for police services; however, the City has policies to ensure that police staffing is adequate to serve the needs of the community. While the proposed project would intensify the use of the Precise Plan area, the MVPD confirmed that implementation of the project would not require the construction or expansion of police facilities.[71] In addition, future development within the Precise Plan area shall be reviewed by MVPD to ensure safety features are incorporated to minimize the opportunity for criminal activity.

Impact PSR-1: The project would not require new or physically altered police or fire facilities. **[Less than Significant Impact]**

3.13.2.4 *School Impacts*

As described in Section 2.0 Project Description, the Precise Plan includes a program by which development can provide support for school facilities. Future development projects requesting Bonus FAR (both residential and non-residential) will be required to create a school strategy, including an agreement with the local school districts, that may include funding or land above the amount required through standard school impact fees (described further below).

These contributions may not cover all school district costs; therefore, the Precise Plan also states that the City can further support schools through collaboration to identify potential school locations to serve East Whisman and City growth and authorization of a Transfer of Development Rights program that allows the sale of development rights from a school site to property owners/developers for use at another property. This process may provide additional resources through which a school district can acquire land.

The project proposes up to 5,000 residential units (to the Precise Plan area), with the goal of making 20 percent (1,000 units) of them affordable units. It is estimated that the project would generate a total of 648 elementary school students, 403 middle school students, and 500 high school students.[72] These students would be placed in Edith Landels Elementary School, Graham Middle School, and Mountain View High School based on their enrollment boundaries.

As shown in Table 3.13-1, Graham Middle School is below capacity and would have space to accommodate the estimated 403 middle school students generated by the project.

[69] City of Mountain View. *Draft General Plan and Greenhouse Gas Reduction Program, Draft EIR.* November 2011. Page 502-503.
[70] Diaz, Juan. Fire Chief, MVFD. Personal Communication. November 15, 2018.
[71] Bosel, Max. Police Chief, MVPD. Personal Communication. November 18, 2018.
[72] Based on the student generation rates provided by the Jack Schreder & Associates. K-5 = 0.085 (0.308 affordable), 6-8 = 0.039 (0.247 affordable), High School = 0.047 (0.312 affordable).

Edith Landels Elementary School is currently operating above capacity; however, once Vargas Elementary School opens the excess students would be moved there (see Table 3.13-1). As a result, Edith Landels Elementary School would be at capacity and Vargas Elementary School would have 40 spaces left. The project would add an estimated 648 elementary school students to the Precise Plan area, exceeding the capacity at both Edith Landels and Vargas Elementary Schools.

Mountain View High School is also currently operating above enrollment capacity (see Table 3.13-1). To alleviate short-term capacity problems, MVLASD is placing additional portable classrooms on the Mountain View High School campus.[73] In addition, the MVLASD is currently planning to expand the Mountain View High School campus to accommodate an additional 410 students.[74] The proposed project, however, would add an estimated 500 high school students and would exceed the capacity of Mountain View High School.

Future residential development projects in the Precise Plan area are required pay state-mandated school impact fees to offset impacts to local schools, such as Edith Landels and Vargas Elementary Schools and Mountain View High School. Payment of fees would reduce impacts to a less than significant level.

Impact PSR-2: The project would increase the demand for new school facilities in the City; however, payment of school impact fees would offset this increase in demand. **[Less than Significant Impact]**

3.13.2.5 *Parks and Recreation Impacts*

To meet Mountain View's demand for parks and open space, the City uses the Quimby Act (California Government Code, Section 66477), which allows cities to require builders of residential developments to dedicate land for parks and recreational areas or pay an open space fee to the City. Mountain View requires developers to dedicate at least three acres of park land for each 1,000 persons who will live in a new housing project (owned or rented) or pay an in-lieu fee that would be used to offset the increased demands on park facilities (Chapter 41.3 of the Mountain View Municipal Code). Areas identified within the Precise Plan for additional park space would require new development on those sites to address the open space requirement by dedicating land, consistent with the City's Park Land Dedication Ordinance (Chapter 41 of the Mountain View Municipal Code). Payment of fees would reduce impacts to a less than significant level.

Precise Plan Public Open Space Strategy

As discussed above, the Precise Plan area currently does not meet the City's standard of 3.0 acres per 1,000 residents. The Precise Plan includes an overall goal of adding 30 acres of publicly accessible open space to serve the projected 10,000 residents of the Precise Plan area (which would meet the City's standard of 3.0 acres per 1,000 residents). The proposed park and open space vision for the Precise Plan area includes the following:

- **Central Park (1 to 2 acres).** A central park or public open space will be the signature gathering space adjacent to the Middlefield Station and should be highly visible from the

[73] Harding, Jeff. Superintendent, MVLASD. Personal Communication. November 14, 2018.
[74] MVLASD. *Initial Study Mountain View High School Expansion Project*. November 2018.

station and from both Ellis Ave and East Middlefield Road. The space will include an open area for community gatherings and events. This space should include retail, outdoor dining, and entertainment uses to generate lively pedestrian activity throughout.

- **Mini-Parks (4 to 5 acres total).** A minimum of six small mini-parks are envisioned, at a scale of 0.3 to 1.0 acre in the following formats: urban plazas, neighborhood greens/parks, playgrounds, pocket parks, tot lots, flexible performance spaces, or other innovative park types. These spaces are prioritized in the Mixed-Use Character Area.
- **Neighborhood Park/Neighborhood Park Master Plan Area (2 to 3 acres).** The area bounded by Maude Avenue, Clyde Avenue, the Hetch Hetchy right-of-way, the light-rail tracks, and Logue Avenue represents one of the best opportunities for a large, dedicated public park.
- **Linear Parks (5-6 acres total, or 11 to 12 acres including SFPUC).** Along the southern edge of the SFPUC aqueduct corridor, these parks provide additional buffer between the Mixed-Use and Employment character areas and may be enhanced if SFPUC can secure leases for publicly accessible open space from adjacent property owners. Through the south employment area, a linear park will be a valuable amenity for employees.
- **Privately Owned, Publicly Accessible Open Spaces (4 to 5 acres total).** Some new commercial development will provide on-site publicly accessible open spaces under private ownership, such as plazas, landscaped areas and public art installations. Specific locations and sizes will be determined during project approval, but locations near housing, neighborhood commercial, major corridors and public paths will be prioritized.

The proposed parks and open spaces will create a significant portion of the 30 acres targeted by the Precise Plan. The remaining 3 to 8 acres will be acquired by the City with the parkland dedication in-lieu fees paid by residential development and may be within or near the East Whisman area. Through implementation of the Precise Plan's Park and Open Space Strategy and payment of park impact fees the Precise Plan would result in a less than significant impact to schools.

Impact PSR-3: The Precise Plan would not substantially affect the provision of parks and open space or result in deterioration of existing facilities with payment of required park fees by future development. **[Less than Significant Impact]**

3.13.2.6 *Library Impacts*

The growth projected in the Precise Plan, including approximately 5,000 residential housing units and non-residential square footage, would not trigger the City to build or operate a new library in the Precise Plan area.

Impact PSR-4: The Precise Plan would not substantially affect the provision of library services or result in the need for new or altered facilities in order to maintain acceptable service ratios or other performance objectives. **[Less than Significant Impact]**

3.13.3 Cumulative Impacts

The cumulative projects in Mountain View and Sunnyvale may require provision of public services, including, like the project site, increased fire and police services, schools, and recreational facilities.

All of cumulative projects occurring within Mountain View or neighboring cities would implement conditions of approval or mitigation measures that would reduce impacts to public services. These projects would also be subject to state, county, and City codes regulating public services (such as payment of school and park fees). While the proposed project would add up to 5,000 units to the Precise Plan area, it would not contribute considerably to cumulative impacts as a result of new physical public service facilities because none are needed for the proposed project.

Impact C-PSR-1: The project would not contribute considerably to a cumulatively significant public services impact. **[Less than Significant Impact]**

3.13.4 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
PSR-1: The project would not require new or physically altered police or fire facilities.	Less than Significant	No mitigation required	NA
PSR-2: The project would increase the demand for new school facilities in the City; however, with payment of school impact fees would offset this increase in demand.	Less than Significant	No mitigation required	NA
PSR-3: The Precise Plan would not substantially affect the provision of parks and open space or result in deterioration of existing facilities with payment of required park fees by future development.	Less than Significant	No mitigation required	NA
PSR-4: The Precise Plan would not substantially affect the provision of library services or result in the need for new or altered facilities in order to maintain acceptable service ratios or other performance objectives	Less than Significant	No mitigation required	NA
C-PSR-1: The project would not contribute considerably to a cumulatively significant public services impact.	Less than Significant	No mitigation required	NA

3.14 TRANSPORTATION

The discussion within this section is based on a Transportation Analysis and Program-Level Transportation Analysis prepared by Fehr & Peers and dated May 2019. These analyses are included as Appendix H and Appendix I, respectively.

3.14.1 Environmental Setting

3.14.1.1 *Regulatory Framework*

State

SB 743 was adopted in 2013 and states that automobile delay as described solely by LOS (or similar measures of vehicular capacity or traffic congestion), shall not be considered a significant impact on the environment. SB 743 further states that agencies need to follow guidelines from the Office of Planning and Research for determining the significance of transportation impacts of projects. This guidance identifies VMT as the new metric for evaluating transportation impacts. The VMT-related provisions of SB 743 will go into full effect statewide on July 1, 2020.

Regional

Santa Clara County Valley Transportation Authority

The proposed project is located within the City of Mountain View, in Santa Clara County. The Santa Clara County Valley Transportation Authority (VTA) is the Congestion Management Agency for the County and has policies and regulations that are relevant to the project. The VTA is responsible for ensuring local government conformance with the Congestion Management Program (CMP), a program aimed at reducing regional traffic congestion. The CMP requires that each jurisdiction identify existing and future transportation facilities that will operate at an acceptable service level and provide mitigation where future growth degrades that service level. VTA has review responsibility for proposed development projects that are expected to generate 100 or more peak-hour trips.

Santa Clara Countywide Bicycle Plan

The Santa Clara Countywide Bicycle Plan (updated in 2018) synthesizes other local and county plans into a comprehensive 20-year cross-county bicycle corridor network and expenditure plan. The long-range countywide transportation plan and the means by which projects compete for funding and prioritization are documented in the Valley Transportation Plan (VTP). VTA has adopted the Santa Clara Countywide Bicycle Plan, which includes a planned bicycle network of 24 routes of countywide or intercity significance.

Local

City of Mountain View 2030 General Plan

The following transportation-related policies from the General Plan are applicable to the Precise Plan area.

Policy	Description
LUD 6.5	**Pedestrian and bicycling improvements.** Support pedestrian and bicycling improvements and connections between neighborhoods.
LUD 8.2	**Streets friendly to bicyclists and pedestrians.** Encourage a network of streets friendly to bicyclists and pedestrians that create a safe and comfortable environment and include convenient amenities and features.
LUD 8.3	**Enhanced publicly accessible bicycle and pedestrian connections.** Encourage new and existing developments to enhance publicly accessible bicycle, pedestrian and transit connections.
LUD 8.4	**Pedestrian-oriented civic and public spaces.** Create and encourage new pedestrian-oriented civic and public spaces throughout the city.
LUD 8.5	**Pedestrian and bicycle amenities.** Encourage attractive pedestrian and bicycle amenities in new and existing developments, and ensure that roadway improvements address the needs of pedestrians and bicyclists.
LUD 9.4	**Enhanced pedestrian activity.** Ensure commercial development enhances pedestrian activity through these strategies: • Encourage the first level of the building to occupy a majority of the lot's frontage, with exceptions for vehicle and pedestrian access. • Allow for the development of plazas and dining areas. • Encourage the majority of a building's ground floor frontage to provide visibility into the building by incorporating windows and doors. • Require that ground floor uses be primarily pedestrian-oriented. • Ensure pedestrian safety and access when designing parking areas and drive-through operations. • Minimize driveways.
MOB 1.1	**Multimodal planning.** Adopt and maintain master plans and street design standards to optimize mobility for all transportation modes.
MOB 1.2	**Accommodating all modes.** Plan, design and construct new transportation improvement projects to safely accommodate the needs of pedestrians, bicyclists, transit riders, motorists and persons of all abilities.
MOB 1.3	**Pedestrian and bicycle place making.** Promote pedestrian and bicycle improvements that improve connectivity between neighborhoods, provide opportunities for placemaking, and foster a greater sense of community.
MOB 1.4	**Street design.** Ensure street design standards allow a variety of public and private roadway widths.
MOB-1.5	**Public accessibility.** Ensure all new streets are publicly accessible.
MOB 1.6	**Traffic calming.** Provide traffic calming, especially in neighborhoods and around schools, parks and gathering places.
MOB 2.1	**Broad accessibility.** Improve universal access within private developments and public and transit facilities, programs and services.
MOB 3.1	**Pedestrian network.** Provide a safe and comfortable pedestrian network.

MOB 3.2 **Pedestrian connections.** Increase connectivity through direct and safe pedestrian connections to public amenities, neighborhoods, village centers, and other destinations throughout the City.

MOB 3.3 **Pedestrian and bicycle crossings.** Enhance pedestrian and bicycle crossings at key locations across physical barriers.

MOB 3.4 **Avoiding street widening.** Preserve and enhance citywide pedestrian connectivity by limiting street widening as a means of improving traffic.

MOB 3.5 **Walking and bicycling outreach.** Actively engage the community in promoting walking and bicycling through education, encouragement, and outreach on improvement projects and programs.

MOB 4.1 **Bicycle network.** Improve facilities and eliminate gaps along the bicycle network to connect destinations across the City.

MOB 4.2 **Planning for bicycles.** Use existing planning processes to identify or implement improved bicycle connections and bicycle parking facilities.

MOB 4.3 **Public bicycle parking.** Increase the amount of well-maintained, publicly accessible bicycle parking and storage throughout the City.

MOB 4.4 **Bicycle parking standards.** Maintain bicycle parking standards and guidelines for well-sited bicycle parking and storage in private development to enhance the bicycle network.

MOB 4.5 **Promoting safety.** Educate bicyclists and motorists on bicycle safety.

MOB 5.4 **Connecting key areas.** Identify and implement new or enhanced transit services to connect Downtown, El Camino Real, San Antonio, North Bay- shore, East Whisman and NASA Ames Research Center.

MOB 5.5 **Access to transit services.** Support right-of-way design and amenities consistent with local transit goals to facilitate access to transit services and improve transit as a viable alternative to driving.

MOB 5.6 **Emerging technologies.** Explore emerging transit technologies such as Personal Rapid Transit and their citywide applicability.

MOB 7.1 **Parking codes.** Maintain efficient parking standards that consider reduced demand due to development conditions such as transit accessibility.

MOB 7.2 **Off-street parking.** Ensure new off-street parking is properly designed and efficiently used.

MOB 8.2 **Accommodating all modes.** Plan, design and construct new transportation improvement projects to safely accommodate the needs of pedestrians, bicyclists, transit riders, motorists and persons of all abilities.

MOB 8.3 **Multimodal transportation monitoring.** Monitor the effectiveness of policies to reduce vehicle miles traveled (VMT) per service population by establishing transportation mode share targets and periodically comparing travel survey data to established targets.

MOB 9.2 **Reduced vehicle miles traveled.** Support development and transportation improvements that help reduce greenhouse gas emissions by reducing per capita VMT.

MOB 10.1 **Efficient automobile infrastructure.** Strive to maximize the efficiency of existing automobile infrastructure and manage major streets to discourage cut-through traffic on neighborhood streets.

MOB 10.2	**Reducing travel demand.** Promote effective Transportation Demand Management programs for existing and new development.
MOB 10.3	**Avoiding street widening.** Limit widening of streets as a means of improving traffic and focus instead on operational improvements to preserve community character.
INC 3.4	**Right-of-way regulations**. Ensure that right-of-way regulations comply with relevant street and highway codes while still prioritizing multimodal transportation in all right-of-way design.
INC 20.3	**Pollution-reduction technologies.** Encourage the use of non-fossil fuels and other pollution-reduction technologies in transportation, machinery and industrial processes.
INC 20.4	**Freight routes.** Identify and maintain primary freight routes that provide direct access to industrial and commercial areas.
INC 20.5	**Truck access.** Plan industrial and commercial development to avoid truck access through residential areas, and minimize truck travel on streets designated primarily for residential access by the General Plan.
POS 2.2	**Connectivity and transit access.** Improve connectivity and transit accessibility to parks.
POS 2.3	**Pedestrian and bicycle access.** Improve pedestrian and bicycle access to parks and create new connections to parks to minimize pedestrian and bicycle travel distances.
POS 6.1	**Citywide network of pathways.** Develop a citywide network of pedestrian and bicycle pathways to connect neighborhoods, employment centers, open space resources and major destinations within the city.
POS 6.2	**At-grade crossings.** Minimize at-grade crossings of major roads when building new trails.

City of Mountain View Bicycle Transportation Plan

The 2015 Mountain View Bicycle Transportation Plan Update summarizes goals for improving the bicycle network, existing and proposed facilities, and programs involving education, enforcement. The plan was developed in conformance with several other plans including the General Plan, VTA Countywide Bicycle Plan, Metropolitan Transportation Commission Regional Bicycle Plan, the Santa Clara County Trails Master Plan, and Caltrans Streets and Highways Code Section 891.2.

City of Mountain View Pedestrian Master Plan

The City of Mountain View Pedestrian Master Plan summarizes goals for the pedestrian network, existing and proposed facilities, and priority of pedestrian improvements. The plan was developed in conformance with the Mountain View 2030 General Plan.

Transportation Analysis Methodology - LOS

Consistency with City of Mountain View, Sunnyvale, VTA, and Santa Clara County automobile level of service (LOS) policies was evaluated following the methodologies established by each jurisdiction. Traffic conditions were evaluated for the weekday AM and PM peak hours of traffic. The AM peak hour is generally between 7:00 AM and 9:00 AM; and the PM peak hour is generally between 4:00 PM and 6:00 PM. Traffic conditions at the study intersections were evaluated using LOS, which is a description of operating conditions ranging from LOS A, or free-flow conditions

with little or no delay, to LOS F, or congested conditions with excessive delays. The correlation between average delay and LOS is shown in Table 3.14-1.

Table 3.14-1: Signalized Intersection LOS Definitions		
LOS	**Description of Operations**	**Average Delay (seconds)**
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all.	Up to 10.0
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, though may pass through without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios.	35.1 to 55.0
E	This is the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high V/C ratios.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection.	Greater than 80.0
Source: Traffic Level of Service Analysis Guidelines. VTA Congestion Management Program. June 2003; and Highway Capacity Manual. Transportation Research Board. 2000.		

LOS ratings for stop-sign-controlled intersections are based on the average control delay expressed in seconds per vehicle. At two-way or side-street-stop controlled intersections, control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. Table 3.14-2 summarizes the relationship between delay and LOS for unsignalized intersections.

Table 3.14-2: Unsignalized Intersection LOS Definitions		
LOS	**Description**	**Seconds per Vehicle Delay**
A	Little or no traffic delay	10.0 or less
B	Short traffic delay	10.1 to 15.0
C	Average traffic delay	15.1 to 25.0
D	Long traffic delay	25.1 to 35.0
E	Very long traffic delay	35.1 to 50.0
F	Extreme traffic delay	Greater than 50.0
Source: Transportation Research Board. *2000 Highway Capacity Manual.* 2000.		

The City does not have an adopted LOS policy for unsignalized intersections; however, the City has historically used a standard of LOS D, which has been used in other traffic studies within the City. For two-way, stop-controlled intersections, the City determines the need for improvements based on turn movement operations (such as queues overflowing the storage capacity) as well as peak hour traffic signal warrant analyses from the *California Manual on Uniform Traffic Control Devices* (CA MUTCD).[75]

Freeway mainline operations analysis evaluates the effects of the project on the freeway system. The level of operations of freeway mainline segments directly affect ramp operations and weaving patterns on the freeway system. Freeway mainline analysis was included in the TIA to evaluate the effects of the project on the freeway system.

Freeway segments within Santa Clara County were evaluated using the VTA Guidelines analysis procedure, which is based on the density of the traffic flow using methods described in the *2000 HCM*. Density is expressed in passenger cars per mile per lane. The CMP ranges of densities for freeway segment levels of service are shown below in Table 3.14-3.

Table 3.14-3: Freeway Segment LOS Definitions

LOS	Density of Cars per Mile per Lane
A	≤ 11
B	11.1
C	18.1
D	26.1
E	46.1
F	> 58.0

Source: Traffic Level of Service Analysis Guidelines, VTA Congestion Management Program, June 2003; Highway Capacity Manual, Transportation Research Board. 2000.

Transportation Analysis Methodology - VMT

The City of Mountain View travel model was used to estimate daily VMT. To provide a complete picture of the effects of the Precise Plan on VMT, this analysis looks at the:

- Project-generated VMT: The sum of the "VMT from" and "VMT to" the Precise Plan area.
- Project's effect on VMT: The project's effect on VMT is an evaluation of the change in travel on all roadways within the City and within the County.

[75] While satisfying one or more of these warrants could justify the installation of a signal at an intersection, this analysis should not serve as the only basis for deciding whether and when to install a signal. The full set of warrants should be investigated by an experienced engineer based on field-measured rather than forecast traffic data and a thorough study of traffic and roadway conditions.

The project generated VMT per service population is used to evaluate how the Precise Plan area VMT changes between scenarios, taking into account both VMT increases due to growth and VMT reductions due to changes in travel behavior. Project generated VMT is used to evaluate changes in the VMT rate at the project site; however, it does not evaluate a project's effect on VMT on the entire roadway system.

The Precise Plan land use changes are relatively small compared to the countywide residential population and employment; therefore; it is likely to have local effects such as shifting some existing trips to/from other neighborhoods. Furthermore, this project is likely to cause existing pass-through traffic to shift to alternate routes as more Precise Plan traffic uses the local streets within and near the Precise Plan area. Therefore, the project's effect on VMT as evaluated as the cumulative effects of the project land use and transportation changes on VMT by comparing the boundary VMT per service population18 between Cumulative and Cumulative with Project Conditions.

The analysis focuses on the VMT for all trip purposes and vehicle types (no separation of VMT by land use). The VMT thresholds are developed using the Existing Conditions VMT for the City of Mountain View and Santa Clara County.

3.14.1.2 *Existing Conditions*

Roadway Network

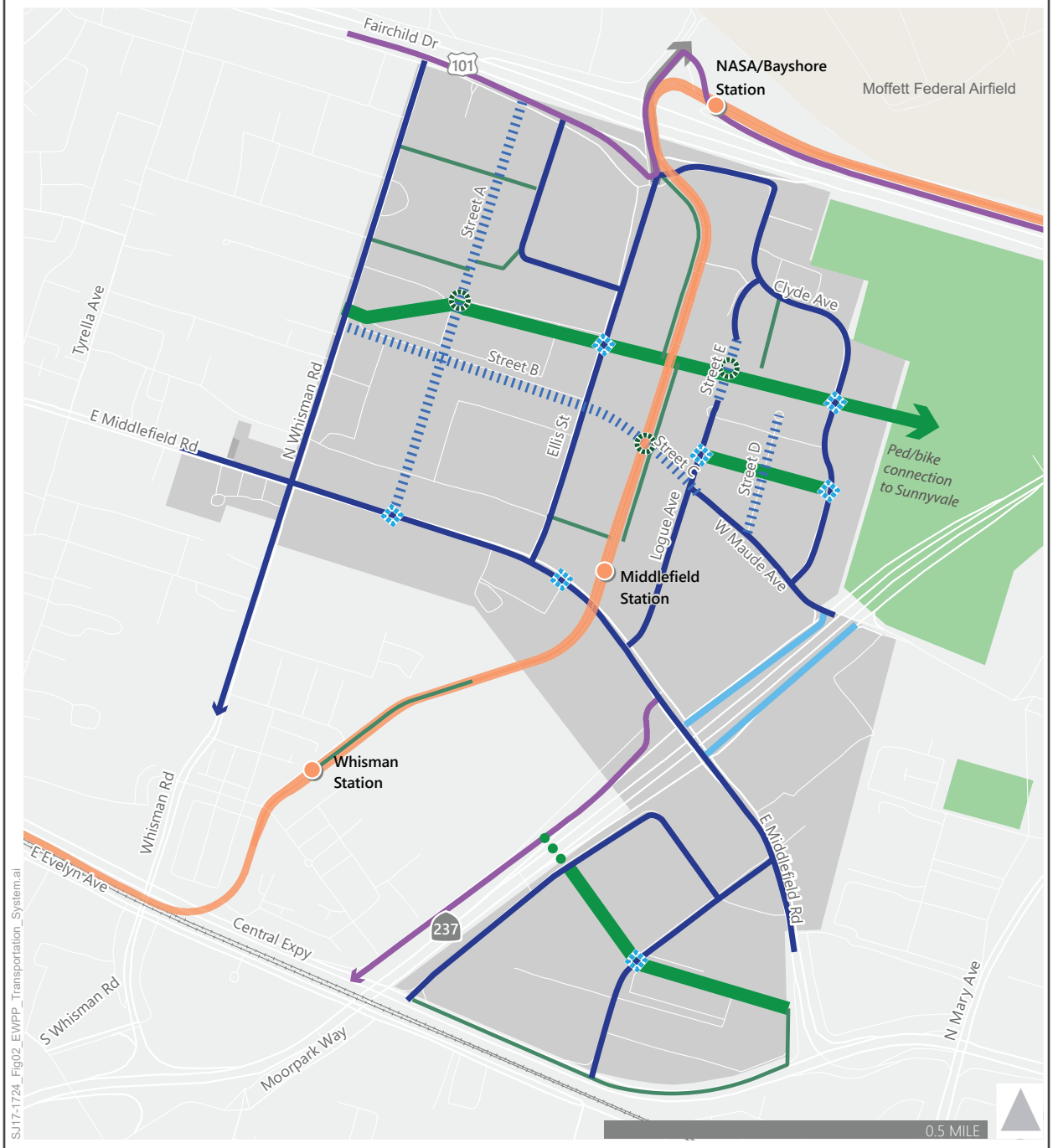
Major freeways and roadways in the vicinity of the Precise Plan area are discussed below and are shown in Figure 3.14-1which follows.

SR 237 is an east-west freeway immediately west of the Precise Plan area with two to three travel lanes in each direction. One travel lane in each direction is designated as a high-occupancy vehicle (HOV) lane between Mathilda Avenue and I-880 eastbound and between I-880 and Fair Oaks Avenue. Access to the Precise Plan area from SR 237 is via Middlefield Road, Maude Avenue.

US 101 is a north-south freeway north of the Precise Plan area with four travel lanes in each direction. One travel lane is designated as an HOV lane in the northbound direction between Cochrane Road and Shoreline Boulevard and between Oregon Expressway and Embarcadero Road; and in the southbound direction between Embarcadero Road and Oregon Expressway and between Shoreline Boulevard and Burnett Avenue. Two travel lanes in each direction are designated as HOV lanes between Oregon Expressway and Shoreline Boulevard. Access to the Precise Plan area from US is 101 via Ellis Street and the SR 237 interchange.

SR 85 is a north-south freeway extending between San Jose and Mountain View. The freeway has two mixed-flow lanes plus one HOV lane per direction along its entirety. Access to the Precise Plan area from SR 85 is via its interchanges with SR 237 and Central Expressway.

I-280 is a north-south freeway with three mixed-flow lanes and one HOV lane that extends from Magdalena Avenue to Meridian Avenue in both directions. Access to the Precise Plan area from I-280 is via its interchange with SR 85.



EXISTING TRANSPORTATION NETWORK | FIGURE 3.14-1

El Camino Real (SR 82) is a six-lane, east-west arterial that provides access to the Precise Plan area from Mary Avenue, SR 85, and Bernardo Avenue.

Fairchild Drive is a two-lane, east-west local street that extends from Clyde Avenue to the west where it becomes Leong Drive. Fairchild Drive is the northern edge of the Precise Plan area.

Maude Avenue is a two to four-lane, east-west arterial street that extends from North Wolfe Road in Sunnyvale to the east to Logue Avenue, providing direct access to the Precise Plan area.

Middlefield Road is a four-lane, east-west arterial street that extends through the Precise Plan area from Central Expressway in Mountain View to Jefferson Avenue in Redwood City.

Central Expressway is a four- to six-lane, east-west expressway which extends from the City of Santa Clara in the east to San Antonio Road in the west where it becomes Alma Street. In Mountain View, it runs on the north side of the Caltrain tracks with limited connections to the south side of the tracks at Castro Street/Moffett Boulevard, Shoreline Boulevard, and Rengstorff Avenue.

Evelyn Avenue is a two to four-lane, east- west arterial that extends from Castro Street to Reed Avenue. It provides access to the Precise Plan area via Bernardo Avenue and North Mary Avenue.

Washington Avenue is a two-lane, east-west collector street that extends from Evelyn Avenue to Sylvan Avenue. It provides access to the Precise Plan area via Mary Avenue, Bernardo Avenue, and Sylvan Avenue.

Moffett Boulevard is a four-lane, north-south arterial street that extends from US 101 to Central Expressway to the west where it becomes Castro Street.

Whisman Road is a four-lane, north-south arterial that extends from Fairchild Drive to SR 237. Whisman Road is the western edge of the Precise Plan area.

Ellis Street is a four-lane, north-south arterial street that extends from Cody Road to Middlefield Road. It runs directly through the Precise Plan area and serves as a major access point to US 101.

Logue Avenue is a two-lane, north-south local street within the Precise Plan area that extends north from Middlefield Road and ends in a cul-de-sac.

Clyde Avenue is a two-lane local street along the northeastern edge of the Precise Plan area that extends between Fairchild Drive and Maude Avenue.

Ravendale Drive is a two-lane, north-south collector that extends from Central Expressway to Bernardo Avenue. Ravendale Drive is located within the Precise Plan area.

Ferguson Drive is a two-lane, north-south local street that extends from Central Expressway north to Middlefield Road, into the Precise Plan area.

Bernardo Avenue is a two-lane arterial that extends north from Homestead Road to Evelyn Avenue in Sunnyvale and from Central Expressway to Middlefield in Mountain View. Currently, there is no connection across the Caltrain tracks and Central Expressway. (Historically, there was an at-grade crossing across the Caltrain tracks.)

Mary Avenue is a six-lane, north-south arterial avenue that extends from West Homestead Road north. Mary Avenue provides access to the Precise Plan area via Central Expressway, Maude Avenue, and Evelyn Avenue.

Mathilda Avenue is a six-lane, north-south arterial street that extends from SR 82 to the north where it becomes Caribbean Drive on the north side of Sunnyvale. It provides access to the site via US 101.

Fair Oaks Avenue is a four-lane, north- south arterial that extends from SR 237 to El Camino Real. Fair Oaks Avenue provides access to the Precise Plan area via Central Expressway, Maude Avenue, Ahwanee Avenue, and US 101.

Transit Facilities

Transit facilities in the Precise Plan area are shown in Figure 3.14-2and are described in in the subsections that follow. Route location and frequency information is provided below in Table 3.14-4.

Caltrain

Caltrain provides rail service from San Francisco County to Santa Clara County. Caltrain operates 365 days a year, with reduced schedules on weekends and holidays. Weekday trains are a mix of Baby Bullet, Limited, and Local trains. Caltrain currently operates 46 northbound and 46 southbound (total of 92) trains per day between San Jose and San Francisco during the week. The Mountain View Caltrain Station is located in downtown Mountain View, approximately one mile west of the Precise Plan area. VTA light rail and MVgo shuttles (described below) provide a direct connection between the Mountain View Caltrain Station and the Precise Plan area.

EXISTING TRANSIT FACILITIES | FIGURE 3.14-2

Table 3.14-4: Existing Transit Services							
Route	**From**	**To**	**Weekdays**		**Weekends**		**Weekday Peak Load Factor[2]**
			Hours	**Peak Headway[1] (minutes)**	**Hours**	**Headway (minutes)**	
VTA Bus Service							
32	San Antonio Shopping Center	Santa Clara Transit Center	5:45 AM - 8:00 PM	30	8:45 AM - 6:00 PM Sat. (N/A Sun.)	60 Sat. (N/A Sun.)	0.68
81	Moffett Field/ Ames Center	San Jose State University	6:15 AM - 9:00 PM	10	9:15 AM- 6:15 PM	10	0.43
185	Penitencia Creek Transit Center	Palo Alto	4:00 PM - 6:15 PM	10	N/A	N/A	N/A
120	Fremont BART	Lockheed Martin/ Moffett Park	4:00 PM - 7:15 PM	45	N/A	N/A	0.44
200	Tasman & Baypointe	Mountain View Station	11:00 PM -12:15 PM	5	N/A	N/A	N/A
Light Rail							
902 North	Mountain View	Winchester	5:00 AM - 12:45 AM	10	6:00 AM - 12:45 AM	30	0.57
902 South	Mountain View	Winchester	4:45 AM - 12:00 AM	10	6:15 AM - 12:00 AM	30	0.57
Mountain View Shuttles							
Commu-nity Shuttle	Loop throughout Mountain View		10:00 AM - 6:00 PM	30	10:00 AM - 6:00 PM	60	0.70
MVgo	Mountain View Transit Center	Whisman Road	7:15 AM - 10:35 AM & 3:45 PM - 7:40 PM	15	N/A	N/A	0.50
Caltrain Passenger Rail							
Caltrain	San Francisco	Gilroy	4:30 AM - 1:30 AM	20-40	7:30 AM - 1:40 AM	60	0.80
Caltrain Shuttle							

Table 3.14-4: Existing Transit Services							
Route	**From**	**To**	**Weekdays**		**Weekends**		**Weekday Peak Load Factor[2]**
			Hours	**Peak Headway[1] (minutes)**	**Hours**	**Headway (minutes)**	
Mary Moffett Shuttle	Mountain View Caltrain Station	Moffett Field/NASA	6:35 AM - 6:50 PM	60	No service	No service	N/A

[1] Headways are defined as the time between transit vehicles on the same route (e.g. time between two Route 32 buses stopping at the Middlefield Road and Bernardo Avenue intersection bus stops).

[2] Peak load factor for entire route. The peak load factor is the ratio of the average peak number of on-board passengers during the peak hour to supply of seats.

VTA Light Rail

The Mountain View-Winchester light-rail line extends from the downtown Mountain View Transit Center to the Winchester Station near the Campbell/Los Gatos border. The Middlefield Station is located in the center of the Previse Plan area. The Bayshore/NASA station to the north and Whisman Station to the south are located just outside the Precise Plan area.

VTA Bus

The Precise Plan area is served by several VTA bus routes, as shown previously in Table 3.14-4. Route 32 operates on Middlefield Road with three bus stops in the Precise Plan area; Route 81 runs on Moffett Boulevard to the west of the Precise Plan area; Route 185 operates on Middlefield Road with three bus stops in the Precise Plan area, Route 120 along Manila Drive and Ellis Street, and Route 200 operates on SR 237 in the Precise Plan area. VTA has approved a new transit service plan that is slated to go into effect in the near future.

Local Shuttle Service

MVgo is operated by the Mountain View Transportation Management Association (MVTMA), and provides free shuttle service targeted at commuters accessing employment areas in East Whisman; though it is available for use by members of the public. The East Whisman Shuttle is funded by MVTMA member companies. Currently, two shuttle vehicles operate with 15-minute headways; a third can be added if ridership increases. Limited capacity on Caltrain may be limiting this shuttle's ridership.

The Mountain View Community Shuttle is a free service connecting residential neighborhoods, civic and recreational centers, shopping and entertainment areas, and medical centers in the City. There is a shuttle stop on the western edge of the Plan area on Whisman Road at Middlefield Road.

Employer-Based Shuttles

There are several employer-based shuttle services located in Mountain View and adjacent cities. One example is the Google Commute Program, which provides free shuttle service for Google employees who live in the greater Bay Area. The program serves the Google Quad Campus off North Whisman Road and Fairchild Drive in the project area.

Existing Bicycle Network

Existing bicycle facilities in the Precise Plan Area are shown on Figure 3.14-3. These facilities include multi-use paths, and on-street bicycle lanes on Whisman Road, Ellis Street, Middlefield Road, Clyde Avenue, Logue Avenue, and Maude Avenue. Approximately 70 to100 bicyclists currently cross Whisman Road at the Hetch-Hetchy Aqueduct trail and Ellis Street at Middlefield Road during the AM and PM peak hours.

Identified Improvements

The Mountain View Bicycle Transportation Plan Update recommended that as the City plans new or improved bicycle facilities on, or major improvements to, City streets with vehicle speeds at or above 30 MPH, the City should give priority consideration to the installation of Class IV protected/ separated bike lanes/cycle tracks. In addition, it identified several bicycle-related improvements for facilities that travel through or near the Precise Plan area, including the following:

- Ellis Street-Fairchild Drive to Manila Drive – Class I Trail/Shared-Use Path; Class II Bike Lane
- Fairchild Drive-North Whisman Road to Ellis Street – Class II Bike Lane
- North Whisman Road-Fairchild Drive to East Middlefield Road – Class II Bike Lane
- Middlefield Road – San Antonio Road to North Bernardo Avenue – Class II Bike Lane
- Fairchild Drive- Leong Drive to North Whisman Road – Class III Bike Boulevard
- North Bernardo Avenue- Central Expressway to East Middlefield Road – Class II Bike Lane
- Moffett Boulevard- Central Expressway to Clark Road – Class IV Cycle Track

The Santa Clara Countywide Bicycle Plan includes a planned bicycle network of 24 routes of countywide or intercity significance. Several of these proposed facilities travel through or near the Precise Plan area, including the following:

- US 101 & SR 237 & VTA Light Rail – Mary Avenue, Roadway Extension/Overcrossing
- SR 85 – Mary Avenue, Potential Bike-Ped Bridge
- SR 237 – West Channel Trail, Potential Bike-Ped Undercrossing
- Stevens Creek Boulevard – Carmen Road, Potential Bike-Ped Bridge
- US 101 – Old Gilroy Street, Potential Bike-Ped Bridge
- US 101 – Ahwanee Avenue, Potential Bike-Ped Bridge
- US 101 – West of Shoreline Boulevard, Potential Bike-Ped Bridge
- Mathilda Avenue – US 101 & SR 237, Mathilda Freeway Interchange Improvements

EXISTING BICYCLE FACILITIES | FIGURE 3.14-3

- Bernardo Avenue – Caltrain & Central Expressway, Potential Bike-Ped Undercrossing
- Castro Street/Moffett Boulevard – Caltrain & Central Expressway, Potential Bike-Ped Undercrossing

Existing Pedestrian Facilities

The Precise Plan area is connected to surrounding neighborhoods with a network of sidewalks. Off-street or separated multi-use pedestrian (and bicycle paths) have begun to be developed in the Precise Plan area to create a safer and more connected pedestrian environment. All roadways in the Precise Plan area have sidewalks on both sides, with a few exceptions. Fairchild Drive only has a sidewalk on the south side (the north side is adjacent to US 101) and Ravendale Drive only has a sidewalk on the east side (the west side is adjacent to SR 237). There are also sidewalk facility gaps on National Avenue, Ellis Street, Logue Avenue, and Maude Avenue. Most sidewalks are five-feet wide and are connected directly to the curb and adjacent street. More recent development projects have included separated sidewalks with five-foot landscaping strips and seven-foot sidewalks. Wider sidewalks (10-feet wide) are located on Middlefield Road near the light-rail station.

Most major intersections on Middlefield Road have crosswalks on all legs; however, crosswalks exist on one or two legs at other intersections in the Precise Plan area. There midblock crosswalks are present on Ellis Street, Clyde Avenue, and Logue Avenue. The crossing on Ellis Street south of National Avenue and just before East Middlefield Road has pedestrian activated light-emitting diode (LED) enhanced flashing pedestrian signs. The multi-use paths provide pedestrian access through the large blocks in the Plan area. The locations of the paths, crosswalks, and sidewalk gaps are shown on Figure 3.14-4.

Existing Vehicle Miles Travelled

The East Whisman Area is currently a high VMT-rate area, with larger VMT per service population than the County or the City (38.2 compared to 36.3 and 26.7, respectively).

The existing boundary VMT (per service population of vehicles passing through the City or County) is used to calculate the VMT effect of the project. It is currently estimated at 14.1 within the City and 13.8 within the County.

Existing Level of Service

3.14.1.3 *Intersections*

Consistency with roadway LOS policies were determined by measuring the effect that Precise Plan-related 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 49 intersections (shown in Figure 3.14-5) were studied. All study intersections operate at an acceptable LOS standard under Existing Conditions except for unsignalized Intersection 43: East Maude Avenue and North Wolfe Road during the PM peak hour (refer to Table 3.14-6 for the existing intersection LOS).

Freeways

The existing freeway LOS for mixed flow lanes during the AM and PM peak hours is shown in Figure 3.14-6, and Figure 3.14-7 shows the existing LOS for HOV lanes. As shown, several segments are currently operating unacceptably. Unacceptable segment operations reflect the directionality of peak period commute travel. During the AM peak hour, portions of northbound US 101 operate at an unacceptable LOS standard, and during the PM peak hour portions of southbound US 101 operate unacceptably. During the AM peak hour, northbound SR 85 operates unacceptably, and southbound SR 85 operates unacceptably during the PM peak hour. Westbound SR 237 operates unacceptably during the AM peak hour, and eastbound 87 is unacceptable during the PM peak hour.

3.14.2 Transportation Impacts and Deficiency Criteria

3.14.2.1 *LOS Deficiency Policy Consistency Criteria*

Senate Bill (SB) 743, signed by Governor Jerry Brown in 2013, is changing the way transportation impacts are identified under the California Environmental Quality Act (CEQA). Specifically, the legislation directed the State of California's Office of Planning and Research (OPR) to look at different metrics for identifying transportation impacts. Following several years of draft proposals and related public comments, OPR has issued Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) to assist practitioners in implementing the CEQA Guidelines revisions to use vehicle miles traveled (VMT) as the preferred metric for assessing passenger vehicle related impacts. Along with this OPR advisory guidance, the CEQA guidelines were updated in December 2018, such that vehicle LOS will no longer be used as a determinant of significant environmental impacts, and an analysis of vehicle miles of travel (VMT) will be required.

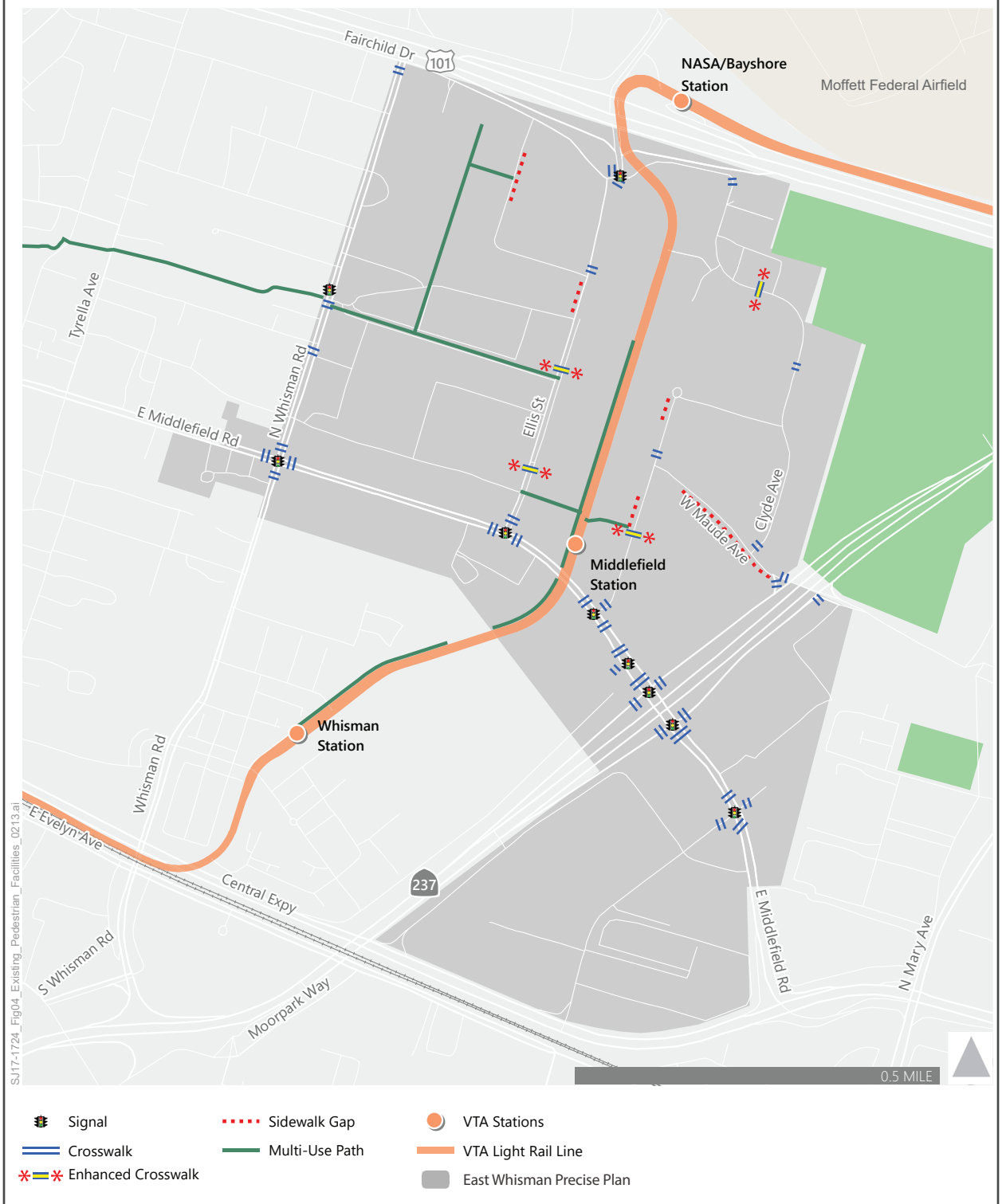
LOS is still used by the City of Mountain View, neighboring cities and the Congestion Management Agency as a policy criterion for operations of transportation infrastructure. The following analysis discloses the Project's effect on LOS for consistency with those policies.

Signalized Intersection Policy Consistency Criteria

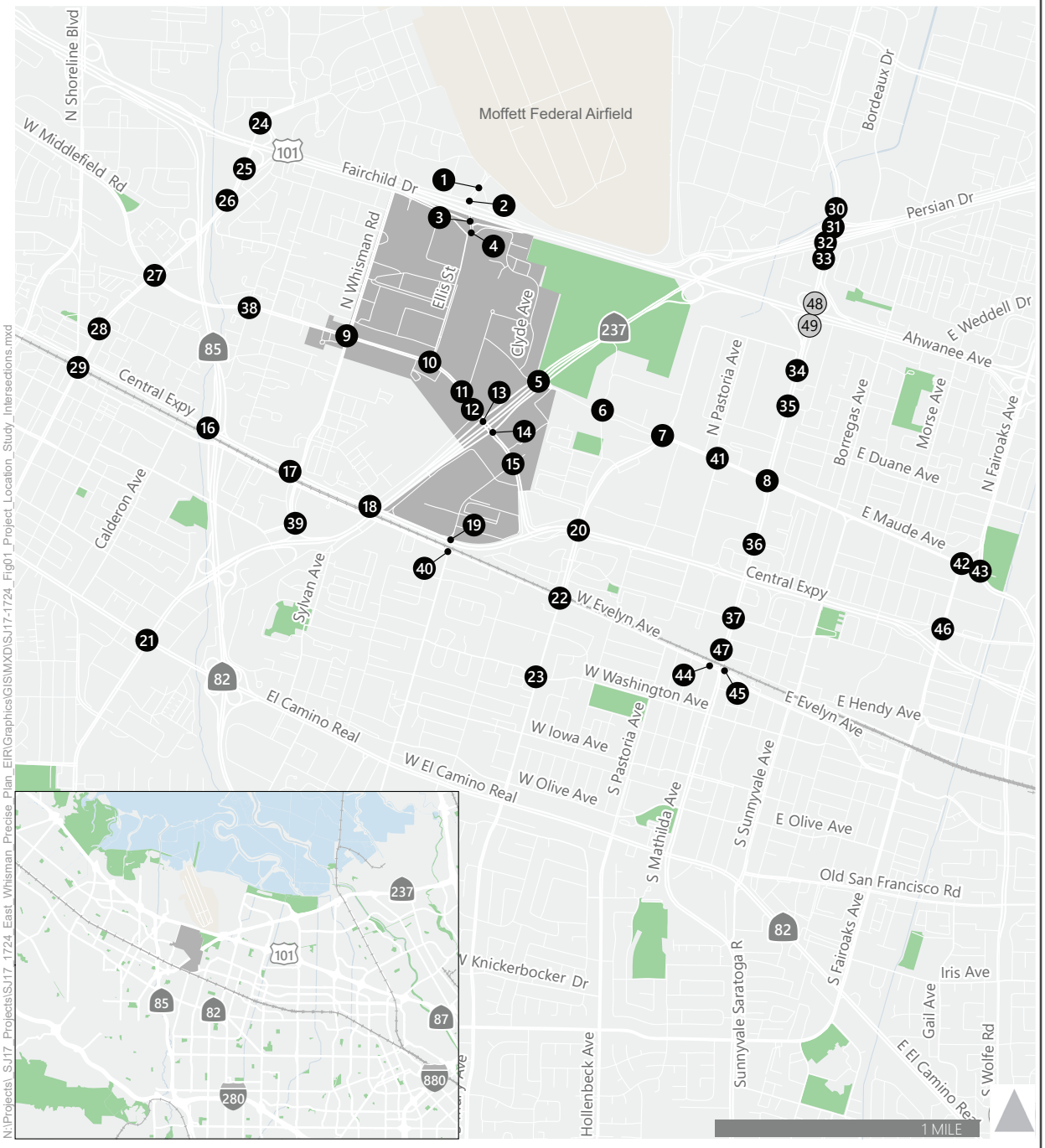
City of Mountain View

As a part of implementing the General Plan, City of Mountain View staff developed a multimodal improvement plan/area-wide deficiency plan to address below-standard intersections within Mountain View and other transportation infrastructure. The following General Plan Mobility Element policies provided the overarching policy framework to establish the multimodal plan:

- **Policy MOB 1.1: Multimodal planning.** Adopt and maintain master plans and street design standards to optimize mobility for all transportation modes.
- **Policy MOB 8.2: Accommodating all modes.** Plan, design and construct new transportation improvement projects to safely accommodate the needs of pedestrians, bicyclists, transit riders, motorists and persons of all abilities.

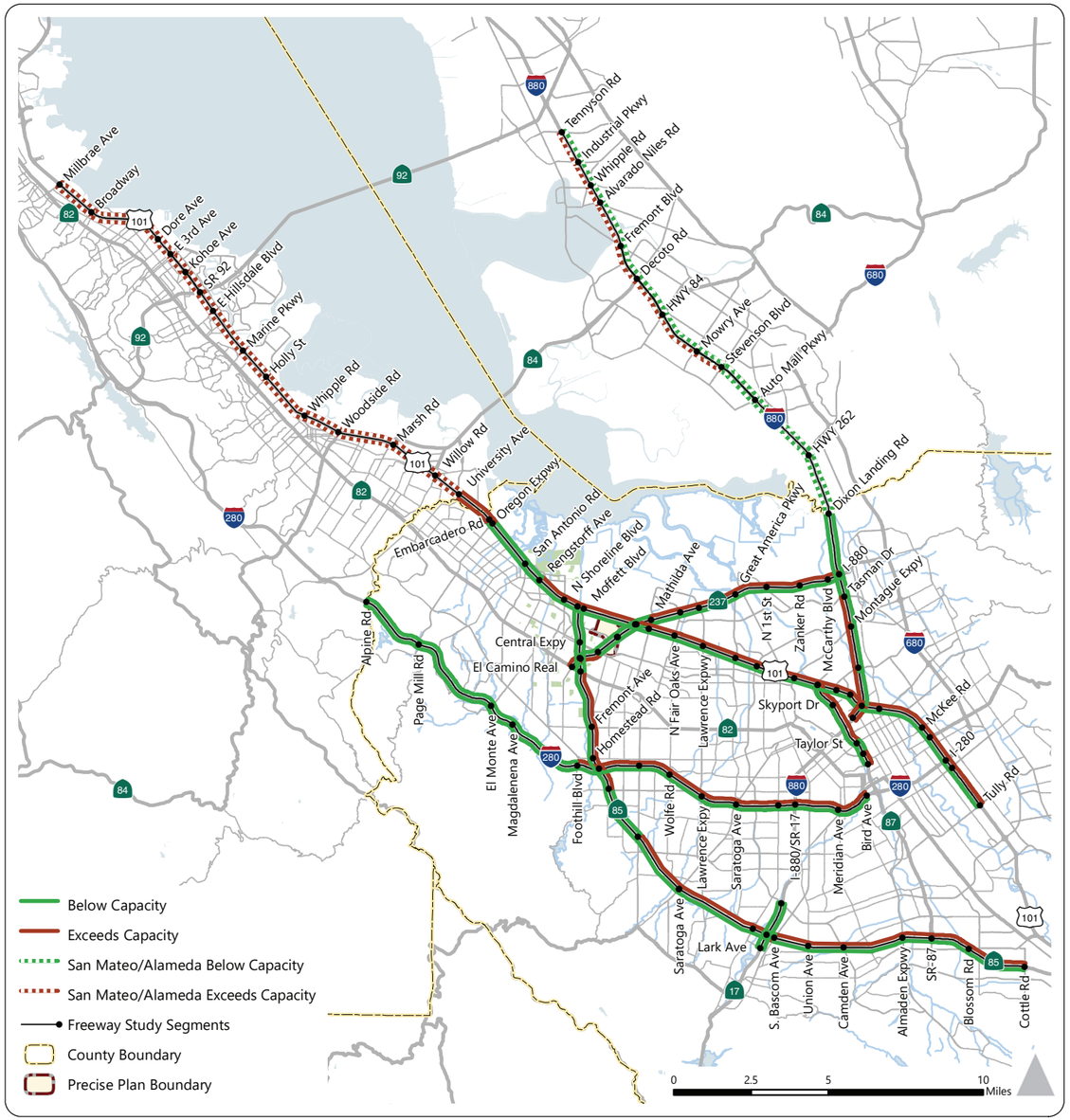


EXISTING PEDESTRIAN FACILITIES | FIGURE 3.14-4

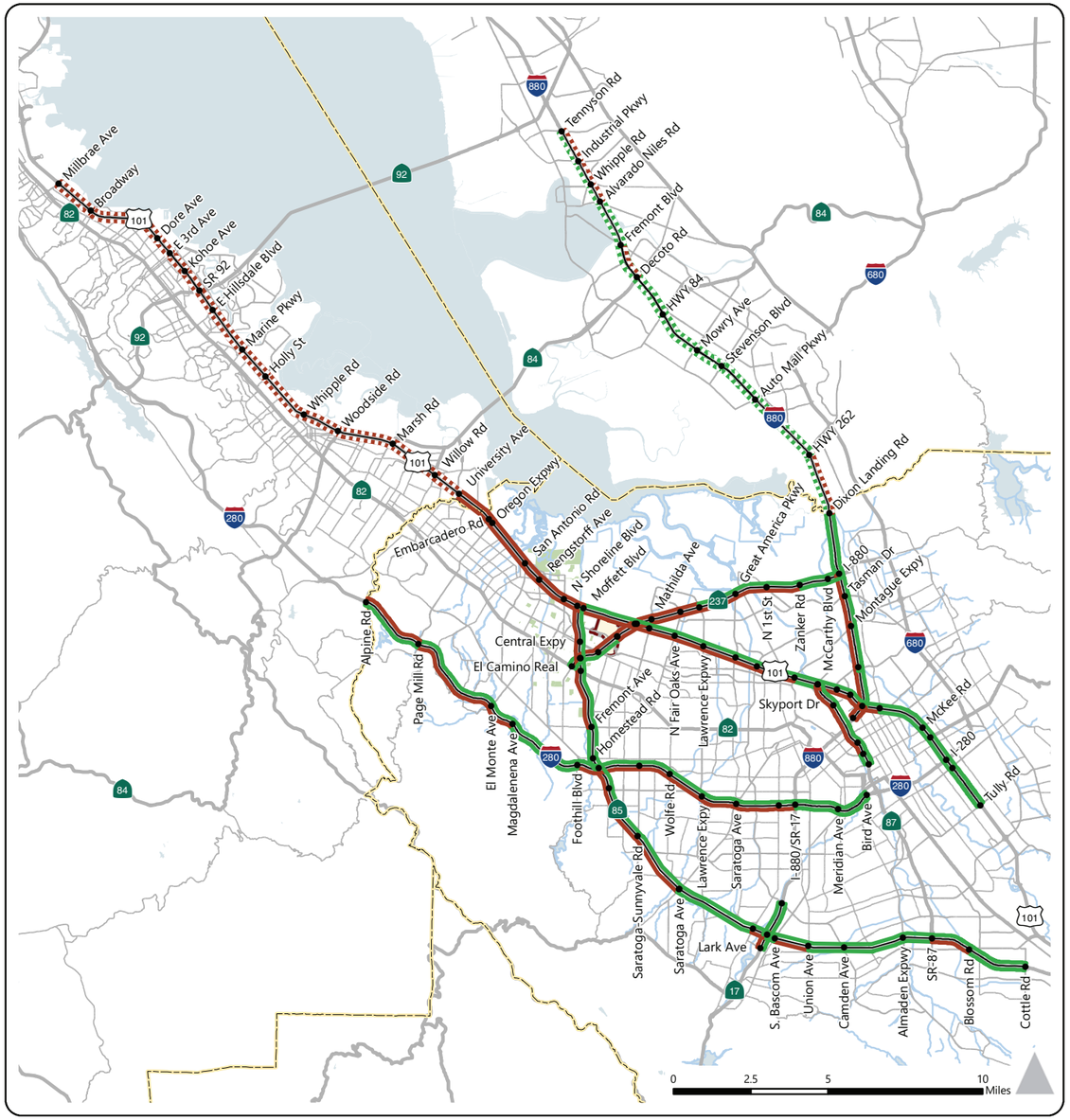


STUDY INTERSECTIONS | FIGURE 3.14-5

AM Peak Hour

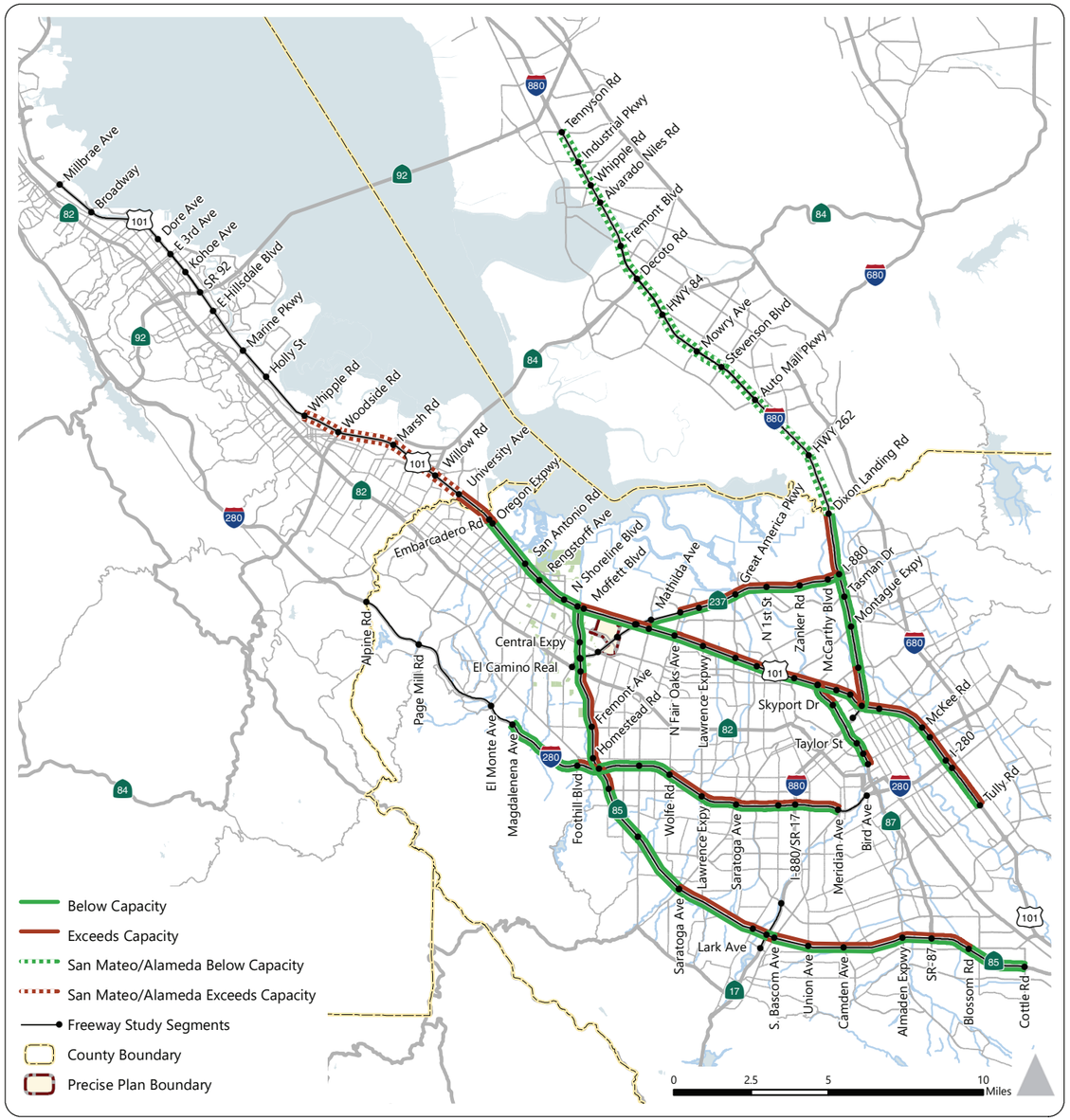


PM Peak Hour

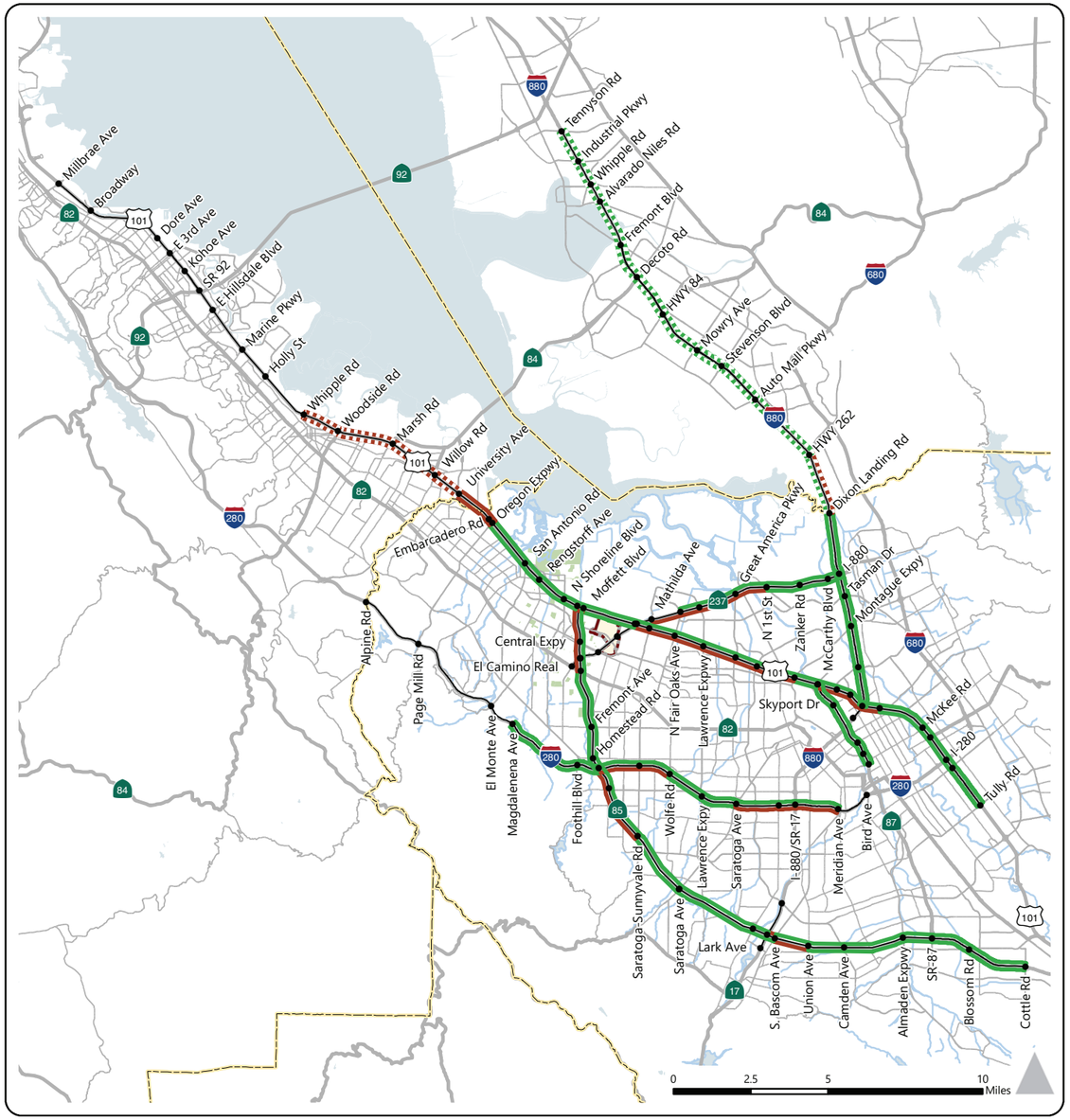


EXISTING MIXED-FLOW LANES FREEWAY LOS | FIGURE 3.14-6

AM Peak Hour



PM Peak Hour



EXISTING HOV LANE FREEWAY LOS | FIGURE 3.14-7

The *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report* established interim LOS policy standards until adoption of the mobility plans described in Policy MOB 1.1 and 8.2 (and adoption of alternative impact thresholds in Action MOB 8.3). These standards call for maintenance of Citywide vehicle LOS standards from the 1992 General Plan, which include a target of LOS D for the peak hours for intersections and roadway segments, with the following exceptions in high-demand areas:

- Use LOS E for intersections and street segments within the Downtown Core and San Antonio areas where vitality, activity and multimodal transportation use are primary goals; and
- Use LOS E for intersections and street segments on CMP designated roadways in Mountain View (e.g., El Camino Real, Central Expressway and San Antonio Road).

This transportation analysis follows the interim LOS standards. Deficiencies at signalized City of Mountain View intersections are found to occur when the addition of project traffic causes one of the following:

- Degrades intersection operations from an acceptable level to an unacceptable level; or
- Exacerbates unacceptable operations by increasing average critical delay by four seconds or more and increases the critical volume-to-capacity (V/C) ratio by 0.01 or more; or
- Increases the V/C ratio by 0.01 or more at an intersection with unacceptable operations when the change in critical delay is negative (i.e., decreases).

City of Sunnyvale

The City of Sunnyvale uses a LOS D standard for local street intersections and LOS E standard for "regionally significant roadways" (a designation that includes CMP facilities) such as Caribbean Drive, Mathilda Avenue, Sunnyvale-Saratoga Road, El Camino Real, Central Expressway and Lawrence Expressway, as defined under the City of Sunnyvale General Plan.). Deficiencies at signalized local City of Sunnyvale intersections are defined to occur when the addition of project traffic causes one of the following:

- Intersection (except those on designated regionally significant roads) operations to degrade from an acceptable level (LOS D or better) to an unacceptable level (LOS E or LOS F); or
- Operations for regionally significant designated intersections to deteriorate from an acceptable level (LOS E or better) to an unacceptable level (LOS F);
- Exacerbates unacceptable operations by increasing the critical delay by more than four seconds and increasing the V/C ratio by 0.01 or more; or
- Increases 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).

Santa Clara County and Congestion Management Program

The LOS standard for Santa Clara County expressway and CMP intersections is LOS E. Deficiencies at these intersections would occur when the addition of project traffic causes one of the following:

- Intersection operations to deteriorate from an acceptable level to an unacceptable level; or
- Exacerbates unacceptable operations by increasing the average critical delay by four seconds or more and increasing the V/C ratio by 0.01 or more; or
- Increases the V/C ratio by 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.

Unsignalized Intersection Criteria

LOS analysis at unsignalized intersections is generally used to determine the need for modifying the type of intersection control (i.e., installing an all-way stop or a traffic signal). Traffic volumes, delay, and traffic signal warrants are evaluated to determine if the existing intersection control is appropriate. Based on previous studies, deficiencies are said to occur when the addition of project traffic causes the average intersection delay for an all-way stop-controlled intersection, or the worst movement/approach for a side-street stop-controlled intersection, to degrade to LOS F and the intersection satisfies the peak hour traffic signal warrant from the *California Manual of Uniform Traffic Control Devices*.

Freeway Criteria

Deficiencies on CMP freeway segments in Santa Clara County are determined to occur when the addition of project traffic causes:

- 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 one percent of the capacity on a segment that operates at LOS F.

Deficiencies on CMP freeway segments in San Mateo County or Alameda County are determined to occur when:

- The addition of project traffic causes the freeway segment to operate at a LOS that violates the standard adopted in the current CMP; or
- The project increases traffic demand on a freeway segment violating its LOS standard by an amount equal to one percent or more of the segment capacity.

Under Cumulative Conditions, deficiencies on CMP freeway segments in Santa Clara, San Mateo, and Alameda counties are determined to occur when the addition of project traffic causes a freeway segment V/C ratio to exceed 1.0 and the proposed project increases traffic demand on the freeway segment by an amount equal to one percent or more of the segment capacity.

3.14.2.2 *Thresholds of Significance*

For the purposes of this EIR, a transportation impact is considered significant if the project would:

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities.
- For a land use project, conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment).
- Result in inadequate emergency access.

Pedestrian and Bicycle Criteria

The General Plan describes related policies necessary to ensure pedestrian and bicycle facilities are safe and effective for City residents. Using the General Plan as a guide, significant impacts to these facilities would occur when a project or an element of the project:

- Creates a hazardous condition that does not currently exist for pedestrians and bicyclists, or otherwise interferes with pedestrian accessibility to the site and adjoining areas; or
- Conflicts with an existing or planned pedestrian or bicycle facility; or
- Conflicts with policies related to bicycle and pedestrian activity adopted by the City of Mountain View, City of Sunnyvale, Santa Clara County, VTA, or Caltrans for their respective facilities in the study area.

Transit Criteria

Significant impacts to transit service would occur if the project:

- Creates demand for public transit services above the capacity provided or planned; or
- Disrupts existing transit services or facilities[76]; or
- Conflicts with an existing or planned transit facility; or
- Conflicts with transit policies adopted by the City of Mountain View, City of Sunnyvale, Santa Clara County, VTA, or Caltrans for their respective facilities in the study area.

VMT Criteria

The following analysis uses VMT for consistency with CEQA Guidelines Section 15064.3, subdivision (b). The City has not yet adopted formal thresholds of significance, but this analysis uses an ad-hoc threshold, based on the best available information and the Guidelines. Significant impacts to VMT would occur if the project:

- Results in the daily project generated VMT per service population above the city-wide VMT per service population threshold of 30.9 (15 percent below the existing city-wide VMT); or

[76] This includes disruptions caused by proposed project driveways on transit streets and impacts to transit stops/shelters; or impacts to transit operations from traffic improvements proposed or resulting from a project.

- Results in the daily project generated VMT per service population above the county-wide VMT per service population threshold of 22.7 (15percent below the existing county-wide VMT); or
- Causes the cumulative city-wide daily boundary VMT per service population to increase above 15.3; or
- Causes the cumulative countywide daily boundary VMT per service population to increase above 17.9.

Environmental Impacts of Roadway Improvements

Significant impacts of roadway improvements would occur if the project:

- Causes significant impacts to utilities, trees, or other parts of the environment; or
- Induces additional vehicle miles travelled, not otherwise identified as a significant impact; or
- Causes significant impacts to pedestrian, bicycle or transit criteria.

3.14.2.3 *Transportation System Plan, Ordinance or Policy Conflict – LOS Analysis*

Trip Generation

The vehicle trip generation estimates for the Precise Plan area incorporate the likelihood of trips staying within the Precise Plan area (internal trips) and the likelihood of trips shifting to other modes (walking, bicycling, and transit). The Precise Plan trip generation is shown below in Table 3.14-5

Table 3.14-5: Precise Plan Trip Generation Estimates

Scenario	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Existing Conditions							
Existing	50,860	5,569	965	6,534	1,152	5,149	6,301
Existing with Project	99,479	7,578	2,611	10,189	3,149	7,369	10,518
Net New Precise Plan Trips	***48,619***	***2,009***	***1,646***	***3,655***	***1,997***	***2,220***	***4,217***
Cumulative Conditions							
Cumulative	58,677	6,492	1,078	7,570	1,343	6,007	7,350
Cumulative with Project	105,199	8,226	2,650	10,876	3,248	7,965	11,213
Net New Precise Plan Trips	***46,522***	***1,734***	***1,572***	***3,306***	***1,905***	***1,958***	***3,863***

Existing Plus Project Conditions

Intersection LOS Deficiencies

The study intersections are identified by the numbers shown on Figure 3.14-5. The LOS calculations (presented below in Table 3.14-6) indicate study intersections will operate at levels that meet applicable LOS standard under Existing with Project Conditions except for the following:

- Intersection 1: Unsignalized Intersection at Ellis Street and Manila Drive (AM Peak Hour)
- Intersection 20: Central Expressway and North Mary Avenue (PM Peak Hour)
- Intersection 43: Unsignalized East Maude Avenue and North Wolfe Road (PM Peak Hour)

Table 3.14-6: Existing with Project Intersection LOS

ID	Intersection	Juris-diction/ CMP[1]	Thres-hold[2]	Peak Hour	Existing		Existing with Project			
					Delay	LOS	Delay	LOS	Δ in Critical V/C[3]	Δ in Critical Delay
1	Ellis Street/Manila Drive*	Mountain View / NASA	LOS D	AM PM	21.1 15.2	C C	**37.7** 24.4	**E** C	**N/A** N/A	**N/A** N/A
2	US 101 Northbound Ramps/Ellis Street	Caltrans (MV)	LOS D	AM PM	16.3 19.9	B B-	21.4 33.9	C+ C-	0.232 0.301	7.8 16.8
3	US 101 Southbound Ramps and Ellis Street	Caltrans (MV)	LOS D	AM PM	18.3 12.1	B- B	23.5 15.5	C B	0.192 0.279	7.9 7.6
4	Fairchild Drive/Ellis Street	Mountain View	LOS D	AM PM	16.3 16.9	B B	20.4 19.9	C+ B-	0.233 0.250	6.0 6.7
5	Maude Avenue/SR 237 Ramps	Caltrans (MV)	LOS D	AM PM	28.8 36.5	C D+	37.1 37.6	D+ D+	0.221 0.116	15.2 6.8
6	Maude Avenue/Macara Avenue	Sunnyvale	LOS D	AM PM	13.2 17.3	B B	22.3 24.0	C+ C	0.292 0.210	13.7 9.2
7	Maude Avenue/North Mary Avenue	Sunnyvale	LOS D	AM PM	36.5 37.2	D+ D+	35.6 39.4	D+ D	0.131 0.165	-1.9 2.1
8	Maude Avenue/North Mathilda Avenue	Sunnyvale	LOS E	AM PM	39.4 48.2	D D	44.0 54.4	D D-	0.110 0.105	23.5 9.8
9	East Middlefield Road/ North Whisman Road	Mountain View	LOS D	AM PM	29.8 31.5	C C	31.2 35.7	C D+	0.127 0.129	0.8 3.9
10	East Middlefield Road/ Ellis Street	Mountain View	LOS D	AM PM	15.9 19.0	B B-	22.7 18.0	C+ B	0.226 0.126	7.9 0.5

Table 3.14-6: Existing with Project Intersection LOS										
ID	Intersection	Juris-diction/ CMP[1]	Thres-hold[2]	Peak Hour	Existing		Existing with Project			
					Delay	LOS	Delay	LOS	Δ in Critical V/C[3]	Δ in Critical Delay
11	East Middlefield Road/ Logue Avenue	Mountain View	LOS D	AM PM	13.1 16.7	B B	25.3 30.0	C C	0.268 0.289	14.0 18.7
12	East Middlefield Road/Ferguson Drive	Mountain View	LOS D	AM PM	8.0 9.0	A A	11.0 8.6	B+ A	0.036 0.038	3.8 1.3
13	East Middlefield Road/ SR 237 Westbound Ramps	Caltrans (MV)	LOS D	AM PM	18.0 15.0	B- B	19.0 14.9	B- B	0.038 0.054	0.1 0.2
14	East Middlefield Road/ SR 237 Eastbound Ramps	Caltrans (MV)	LOS D	AM PM	22.4 18.6	C+ B-	23.8 19.7	C B-	0.114 0.050	1.9 14.0
15	East Middlefield Road/Bernardo Avenue	Mountain View	LOS D	AM PM	10.1 17.1	B+ B	15.7 25.5	B C	0.205 0.212	8.8 9.4
16	Central Expressway/SR 85 Southbound Ramp	Santa Clara County	LOS E	AM PM	7.6 16.0	A B	7.9 17.4	A B	0.009 0.060	0.2 1.8
17	Central Expressway/ Whisman Station Drive	Santa Clara County (CMP)	LOS E	AM PM	11.7 7.8	B+ A	12.9 8.9	B A	0.052 0.072	2.0 0.7
18	Central Expressway/ Ferguson Drive	Santa Clara County (CMP)	LOS E	AM PM	2.3 1.9	A A	8.5 2.8	A A	0.096 0.013	6.5 0.3
19	Central Expressway/ Bernardo Avenue	Santa Clara County (CMP)	LOS E	AM PM	8.1 9.1	A A	8.7 35.9	A D+	0.012 0.140	0.5 47.2
20	Central Expressway/ North Mary Avenue	Santa Clara County (CMP)	LOS E	AM PM	49.9 76.9	D E-	52.4 **87.4**	D- **F**	0.048 **0.061**	3.2 **18.5**
21	El Camino Real/Grant Road-SR 237	Caltrans (CMP)	LOS E	AM PM	62.1 58.3	E E+	65.9 59.9	E E+	0.037 0.028	8.3 2.7
22	West Evelyn Avenue/ North Mary Avenue	Sunnyvale	LOS D	AM PM	37.9 42.8	D+ D	39.3 43.9	D D	0.042 0.065	1.3 1.9

Table 3.14-6: Existing with Project Intersection LOS										
ID	Intersection	Juris-diction/ CMP[1]	Thres-hold[2]	Peak Hour	Existing		Existing with Project			
					Delay	LOS	Delay	LOS	Δ in Critical V/C[3]	Δ in Critical Delay
23	West Washington Avenue/North Mary Avenue	Sunnyvale	LOS D	AM PM	18.0 16.3	B- B	20.3 18.9	C+ B-	0.078 0.087	2.8 3.6
24	Moffett Boulevard/US-101 Northbound Ramps	Mountain View	LOS D	AM PM	16.4 23.8	B C	19.8 24.3	B- C	0.103 0.023	3.7 0.8
25	Moffett Boulevard/US-101 Southbound Ramps	Mountain View	LOS D	AM PM	11.5 14.4	B+ B	11.5 14.6	B+ B	0.039 0.025	0.7 0.2
26	Moffett Boulevard/Leong Drive	Mountain View	LOS D	AM PM	12.8 12.1	B B	13.7 12.3	B B	0.062 0.015	1.5 7.9
27	Moffett Boulevard/West Middlefield Road	Mountain View	LOS D	AM PM	36.0 38.9	D+ D+	37.2 42.2	D+ D	0.090 0.066	1.7 3.5
28	Moffett Boulevard/ Central Avenue	Mountain View	LOS D	AM PM	13.0 11.1	B B+	12.6 13.4	B B	0.111 0.106	-0.3 2.8
29	Moffett Boulevard/ Central Expressway	Santa Clara County (CMP)	LOS E	AM PM	40.6 62.1	D E	41.9 75.2	D E-	0.052 0.105	1.5 20.5
30	North Mathilda Avenue/ West Moffett Park Drive	Sunnyvale	LOS D	AM PM	27.5 34.1	C C-	29.2 36.0	C D+	0.042 0.093	2.1 3.5
31	North Mathilda Avenue/ SR 237 Westbound Ramps	Santa Clara County (CMP)	LOS E	AM PM	13.8 18.1	B B-	19.4 18.8	B- B-	0.063 0.108	2.5 0.6
32	North Mathilda Avenue/ SR 237 Eastbound Ramps	Santa Clara County (CMP)	LOS E	AM PM	17.5 15.0	B B	18.1 17.2	B- B	0.042 0.087	1.4 5.0
33	North Mathilda Avenue/Ross Drive	Sunnyvale	LOS E	AM PM	24.4 20.6	C C+	24.0 21.8	C C+	0.082 0.064	-0.1 1.3
34	North Mathilda Avenue/ Ahwanee Avenue	Sunnyvale	LOS E	AM PM	32.2 31.8	C- C	33.0 31.3	C- C	0.081 0.098	0.8 -0.2
35	North Mathilda Avenue/ San Aleso Avenue	Sunnyvale	LOS D	AM PM	10.9 11.3	B+ B+	7.9 7.8	A A	0.098 0.058	0.2 -3.9

Table 3.14-6: Existing with Project Intersection LOS										
ID	Intersection	Juris-diction/ CMP[1]	Thres-hold[2]	Peak Hour	Existing		Existing with Project			
					Delay	LOS	Delay	LOS	Δ in Critical V/C[3]	Δ in Critical Delay
36	North Mathilda Avenue/Indio Avenue	Sunnyvale	LOS E	AM PM	29.5 20.8	C C+	35.3 22.5	D+ C+	0.075 0.036	7.5 0.9
37	North Mathilda Avenue/ West California Avenue	Sunnyvale	LOS E	AM PM	25.1 25.8	C C	28.0 30.0	C C	0.043 0.065	3.1 5.3
38	East Middlefield Road/ Easy Street	Mountain View	LOS D	AM PM	18.4 12.2	B- B	19.0 13.9	B- B	0.085 0.102	0.8 1.9
39	South Whisman Road/ SR 237 Westbound Ramps	Mountain View	LOS D	AM PM	32.3 32.3	C- C-	34.0 40.2	C- D	0.106 0.159	2.8 14.1
40	East Evenlyn Avenue/ South Bernardo Avenue	Sunnyvale	LOS D	AM PM	20.6 12.2	C+ B	20.4 14.0	C+ B	0.012 0.094	-1.0 3.0
41	West Maude Avenue/ North Pastoria Avenue	Sunnyvale	LOS D	AM PM	25.3 30.8	C C	26.1 30.8	C C	0.140 0.159	-0.5 0.4
42	East Maude Avenue/ Fair Oaks Avenue	Sunnyvale	LOS D	AM PM	25.4 25.7	C C	28.8 30.0	C C	0.195 0.124	9.0 6.5
43	East Maude Avenue/ North Wolfe Road*	Sunnyvale	LOS D	AM PM	29.5 **105.1**	D **F**	**46.5** **>120.0**	**E** **F**	**N/A** **N/A**	**N/A** **N/A**
44	West Evelyn Avenue/ North Mathilda Avenue Southbound Off-Ramp	Sunnyvale	LOS E	AM PM	8.3 13.1	A B	8.6 13.4	A B	0.020 0.062	0.6 0.1
45	West Evelyn Avenue/ North Mathilda Avenue Northbound Off-Ramp	Sunnyvale	LOS D	AM PM	36.5 11.3	D+ B+	15.1 13.2	B B	-0.200 0.059	-18.9 2.8
46	East Arques Avenue/ Fair Oaks Avenue	Sunnyvale	LOS D	AM PM	29.1 34.9	C C-	31.9 43.0	C D	0.155 0.121	4.3 11.7
47	West Evelyn Avenue/ North Mathilda Avenue Southbound On-Ramp	Sunnyvale	LOS D	AM PM	2.3 2.9	A A	2.5 3.0	A A	0.003 0.063	5.1 0.1
48	North Mathilda Avenue/ US 101 Northbound Ramps	Sunnyvale	LOS D	AM PM	Future Signalized Intersection					
49	North Mathilda Avenue/ US 101 Southbound Ramps	Sunnyvale	LOS D	AM PM	Future Signalized Intersection					

Table 3.14-6: Existing with Project Intersection LOS										
ID	Intersection	Juris-diction/ CMP[1]	Thres-hold[2]	Peak Hour	Existing		Existing with Project			
					Delay	LOS	Delay	LOS	Δ in Critical V/C[3]	Δ in Critical Delay

Bold text indicates intersection operates at unacceptable LOS. **Bold and highlighted text** indicates an intersection deficiency when the addition of Project traffic degrades the operations from acceptable level of service to unacceptable level of service; or when the addition of Project traffic further exacerbates unacceptable operations.

*Indicates unsignalized intersection.

[1] Intersection jurisdiction and identification of CMP intersections.

[2] LOS Threshold is the threshold between acceptable and unacceptable LOS.

[3] Critical delay represents the delay associated with the critical movements of the intersection, or the movements that require the most "green time" and have the greatest effect on overall intersection operations.

As shown above in Table 3.14-6, the unsignalized intersection at East Maude Avenue and North Wolfe Road would operate at LOS F under Existing with Project Conditions during the PM peak hour. The results of the peak-hour signal warrant analysis, however, indicate that this intersection does not meet specified signal-warrant requirements.

As shown in Table 3.14-6, traffic generated through implementation of the Precise Plan would result an unacceptable LOS at the intersection of Central Expressway and North Mary Avenue during the PM Peak Hour. An additional westbound left-turn lane, westbound through lane, and eastbound through lane would improve intersection operations to an acceptable LOS E. A third westbound left-turn pocket is included in Santa Clara County's Draft Expressway Plan 2040. While roadway widening would address the deficiency at this intersection, the City cannot be certain at this time that such improvements would be implemented since this intersection is under the jurisdiction of Santa Clara County and no other feasible improvements have been identified. Because this improvement is the responsibility of another jurisdiction, this deficiency would still occur under Existing with Project Conditions. [**Unavoidable Deficiency]**

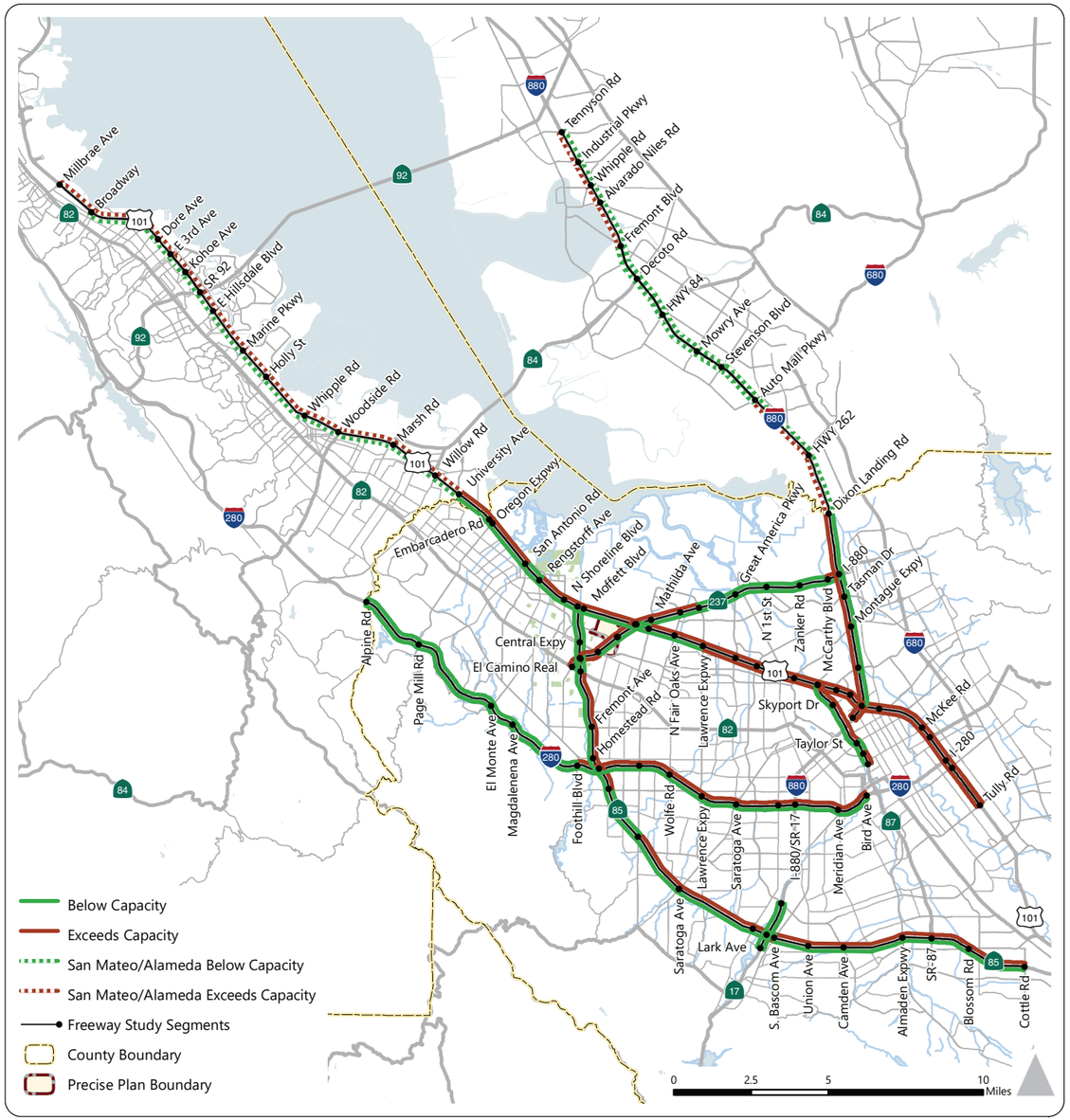
Deficiency TRA-1: Implementation of the Precise Plan would result in unacceptable operations at two regional intersections.

Freeway Segments

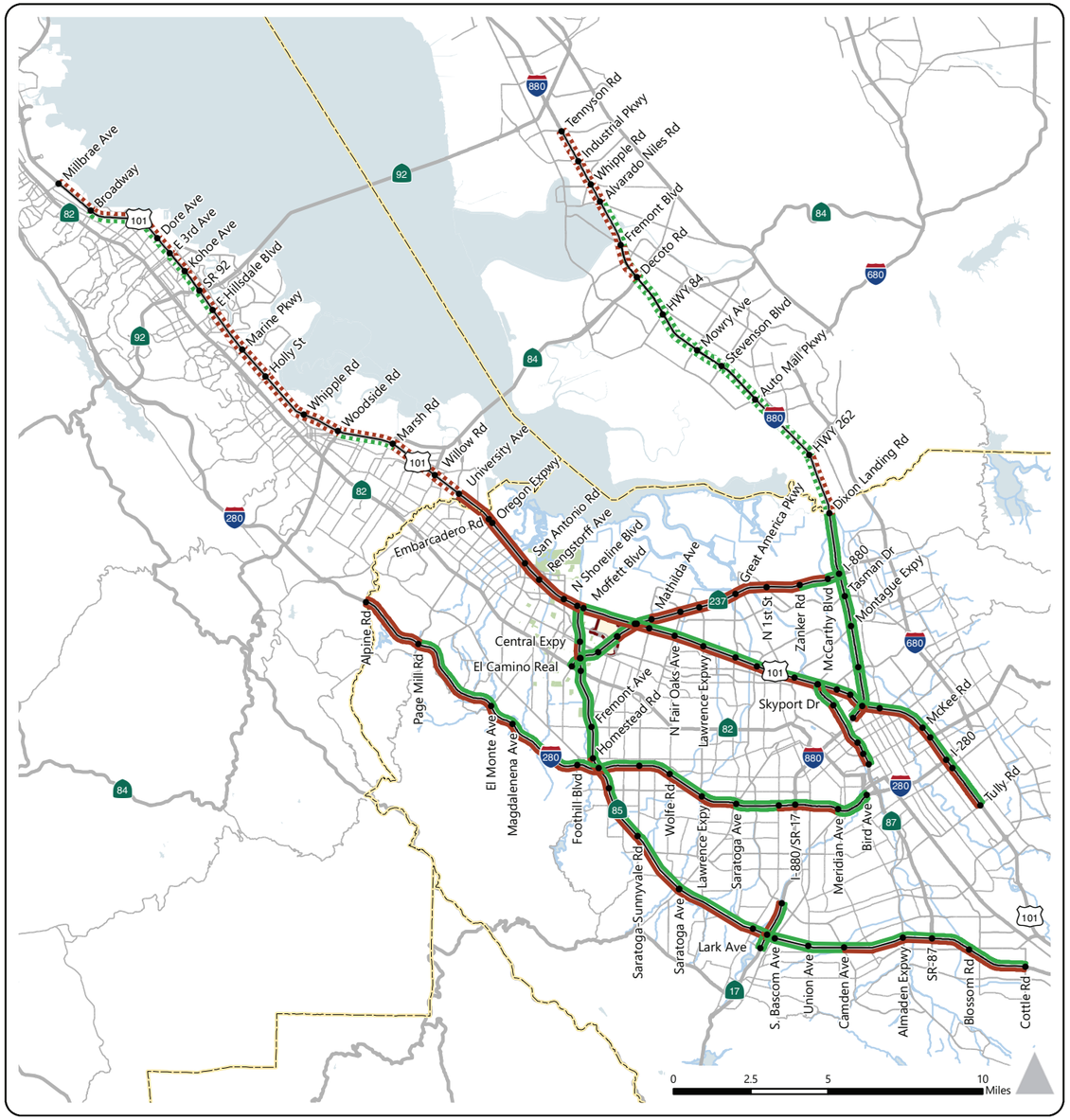
Existing with Project Conditions freeway segment impact results are presented in Table C-1 in Appendix H. Under Existing with Project Conditions, implementation of the proposed project would increase motor vehicle traffic and congestion, resulting in resulting in several freeway segments operating at unacceptable levels of service (including SR 85, SR 237, US 101 and SR 87), as shown in Figure 3.14-8 and Figure 3.14-9.

To improve operations, freeway segments could be widened to meet the current LOS standard. Specifically, the VTA Valley Transportation Plan 2040 (October 2014) identifies freeway express lanes (Project #H1, H2, H3, and H5), and freeway auxiliary lane projects to improve freeway operations.

AM Peak Hour

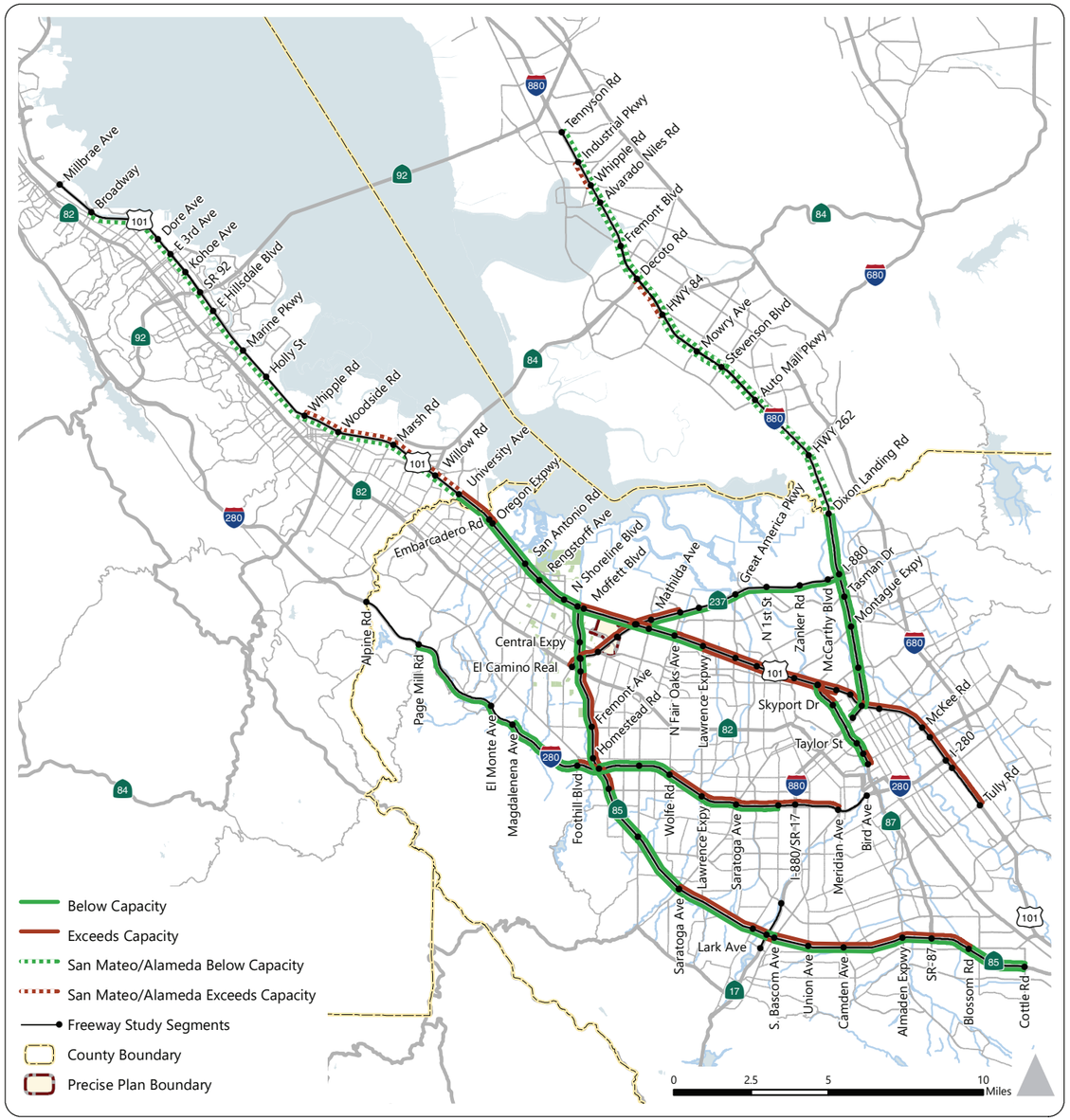


PM Peak Hour

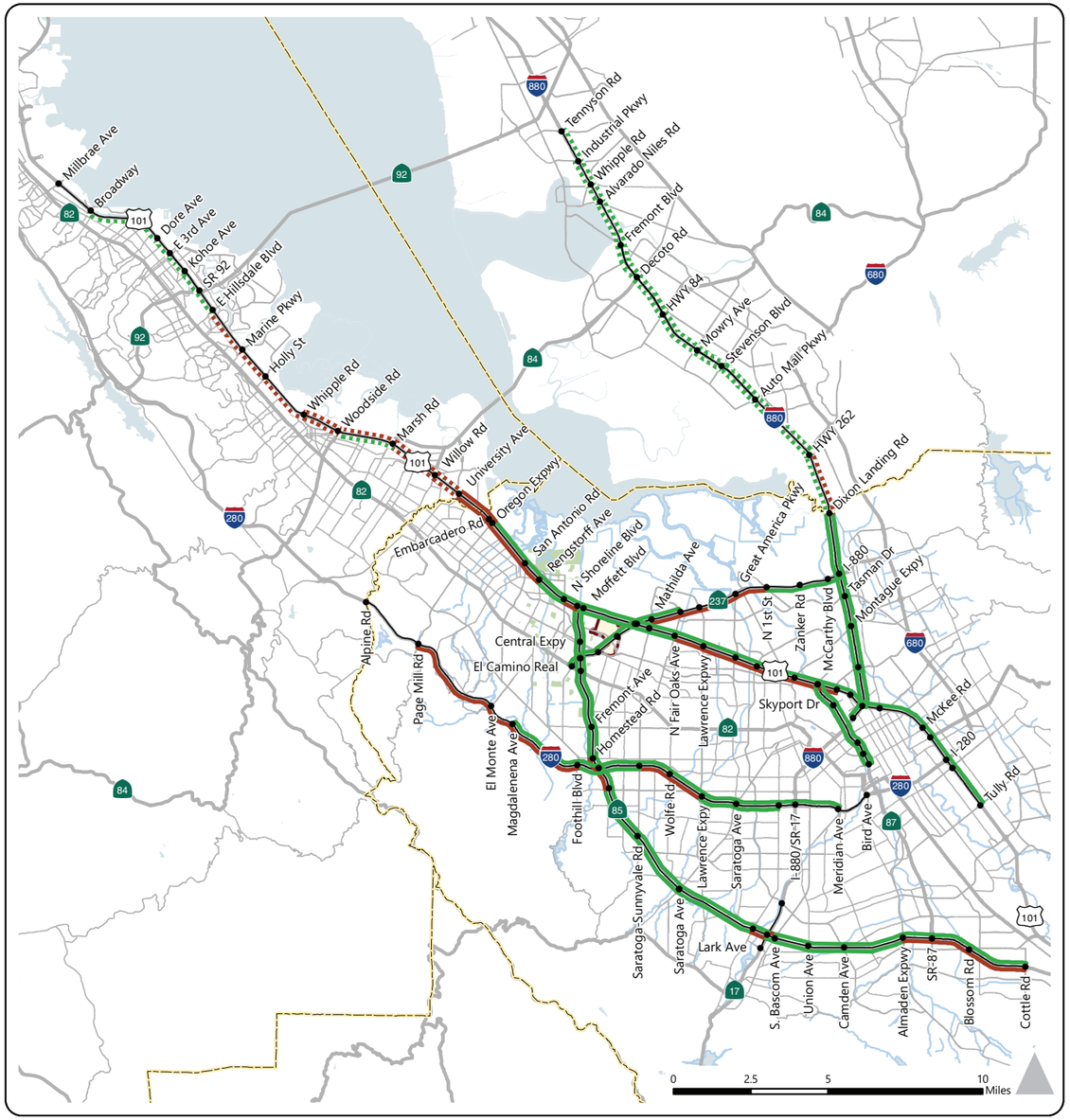


EXISTING PLUS PROJECT FREEWAY ANALYSIS SUMMARY MIXED-FLOW LANES | FIGURE 3.14-8

AM Peak Hour



PM Peak Hour



EXISTING PLUS PROJECT FREEWAY ANALYSIS SUMMARY HOV LANES | FIGURE 3.14-9

The complete improvement of freeway deficiencies is, however, considered beyond the scope of an areawide plan, due to the inability a City to: 1) acquire right-of-way for freeway widening, and 2) fully fund major freeway mainline improvements. Freeway improvements also would require approval by VTA and Caltrans, and as such the City cannot guarantee implementation of any improvement in the freeway right-of-way.

The Precise Plan includes efforts to reduce vehicle trips through the introduction of residential development in a jobs rich area, by implementing pedestrian and bicycle improvements, including improved access to the nearby light-rail stations, requiring TDM programs, and a peak hour office trip rate cap. These Precise Plan elements are included in the traffic forecasts and would not further address the freeway deficiencies.

A fair-share contribution toward freeway improvement costs could be considered as an improvement and a community benefit; however, the operational deficiencies would not be eliminated until the improvements are constructed. To provide adequate funding, additional sources would be needed, which may include State Transportation Improvement Program funds for projects identified in the VTP, City impact fees, and/or a future regional impact fee. The City of Mountain View could participate in development of a regional fee should it be proposed by regional agencies, such as VTA. [**Unavoidable Deficiency]**

Deficiency TRA-2: Implementation of the Precise Plan would result in unacceptable operations at freeway segments.

Cumulative Plus Project Conditions

This section contains the results of the LOS calculations for Year 2030 Cumulative Conditions. The 2030 cumulative traffic volumes are based on forecasts from the citywide traffic model, including City and VTA land use projections and transportation network changes. For areas outside Mountain View, future land use data from VTA, which incorporates Association of Bay Area Governments projections was utilized. The cumulative conditions roadway network was developed based on planned and funded improvements identified in the 2040 VTP project list published by VTA, and the City's General Plan. The regional roadway improvements within Mountain View for these CMP facilities are summarized below (with VTP 2040 project numbers in parentheses):

- SR 237 HOV/Express Lanes: Mathilda Avenue to SR 85 (H5)
- SR 85 Northbound to Eastbound SR 237 Connector Ramp and Northbound SR 85 Auxiliary Lane
- including braided SR 237 eastbound off-ramp between SR 85 and Dana Street (H21)
- SR 237 Westbound On-Ramp at Middlefield Road (H32)
- SR 237/Mathilda Avenue and US 101/Mathilda Avenue Interchange Improvements (H33)
- US 101 Southbound Improvements from San Antonio Road to Charleston/Rengstorff Avenue (H42)
- SR 237 Eastbound Auxiliary Lanes: Mathilda Avenue to Fair Oaks Avenue (H47)
- Southbound US 101 Auxiliary lanes between Ellis Street and SR 237 (H49)

Intersection Level of Service

Intersection LOS under Cumulative and Cumulative with Project Conditions is summarized below in Table 3.14-7**.**

Table 3.14-7: Cumulative Intersection LOS

	Intersection	Peak Hour	Cumulative Conditions		Cumulative with Project Conditions				
			Delay	LOS	Delay	LOS	Δ in Crit. V/C	Δ in Crit. Delay	Project Contri-bution
1	Ellis Street and Manila Drive	AM	**>120.0**	**F**	**>120.0**	**F**	**0.841**	**N/A**	**N/A**
		PM	**>120.0**	**F**	**>120.0**	**F**	**1.059**	**N/A**	**N/A**
2	US 101 Northbound Ramps and Ellis Street	AM	28.7	C	31.6	C	0.395	26.4	15.9%
		PM	**59.8**	**E+**	**>120.0**	**F**	**0.737**	**170.2**	**14.9%**
3	US 101 Southbound Ramps and Ellis Street	AM	43.9	D	36.3	D+	0.309	32.3	25.0%
		PM	27.2	C	40.6	D	0.549	51.1	23.9%
4	Fairchild Drive and Ellis Street	AM	43.4	D	50.6	D	0.512	49.9	34.2%
		PM	42.9	D	**72.7**	**E**	**0.663**	**114.5**	**31.2%**
5	Maude Avenue and SR 237 Ramps	AM	46.1	D	**72.2**	**E**	**0.113**	**39.2**	**18.3%**
		PM	44.7	D	43.5	D	-0.018	-2.6	16.8%
6	Maude Avenue and Macara Avenue	AM	15.1	B	24.4	C	0.471	17.3	22.4%
		PM	24.4	C	27.8	C	0.399	14.2	23.0%
7	Maude Avenue and North Mary Avenue	AM	**58.1**	**E+**	48.7	D	0.468	19.6	13.8%
		PM	47.4	D	**73.1**	**E**	**0.478**	**52.2**	**13.5%**
8	Maude Avenue and North Mathilda Avenue	AM	**73.5**	**E**	**71.7**	**E**	**0.386**	**74.9**	**6.8%**
		PM	**88.9**	**F**	**116.1**	**F**	**0.429**	**110.5**	**6.0%**
9	East Middlefield Road and North Whisman Road	AM	38.5	D+	37.5	D+	0.398	12.5	35.5%
		PM	**68.6**	**E**	**89.2**	**F**	**0.544**	**80.1**	**38.7%**
10	East Middlefield Road and Ellis Street	AM	33.9	C-	**57.5**	**E+**	**0.462**	**53.5**	**26.2%**
		PM	18.5	B-	21.5	C+	0.275	7.2	33.5%
11	East Middlefield Road and Logue Avenue	AM	24.6	C	28.6	C	0.363	19.1	27.4%
		PM	26.8	C	31.7	C	0.393	20.9	38.1%
12	East Middlefield Road and Ferguson Drive	AM	45.7	D	43.4	D	0.431	38.2	17.9%
		PM	34.4	C-	31.5	C	0.330	24.6	26.9%
13	East Middlefield Road and SR 237 Westbound Ramps	AM	0.5	A	0.5	A	-0.004	-15.4	16.6%
		PM	0.4	A	0.4	A	-0.143	-15.1	25.1%

Table 3.14-7: Cumulative Intersection LOS									
Intersection		Peak Hour	Cumulative Conditions		Cumulative with Project Conditions				
			Delay	LOS	Delay	LOS	Δ in Crit. V/C	Δ in Crit. Delay	Project Contri-bution
14	East Middlefield Road and SR 237 Eastbound Ramps	AM PM	24.8 19.0	C B-	26.1 21.9	C C+	0.275 0.059	5.0 13.4	16.4% 28.6%
15	East Middlefield Road and Bernardo Avenue	AM PM	11.2 27.0	B+ C	13.3 28.0	B C	0.245 0.259	5.2 12.2	31.6% 47.6%
16	Central Expressway and SR 85 Southbound Ramp	AM PM	53.5 **74.5**	D- **E**	47.7 **84.6**	D **F**	0.414 **0.472**	62.2 **104.2**	5.7% **4.5%**
17	Central Expressway and Whisman Station Drive	AM PM	40.6 28.0	D C	46.7 46.3	D D	0.295 0.473	74.1 53.9	6.2% 6.9%
18	Central Expressway and Ferguson Drive	AM PM	20.2 10.4	C+ B+	41.2 17.1	D B	0.789 0.587	64.8 28.8	6.5% 9.2%
19	Central Expressway and Bernardo Avenue	AM PM	7.5 13.3	A B	7.4 64.3	A E	0.260 0.210	1.7 107.0	10.7% 10.0%
20	Central Expressway and North Mary Avenue	AM PM	**73.4** **>120.0**	**E** **F**	**59.5** **>120.0**	**E+** **F**	0.179 **0.410**	12.4 **200.7**	10.0% **10.5%**
21	El Camino Real and Grant Road-SR 237	AM PM	**82.5** **>120.0**	**F** **F**	**92.6** **>120.0**	**F** **F**	**0.158** **0.519**	**34.5** **173.8**	**1.0%** **0.5%**
22	West Evelyn Avenue and North Mary Avenue	AM PM	**99.8** **57.0**	**F** **E+**	**107.7** **66.6**	**F** **E**	**0.606** **0.505**	**94.3** **53.5**	**5.2%** **5.9%**
23	West Washington Avenue and North Mary Avenue	AM PM	29.0 24.9	C C	30.1 25.5	C C	0.377 0.325	15.5 11.9	4.6% 4.9%
24	Moffett Boulevard and US-101 Northbound Ramps	AM PM	16.6 35.7	B D+	24.5 39.4	C D	0.487 0.516	10.6 32.6	2.8% 3.1%
25	Moffett Boulevard and US-101 Southbound Ramps	AM PM	15.3 13.3	B B	14.9 12.1	B B	0.441 0.367	5.3 -7.7	4.4% 5.2%
26	Moffett Boulevard and Leong Drive	AM PM	13.3 16.1	B B	15.3 14.3	B B	0.104 -0.052	3.3 -9.6	9.0% 9.3%
27	Moffett Boulevard and West Middlefield Road	AM PM	**72.7** **>120.0**	**E** **F**	**94.6** **94.5**	**F** **F**	**0.616** **0.422**	**88.7** **78.4**	**9.7%** **10.1%**

Table 3.14-7: Cumulative Intersection LOS									
	Intersection	Peak Hour	Cumulative Conditions		Cumulative with Project Conditions				
			Delay	LOS	Delay	LOS	Δ in Crit. V/C	Δ in Crit. Delay	Project Contri-bution
28	Moffett Boulevard and Central Avenue	AM PM	22.2 24.7	C+ C	22.4 22.9	C+ C+	0.557 0.507	9.2 14.2	11.6% 10.2%
29	Moffett Boulevard and Central Expressway	AM PM	**91.1** **>120.0**	**F** **F**	**96.2** **>120.0**	**F** **F**	**0.550** **0.674**	**77.1** **172.2**	**6.6%** **7.0%**
30	North Mathilda Avenue and West Moffett Park Drive	AM PM	45.7 **73.1**	D **E**	**61.6** **83.6**	**E** **F**	**0.264** **0.436**	**49.5** **77.0**	**1.4%** **1.1%**
31	North Mathilda Avenue and SR- 237 Westbound Ramps	AM PM	0.6 1.4	A A	0.6 1.5	A A	-0.081 0.264	-10.7 -18.0	3.1% 2.1%
32	North Mathilda Avenue and SR- 237 Eastbound Ramps	AM PM	31.2 27.3	C C	28.9 26.3	C C	-0.005 0.105	7.0 17.4	2.9% 1.9%
33	North Mathilda Avenue and Ross Drive	AM PM	36.1 35.9	D+ D+	32.6 30.4	C- C	0.198 0.229	9.0 10.3	3.1% 1.9%
34	North Mathilda Avenue and Ahwanee Avenue	AM PM	49.9 37.6	D D+	65.8 39.0	E D+	0.494 0.317	59.3 13.2	3.6% 2.3%
35	North Mathilda Avenue and San Aleso Avenue	AM PM	8.3 9.6	A A	9.0 11.2	A B+	0.219 0.217	2.9 0.8	3.9% 2.6%
36	North Mathilda Avenue and Indio Avenue	AM PM	**88.4** 26.1	**F** C	**96.0** 28.4	**F** C	**0.433** 0.194	**100.6** 2.3	**5.4%** 4.1%
37	North Mathilda Avenue and West California Avenue	AM PM	51.2 66.5	D- E	43.9 70.9	D E	0.304 0.397	23.9 65.5	3.9% 4.1%
38	East Middlefield Road and Easy Street	AM PM	19.5 20.5	B- C+	20.1 15.5	C+ B	0.192 0.225	2.4 4.3	14.1% 14.5%
39	South Whisman Road and SR- 237 Westbound Ramps	AM PM	**63.0** **95.0**	**E** **F**	48.7 **113.4**	D **F**	0.448 **0.45**	33.3 **97.5**	14.9% **12.2%**
40	East Evenlyn Avenue and South Bernardo Avenue	AM PM	**65.2** 41.3	**E** D	**63.1** **59.4**	**E** **E+**	**0.437** **0.414**	**76.8** **72.7**	**2.4%** **2.7%**

Table 3.14-7: Cumulative Intersection LOS									
Intersection		Peak Hour	Cumulative Conditions		Cumulative with Project Conditions				
			Delay	LOS	Delay	LOS	Δ in Crit. V/C	Δ in Crit. Delay	Project Contri-bution
41	West Maude Avenue and North Pastoria Avenue	AM PM	33.5 35.8	C- D+	35.2 34.6	D+ C-	0.368 0.288	17.1 3.5	14.6% 11.6%
42	East Maude Avenue and Fair Oaks Avenue	AM PM	30.4 37.8	C D+	42.6 37.5	D D+	0.492 0.310	28.1 14.2	2.8% 2.8%
43	East Maude Avenue and North Wolfe Road*	AM PM	**>120.0** **>120.0**	**F** **F**	**>120.0** **>120.0**	**F** **F**	**N/A** **N/A**	**N/A** **N/A**	**3.1%** **1.4%**
44	West Evelyn Avenue and North Mathilda Avenue Southbound Off-Ramp	AM PM	11.7 19	B+ B-	9.7 19.6	A B-	0.083 0.206	3.0 6.7	6.1% 7.6%
45	West Evelyn Avenue and North Mathilda Avenue Northbound Off-Ramp	AM PM	18.7 18.6	B- B-	18.9 13.8	B- B	-0.150 0.176	-13.2 6.5	4.9% 7.5%
46	East Arques Avenue and Fair Oaks Avenue	AM PM	**>120.0** **>120.0**	**F** **F**	**>120.0** **>120.0**	**F** **F**	**1.010** **0.667**	**261.4** **208.2**	**2.3%** **2.7%**
47	West Evelyn Avenue and North Mathilda Avenue Southbound On-Ramp	AM PM	2.3 4.8	A A	2.6 4.6	A A	0.117 0.179	4.4 2.5	6.4% 8.8%
48	North Mathilda Avenue and US 101 Northbound Ramps*	AM PM	45.2 51.2	D D-	53.7 51.4	D- D-	N/A N/A	N/A N/A	3.3% 1.9%
49	North Mathilda Avenue and US 101 Southbound Ramps*	AM PM	27.8 **69.4**	C **E**	28.1 **89.1**	C **F**	N/A **N/A**	N/A **N/A**	1.5% **0.6%**

Bold text indicates intersection operates at unacceptable level of service. **Bold and highlighted** text indicates an intersection deficiency when the addition of Project traffic degrades the operations from an acceptable LOS to an unacceptable LOS; or when the addition of project traffic further exacerbates unacceptable operations.

*Indicates unsignalized intersection

The peak hour warrant was examined for both unsignalized intersections (1 and 43) as they would operate at LOS F under Cumulative with Project Conditions. The intersection at East Maude Avenue and North Wolfe Road (Intersection 43) would not meet the warrant and the intersection at Ellis Street and Manila Drive (Intersection 1) would meet the signal warrant requirements.

As shown in Table 3.14-7, all of the study intersections will operate at levels of service that meet the applicable LOS standard under Cumulative with Project Conditions, except for the following:

- Int. 1. Ellis Street and Manila Drive (AM and PM Peak Hour)
- Int. 2. US 101 Northbound Ramps and Ellis Street (PM Peak Hour)
- Int. 4. Fairchild Drive and Ellis Street (PM Peak Hour)
- Int. 5. Maude Avenue and SR 237 Ramps (AM Peak Hour)
- Int. 7. Maude Avenue and North Mary Avenue (PM Peak Hour)
- Int. 8. Maude Avenue and North Mathilda Avenue (AM and PM Peak Hour)
- Int. 9. East Middlefield Road and North Whisman Road (PM Peak Hour)
- Int. 10. East Middlefield Road and Ellis Street (AM Peak Hour)
- Int. 16. Central Expressway and SR 85 Southbound Ramp (PM Peak Hour)
- Int. 20. Central Expressway and North Mary Avenue (AM and PM Peak Hour)
- Int. 21. El Camino Real and Grant Road-SR 237 (AM and PM Peak Hour)
- Int. 22. West Evelyn Avenue and North Mary Avenue (AM and PM Peak Hour)
- Int. 27. Moffett Boulevard and West Middlefield Road (AM and PM Peak Hour)
- Int. 29. Moffett Boulevard and Central Expressway (AM and PM Peak Hour)
- Int. 30. North Mathilda Avenue and West Moffett Park Drive (AM and PM Peak Hour)
- Int. 34. North Mathilda Avenue and Ahwanee Avenue (AM Peak Hour)
- Int. 36. North Mathilda Avenue and West Moffett Park Drive (AM Peak Hour)
- Int. 39. South Whisman Road and SR- 237 Westbound Ramps (PM Peak Hour)
- Int. 40. East Evelyn Avenue and South Bernardo Avenue (AM and PM Peak Hour)
- Int. 43. East Maude Avenue and North Wolfe Road (AM and PM Peak Hour)
- Int. 46. East Arques Avenue and Fair Oaks Avenue (AM and PM Peak Hour)
- Int. 49. North Mathilda Avenue and US 101 Southbound Ramps (PM Peak Hour)

Potential Improvements

Table 3.14-8 summarizes the affected intersections, identifies improvements, and shows the LOS for the intersections following improvement. Each improvement is described in detail following the table.

Table 3.14-8: Cumulative with Project Intersection Improvements Summary

Impacted Intersection		Improvements[1]	Peak Hour	Intersection Operations			
				Without Improvements		With Improvements	
				Delay	LOS	Delay	LOS
1	Ellis Street and Manila Drive*	Signalize Intersection	AM PM	**>120.0** **>120.0**	**F** **F**	38.2 27.3	D+ C

Table 3.14-8: Cumulative with Project Intersection Improvements Summary							
Impacted Intersection		**Improvements[1]**	**Peak Hour**	**Intersection Operations**			
				Without Improvements		**With Improvements**	
				Delay	**LOS**	**Delay**	**LOS**
2	US 101 Northbound Ramps and Ellis Street	Add WBL and SBR lanes	AM PM	31.6 **>120**	C **F**	20.7 30.0	C+ C
4	Fairchild Drive and Ellis Street	Add SBT lane	AM PM	50.6 **72.7**	D **E**	42.3 27.0	D C
5	Maude Avenue and SR 237 Ramps	Construct new interchange	AM PM	**72.2** 43.5	**E** D-	- -	- -
7	Maude Avenue and North Mary Avenue	Add dedicated EBR lane	AM PM	48.7 **73.1**	D **E**	46.4 49.3	D D
8	Maude Avenue and North Mathilda Avenue	No feasible improvement identified	AM PM	**71.7** **116.1**	**E** **F**	- -	- -
9	East Middlefield Road and North Whisman Road	Add dedicated EBR lane	AM PM	37.5 **89.2**	D+ **F**	36.2 50.0	D D
10	East Middlefield Road and Ellis Street	Add EBL lane	AM PM	**57.5** 21.5	**E+** C+	27.8 18.3	C B-
16	Central Expressway and SR 85 Southbound Ramp	Convert SBR to shared SBL/R	AM PM	47.7 **84.6**	D **F**	12.3 45.0	B D
20	Central Expressway and North Mary Avenue	Add WBL, WBT and EBT lanes	AM PM	**59.5** **>120.0**	**E+** **F**	53.6 **103.3**	D- **F**
22	West Evelyn Avenue and North Mary Avenue	Add EBL lane	AM PM	**107.7** **66.6**	**F** **E**	51.4 50.7	D- D
27	Moffett Boulevard and West Middlefield Road	Add dedicated NBR, SBR, and EBR lanes	AM PM	**94.6** **94.5**	**F** **F**	52.1 51.6	D- D-
29	Moffett Boulevard and Central Expressway	Close Castro Street leg	AM PM	**96.2** **>120.0**	**F** **F**	20.0 24.7	B- C

Table 3.14-8: Cumulative with Project Intersection Improvements Summary							
Impacted Intersection		Improvements[1]	Peak Hour	Intersection Operations			
				Without Improvements		With Improvements	
				Delay	LOS	Delay	LOS
34	North Mathilda Avenue and Ahwanee Avenue	Add dedicated WBR lane	AM PM	**96.0** 28.4	**F** C	37.5 28.3	D+ C
36	North Mathilda Avenue and Indio Avenue	Add dedicated SBL and WBR lanes	AM PM	48.7 **113.4**	D **F**	33.3 47.6	C- D
37	North Mathilda Avenue and West California Avenue	Add dedicated NBL lane	AM PM	**63.1** **59.4**	**E** **E+**	22.4 25.9	C+ C
39	South Whisman Road and SR- 237 Westbound Ramps	Add EBL and EBT lanes	AM PM	**>120.0** **>120.0**	**F** **F**	**134.2** **107.8**	**F** **F**
40	East Evenlyn Avenue and South Bernardo Avenue	Signalize Intersection	AM PM	**>120.0** **>120.0**	**F** **F**	38.2 27.3	D+ C
46	East Arques Avenue and Fair Oaks Avenue	Add WBL and SBR lanes	AM PM	31.6 **>120**	C **F**	20.7 30.0	C+ C

Bold text indicates intersection operates at unacceptable LOS **Bold and highlighted text** indicates an intersection deficiency.

*Indicates unsignalized intersection.

1. EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound; T = Through, L = Left-turn, R = Right-turn

Intersection 1: Ellis Street / Manila Drive (Mountain View / NASA)

This intersection would need to be signalized. Each approach would have a left-turn lane with protected left-turn phasing and a shared through-right turn lane. The signalization and the improvements at this intersection would improve the level of service to acceptable conditions.

Intersection 2: US 101 Northbound Ramps / Ellis Street (Mountain View)

To improve traffic operations and queuing in the northbound direction a southbound right-turn lane could be added with overlap signal phasing. To improve operations and queuing in the westbound direction a westbound left-turn lane could be added with overlap signal phasing. While these intersection improvements will address the intersection level of service deficiency under Cumulative with Project Conditions, the City considers these improvements infeasible due to several considerations including right-of-way, funding constraints, the limited space under the existing

bridge structure to accommodate vehicle, bicycle and pedestrian use, and a need to accommodate light rail and freight rail traffic. [**Unavoidable Deficiency]**

Intersection 4: Fairchild Drive / Ellis Street (Mountain View)

Converting the southbound approach to include one additional through lane would improve intersection operations to an acceptable level of service and reduce the intersection level of service deficiency under Cumulative with Project Conditions. While these intersection improvements would improve the operations to acceptable level, the City considers these improvements infeasible due to several considerations including right-of-way, funding constraints, the limited space under the existing bridge structure to accommodate vehicle, bicycle and pedestrian use, and a need to accommodate light rail and freight rail traffic. [**Unavoidable Deficiency]**

Intersection 5: Maude Avenue / SR 237 Ramps (Mountain View/Caltrans)

The Maude Avenue/SR 237 interchange is configured as a single-point urban interchange (SPUI). Designated bicycle facilities are planned through the interchange area in the future; however, pedestrian sidewalks are only provided on the southern side of the Maude Avenue with four signal-controlled crossing locations through the SPUI intersection geometry.

The current interchange configuration and its right-of-way constraints allow only a few options for expanding the capacity of the interchange. Consideration might be given to redesigning the interchange to a tight diamond configuration. However, changing the interchange design would require a comprehensive engineering and environmental analysis involving multiple stakeholders to determine the most appropriate configuration that would best serve the needs of all users. The interchange is part of the State highway system, which is under the jurisdiction of Caltrans. Therefore, it is concluded that there are no defined and feasible improvements identified for this location. [**Unavoidable Deficiency]**

Intersection 7: Maude Avenue / North Mary Avenue (Sunnyvale)

To improve operations and improve queuing in the eastbound direction an eastbound right-turn lane could be added with overlap signal phasing. While roadway widening would address levels of service deficiency at this intersection, the City cannot be certain at this time that such improvements would be implemented since this intersection is under the jurisdiction of Sunnyvale and no other feasible improvements have been identified. [**Unavoidable Deficiency]**

Intersection 8: Maude Avenue / North Mathilda Avenue (Sunnyvale/ CMP)

This intersection is already configured to provide substantial capacity for vehicles, with free right-turn lanes and dedicated single or dual left-turn lanes on all approaches. While roadway widening would address levels of service deficiency at this intersection, the City cannot be certain at this time that such improvements would be implemented since this intersection is under the jurisdiction of Sunnyvale and no other feasible improvements have been identified. [**Unavoidable Deficiency]**

Intersection 9: East Middlefield Road / North Whisman Road (Mountain View)

To improve operations and improve queuing in the eastbound direction an eastbound right-turn lane could be added with overlap signal phasing. These signalization and intersection improvements will address the intersection level of service deficiency under Cumulative with Project Conditions and are considered feasible by the City.

Intersection 10: East Middlefield Road / Ellis Street (Mountain View)

To improve operations and improve queuing in the eastbound direction a second eastbound left-turn lane could be added. This intersection improvements will address the intersection level of service deficiency under Cumulative with Project Conditions.

Intersection 16: Central Expressway / SR 85 Southbound Ramp (Mountain View)

Converting the southbound right-lane to a shared left/right-turn lane would improve intersection operations to an acceptable level of service. This intersection improvement will address the intersection level of service deficiency under Cumulative with Project Conditions and is considered feasible by the City. This improvement would require coordination and approval by Caltrans and Santa Clara County to design and construct.

Intersection 20: Central Expressway / North Mary Avenue (Sunnyvale)

Adding a westbound left-turn lane, a westbound through lane, and an eastbound through lane could improve the operations to an acceptable during the morning peak hour; however, the evening peak hour would remain unacceptable. The City cannot be certain at this time that such improvements would be implemented since this intersection is under the jurisdiction of Santa Clara County and no other feasible improvements have been identified. Because this improvement is the responsibility of another jurisdiction, this deficiency would still occur under Cumulative with Project Conditions. [**Unavoidable Deficiency]**

Intersection 22: West Evelyn Avenue / North Mary Avenue (Sunnyvale)

To improve operations and improve queuing in the eastbound direction an eastbound left-turn lane could be added with overlap signal phasing. While adding an eastbound left turn lane would address level of service deficiencies at this intersection, the City cannot be certain at this time that such improvements would be implemented since this intersection is under the jurisdiction of Sunnyvale and no other feasible improvements have been identified. Because this improvement is the responsibility of another jurisdiction, this deficiency would still occur under Cumulative with Project Conditions. [**Unavoidable Deficiency]**

Intersection 27: Moffett Boulevard / West Middlefield Road (Mountain View)

To improve operations and improve queuing in the northbound direction a northbound right-turn lane could be added with overlap signal phasing. To improve operations and improve queuing in the southbound direction a southbound right-turn lane could be added with overlap signal phasing. To improve operations and improve queuing in the eastbound direction an eastbound right-turn lane could be added. These signalization and intersection improvements would address the intersection

level of service deficiency under Cumulative with Project Conditions and are considered feasible by the City.

Intersection 29: Moffett Boulevard / Central Expressway (SCC / CMP)

The Mountain View Transit Center Master Plan (2016) identified potential solutions that would eliminate at-grade crossings at Castro Street and the railroad tracks. Alternative 4 was to close Castro Street at West Evelyn Avenue and re-route traffic to Shoreline Boulevard. It would provide an elevated pedestrian connection. This solution would improve the functionality of the Transit Center and potentially better accommodate traffic growth in the downtown area. However, changing the interchange design would require a comprehensive engineering and environmental analysis involving multiple stakeholders to determine the most appropriate configuration that would best serve the needs of all users. While Alternative 4 would reduce levels of service deficiencies at this intersection, the City cannot be certain at this time that such improvements would be implemented since this intersection is under the jurisdiction of Santa Clara County and no other feasible improvements have been identified. Because this improvement is the responsibility of another jurisdiction, this deficiency would still occur under Cumulative with Project Conditions. [**Unavoidable Deficiency]**

Intersection 36: North Mathilda Avenue / Indio Avenue (Sunnyvale)

To improve operations and improve queuing in the westbound direction during the AM peak hour a westbound right-turn lane could be added with overlap signal phasing. While the proposed improvement addresses level of service deficiencies at this intersection, the City cannot be certain at this time that such improvements would be implemented since this intersection is under the jurisdiction of Sunnyvale and no other feasible improvements have been identified. Because this improvement is the responsibility of another jurisdiction, this deficiency would still occur under Cumulative with Project Conditions. [**Unavoidable Deficiency]**

Intersection 39: South Whisman Road / SR- 237 Westbound Ramps (Mountain View)

To improve operations and improve queuing in the southbound direction a dedicated southbound left-turn lane could be added. To improve operations and improve queuing in the westbound direction a westbound right-turn lane could be added with overlap signal phasing. These signalization and intersection improvements will address the intersection level of service deficiency level under Cumulative with Project Conditions. The proposed improvement is considered feasible by the City. This improvement would require coordination with Caltrans to design and construct.

Intersection 40: East Evelyn Avenue / South Bernardo Avenue (Sunnyvale)

To improve operations and improve queuing in the northbound direction a northbound left-turn lane could be added with overlap signal phasing. These signalization and intersection improvements will address the intersection level of service deficiency level under Cumulative with Project Conditions. While the proposed improvement addresses level of service deficiencies at this intersection, the City cannot be certain at this time that such improvements would be implemented since this intersection is under the jurisdiction of Sunnyvale and no other feasible improvements have been identified. Because this improvement is the responsibility of another jurisdiction, this deficiency would still occur under Cumulative with Project Conditions. [**Unavoidable Deficiency]**

Intersection 46: East Arques Avenue / Fair Oaks Avenue (Sunnyvale)

Modifying the eastbound approach to include a separate through lane would improve intersection operations, but not to an acceptable LOS. While the proposed modification improves the LOS, the City cannot be certain at this time that such improvements would be implemented since this intersection is under the jurisdiction of Sunnyvale and no other feasible improvements have been identified due to right-of-way constraints. Because this improvement is the responsibility of another jurisdiction, this deficiency would still occur under Cumulative with Project Conditions. [**Unavoidable Deficiency]**

Deficiency C-TRA-3: Implementation of the Precise Plan would result in unacceptable cumulative operations at local and regional intersections.

Freeway LOS Deficiency

Freeway segments of SR 85, SR 237, I-880, US 101, I-280, SR 17, and SR 87 were analyzed under Cumulative and Cumulative with Project Conditions. A cumulative deficiency was identified for segments exceeding a V/C ratio greater than 1.0 and where the Precise Plan trips constitute more than one percent of the freeway segment's capacity. Segments that exceed the standard are presented in Table C-2 and Table C-3 in Appendix H. The results of the analysis are shown in Figure 3.14-10 and Figure 3.14-11 for mixed-flow and HOV lanes, respectively. Implementation of the proposed project would increase motor vehicle traffic and congestion, resulting in decreased freeway segment LOS on freeway segments.

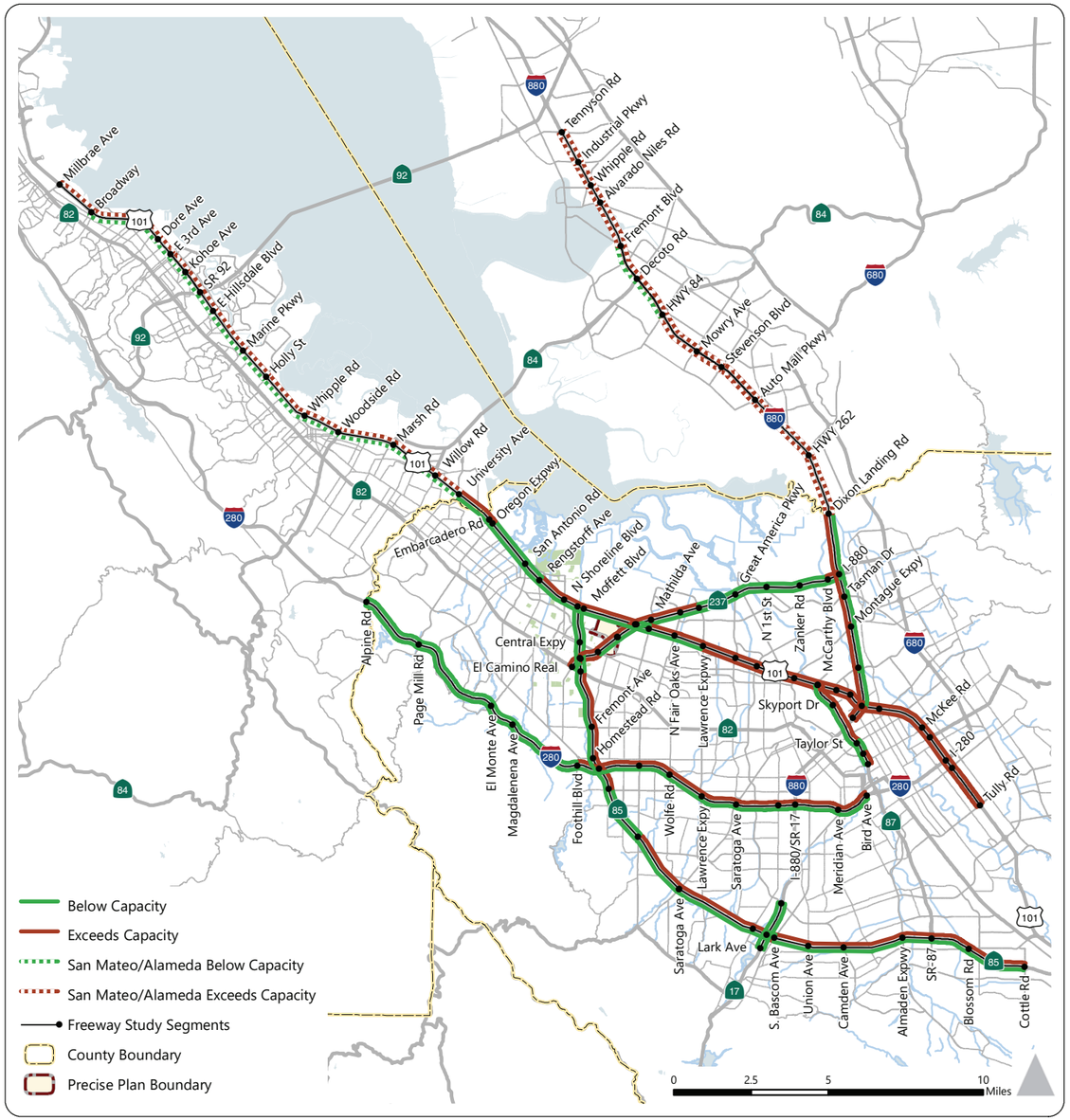
The complete improvement of freeway deficiencies is, however, considered beyond the scope of an areawide plan, due to the inability a City to: 1) acquire right-of-way for freeway widening, and 2) fully fund major freeway mainline improvements. Freeway improvements also would require approval by VTA and Caltrans, and as such the City cannot guarantee implementation of any improvement in the freeway right-of-way.

The Precise Plan includes efforts to reduce vehicle trips through the introduction of residential development in a jobs rich area, by implementing pedestrian and bicycle improvements, including improved access to the nearby light-rail stations, requiring TDM programs, and a peak hour office trip rate cap. These Precise Plan elements are included in the traffic forecasts and would not further address the freeway deficiencies.

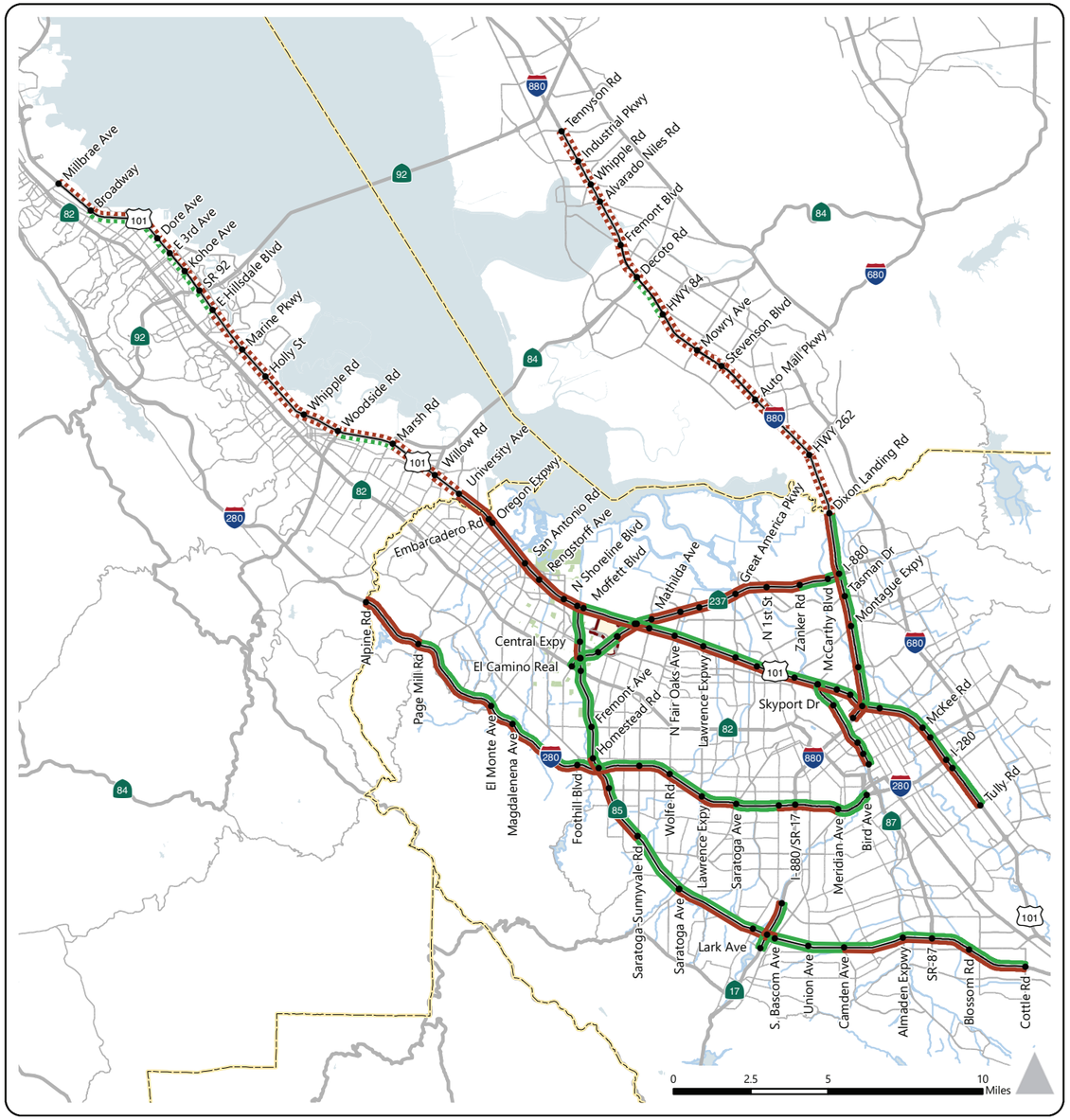
A fair-share contribution toward freeway improvement costs could be considered as an improvement and a community benefit; however, the operational deficiencies would not be eliminated until the improvements are constructed. To provide adequate funding, additional sources would be needed, which may include State Transportation Improvement Program funds for projects identified in the VTP, City impact fees, and/or a future regional impact fee. The City of Mountain View could participate in development of a regional fee should it be proposed by regional agencies, such as VTA. [**Unavoidable Deficiency]**

Deficiency C-TRA-4: Implementation of the Precise Plan would result in unacceptable cumulative operations at freeway segments.

AM Peak Hour

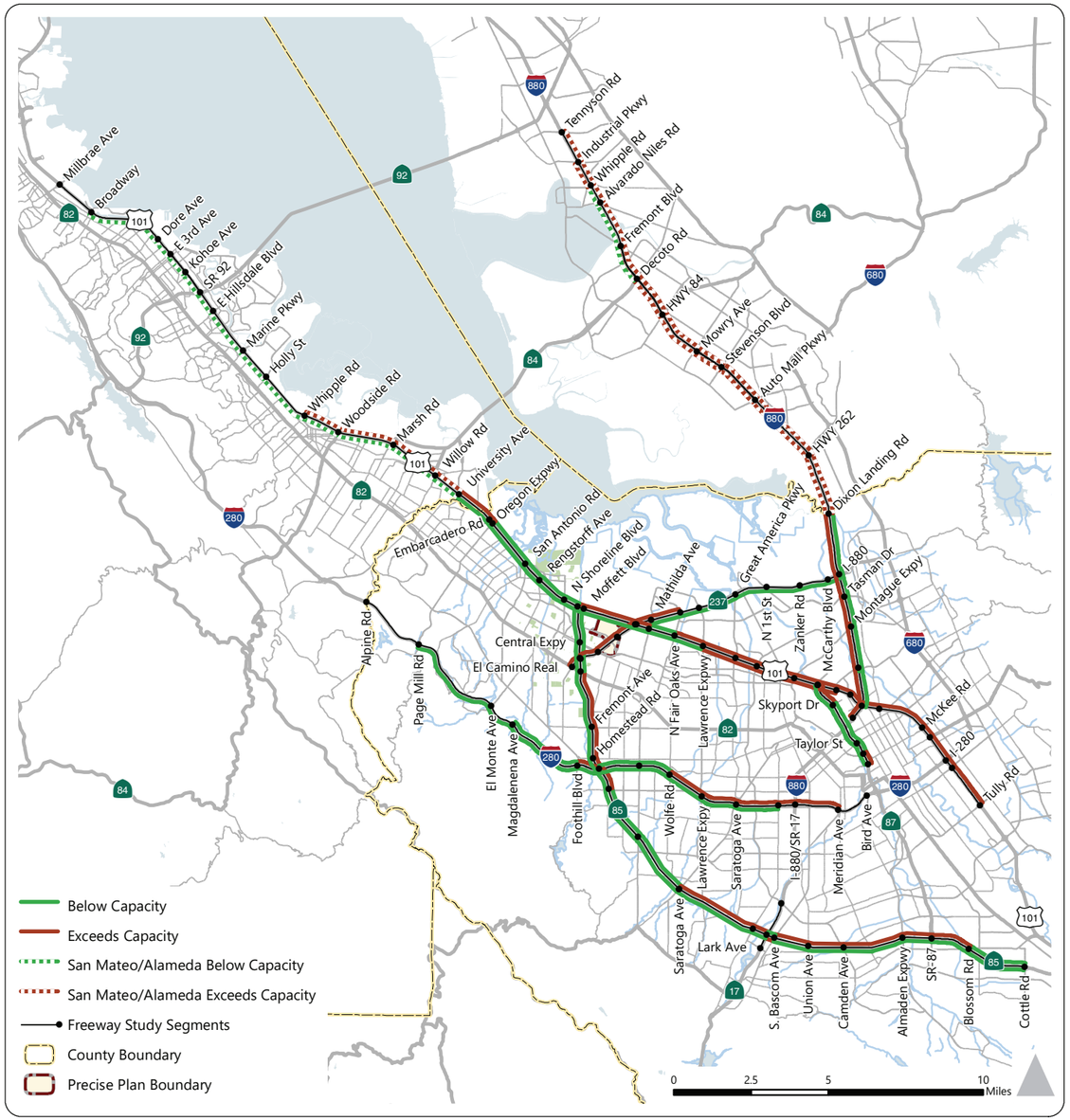


PM Peak Hour

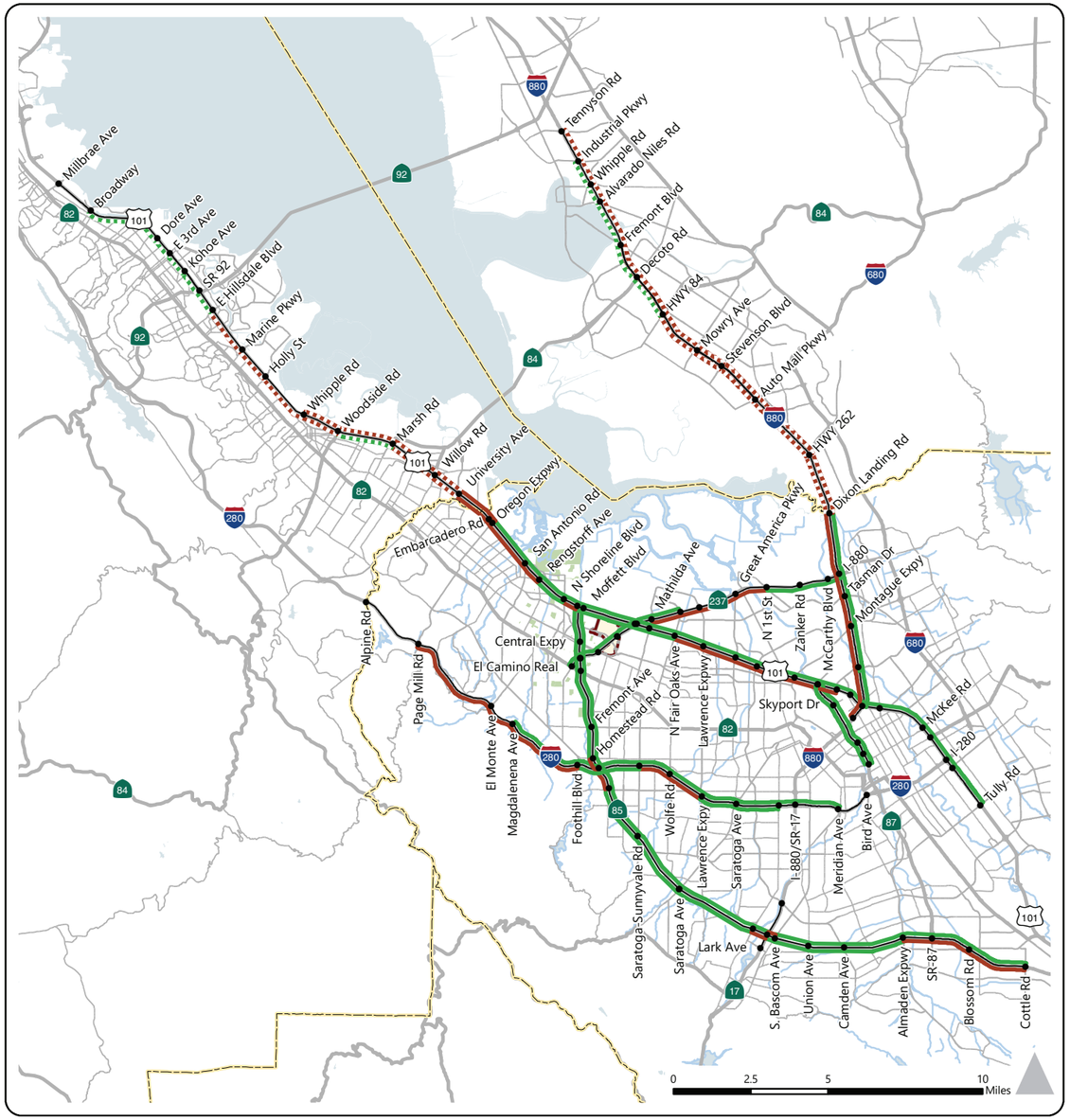


CUMULATIVE PLUS PROJECT FREEWAY ANALYSIS SUMMARY - MIXED-FLOW LANES | FIGURE 3.14-10

AM Peak Hour



PM Peak Hour



CUMULATIVE PLUS PROJECT FREEWAY ANALYSIS SUMMARY - HOV LANES | FIGURE 3.14-11

3.14.2.4 *Pedestrian and Bicycle Facilities Impacts*

To accommodate future growth in the East Whisman area, the Precise Plan includes a complete streets network, new pedestrian facilities, and transportation policies to accommodate increased pedestrian demands generated by the anticipated development, including closure of those sidewalk gaps. The proposed project encourages walking by improving pedestrian connectivity with a street grid network and off-street paths to shorten walking distances and improve pedestrian connections to transit stops and to adjacent buildings.

To accommodate future growth in the East Whisman area, the Precise Plan enhances existing bicycle facilities and will add new bicycle facilities to create an interconnected bike network. This network will accommodate bicycle demand generated by the anticipated development in the area. The proposed project encourages bicycling by improving bicycle connectivity with a street grid network and off-street paths to shorten bicycling distances and provide a higher quality bicycle network (with lower vehicle speeds and volumes where possible). Commuting by bicycle is supported with a street system that enhances bicycle connections within the Precise Plan area.

Several intersection improvements are feasible under the cumulative LOS analysis in the previous section. These improvements are not considered cumulative, since they would be constructed with the project. A bicycle and pedestrian Quality of Service (QOS) analysis was conducted to assess the secondary effect of the improvements on bicyclists and pedestrians.[77]

Cumulative Plus Project – Intersection 1: Ellis Street / Manila Drive (Mountain View / NASA)

This intersection would need to be signalized. Each approach would have a left-turn lane with protected left-turn phasing and a shared through-right turn lane. The bicycle QOS would remain at 4 with these improvements. The pedestrian QOS score is at 4, without the improvements. If the intersection was signalized, the pedestrian QOS score would improve to a 3 as the signals would include pedestrian signals and phasings to accommodate pedestrian crossings.

Cumulative Plus Project – Intersection 9: East Middlefield Road / North Whisman Road (Mountain View)

To improve operations and improve queuing in the eastbound direction an eastbound right-turn lane could be added with overlap signal phasing. The improvement would worsen bicycle and pedestrian QOS. The bicycle QOS score is 3 without the improvement; with the improvement the QOS score worsens to 3.25. The pedestrian QOS score is 2 without the improvement; with the improvement, the pedestrian QOS score worsens to 2.25. The addition of an eastbound right-turn lane would increase the distance for both bicyclists and pedestrians crossing North Whisman,Road.

[77] The Bicyclist StreetScore+ scoring has a 1-4 scale: StreetScore+ 1 (QOS 1) - The lowest level of traffic stress; would allow children trained in traffic safety to bicycle to school by themselves as well as people interested but concerned about bicycling. StreetScore+ 2 (QOS2) - The highest level of acceptable traffic stress for the "interested but concerned" segment of the population. StreetScore+ 3 (QOS 3) - This level of traffic stress accommodates a much smaller "enthused and confident" population - who are excited about and familiar with cycling. StreetScore+ 4 (QOS 4) - Only the "strong and fearless" cohort will feel comfortable riding on these facilities.

Cumulative Plus Project – Intersection 10: East Middlefield Road / Ellis Street (Mountain View)

To improve operations and improve queuing in the eastbound direction a second eastbound left-turn lane could be added. The improvement would not change bicycle and pedestrian QOS. The pedestrian QOS would remain a 3 and the bicycle QOS would remain at 2.

Cumulative Plus Project – Intersection 16: Central Expressway / SR 85 Southbound Ramp (Mountain View)

Converting the southbound right-lane to a shared left/right-turn lane would improve intersection operations to an acceptable level of service. The improvement would not worsen bicycle or pedestrian QOS; both would remain at QOS 4.

Cumulative Plus Project – Intersection 27: Moffett Boulevard / West Middlefield Road (Mountain View)

To improve operations and improve queuing in the northbound direction a northbound right-turn lane could be added with overlap signal phasing. To improve operations and improve queuing in the southbound direction a southbound right-turn lane could be added with overlap signal phasing. To improve operations and improve queuing in the eastbound direction an eastbound right-turn lane could be added. The improvements would worsen bicycle and pedestrian QOS. The bicycle QOS would increase from 3 to 3.5. The pedestrian QOS score is 2.5 without the improvements. With improvements, the pedestrian QOS score worsens to a 3.5. These added lanes would cause both pedestrian and cyclist crossing to become more difficult.

Cumulative Plus Project – Intersection 39: South Whisman Road / SR- 237 Westbound Ramps (Mountain View)

To improve operations and improve queuing in the southbound direction a dedicated southbound left-turn lane could be added. To improve operations and improve queuing in the westbound direction a westbound right-turn lane could be added with overlap signal phasing. The improvement would worsen bicycle and pedestrian QOS. The bicycle QOS would worsen from 3 to 3.25. The pedestrian QOS score is at a 3.5 without the improvement. With improvement, the pedestrian QOS worsens to 3.75. Adding a southbound left-turn lane and a westbound right-turn lane means that both pedestrian and cyclist crossings would become more difficult. Increasing the crossing times and adding medians in the northbound, eastbound and westbound directions would lower the pedestrian QOS score.

Summary

While quality of service may degrade with the addition of turn lanes and other improvements at intersections, these impacts would be less than significant with implementation of City of Mountain View, County of Santa Clara and CMP policies and requirements (such as those related to Complete Streets) to ensure adequate crossing facilities for pedestrians and bicycles and timing as part of signal phasing. Implementation of the proposed project would not interfere with existing pedestrian and bicycle facilities or conflict with planned pedestrian or bicycle facilities or adopted pedestrian or bicycle system plans, guidelines, policies, or standards. Furthermore, implementation of the proposed project will create new pedestrian and bicycle facilities and will have a beneficial effect on pedestrian circulation and access.

Impact TRA-1: Impacts to pedestrian or bicycle infrastructure of proposed roadway improvements and implementation of the East Whisman Precise Plan would be less than significant. **[Less than Significant Impact]**

3.14.2.5 *Transit Facilities Impacts*

Transit Capacity Impacts

Light rail, commuter bus, private shuttle, and fixed-route bus services operate near and within the Precise Plan area. The addition of passengers from future development projects would increase demand on both the private and public transit systems. Increasing frequency and/or capacity of the bus service could address this potential deficiency. The effort to increase transit capacity would occur as part of a partnership between the City of Mountain View TMA and VTA.

The City of Mountain View General Plan and the Precise Plan include policies to encourage an increase in transit ridership, decrease dependence on motor vehicles, and reduce transit delays. The increase in demand for transit service caused by the Precise Plan would be accommodated by existing and planned improvements to the transit system, such as improving access to transit for local residents and employees (e.g., transit stop enhancements, sidewalk widening, etc.), and improving how transit vehicles to move in and around the Precise Plan area (e.g., new and more frequent bus services, expansion of the VTA and Caltrain systems, provision of transit-focused facilities, etc.). Transit vehicle preemption, signal coordination, and other improvements would help reduce the effect of peak hour traffic congestion on transit operations by reducing person delay and improving vehicle travel time reliability.

While the Precise Plan would add peak hour transit riders, implementation of the proposed project would not disrupt existing or interfere with planned transit services or facilities. The project builds on and is consistent with the City of Mountain View General Plan policies that support multimodal transportation options, and the City of Mountain View TMA charter to reduce congestion and improve connectivity. With implementation of future projects under the Precise Plan, there would be additional transit vehicles provided to accommodate the additional demand.

Impact TRA-2: While the Precise Plan would add peak hour transit riders, implementation of the proposed project would not disrupt existing or interfere with planned transit services or facilities and the impact would be less than significant. **[Less than Significant Impact]**

Transit Delay Impacts

Implementation of the Precise Plan could result in increased transit vehicle delay at intersections with identified LOS deficiencies where buses and shuttles operate in mixed-flow lanes with other vehicles. Implementation of the Precise Plan would not disrupt existing or interfere with planned transit services or facilities; however, the increase in transit vehicles, local street congestion within and near the Precise Plan area, and increased delay at off-site intersections would delay transit vehicles. Implementation of the Precise Plan would result in deficiencies with regard to transit vehicle operations, in particular at those intersections without feasible improvement options for traffic delay. Transit operational improvements, such as signal coordination and transit vehicle

preemption could potentially improve the overall reliability of transit in congested areas, but are not likely to fully address this effect.

Impact TRA-3: Implementation of the Precise Plan would have a significant and unavoidable effect on transit vehicle operations, in particular at those intersections with a deficient LOS. **[Significant Impact]**

VTA will make transit service changes over time based on ridership performance standards and land use density targets. Increased or modified public transit service is reviewed and approved by a publicly appointed decision body (i.e., the VTA board). Transit operational improvements, such as signal coordination and transit vehicle preemption, could reduce the magnitude of peak-hour congestion on transit operations and potentially improve the overall reliability of transit in congested areas. Operational and service improvements within the Precise Plan area would not fully mitigate impacts to a less than significant level; therefore, the impact remains significant and unavoidable. **[Significant, Unavoidable Impact]**

Light-rail vehicles travel on dedicated rights-of-way (tracks) within the Precise Plan area. Proposed Street C, if constructed, would have an at-grade crossing of the light-rail tracks between Ellis Street and Logue Avenue. The gate operations at this crossing could increase light-rail vehicle delay; therefore, this improvement would disrupt an existing transit facility and cause delay. Removing Street C and the associated new at-grade crossing from the Precise Plan would eliminate the delay (and the associated impact).

Impact TRA-4: Street C would result in increased light rail vehicle delay due to the slower train speeds through the crossing, disrupting the existing facility. **[Significant Impact]**

Mitigation Measure:

MM TRA-4.1: The proposed Street C shall be removed from the Precise Plan and replaced with a grade-separated multi-use path (public pedestrian and bicycle access). This improvement would eliminate disruption of the existing light rail facility and there would be no impact. **[No Impact with Mitigation]**

3.14.2.6 *Vehicle Miles Traveled—CEQA Guidelines Section 15064.3 (b)*

As described previously with regard to SB 743, the CEQA Guidelines were updated in December 2018, such that vehicle LOS will no longer be used as a determinant of significant environmental impacts, and an analysis of VMT will be required. Jurisdictions have until July 2020 to select a VMT threshold to use in their CEQA analyses. The State of California's Office of Planning and Research (OPR) has issued *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) to assist in implementing the CEQA Guidelines VMT requirements. The City of Mountain View has yet to determine a VMT threshold; therefore, in keeping with guidance from OPR, this analysis will look at the following two aspects of VMT and their associated thresholds:

- Project-generated VMT is the sum of the "VMT from" and "VMT to" the Precise Plan Area. A significant project-level or cumulative VMT impact would occur if 1) the daily project generated VMT per service population is above the citywide VMT per service population

threshold of 30.9; or 2) the daily project generated VMT per service population is above the countywide VMT per service population threshold of 22.7.

- Project's effect on VMT is the change in travel on all roadways within the City and within the County. A significant VMT impact would occur if 1) the proposed project causes the cumulative citywide daily boundary VMT per service population to increase above 15.3; or 2) the proposed project causes cumulative countywide daily boundary VMT per service population to increase above 17.9.

VMT Impact Analysis

Project Generated VMT

The following Table 3.14-9 shows the project's VMT for the Precise Plan area, citywide, and countywide. Most of the VMT associated with the Precise Plan is due to employee travel, as a result the Precise Plan area is less efficient with regard to VMT generation per service population than the citywide or countywide thresholds, as described further below.

Table 3.14-9: Project Generated VMT

	Existing Conditions	Existing with Project	Cumulative	Cumulative with Project
East Whisman Area				
Vehicle Miles Traveled	676,620	1,336,490	807,690	1,457,450
Service Population	17,700	37,200	20,710	40,180
VMT/Service Population	38.23	35.93	39.00	36.27
City of Mountain View				
Vehicle Miles Traveled	5,354,760	5,973,000	6,747,390	7,359,710
Service Population	147,520	167,020	199,390	218,860
VMT/Service Population	36.30	35.76	33.84	33.63
Santa Clara County				
Vehicle Miles Traveled	72,905,840	73,441,360	102,748,480	103,429,440
Service Population	2,733,420	2,752,920	3,206,610	3,226,080
VMT/Service Population	26.67	26.68	32.04	32.06

The project generated VMT per service population of 35.93 for the Precise Plan area is greater than the citywide threshold of 30.86 under Existing with Project conditions. The Precise Plan VMT per service population of 35.93 is also greater than the countywide threshold of 22.67. Thus, a significant project-level VMT impact would occur.

Additionally, the Cumulative with Project VMT per service population of 36.27 is greater than the citywide threshold of 30.86 and countywide threshold of 22.7. Therefore, the Precise Plan would result in a VMT impact under Cumulative with Project conditions.

Impact TRA-5: The Precise Plan would result in a project-level and cumulative VMT impact due to project generated VMT on both a citywide and countywide level. **[Significant Impact]**

East Whisman is currently an employment-centric area with a higher jobs-to-residents ratio today, at 7.55 as compared to City of Mountain View's average of 0.97 and Santa Clara County's average of 0.53. TDM and land use changes would be needed to achieve at least a 15 percent reduction in the Precise Plan VMT per capita below countywide thresholds.

To reduce the potential project generated VMT impact to below the countywide threshold on both a project-level and cumulative basis, an additional 15 percent TDM requirement (above the Precise Plan-required 30 percent TDM) or providing an additional 2,500 housing units (above the 5,000 proposed as part of the Precise Plan) and allowing no net new office development. Given the feasibility of TDM requirements at that level and would be required. Given the land use changes proposed as part of the Precise Plan, neither a 45 percent TDM or additional housing is feasible mitigation; therefore, the VMT impact remains significant and unavoidable. **[Significant, Unavoidable Impact]**

Project Effect on VMT

Citywide and Countywide project-level and cumulative effects on VMT are shown in the following Table 3.14-10.

Table 3.14-10: Project's Effect on VMT

	Existing Conditions	Existing with Project	Cumulative Conditions	Cumulative with Project
City of Mountain View				
Vehicle Miles Traveled	2,078,101	2,121,452	3,055,052	3,097,890
Service Population	147,520	167,020	199,390	218,860
VMT/Service Population	14.1	12.7	15.3	14.2
Santa Clara County				
Vehicle Miles Traveled	37,656,110	37,902,728	57,271,889	57,366,401
Service Population	2,733,420	2,752,920	3,206,610	3,226,080
VMT/Service Population	13.8	13.8	17.9	17.8

The citywide (effect on) VMT per service population of 14.2 under Cumulative with Project conditions is lower than the citywide threshold of 15.3. The countywide (effect on) VMT per service population of 17.8 under Cumulative with Project conditions is lower than the countywide threshold of 17.9. Therefore, the Precise Plan would not have an effect on VMT and a significant impact would not occur.

Impact TRA-6: The project would not have a project-level or cumulative effect on citywide or countywide VMT; therefore, no impact would occur. **[No Impact]**

3.14.2.7 *Emergency Access and Road Hazards*

Emergency access is discussed in detail in Section 3.8. Hazards and Hazardous Materials and Section 3.8 Hazards and Hazardous Materials. Implementation of the Precise Plan would result in greater connectivity of the street and multimodal network, facilitating access between uses. Further, all proposed structures would be reviewed by the MVFD for compliance with emergency access and design requirements under the City's fire code. As a result, an impact would be less than significant.

Impact TRA-7: The Precise Plan would have a less than significant impact as a result of roadway emergency access or hazards. **[Less than Significant Impact]**

3.14.2.8 *Environmental Impacts of Roadway Improvements*

Implementation of proposed feasible roadway improvements identified in the cumulative LOS analysis above may affect utilities, trees, and other parts of the environment. However, these impacts would be less than significant with adherence to General Plan policies and City requirements calling for the replacement of trees and appropriate relocation of utilities.

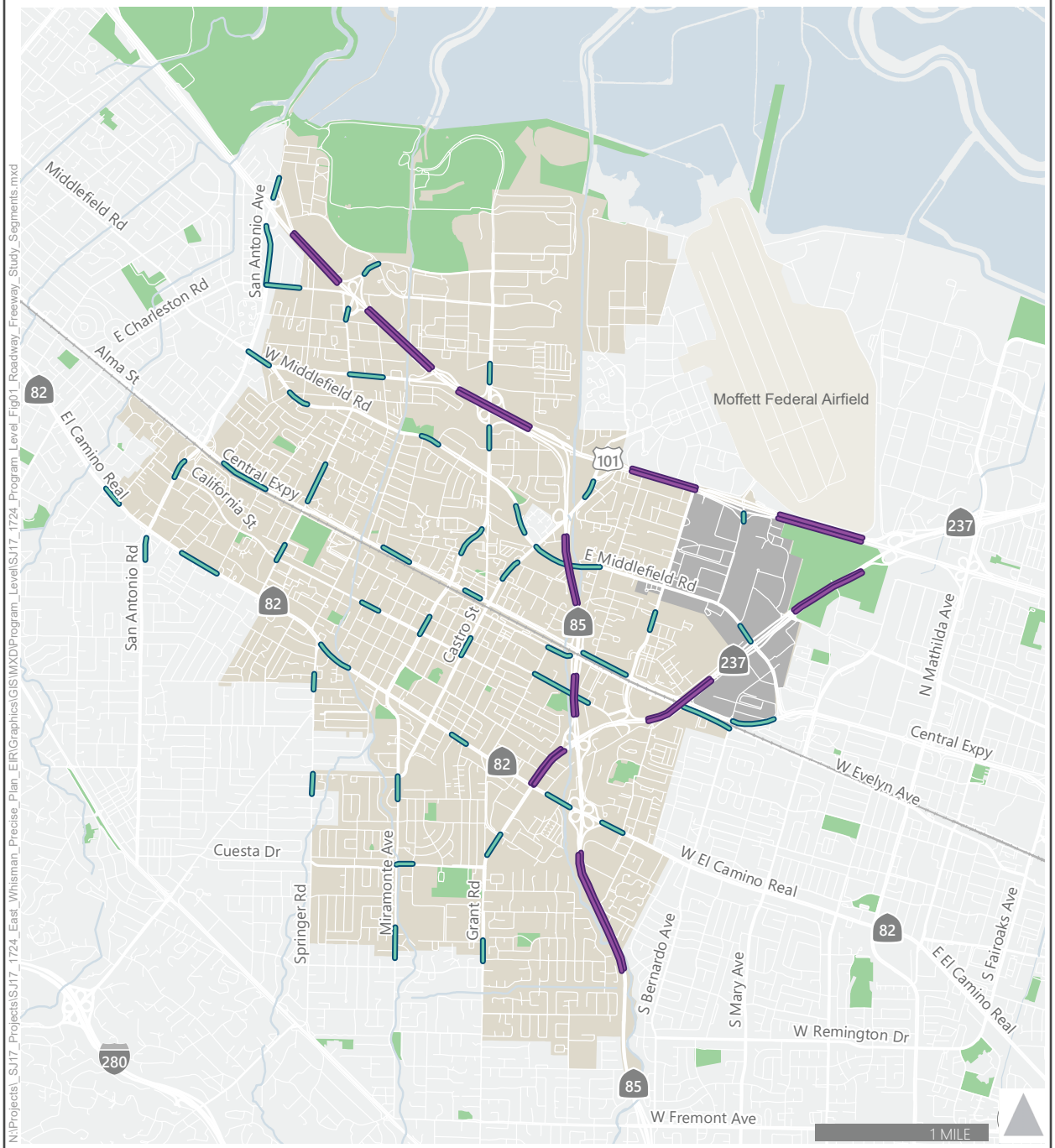
Impact TRA-8: Environmental impacts as a result of new roadway improvements would be less than significant with adherence to General Plan policies and City requirements. **[Less than Significant Impact]**

3.14.3 General Plan Amendment (Program-Level) Analysis

A Program-Level Transportation Analysis was prepared (included as Appendix I) to evaluate potential transportation and circulation effects from the Precise Plan because a General Plan amendment is proposed to introduce residential uses and allow increased commercial development intensity. General Plan amendments are specifically evaluated at a programmatic level to determine the effects of the land uses changes on the city-wide transportation system, rather than individual intersections. The analysis was conducted for the roadways shown in Figure 3.14-12 using the City of Mountain View's Travel Demand Forecasting (TDF) model, consistent with the City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report (General Plan and GGRP EIR) including:

- Citywide VMT per service population[78]
- Daily roadway segment volumes in Mountain View
- Peak-hour roadway segment volumes in adjacent jurisdictions

[78] This differs from the analysis in the previous section, which focused on the VMT generation and effects of the Precise Plan. This section describes the VMT of the City of Mountain View with and without implementation of the Precise Plan.



GENERAL PLAN STUDY ROADWAYS AND FREEWAYS | FIGURE 3.14-12

3.14.3.1 *Traffic Forecasting Method*

The City of Mountain View TDF model was used to develop traffic forecasts and VMT estimates. A description of the model, trip adjustments for land use strategies, trip adjustments for transportation demand management (TDM) strategies, and planned roadway system improvements are discussed in the Transportation and Circulation section of the General Plan and GGRP EIR.

3.14.3.2 *Deficiency or Impact Criteria*

Vehicle Miles Traveled

A change in vehicle miles traveled (VMT) per service population is considered significant when the proposed project causes daily city-wide VMT per service population to increase over existing conditions.

Roadway Segments

Roadway segment operations are considered deficient if implementation would cause:

- Mountain View roadway segments outside of Downtown and San Antonio Center areas and CMP facilities (San Antonio Road and El Camino Real) to deteriorate from an acceptable level (LOS D) to an unacceptable level (LOS E or F).
- Mountain View roadway segments within the Downtown and San Antonio Center areas to deteriorate from an acceptable level (LOS E) to an unacceptable level (LOS F).
- Palo Alto or Los Altos roadway segments to deteriorate from an acceptable level (LOS D) to an unacceptable level (LOS E or F).
- Santa Clara County and CMP roadway segments to deteriorate from an acceptable level (LOS E) to an unacceptable level (LOS F).

If a segment is already operating at an unacceptable level, as defined by the controlling agency (i.e., the City of Mountain View for local streets, Santa Clara County for expressways, and Caltrans or VTA for El Camino Real), an increase in traffic volume on the segment representing more than one percent of the facility capacity is considered a deficiency.

Freeway Segments

Similar to the roadway segment criteria, freeway segment deficiencies are defined to occur under the VTA CMP standard (LOS E) when the addition of traffic from the proposed project causes a freeway segment to deteriorate from an acceptable level (LOS E) to an unacceptable level (LOS F). If a segment is already operating at LOS F, an increase in traffic volume on the segment representing more than one percent of the facility capacity is considered deficient.

Adjacent Jurisdiction Roadway Segments

A deficiency at an adjacent community would occur if implementation of the proposed project would cause 25 percent or more of its major street lane miles to meet the following conditions in a peak-hour:

- A future volume-to-capacity ratio greater than 1.0; and
- More than 10 percent of the peak-hour traffic volume on the segment is attributable to the project in either peak hour.

3.14.3.3 *Vehicle Miles Traveled*

To be consistent with the General Plan and GGRP EIR, VMT per service population was used as a system-wide performance measure. This metric is useful in combining the effects of population and/or employment growth and changes in personal travel behavior. For example, population growth may cause an increase in total VMT, but if travelers change their behavior such that the percent growth in total VMT is less than the percent growth in service population, then the VMT per service population metric will decrease. The service population for the City of Mountain View is shown in Table 3.14-11.

Table 3.14-11: City Service Population Based on Occupied Land Use

Land Use	Year 2017 Scenario	Year 2030 Scenarios	
	Existing (Scenario 1)	Year 2030 General Plan (Scenario 2)	Year 2030 General Plan with Project Conditions (Scenario 3)
Employees	72,700	95,940	104,780
Residents	74,820	103,450	114,080
Service Population	147,520	199,390	218,860

Notes: Employees based on occupied non-residential square footage. Rounded to nearest 10 employees or residents. Land use summary does not include NASA AMES research center. Service Population within Mountain View = residents + employees.

The calculated VMT per service population is shown below in Table 3.14-12.

Table 3.14-12: VMT Per Service Population

Land Use	Year 2017 Scenario	Year 2030 Scenarios	
	Existing (Scenario 1)	Year 2030 General Plan (Scenario 2)	Year 2030 General Plan with Project Conditions (Scenario 3)
Daily VMT	2,677,380	3,373,710	3,679,850
Service Population	147,520	199,390	218,860
Daily VMT Per Service Population	18.2	16.9	16.8

As shown in the tables above, the daily VMT under 2030 conditions with the project will increase by 9.1 percent compared to 2030 conditions without the project. The service population will increase by 9.7 percent. As a result, there will be a slight decrease in VMT per service population, a positive effect. This is partially caused by trip length reductions due to adding residencies to a jobs-rich area of the City.

The proposed General Plan amendment does not have a significant adverse impact regarding VMT per service population because it is projected to reduce the existing value of 18.15 to 16.81. The Precise Plan includes efforts to reduce vehicle trips through the introduction of residential development in a jobs-rich area, implementing pedestrian and bicycle improvements, including improved access to the nearby light-rail stations, requiring TDM programs, and requiring a peak-hour office trip cap. This effort, combined with the recent North Bayshore Precise Plan, San Antonio Precise Plan, and El Camino Real Precise Plan, have increased the total amount of residential development in Mountain View, which has the positive effect of reducing the Citywide VMT per service population.

Impact GP-TRA-9: Implementation of the proposed General Plan amendment would not result in significant impacts with regard to city-wide VMT. **[Less than Significant Impact]**

3.14.3.4 *Roadways*

The LOS calculations are presented below in Table 3.14-13 and indicate study intersections will operate at levels that meet applicable LOS standards except for the 12 intersections shown in bold.

Table 3.14-13: Daily Roadway Segment Volume and LOS Summary

Roadway Segment[1]	Existing Roadway Type/ Future Roadway Type	Year 2017 Scenario		Year 2030 Scenarios			
		Existing (Scenario 1)		Year 2030 General Plan (Scenario 2)		Year 2030 General Plan with Project Conditions (Scenario 3)	
		Daily Volume[2]	LOS	Daily Volume	LOS	Daily Volume	LOS[3]
1. Amphitheatre Pkwy. between Charleston Rd. and NB US 101 Ramps	4-Lane Divided Arterial	22,100	C	39,700	D	39,400	D
2. California St. between Escuela Ave. and Shoreline Blvd.	4-Lane Undivided Arterial	11,500	C	**34,000**	**E**	**34,000**	**E**
3. Castro St. between Evelyn Ave. and California St.	2-Lane Undivided Arterial	7,100	C	15,800	D	14,700	D
4. Central Expy. between San Antonio Rd. and Rengstorff Ave.*	4-Lane Divided Arterial	28,100	D	37,200	D	37,200	D

Table 3.14-13: Daily Roadway Segment Volume and LOS Summary							
Roadway Segment[1]	**Existing Roadway Type/ Future Roadway Type**	**Year 2017 Scenario**		**Year 2030 Scenarios**			
		Existing (Scenario 1)		**Year 2030 General Plan (Scenario 2)**		**Year 2030 General Plan with Project Conditions (Scenario 3)**	
		Daily Volume[2]	**LOS**	**Daily Volume**	**LOS**	**Daily Volume**	**LOS[3]**
5. Central Expy. between Rengstorff Ave. and Shoreline Blvd.*	4-Lane Divided Arterial	28,200	D	39,500	D	39,100	D
6. Central Expy. between Shoreline Blvd. and Moffett Blvd.*	4-Lane Divided Arterial	30,100	D	32,000	D	31,800	D
7. Central Expy. between SR 85 and Whisman Ave.*	6-Lane Divided Arterial	35,300	D	59,900	D	59,700	D
8. Central Expy. between Bernardo Ave. and Middlefield Rd.*	4-Lane Divided Arterial	31,100	D	44,800	E	**45,800**	**F**
9. Charleston Rd. between San Antonio Rd. and Rengstorff Ave.	4-Lane Divided Arterial	21,300	C	28,600	D	28,500	D
10. Cuesta Dr. between Miramonte Ave. and Grant Rd.	4-Lane Divided Arterial	16,100	C	34,900	D	35,700	D
11. Dana St. between Calderon Ave. and Pioneer Wy.	2-Lane Divided Arterial	8,300	C	20,500	D	20,400	D
12. El Camino Real between Los Altos Ave. and San Antonio Rd.*	6-Lane Divided Arterial	36,200	D	57,400	D	57,100	D
13. El Camino Real between Showers Dr. and Rengstorff Ave.*	6-Lane Divided Arterial	38,900	D	57,100	D	57,300	D
14. El Camino Real between El Monte Ave. and Shoreline Blvd.*	6-Lane Divided Arterial	46,000	D	59,100	D	59,000	D

Table 3.14-13: Daily Roadway Segment Volume and LOS Summary							
Roadway Segment[1]	**Existing Roadway Type/ Future Roadway Type**	**Year 2017 Scenario**		**Year 2030 Scenarios**			
		Existing (Scenario 1)		**Year 2030 General Plan (Scenario 2)**		**Year 2030 General Plan with Project Conditions (Scenario 3)**	
		Daily Volume[2]	**LOS**	**Daily Volume**	**LOS**	**Daily Volume**	**LOS[3]**
15. El Camino Real between Phyllis Ave. and Castro St.*	6-Lane Divided Arterial	49,800	D	59,200	D	58,900	D
16. El Camino Real between Grant Rd. and SB SR 85 Ramps*	6-Lane Divided Arterial	48,900	D	65,600	E	**68,200**	**F**
17. El Camino Real between NB SR 85 Ramps and Sylvan Ave.*	6-Lane Divided Arterial	54,700	D	**68,600**	**F**	63,200	D
18. Ellis St. between SB US 101 Ramps and Middlefield Rd.	4-Lane Divided Arterial	9,500	C	24,300	D	32,200	D
19. El Monte Ave. between El Camino Real and Springer Rd.	4-Lane Undivided Arterial	18,800	C	27,700	D	33,900	E
20. Evelyn Ave. between Calderon Ave. and SB SR 85 Ramp	4-Lane Undivided Arterial	15,500	C	29,900	D	31,000	D
21. Evelyn Ave. between SR 237 and Bernardo Ave.	4-Lane Divided Arterial	17,300	C	**44,400**	**E**	**47,000**	**F**
22. Grant Rd. between Phyllis Avenue and Cuesta Dr.	4-Lane Divided Arterial	33,200	D	38,500	D	38,700	D
23. Grant Rd. between Cuesta Dr. and Covington Rd.	4-Lane Divided Arterial	19,700	C	26,400	D	24,500	D
24. Middlefield Rd. between San Antonio Rd. and Old Middlefield Wy.	4-Lane Divided Arterial	21,300	C	22,300	D	22,600	D
25. Middlefield Rd. between Old Middlefield Wy. and Independence Ave.	4-Lane Divided Arterial	6,100	C	11,700	C	15,600	C

Table 3.14-13: Daily Roadway Segment Volume and LOS Summary							
Roadway Segment[1]	**Existing Roadway Type/ Future Roadway Type**	**Year 2017 Scenario**		**Year 2030 Scenarios**			
		Existing (Scenario 1)		**Year 2030 General Plan (Scenario 2)**		**Year 2030 General Plan with Project Conditions (Scenario 3)**	
		Daily Volume[2]	**LOS**	**Daily Volume**	**LOS**	**Daily Volume**	**LOS[3]**
26. Middlefield Rd. between Sierra Vista Ave. and Terra Bella Ave.	4-Lane Divided Arterial	13,200	C	24,400	D	24,500	D
27. Middlefield Rd. between Shoreline Blvd. and Moffett Blvd.	4-Lane Divided Arterial	16,500	C	24,500	D	25,100	D
28. Middlefield Rd. between Moffett Blvd. and Tyrella Ave.	4-Lane Divided Arterial	14,900	C	20,300	C	20,800	C
29. Middlefield Rd. between Ellis St. and SR 237	4-Lane Divided Arterial	16,800	C	19,700	C	20,500	C
30. Miramonte Ave. between El Camino Real and Cuesta Dr.	4-Lane Undivided Arterial	9,300	C	**34,800**	**F**	**34,300**	**E**
31. Miramonte Ave. between Cuesta Dr. and Covington Rd.	4-Lane Undivided Arterial	8,800	C	19,900	C	19,300	C
32. Moffett Blvd. between SB US 101 Ramps and NB SR 85 Ramp	4-Lane Divided Arterial	14,500	C	22,000	C	21,100	C
33. Moffett Blvd. between Middlefield Rd. and Central Ave.	4-Lane Undivided Arterial	12,700	C	23,500	D	25,000	D
34. Old Middlefield Wy. between Rengstorff Ave. and SB US 101 Ramps	4-Lane Divided Arterial	25,100	D	27,300	D	27,200	D
35. Rengstorff Ave. between SB US 101 Ramps and Old Middlefield Wy.	4-Lane Undivided Arterial	16,900	C	**34,200**	**E**	**34,300**	**E**

Table 3.14-13: Daily Roadway Segment Volume and LOS Summary							
Roadway Segment[1]	**Existing Roadway Type/ Future Roadway Type**	**Year 2017 Scenario**		**Year 2030 Scenarios**			
		Existing (Scenario 1)		**Year 2030 General Plan (Scenario 2)**		**Year 2030 General Plan with Project Conditions (Scenario 3)**	
		Daily Volume[2]	**LOS**	**Daily Volume**	**LOS**	**Daily Volume**	**LOS[3]**
36. Rengstorff Ave. between Montecito Ave. and Central Expy.	4-Lane Undivided Arterial	17,100	C	**36,100**	**F**	**40,100**	**F**
37. Rengstorff Ave. between Central Expy. and California St.	4-Lane Undivided Arterial	17,900	C	**38,300**	**F**	**41,300**	**F**
38. San Antonio Rd. between Bayshore Pkwy. and NB US 101 Ramps* (Palo Alto)	2-Lane Undivided Arterial	12,700	D	**23,100**	**F**	**23,200**	**F**
39. San Antonio Rd. between SB US 101 Ramps and Charleston Rd.* (Palo Alto)	3-Lane Arterial (2 in one direction)	**39,400**	**F**	**51,100**	**F**	**51,100**	**F**
40. San Antonio Rd. between Central Expy. and California St.*	6-Lane Divided Arterial	32,300	C	59,800	D	63,000	D
41. San Antonio Rd. between California Ave and Pasa Robles Ave.* (Los Altos)	4-Lane Divided Arterial	23,800	D	33,100	D	35,500	D
42. Shoreline Blvd. between Charleston Rd. and NB US 101 Ramps	4-Lane Divided Arterial	18,200	C	40,300	D	39,800	D
43. Shoreline Blvd. between SB US 101 Ramps and Middlefield Rd.	4-Lane Divided Arterial	30,200	D	**44,300**	**E**	**46,000**	**F**
44. Shoreline Blvd. between Montecito Ave. and Central Expy.	4-Lane Divided Arterial	28,700	D	**51,500**	**F**	**50,700**	**F**
45. Shoreline Blvd. between Central Expy. and California St.	6-Lane Divided Arterial	23,900	C	51,900	D	54,300	D

Table 3.14-13: Daily Roadway Segment Volume and LOS Summary							
Roadway Segment[1]	**Existing Roadway Type/ Future Roadway Type**	**Year 2017 Scenario**		**Year 2030 Scenarios**			
		Existing (Scenario 1)		**Year 2030 General Plan (Scenario 2)**		**Year 2030 General Plan with Project Conditions (Scenario 3)**	
		Daily Volume[2]	**LOS**	**Daily Volume**	**LOS**	**Daily Volume**	**LOS[3]**
46. Springer Rd. between El Monte Ave. and Cuesta Dr.	2-Lane Collector	7,700	C	12,800	D	**14,200**	**E**
47. Whisman Rd. between Middlefield Rd. and Central Expy.	4-Lane Undivided Arterial	9,600	C	27,200	D	**35,000**	**F**
1. Major roadways nearest the count location 2. Average Daily Traffic volume for Scenario 1 is based on traffic counts collected in May and June 2017. **Bold text** indicates a segment that exceeds the City of Mountain View LOS D standard for local streets and LOS E standard for streets within the Downtown and San Antonio Center areas and CMP facilities under the 2030 General Plan. Local streets in Palo Alto and Los Altos have a LOS D standard. * Denotes CMP facility.							

Under Year 2030 conditions, implementation of East Whisman Precise Plan would increase motor vehicle traffic and congestion, which would result in degraded roadway segment levels of service below acceptable thresholds on several roadway study segments. Six segments, including Central Expressway between Bernardo Avenue and Middlefield Road, Evelyn Avenue between SR 237 and Bernardo Avenue, San Antonio Road between Bayshore Parkway and NB US 101 Ramps, Shoreline Boulevard between SB US 101 Ramps and Middlefield Road, Springer Road between El Monte Avenue and Cuesta Drive, and Whisman Road between Middlefield Road and Central Expressway, were not identified as an impacted segment in the General Plan EIR. Due to the conflicts with the City's multi-modal policies and physical constraints, these deficiencies would remain under Year 2030 with Project Conditions.

Deficiency GP-TRA-5: Implementation of the East Whisman Precise Plan would result in deficient roadway segment levels of service at six additional segments not identified in the General Plan EIR.

3.14.3.5 *Freeway Segments*

The proposed General Plan amendment would have a significant impact on the freeway segments in Mountain View projected to exceed their LOS threshold due to the addition of project traffic and those that currently exceed their LOS threshold and where the addition of project traffic exceeds one percent of the segments capacity (as shown below in Table 3.14-14).

Table 3.14-14: Freeway Segment Volume and LOS Summary								
Freeway Segment[1]		**Existing Roadway Type/ Future Roadway Type[2]**	**Year 2017 Scenario**		**Year 2030 Scenarios**			
			Existing (Scenario 1)		**2030 General Plan (Scenario 2)**		**Year 2030 General Plan with Project Conditions (Scenario 3)**	
			Daily Volume	**LOS**	**Daily Volume**	**LOS**	**Daily Volume**	**LOS**
NB SR 85*	Fremont Ave. to El Camino Real	3-Lane Freeway	**69,700**	**E**	**75,800**	**F**	**77,000**	**F**
	SR 237 to Evelyn Ave.	3-Lane Freeway	48,700	C	**53,700**	**D**	**55,500**	**D**
	Evelyn Ave. to Moffett Blvd.	3-Lane Freeway	47,300	C	**61,600**	**D**	**63,000**	**D**
SB SR 85*	Moffett Blvd. to Evelyn Ave.	3-Lane Freeway	49,700	C	**72,300**	**E**	**72,600**	**E**
	Evelyn Ave. to SR 237	3-Lane Freeway	48,600	C	**64,800**	**D**	**65,000**	**E**
	El Camino Real to Fremont Ave.	3-Lane Freeway	**68,900**	**E**	**75,400**	**F**	**78,700**	**F**
NB US 101*	SR 237 to Ellis St.	4-Lane Freeway	**103,500**	**F**	**121,900**	**F**	**124,800**	**F**
	Ellis St. to Moffett Blvd.	4-Lane Freeway	**105,400**	**F**	**118,200**	**F**	**119,400**	**F**
	SR 85 to Old Middlefield Rd.	4-Lane Freeway	**131,300**	**F**	**157,700**	**F**	**159,400**	**F**
	Old Middlefield Rd. to Rengstorff Ave.	4-Lane Freeway	**110,800**	**F**	**139,800**	**F**	**140,700**	**F**
	Rengstorff Ave. to San Antonio Rd.	4-Lane Freeway	**106,700**	**F**	**134,100**	**F**	**134,100**	**F**
SB US 101*	San Antonio Rd. to Rengstorff Ave.	4-Lane Freeway	**103,600**	**F**	**131,500**	**F**	**131,600**	**F**
	Rengstorff Ave. to Old Middlefield Rd.	4-Lane Freeway	**113,300**	**F**	**145,600**	**F**	**147,300**	**F**
	Old Middlefield Rd. to SR 85	4-Lane Freeway	**131,300**	**F**	**165,100**	**F**	**166,600**	**F**

Table 3.14-14: Freeway Segment Volume and LOS Summary								
Freeway Segment[1]		Existing Roadway Type/ Future Roadway Type[2]	Year 2017 Scenario		Year 2030 Scenarios			
			Existing (Scenario 1)		2030 General Plan (Scenario 2)		Year 2030 General Plan with Project Conditions (Scenario 3)	
			Daily Volume	LOS	Daily Volume	LOS	Daily Volume	LOS
	Moffett Blvd. to Ellis St.	4-Lane Freeway	**99,200**	**F**	**122,500**	**F**	**124,100**	**F**
	Ellis St. to SR 237	4-Lane Freeway	**96,400**	**E**	**127,900**	**F**	**131,500**	**F**
EB SR 237*	El Camino Real to SR 85	2-Lane Freeway	16,900	B	18,900	B	19,400	B
	Sylvan Wy. to Middlefield Rd./ Maude Ave.	2-Lane Freeway/ 3-Lane Freeway	**43,400**	**E**	**61,700**	**D**	**59,500**	**D**
	Middlefield Rd./ Maude Ave. to US 101	2-Lane Freeway/ 3-Lane Freeway	**42,700**	**D**	**61,300**	**D**	**58,500**	**D**
WB SR 237*	US 101 to Middlefield Rd./Maude Ave.	2-Lane Freeway/ 3-Lane Freeway	**42,700**	**D**	**54,600**	**D**	51,100	C
	Middlefield Rd./ Maude Ave. to Sylvan Way	2-Lane Freeway/ 3-Lane Freeway	**41,300**	**D**	45,800	C	44,000	C
	SR 85 to El Camino Real	2-Lane Freeway	26,800	C	29,000	C	29,500	C

1. Major roadways nearest the count location

2. The number of lanes of a freeway segment includes HOV lanes but excludes auxiliary lanes.

Bold text indicates a segment that exceeds the Caltrans standard (C/D cusp) or VTA CMP standard (LOS E).

Under Year 2030 conditions, implementation of the Precise Plan would increase motor vehicle traffic and congestion, which would result in degraded freeway segment levels of service below acceptable thresholds on several freeway study segments. To improve the LOS, these freeway segments would need to be widened by one or more lanes to meet the VTA level of service standard. Most of the

freeways serving Mountain View are constrained by the available right-of-way and funding. Additionally, all of the segments are under Caltrans jurisdiction and the City of Mountain View cannot ensure that improvements to freeway segments are made. Therefore, the deficiencies would remain and no environmental impact would occur as a result of freeway improvements because none are proposed.

Deficiency GP-TRA-6: Implementation of the East Whisman Precise Plan would result in increased vehicle traffic on multiple deficient freeway segments, but would not create deficiencies at freeway segments not identified in the General Plan EIR.

3.14.3.6 *Adjacent Jurisdictions Roadways*

Operations at roadway segments in adjacent jurisdictions were evaluated to determine potential impacts. These roadways were analyzed by dividing the forecasted roadway volumes by the future roadway capacities to obtain future V/C ratios. A V/C ratio of 1.0 or greater during the AM and PM peak one-hour indicates a deficient roadway. Only a portion of trips on any roadway segment in an adjacent jurisdiction is expected to have originated from a resident or job within Mountain View. The deficient lane miles with more than 10 percent of the traffic attributed to Mountain View are identified as impacted lane miles. Freeway facilities operated by Caltrans and expressways operated by the County of Santa Clara were regarded as adjacent jurisdictions. Operations of these facilities, which include facilities that are part of VTA's Congestion Management Program, were also evaluated.

The results for the AM peak hour are presented in Table 3.14-15 and the results for the PM peak hour are presented in Table 3.14-16.

Table 3.14-15: Morning Peak Hour Adjacent Jurisdiction Summary

City	Year 2017 Scenario			Year 2030 Scenarios					
	Existing (Scenario 1)			Year General Plan (Scenario 2)			Year 2030 General Plan with Project Conditions (Scenario 3)		
	Total Lane Miles with Deficient V/C Ratio[1]	Lane Miles[1,2]	Percent of Deficient Lane Miles	Total Lane Miles with Deficient V/C Ratio[1]	Lane Miles[1,2]	Percent of Deficient Lane Miles	Total Lane Miles with Deficient V/C Ratio[1]	Lane Miles[1,2]	Percent of Deficient Lane Miles
Major Arterial and Collector Roadways									
Campbell	0.0	0.0	0.0%	4.9	0.0	0.0%	4.9	0.0	0.0%
Cupertino	1.1	0.7	66.7%	8.3	0.0	0.0%	7.8	0.0	0.0%
Gilroy	0.0	0.0	0.0%	1.0	0.0	0.0%	1.0	0.0	0.0%
Los Altos	0.0	0.0	0.0%	4.3	1.4	**33.5%**	4.6	2.7	**58.6%**

Table 3.14-15: Morning Peak Hour Adjacent Jurisdiction Summary									
City	**Year 2017 Scenario**			**Year 2030 Scenarios**					
	Existing (Scenario 1)			**Year General Plan (Scenario 2)**			**Year 2030 General Plan with Project Conditions (Scenario 3)**		
	Total Lane Miles with Deficient V/C Ratio[1]	**Lane Miles[1,2]**	**Percent of Deficient Lane Miles**	**Total Lane Miles with Deficient V/C Ratio[1]**	**Lane Miles[1,2]**	**Percent of Deficient Lane Miles**	**Total Lane Miles with Deficient V/C Ratio[1]**	**Lane Miles[1,2]**	**Percent of Deficient Lane Miles**
Los Altos Hills	0.0	0.0	0.0%	9.2	1.7	18.6%	8.5	1.0	12.2%
Los Gatos	0.0	0.0	0.0%	4.5	0.0	0.0%	4.4	0.0	0.0%
Milpitas	36.3	7.1	19.6%	92.1	0.0	0.0%	92.0	0.0	0.0%
Monte Sereno	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%
Morgan Hill	3.5	0.0	0.0%	3.0	0.0	0.0%	3.3	0.0	0.0%
Palo Alto	4.6	3.1	67.4%	29.2	14.3	**49.0%**	26.7	12.4	**46.6%**
San José	27.3	2.8	10.2%	225.0	0.0	0.0%	222.8	0.0	0.0%
Santa Clara	1.1	0.9	82.6%	21.0	0.0	0.0%	19.1	3.0	15.5%
Saratoga	3.2	2.0	63.8%	10.2	0.0	0.0%	10.7	0.0	0.0%
Sunnyvale	1.7	1.3	77.0%	14.2	7.4	**51.9%**	13.1	9.1	**69.8%**
Freeways, State Highways, and Expressways									
Caltrans Facilities[3]	311.4	71.5	23.0%	635.4	45.5	7.2%	652.3	72.9	11.2%
Expressways[4]	19.3	2.8	14.7%	101.7	4.4	4.3%	99.7	7.0	7.1%

1. Lane miles of less than 0.5 were rounded to 0.

2. Deficient lane miles are where Mountain View traffic is greater than or equal to 10 percent of the roadway volume.

3. Includes all Caltrans facilities within Santa Clara County but outside of the Mountain View city limits.

4. Includes all expressway facilities within Santa Clara County but outside of the Mountain View city limits.

Deficiencies are identified in **bold text**.

Table 3.14-16: Evening Peak Hour Adjacent Jurisdiction Summary									
City	Year 2017 Scenario			Year 2030 Scenarios					
	Existing (Scenario 1)			Year 2030 General Plan (Scenario 2)			Year 2030 General Plan with Project Conditions (Scenario 3)		
	Total Lane Miles with Deficient V/C Ratio[1]	Lane Miles[1,2]	Percent of Deficient Lane Miles	Total Lane Miles with Deficient V/C Ratio[1]	Lane Miles[1,2]	Percent of Deficient Lane Miles	Total Lane Miles with Deficient V/C Ratio[1]	Lane Miles[1,2]	Percent of Deficient Lane Miles
Major Arterial and Collector Roadways									
Campbell	1.1	0.0	0.0%	3.5	0.0	0.0%	3.3	0.0	0.0%
Cupertino	0.0	0.0	0.0%	2.0	0.0	0.0%	2.5	0.0	0.0%
Gilroy	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%
Los Altos	0.0	0.0	0.0%	1.1	0.7	**69.8%**	1.7	0.7	**44.1%**
Los Altos Hills	0.0	0.0	0.0%	4.7	0.9	19.2%	4.9	0.8	15.6%
Los Gatos	0.0	0.0	0.0%	0.7	0.0	0.0%	0.6	0.0	0.0%
Milpitas	22.6	3.4	15.1%	73.8	0.0	0.0%	74.3	0.0	0.0%
Monte Sereno	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%
Morgan Hill	0.0	0.0	0.0%	1.7	0.0	0.0%	1.6	0.0	0.0%
Palo Alto	1.8	1.2	65.1%	17.2	10.5	**61.2%**	17.1	12.3	**72.2%**
San José	10.6	0.8	7.3%	89.1	0.0	0.0%	93.9	0.0	0.0%
Santa Clara	0.0	0.0	0.0%	8.7	0.0	0.0%	8.7	0.0	0.0%
Saratoga	1.2	0.0	0.0%	4.8	0.0	0.0%	4.8	0.0	0.0%
Sunnyvale	0.0	0.0	0.0%	3.7	0.9	**25.3%**	5.0	1.6	**32.0%**
Freeways, State Highways, and Expressways									
Caltrans Facilities[3]	232.2	71.5	30.8%	553.9	43.8	7.9%	551.9	65.0	11.8%
Expressways[4]	8.5	1.2	14.6%	59.3	3.4	5.8%	67.2	9.2	13.7%

Table 3.14-16: Evening Peak Hour Adjacent Jurisdiction Summary									
City	Year 2017 Scenario			Year 2030 Scenarios					
	Existing (Scenario 1)			Year 2030 General Plan (Scenario 2)			Year 2030 General Plan with Project Conditions (Scenario 3)		
	Total Lane Miles with Deficient V/C Ratio[1]	Lane Miles[1,2]	Percent of Deficient Lane Miles	Total Lane Miles with Deficient V/C Ratio[1]	Lane Miles[1,2]	Percent of Deficient Lane Miles	Total Lane Miles with Deficient V/C Ratio[1]	Lane Miles[1,2]	Percent of Deficient Lane Miles
1. Lane miles of less than 0.5 were rounded to 0. 2. Deficient lane miles are where Mountain View traffic is greater than or equal to 10 percent of the roadway volume. 3. Includes all Caltrans facilities (freeways and state highways) within Santa Clara County but outside of the Mountain View city limits. 4. Includes all expressway facilities within Santa Clara County but outside of the Mountain View city limits. Deficiencies are identified in **bold text**.									

For several cities, including Milpitas, Cupertino, Santa Clara and San Jose, the percent of deficient lane miles under 2030 Conditions decreased compared to 2017 Conditions. This change is caused by two factors: 1) the total lane miles with deficient V/C ratios would increase significantly due to the traffic volume growth, and therefore City of Mountain View traffic would become a smaller portion of the total congested lane miles; and 2) with the land use changes in 2030 conditions, an increased percentage of trip ends associated with City of Mountain View are expected to connect within the city or to nearby cities, which is also demonstrated by the reduced VMT per service population results shown in Table 3.14-12.

The project would have a significant effect on roadway segments in Los Altos, Palo Alto, and Sunnyvale; however, significant effects would not occur at freeway segments outside of Mountain View. The City of Mountain View's General Plan also identified the same jurisdictions with deficiencies. No feasible improvements are available since implementation of the necessary improvements does not have complete funding available and the City of Mountain View cannot control implementation of roadway improvements outside of the City of Mountain View's jurisdiction. Thus, implementation of the land use changes would contribute to or cause deficient roadway segment in adjacent communities and no feasible improvements have been identified that would reduce the deficiency.

Deficiency GP-TRA-7: Implementation of the East Whisman Precise Plan would result in increased vehicle traffic in Los Altos, Palo Alto and Sunnyvale, but would not create additional deficiencies in jurisdictions not identified in the General Plan EIR.

3.14.4 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
TRA-1: Impacts to pedestrian or bicycle infrastructure of proposed roadway improvements and implementation of the Precise Plan would be less than significant.	Less than Significant	No mitigation required	NA
TRA-2: While the Precise Plan would add peak hour transit riders, implementation of the proposed project would not disrupt existing or interfere with planned transit services or facilities and the impact would be less than significant.	Less than Significant	No mitigation required	NA
TRA-3: Implementation of the East Whisman Precise Plan would have a significant and unavoidable effect on transit vehicle operations, in particular at those intersections with a significant and unavoidable traffic delay impact.	Significant Impact	No feasible mitigation measures available	Significant and Unavoidable
TRA-4: Street C would result in increased light rail vehicle delay due to the slower train speeds through the crossing, disrupting the existing facility. significant.	Significant Impact	MM TRA-4.1	No Impact
TRA-5: The Precise Plan would result in a project-level and cumulative VMT impact due to project generated VMT on both a citywide and countywide level.	Significant Impact	No feasible mitigation measures available	Significant, Unavoidable
TRA-6: The project would not have a project-level or cumulative effect on citywide or countywide VMT; therefore, no impact would occur.	No Impact	No mitigation required	NA
TRA-7: The Precise Plan would have a less than significant impact as a result of roadway emergency access or hazards.	Less than Significant	No mitigation required	NA
TRA-8: Environmental impacts as a result of new roadway improvements would be less than significant with adherence to General Plan policies and City requirements.	Less than Significant	No mitigation required	NA
General Plan-Level Analysis			
GP-TRA-9: Implementation of the proposed General Plan amendment would not result in significant impacts with regard to city-wide VMT.	Less than Significant	No mitigation required	NA

3.15 TRIBAL CULTURAL RESOURCES

3.15.1 Environmental Setting

3.15.1.1 *Regulatory Framework*

State

Assembly Bill 52 – Tribal Cultural Resources

AB 52 requires that tribal cultural resources be considered under CEQA. A tribal cultural resource can be a site, feature, place, object, or cultural landscape with value to a California Native American tribe that is also eligible for listing on the California Register of Historic Resources (CRHR). AB 52 includes a broad definition of what may be considered a tribal cultural resource and includes a list of recommended mitigation measures for potential impacts. AB 52 requires lead agencies to provide notice of projects to tribes that are traditionally and culturally affiliated with the geographic area if they have requested to be notified. Where a project may have a significant impact on a tribal cultural resource, consultation is required until the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource or when it is concluded that mutual agreement cannot be reached.

The following mitigation measures may be considered to avoid or minimize the significant impacts under AB 52:

(1) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
(2) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    (a) Protecting the cultural character and integrity of the resource.
    (b) Protecting the traditional use of the resource.
    (c) Protecting the confidentiality of the resource.
(3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
(4) Protecting the resource.

Senate Bill 18

The intent of Senate Bill (SB) 18 is to aid in the protection of traditional tribal cultural places through local land use planning by requiring city governments to consult with California Native American tribes on projects, which include adoption or amendment of general plans (defined in Government Code Section 65300 et seq.) and specific plans (defined in Government Code Section 65450 et seq.). SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process.

3.15.1.2 *Existing Conditions*

No tribes that are culturally affiliated with the area have requested notification of projects in the Precise Plan area under AB 52.

Native American consultation for the Precise Plan was initiated in January 2017. The Native American Heritage Commission (NAHC) was contacted to request a review of the Sacred Land Files for any evidence of cultural resources or traditional properties of potential concern that might be present on lands within or adjacent to the Precise Plan area (the confidential Cultural Resources Literature Search includes correspondence sent and received). The NAHC responded and provided a contact list of six Native American individuals/organizations with potential knowledge of or concerns regarding cultural resources in the Precise Plan area. Each of the six contacts was sent an email describing the project, a map of the precise Plan area, and an inquiry as to whether they had any concerns. Follow up phone calls were placed. No comments have been received and no specific Native American resources have been identified within or near the Precise Plan area.

3.15.2 Tribal Cultural Resources Impacts

3.15.2.1 *Thresholds of Significance*

For the purposes of this EIR, a tribal cultural resources impact is considered significant if the project would:

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    - Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
    - A resource determined by the lead agency in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.15.2.2 *Tribal Cultural Resources Impacts*

No tribes with a cultural affiliation to the Precise Plan area have requested notification of or consultation for projects under AB 52. No tribal cultural resources or Native American resources were identified in the Precise Plan area as a result of email and telephone consultation and outreach. While there is the potential for unknown Native American resources or human remains to be present in the Precise Plan area, impacts would be less than significant with implementation of the City's standard conditions of approval related to discovery of archaeological resources or human remains (described in detail in Section 3.4 Cultural Resources).

Impact TCR-1: With the implementation of standard City standard conditions of approval, the proposed project would result in a less than significant impact to tribal cultural resources. **[Less than Significant Impact]**

3.15.2.3 *Cumulative Cultural Resources Impacts*

The cumulative projects analyzed in this Draft EIR in Mountain View and Sunnyvale may require excavation and grading or other activities that may affect tribal cultural resources. No tribal cultural resources were identified in the Precise Plan area. Additionally, all cumulative projects would be required to implement conditions of approval or mitigation measures that would avoid impacts and/or reduce them to a less than significant level consistent with CEQA and AB 52 requirements. These projects would also be subject to federal, state, and county laws regulating archaeological resources and human remains. For these reasons, the proposed project in combination with the cumulative scenario projects would not result a significant tribal cultural resources impact.

Impact C-TCR-1: With the implementation of the standard conditions of approval and mitigation measures that would be required of all projects in the cumulative scenario, a less than significant cumulative impact with regard tribal cultural resources would occur. **[Less than Significant Impact]**

3.15.3 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
Impact TCR-1: With the implementation of standard City standard conditions of approval, the proposed project would result in a less than significant impact to tribal cultural resources.	No Impact	No mitigation required	NA
Impact C-TCR-1: With the implementation of the standard conditions of approval and mitigation measures that would be required of all projects in the cumulative scenario, a less than significant cumulative impact with regard tribal cultural resources would occur.	Less Than Significant	No mitigation required	NA

3.16 UTILITIES AND SERVICE SYSTEMS

The water supply discussion in this section is based on the Water Supply Assessment (WSA) and Utility Impact Study prepared by Schaaf & Wheeler in November 2018. These reports are included as Appendix J and Appendix K, respectively

3.16.1 Environmental Setting

3.16.1.1 *Regulatory Framework*

State and Regional

Urban Water Management Plan

Pursuant to the State Water Code, water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (approximately 980 million gallons) of water annually must prepare and adopt an urban water management plan (UWMP) and update it every five years. As part of a UWMP, water agencies are required to evaluate and describe their water resource supplies and projected needs over a 20-year planning horizon, water conservation, water service reliability, water recycling, opportunities for water transfers, and contingency plans for drought events. The City of Mountain View municipal water system serves 98percent of the City of Mountain View, including the project area. The City is the water retailer for the area in which it serves and purchases water from both the Santa Clara Valley Water District and the SFPUC, which are water wholesalers. As a water retailer, the City is required to prepare UWMPs. The City's most recent UWMP (2015 UWMP) was adopted in June 2016. An addendum to the 2015 UWMP was prepared in September 2017 following a transfer of 1.0 million gallons per day (MGD) of the City's water supply rights from the San Francisco Regional Water System to the City of East Palo Alto.

Senate Bill 610

The California Water Code (Section 10910 et. seq.), based on SB 610, requires a project proponent to assess the reliability of a project's water supply as part of the CEQA process. Projects meeting certain criteria and requiring an EIR or Negative Declaration under CEQA must prepare a WSA analyzing the existing and future water supplies for the project and compare them to the City's total projected water demands for the next twenty (20) years. Projects that require preparation of a WSA include proposed residential development of more than 500 dwelling units or commercial, industrial, or mixed-use projects that demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.

Wastewater

The San Francisco Bay RWQCB includes regulatory requirements that each wastewater collection system agency shall, at a minimum, develop goals for the City's Sewer System Management Plan (SSMP) to provide adequate capacity to convey peak flows. The City of Mountain View's most recent SSMP was adopted in June 2018.

Assembly Bill 939

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

Assembly Bill 341

AB 341 sets forth the requirements of the statewide mandatory commercial recycling program in the Public Resources Code. All businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units in California are required to recycle. AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

Senate Bill 1383

SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The bill grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025.

Local

The City of Mountain View promotes the sustainable use of its water resources through outreach and education programs, financial incentive programs, and by implementing water conservation measures at City properties. Many of the City's water conservation measures are implemented in partnership with Valley Water and the Bay Area Water Supply & Conservation Agency. Some of the City's conservation measures include incorporating water waste prohibitions into the City Code, monitoring water losses, providing public information and outreach programs, and implementing plumbing and rebate and retrofit programs for residential and business customers.

The City periodically updates its SSMP, a document that compiles the policies, procedures, and activities that are included in the planning, management, operation, and maintenance of the City's sanitary sewer system. The SSMP is intended to meet the requirements of the State Water Resources Control Board (SWRCB) General Waste Discharge Requirements for Wastewater Collection Agencies. The SSMP provides guidance for analyzing future development capabilities within the City in accordance with peak wastewater flows and existing capacity to convey current and projected wastewater demands.

The City has adopted a capital improvement program (CIP) that focuses on capital expenditures to improve the backbone infrastructure of the water, sewer, and stormdrain distribution system based on hydraulic sufficiency. The CIP focuses on high priority, major infrastructure improvements while continuing to maintain existing systems and replace aging infrastructure. Proposed infrastructure projects related to traffic and roadway improvements, public park maintenance, and other public facilities are also included within the CIP, along with funding mechanisms for each CIP project.

City of Mountain View General Plan Policies

The following General Plan policies are related to utilities, water supply, solid waste disposal, sewer and wastewater infrastructure, and are applicable to the proposed Precise Plan.

Policy	Description
INC 1.2	**Funding.** Ensure sustainable funding levels for maintaining infrastructure in the city.
INC 1.3	**Utilities for new development**. Ensure adequate utility service levels before approving new development.
INC 1.4	**Existing capital facilities.** Maintain and enhance existing capital facilities in conjunction with capital expansion.
INC 3.3	**Street design for stormwater.** Encourage street designs that reduce stormwater flows and accomplish other City stormwater goals.
INC 4.3	**Prioritizing existing facilities.** Prioritize maintenance and enhancement of existing capital facilities in conjunction with capital expansion.
INC 5.2	**Citywide water conservation.** Reduce water waste and implement water conservation and efficiency measures throughout the city.
INC 5.3	**Water reuse.** Remove barriers and provide guidance for the use of rainwater and graywater as alternative water supplies.
INC 5.5	**Landscape efficiency.** Promote water-efficient landscaping including drought-tolerant and native plants, along with efficient irrigation techniques.
INC 5.6	**Indoor efficiency.** Promote the use of water-efficient fixtures and appliances.
INC 6.4	**Discharge Regulations.** Coordinate with partners and other local agencies to monitor changing rules and regulations regarding wastewater discharge from the Palo Alto Regional Water Quality Control Plant.
INC 7.4	**Recycled water and trees.** Promote appropriate tree and landscape species irrigated by recycled water.
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.
INC 8.7	**Stormwater quality.** Improve the water quality of stormwater and reduce flow quantities.
INC 10.1	**Zero waste.** Pursue a citywide goal of zero waste.
INC 10.4	**Construction waste reuse.** Encourage building deconstruction and reuse and construction waste recycling.
INC 11.1	**Waste diversion and reduction.** Meet or exceed all federal, state and local laws and regulations concerning solid waste diversion and implementation of recycling and source reduction programs.
INC 11.2	**Recycling.** Maintain and expand recycling programs.
INC 11.3	**Composting.** Provide productive reuse or composting services or both for all discarded organic materials in the city, including all food and green waste.
INC 11.4	**Solid waste.** Ensure all municipal solid waste generated within the city is collected, transported and disposed of in a manner that protects public health and safety.

3.16.1.2 *Existing Conditions*

The project site is located in a developed area within the City of Mountain View and is currently served by existing phone, electrical, water, recycled water, stormwater, wastewater, and solid waste service systems. Phone service is provided to the project site by AT&T, and electrical service is provided by Pacific Gas and Electric (PG&E).

Water Supply and Demand

The City of Mountain View owns and operates its own water utility. The City is the water retailer for the area and purchases water from both Valley Water and the SFPUC to meet the demands of its residents. Approximately 86 percent of the City's supply is sourced from SFPUC purchases, seven percent of the City's supply is sourced from Valley Water, and two percent of the supply is supplemented by local groundwater wells. Recycled water from the Palo Alto Regional Water Quality Control Plant (RWQCP) provides five percent of the total supply, specifically for non-potable uses. The majority of the Precise Plan area is located within the City's service area identified as Zone 2, which relies primarily on water deliveries from the SFPUC. A small portion of the Precise Plan area is located in Zone 1, which is also supplied by SFPUC deliveries. Currently, the SFPUC provides up to 12.46 MGD to the City.

The 2015 UWMP was prepared in accordance with current and projected land uses included in the City's 2030 General Plan and includes increases in commercial, institutional, industrial, and residential water demand over the 25-year implementation horizon. The UWMP projects current water demands of 10,528 AFY (average over the period 2010 through 2015) in the City. The projected water demand in Mountain View increases from approximately 8,610 AFY in 2015 to 13,509 AFY in 2040, a net increase of 4,899 AFY (approximately 57 percent).

The City of Mountain View's UWMP forecasts that water supplies will be available to meet the City's projected future water demands during normal and wet years through 2040, based on General Plan growth estimates and supplier projections. During single- and multiple-drought years, the City expects reductions in available supply from the SFPUC and Valley Water. This decrease in imported water is anticipated to be made up through implementation of drought-year conservation measures, the potential increased use of recycled water, and an increase in groundwater production (as the groundwater basin allows).

Water Conservation

As described in the 2015 UWMP, recent updates to the plumbing code (which include requiring more water-efficient features) are expected to reduce Mountain View's water use by two percent in 2020, and up to nine percent in 2040. Additionally, the UWMP projects that implementation of new conservation measures would reduce water use by eight percent in 2020 and 2040, from the base-case scenario.

Current and near-term water conservation measures described in the UWMP include water waste prohibitions from the City Code, water system audits, leak detection and repair, metering and conservation pricing, public information and education programs, residential water surveys, plumbing retrofits, and turf audits.

Water Use by Existing Site Development

The East Whisman Precise Plan area is currently developed with large format commercial office, research and development, and light-industrial buildings on large blocks, scattered commercial and retail development, and one residence. It is estimated the average water use within the Precise Plan area under current conditions is 778 acre-feet per year (AFY), or 694,554 gallons per day (gpd), as described in Table 3.16-1, below.

Table 3.16-1: Existing Water Demand in the Precise Plan Area

Land Use	Unit Duty Factor (gpd/unit or gpd/1,000 sf)	Units	Area	Daily Demand (gpd)	Total Demand (AFY)
Office	90	-	3,684,009	331,561	371
High-Intensity Office/R&D	130	-	2,562,930	331,181	373
Industrial	60	-	196,062	11,764	13
Single-Family Residential	225	1	-	225	1
Multi-Family Residential	100	-	-	-	-
Retail	130	-	43,191	5,615	6
Restaurant	1200	-	10,588	12,706	14
Hotel	100	-	-	-	-
				Total:	***778***

Wastewater Services

The City of Mountain View maintains its own wastewater collection system. Sanitary and storm drains in the City of Mountain View are operated and maintained by the Wastewater Section of the Public Works Department. The City pumps its wastewater to the Palo Alto Regional Water Quality Control Plant (RWQCP) for treatment. The RWQCP has an overall 40 mgd average annual treatment capacity. The City of Mountain View has an average annual flow capacity right of 15.1 mgd at the RWQCP. In 2015, approximately nine mgd of wastewater from Mountain View was collected and treated by the RWQCP.[79] The terms of Mountain View's Basic Agreement with the City of Palo Alto require that when the City of Mountain View reaches 80 percent of the 15.1 mgd allowed by the agreement (approximately 12.08 mgd), an engineering study will be required of the City to redefine the future needs of the RWQCP and potentially assist in future plant expansions or upgrades outlined as in the City of Palo Alto's Long Range Facilities Plan. The Precise Plan area is estimated to generate 472,328 gpd of sewer flow for treatment at the RWQCP under existing conditions.

[79] City of Mountain View. 2015 UWMP. June 2016.

Mountain View's sanitary sewer system is a gravity system with two sewer lift stations; one located in Shoreline Park and the other localized station located on Pastel Lane. The system consists of gravity pipelines, pressure pipelines, and pump stations. The Shoreline Sewer Pump Station, located within the North Bayshore area, conveys the majority of sanitary sewer flow generated within the City to the RWQCP. The Precise Plan area is serviced by existing sanitary sewer mains that convey wastewater to the north to the Shoreline Sewer Pump Station via the East Trunk. Three pipes along North Whisman Road within the Precise Plan area have been identified as being at risk of surcharging under existing conditions.

Storm Drainage

The City of Mountain View Public Works Department operates and maintains the storm drainage system in the City. The Precise Plan area is primarily located within the Stevens Creek watershed, with small portions of the southern Precise Plan Area located in the Calabazas Creek watershed.[80] Stormwater is collected via inlets and catch basins within the Precise Plan area and flows to the large diameter storm drain trunk line, parallel to US 101. Flows are conveyed from Ellis Street within the Precise Plan area to Stevens Creek, which ultimately discharges to the San Francisco Bay.[81]

Solid Waste

Solid waste collection and recycling services for residents and businesses in Mountain View are provided by Recology Mountain View. Once collected, solid waste and recyclables are transported to the SMaRT station in Sunnyvale for sorting, and commercial compostables (food scraps) are transported to a composting facility located in Vernalis, California. Non-recyclable waste is transported to Kirby Canyon Sanitary Landfill in south San José (which is contracted to the City through 2021). Additional small quantities of waste may be transported to other landfills within the area by private contractors. Kirby Canyon Landfill has a total estimated permitted capacity of 36.4 million cubic yards, a remaining estimated capacity of approximately 16 million tons, and a closing date of approximately January 1, 2071.[82]

The City of Mountain View is working to maintain a waste diversion goal of 50 percent as required state law. Progress towards this goal is expressed as a per capita disposal rate for both residential and commercial waste. The per capita targets for Mountain View are 7.8 pounds per day per resident (which is equivalent to a 50 percent diversion rate) and 10.9 pounds per day per employee. In 2017, the state's target (disposal limit) for Mountain View was 7.8 pounds per person per day based on population.[83] Mountain View achieved a 3.4-pound rate, well below the state's target. The equivalent diversion rate, which can be calculated from the resident per capita rate, was 78 percent.[84]

[80] City of Mountain View. *Storm Drain Master Plan.* September 2017.
[81] Ibid.
[82] Azevedo, Becky. Waste Management Technical Manager. Email with Wang, Amy. DJP&A Project Manager. March 7, 2019.
[83] City of Mountain View. "What is Zero Waste?". Accessed November 17, 2018. https://www.mountainview.gov/depts/pw/recycling/zero/default.asp.
[84] Lori Topley. City of Mountain View. Email communication. April 19, 2018.

3.16.2 Utilities and Service Systems Impacts

3.16.2.1 *Thresholds of Significance*

For the purposes of this EIR, a utilities and service systems impact is considered significant if the project would:

- Require or result in the relocation or construction of new or expanded waste, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project and reasonable foreseeable future development during normal, dry, and multiple dry years;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure;
- Negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals; or
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

3.16.2.2 *New or Expanded Facilities*

New development in the Precise Plan area would primarily utilize existing utility connections to connect to the City's stormwater, electric, telecommunications, waste, and wastewater systems. The Precise Plan would incrementally increase the demand on existing facilities in the City of Mountain View; however, this increase would be acceptable upon implementation of several projects included in the General Plan Utility Impact Study and Storm Drain Master Plan. The analysis in the following sections discusses the potential impacts of the project on existing facilities and prescribes necessary upgrades from the CIP.

Utility improvements would result in increases in pipe size, generally in the same location as existing pipes. Thus, there would be a limited environmental impact as a result of new utility-related infrastructure improvements. The location and sizing of new facilities is unknown at this time and, therefore, additional analysis will need to occur when new projects are proposed, as described further in the sections that follow.

Water System and Fire Flow

The existing water system was evaluated for its ability to meet fire flow requirements, which include the maximum daily demand plus the fire flow pressure requirements. Under current conditions, the Precise Plan area meets design criteria for fire flows, although there are deficiencies outside of the Precise Plan area. The water system would also be able to adequately supply increased demand from development under the Precise Plan. While the Precise Plan area would not experience deficiencies

in providing peak hour demands or fire flows, areas outside of the Precise Plan would experience reduced fire flows. Reductions in fire flows are anticipated to vary between one and three percent of available fire flow in areas that are deficient under current conditions. Nine deficiencies are expected to occur outside of the Precise Plan area as a result of development under the Precise Plan. The impact from the Precise Plan, including both the reduction in available fire flow for areas with identified deficiencies and the additional deficiencies resulting from implementation of the Precise Plan, can be mitigated by CIPs #8, 10, 11, 20, 21, 36, 37, and 95.

Because the Precise Plan proposes new streets, which could include new water pipes, three of the CIPs noted above may not be required to maintain adequate fire flow pressure upon installation of eight-inch diameter pipes in any new streets. Further, the exact locations and intensity of future development projects under the Precise Plan are currently unknown but could result in further localized inadequacies in fire flows or additional inadequacies outside of the Precise Plan area.

Sewer System

In its current condition, approximately 2,340 feet of sewer pipe in the Precise Plan area do not meet the maximum flow depth/pipe diameter (d/D) performance criteria, with three pipe segments at risk for surcharging. The Precise Plan would incrementally increase sewer flows in the area. The increase in sewer flows would result in an additional 3,650 feet of pipe that would not meet the d/D performance criteria, with a total of four pipe segments susceptible to surcharge with implementation of the Precise Plan (including the three pipe segments currently at risk of surcharge).

The City's CIP has identified existing deficiencies in sewer pipes in the Precise Plan area and within the City as a whole. CIPs #72, 75, 77, and 83 would address these deficiencies by increasing the diameter of existing sewer pipes in the area, thereby reducing the potential for surcharge following increased sewer flows under the Precise Plan. As discussed previously, the exact location and intensity of future development under the Precise Plan is currently unknown; therefore, the potential exists for localized flows from individual projects to exceed performance criteria.

Storm Drain System

The Storm Drain Master Plan prepared for the City in September 2017 identified deficient areas along Fairchild Drive between North Whisman Road and Highway 237 at the northern boundary of the Precise Plan area. A combination of undersized storm drains and large creek spillage at Stevens Creek contributes to these deficiencies. The deficiencies would not be exacerbated by future development under the Precise Plan area as a result of increased stormwater runoff or modified storm drainage patterns.

The City's storm drain system has been identified as deficient in several areas due to historical occurrence of localized flooding events, however, these events have typically occurred outside of the Precise Plan area. This flooding occurs adjacent to an area that is already intensely developed with office and R&D uses, primarily consisting of impervious surfaces, such as buildings, parking lots, streets, and other hardscape areas. The minor increase in stormwater runoff resulting from implementation of the Precise Plan would not substantially affect the localized flooding that already occurs adjacent to the Precise Plan area.

Implementation of the Precise Plan, as discussed in Section 3.9 Hydrology and Water Quality, would be expected to result in a minor increase in impervious surfaces when compared to existing conditions. Upon implementation of Precise Plan guidelines to reduce stormwater runoff quantity and improve quality, required green-building measures, and City stormwater control measures (administered as standard conditions of approval), stormwater runoff into the City's storm drain system would be reduced to the maximum extent feasible. Individual project sites may, however, have stormwater drainage characteristics that change as a result of new development—in particular, for larger projects. New or expanded stormwater infrastructure may be required to address those flow changes.

Impact UTL-1: Future large-scale, site-specific development projects associated with implementation of the Precise Plan could result in impacts to the existing water, sewer, and storm drainage infrastructure. Proposed new development may require upsizing and/or improvements to nearby water distribution, sewer, and storm drainage infrastructure to accommodate growth associated with larger projects. **[Significant Impact]**

As part of the Precise Plan Implementation Actions, a nexus study will be prepared and an impact fee adopted for utility improvements necessary to address impacts in the Precise Plan area. The fee will be levied based on expected project demand. The CIPs and other necessary upgrades to utility infrastructure would be funded through the nexus study impact fee. Future development under the Precise Plan would be required to contribute the necessary fees and comply with the standards and guidelines of the Precise Plan.

Localized water, sewer, and stormwater inadequacies would need to be addressed for larger projects before new development proceeds. To complete a thorough assessment of the existing infrastructure and its ability to accommodate Precise Plan demands, additional analysis may be required to address the potential effects that specific projects could have on the utility systems. As individual parcels are developed, the City will need to work with project applicants to identify any necessary upgrades to utility systems and establish proportional impact fees under the Precise Plan utility nexus study.

Mitigation Measure: The following mitigation measure would reduce any utility impacts from large, site-specific development projects to a less than significant level.

MM UTL-1.1: The City shall require, determined on a project by project basis, the preparation of a site-specific utility analysis of applicable water, sewer, and stormwater infrastructure systems adjacent to and downstream of the project site to identify capacity issues. The utility impact analysis will be submitted to the Planning Division as part of future project applications. The analysis will determine the proportional utility impact fees to be paid under the nexus study and will identify any other utility infrastructure improvements required as a result of individual projects.

Implementation of MM UTL-1.1 would ensure that large development projects in the Precise Plan pay appropriate impact fees under the nexus study to fund area CIPs and complete other needed utility infrastructure improvements. **[Less than Significant Impact with Mitigation]**

3.16.2.3 *Water Supply Impacts*

The Precise Plan proposes a net increase of approximately 2.3 million square feet of office, 100,000 square feet of retail and restaurants, 200 hotel rooms, and 5,000 residential units in the East Whisman area. The City's 2015 UWMP projected a moderate increase in water demand within the City, due to infill development under the City's 2030 General Plan. The 2015 UWMP did not analyze the water demand that would be generated by adding residential uses, increasing commercial and office spaces, and adding hotel uses within the East Whisman Precise Plan area. In accordance with the California Water Code and SB 610, a WSA was prepared for the Precise Plan assess the additional water demand generated by the project and determine whether projected supplies will be sufficient.

Implementation of the Precise Plan would increase the water demand in the area by approximately 1,157 AFY over existing (as shown in Table 3.16-2). The Precise Plan demand results in an eight to nine percent increase in demand over the adjusted UWMP demand.[85] Under normal conditions, the City is not projected to experience future shortfalls with the adjusted UWMP demand alone or with the proposed Precise Plan demand. Without the project, shortfalls of up to 11 percent are projected for single dry years and up to 13 percent in multiple dry years. When the Precise Plan demand is added to the adjusted UWMP demand, shortfalls of up to 18 percent and 20 percent are projected for single dry years and multiple dry years, respectively.

Table 3.16-2: Future Water Demand in the Precise Plan area

Land Use	Unit Duty Factor (gpd/unit or gpd/1,000 sf)	Units	Area	Daily Demand (gpd)	Total Demand (AFY)
Office	130	-	8,299,234	1,078,900	1,209
High-Intensity Office/R&D	130	-	395,995	51,479	58
Industrial	60	-	47,773	2,866	3
Single-Family Residential	-	-	-	-	-
Multi-Family Residential	100	5,000	-	500,000	560
Retail	130	-	103,058	13,398	15
Restaurant	1200	-	50,721	60,865	68
Hotel	100	200	-	-	22
				Total:	***1,935***

To deal with anticipated shortfalls, the City has established a staged Water Shortage Contingency Plan, included in the UWMP, which can mitigate for shortfalls of up to 50 percent. The previously described demand shortfall during multiple dry year scenarios would be adequately mitigated with implementation of conservation measures and water use restrictions described in the contingency plan. In addition, future projects developed under the Precise Plan would be required to comply with

[85] Demand in the WSA (Appendix J) was adjusted to include the recently approved North Bayshore Precise Plan development assumptions and associated water demand.

2030 General Plan policies related to water conservation (including Policies INC 5.1 through INC 5.7). Precise Plan standards and guidelines for water conservation and green building would also be implemented (where relevant), including:

- **Water Use Performance.** New construction shall meet indoor and outdoor water performance standards defined by LEED BD+C and CalGreen.
- **Dual-Plumbed Buildings.** New non-residential construction greater than 25,000 square feet shall install dual plumbing for potable and recycled water use.
- **Connection to the Recycled Water System.** When the recycled water system is adjacent to the property, new construction shall install the infrastructure necessary to connect or be ready to connect to the recycled water system.

The Precise Plan would result in an increase in water demand within the City of Mountain View, however; the City's water supply contract with the SFPUC and Valley Water would meet the project water demands through the planning horizon of 2040.

Impact UTL-2: Sufficient supplies of water are available to serve the project during normal and drought years, and the proposed project would not result in significant water supply impacts. **[Less than Significant Impact]**

3.16.2.4 *Wastewater Treatment*

The City of Mountain View is allocated 15.1 mgd of treatment capacity at the RWQCP. The RWQCP has an overall treatment capacity of 40 mgd, distributed between the six partner agencies. Wastewater generation rates in the City of Mountain View were estimated to be nine mgd in 2015. The wastewater generation rate for the proposed Precise Plan was estimated to be 1,225,362 gpd, which amounts to an increase of 753,034 gpd when compared to existing conditions. This increase in wastewater flow was not accounted for in the utility study performed for the 2030 General Plan; however, the incremental increase in wastewater generation would not result in an exceedance of capacity at the RWQCP. Implementation of the Precise Plan would not prevent the RWQCP from meeting wastewater treatment requirements by generating wastewater above the capacity allocated to the City of Mountain View.

Impact UTL-3: Implementation of the Precise Plan would not prevent the RWQCP from meeting wastewater treatment requirements. **[Less than Significant Impact]**

3.16.2.5 *Solid Waste Impacts*

Future developments in the Precise Plan area would be required to comply with the California-mandated 50 percent waste diversion and CalGreen standards (including a construction waste recycling requirement and readily accessible areas for recycling). Large amounts of construction waste would be generated during construction and demolition activities. At least 65 percent of this construction waste would be recycled or reused. New developments in the Precise Plan area would be required to divert and dispose of waste during operation in accordance with the state requirements and the policies in the General Plan. As a result, the project would not adversely affect the City's compliance with the waste diversion requirements under state law.

Solid waste from the Precise Plan area would be disposed at the Kirby Canyon Landfill in San José through 2021, until the end of the City's current contract. Kirby Canyon Landfill has an estimated closing date of 2063. Therefore, future developments in the Precise Plan area would not result in a substantial increase in waste landfilled at Kirby Canyon, or be served by a landfill without sufficient capacity. Compliance with the Municipal Code and General Plan policies related to solid waste would ensure that the proposed project does not conflict with state and federal solid waste regulations and statutes.

Impact UTIL-4: Future developments in the Precise Plan area would not result in a substantial increase in waste landfilled at Kirby Canyon, or be served by a landfill without sufficient capacity; and the impact is less than significant. **[Less than Significant Impact]**

3.16.2.6 *Cumulative Utilities Impacts*

Water Supply

With the exception of the groundwater supply, the majority of potable water supplies in Mountain View originate from outside the City. In addition to Santa Clara County, the water supply from the SFPUC is distributed to other wholesale customers in Alameda and San Mateo counties. Valley Water is Santa Clara County's principal water wholesaler, and serves surrounding communities, like Palo Alto and Sunnyvale. Most new urban land uses within the surrounding area and development associated with implementation of the Precise Plan and the 2030 General Plan would be dependent on these two water supply sources.

As described in the 2015 UWMP, which encompasses the likely growth in water demand throughout the City, and the WSA for the proposed project, the City's available potable and non-potable water supplies are expected to be sufficient to meet demands of existing uses and future uses under normal, single dry, or multiple dry-water years. Under normal conditions, the City is not projected to experience supply shortfalls. Under all dry year scenarios and the adjusted UWMP demand including the North Bayshore Precise Plan buildout, the City may need to impose water conservation measures, per Mountain View Municipal Code Section 35.28, to reduce demand. With implementation of water conservation measures, the supply will remain sufficient for the future projected demand, even in multiple dry years. The Precise Plan includes guidelines and measures related to sustainable water use and conservation, which would increase water savings within the Precise Plan area and reduce the demand of the project on the existing supply. The City of Mountain View's standard conditions of approval would require future projects to include water conserving features in building and irrigation design and to comply with CalGreen requirements, thereby reducing the cumulative demand for water in the City. The City's Water Shortage Contingency Plan would ensure that existing water supply sources would sufficiently provide for the future water demand created by expected growth in the City.

For these reasons, the existing water supply is estimated to be sufficient for future cumulative demands, while water conservation measures would be necessary to meet demand in single or multiple dry-year scenarios. Thus, the proposed project would have a less than significant cumulative impact on water supplies.

Wastewater and Sewer System

The cumulative wastewater impacts of the Precise Plan were estimated by taking into consideration projects recently approved by the City, estimated future sewer flows based on the 2030 General Plan Update and the 2030 General Plan Update Utility Impact Study (GPUUIS), and five projects under consideration for the transfer of developable rights from the San Antonio Precise Plan area to the East Whisman Precise Plan area. The approved projects, existing entitlements, and expected growth by land use was used to generate a baseline wastewater flow, estimated to be 1,040,592 gpd. Under this cumulative scenario, the Precise Plan would only marginally increase wastewater flows by 184,770 gpd. The RWQCP has an overall treatment capacity of 40 mgd, with 15.1 mgd of capacity allocated to the City of Mountain View. Current wastewater generation rates in the City were estimated at nine mgd; therefore, there is adequate treatment capacity at the RWQCB for the increase in wastewater generated by the proposed project and approved projects.

The total future cumulative wastewater generated within the City of Mountain View would be 14.52 mgd, which is more than 80 percent of the 15.1 mgd capacity at the RWQCP. The City of Mountain View would be required to conduct an engineering study define the future needs of the treatment plant (per the RWQCP Basic Agreement with the City of Mountain View and consistent with the RWQCP's Facility Plan) when the 80-percent capacity level occurs. Preparation of the engineering study and implementation of improvements as part of the RWQCP's Facility Plan would reduce cumulative wastewater treatment impacts to a less than significant level.

Implementation of the Precise Plan would result in one sewer pipe at risk of surcharging, in addition to three sewer pipes that are at risk under existing conditions. The City's CIP has identified projects that would address these deficiencies, and the proposed project would not result in significant impacts to the sewer system in the post-project condition upon implementation of the CIP. Under cumulative conditions, four additional sewer pipes would not meet d/D performance criteria and would require CIPs that have not been identified by the City in its GPUUIS. Six pipes in the Precise Plan area would need to upsized from 10-inch to 15-inch diameter pipe and 18-inch to 21-inch pipe, respectively. Table 3.16-3 shows the recommended improvements that were not included in the GPUUIS and would address sewer pipe deficiencies in the 2030 cumulative condition.

Table 3.16-3: Recommended Additional Sewer Improvements

Description	Model ID	Length (feet)	Existing Diameter (inches)	CIP Diameter (inches)
Easement between Ellis Street and B Street	1377	342	10	15
Fairchild Drive between Ellis Street and North Whisman Road	1033	227	18	21
	1011	384	18	21
	971	198	18	21
	954	123	18	21
	939	293	18	21

These additional improvements, and the CIPs already identified by the City, would sufficiently reduce cumulative impacts to the City sewer system. Future development under the Precise Plan would be required to prepare site-specific utility analyses and pay nexus study impact fees to fund identified infrastructure projects. The proposed project, together with projects built as part of the 2030 General Plan, would not result in significant cumulative utilities impacts. improvements to the sanitary sewer system, which would address sewer pipe deficiencies in the cumulative condition. By preparing a site-specific utility analysis and paying a City-determined impact fee for additional CIPs that were not included in the GPUUIS, the project would have a less than significant cumulative impact on the sewer system.

Stormwater System

Future development within Mountain View and surrounding communities must comply with the NPDES MRP regulations currently in place, which regulate storm drainage facilities. New stormwater infrastructure that would be required to serve expected growth under the 2030 General Plan would be developed in compliance with existing local, state, and federal regulations, and would be appropriately sized for each development. Further, the Precise Plan future projects would implement feasible stormwater requirements. Further, future projects would be required to prepare site-specific utility analyses and pay nexus study impact fees for needed infrastructure upgrades. The proposed project, together with projects built as part of the 2030 General Plan, would not result in significant cumulative utilities impacts. For these reasons, implementation of the project would not make a significant cumulative contribution to impacts on the stormwater drainage systems, and cumulative stormwater system impacts would be less than significant.

Impact C-UTL-1: The proposed project would result in sewer pipe deficiencies under the cumulative condition; however, these deficiencies would be addressed by requiring the preparation of site-specific utility analyses and paying nexus study impact fees for future developments in the Precise Plan area to fund recommended sewer infrastructure upgrades. The proposed project, together with projects built as part of the 2030 General Plan, would not result in significant cumulative utilities impacts. **[Less than Significant Cumulative Impact]**

3.16.3 Conclusion

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
UTL-1: Future large-scale, site-specific development projects associated with implementation of the Precise Plan could result in impacts to the existing water, sewer, and storm drainage infrastructure. Proposed new development may require upsizing and/or improvements to nearby water distribution, sewer, and storm drainage infrastructure to accommodate growth associated with larger projects.	Significant Impact	MM UTL-1.1	Less than Significant

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
UTL-2: Sufficient supplies of water are available to serve the project during normal and drought years, and the proposed project would not result in significant water supply impacts.	Less than Significant	No mitigation required	Less than Significant
UTL-3: Implementation of the Precise Plan would not prevent the RWQCP from meeting wastewater treatment requirements.	Less than Significant	No mitigation required	Less than Significant
UTL-4: Future developments in the Precise Plan area would not result in a substantial increase in waste landfilled at Kirby Canyon, or be served by a landfill without sufficient capacity; and the impact is less than significant.	Less than Significant	No mitigation required	Less than Significant
C-UTL-1: The proposed project would result in sewer pipe deficiencies under the cumulative condition; however, these deficiencies would be addressed by requiring the preparation of site-specific utility analyses and paying nexus study impact fees for future developments in the Precise Plan area to fund recommended sewer infrastructure upgrades. The proposed project, together with projects built as part of the 2030 General Plan, would not result in significant cumulative utilities impacts.	Less than Significant	No mitigation required	Less than Significant

SECTION 4.0 GROWTH-INDUCING IMPACTS

4.1 INTRODUCTION AND THRESHOLDS:

As stated in the CEQA Guidelines Section 15126.2(d), a project is considered growth-inducing if it would:

- Directly or indirectly foster economic or population growth, or the construction of additional housing in the surrounding environment.
- Remove obstacles to population growth or tax community service facilities to the extent that the construction of new facilities would be necessary.
- Encourage or facilitate other activities that would cause significant environmental effects.

Examples of projects likely to have significant growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or industrial parks in areas that are currently only sparsely developed or are undeveloped.

4.1.1 Economic or Population Growth

The East Whisman area was identified as a Change Area in the General Plan, and the Precise Plan proposes to implement the residential and commercial infill growth envisioned in the General Plan. The General Plan EIR concluded that implementation of the General Plan would directly induce population and employment growth in the City by designating land within the City for development that is more intense than previous designations allowed. The General Plan found that because much of the housing and commercial growth that would occur would be centered near transit nodes, anticipated growth would have several beneficial effects. This growth would support regional transit systems by increasing ridership and access to transit systems, including VTA light rail and Caltrain, and would benefit bicycle and pedestrian access. Strengthening the transit system and improving bicycle and pedestrian circulation under the General Plan direction and through the Precise Plan's proposed strategies and improvements would help minimize traffic and associated environmental effects, such as air pollution and GHG emissions, within the Bay Area.

Buildout of the North Whisman area under the Precise Plan could incrementally increase economic pressure and contribute to rising rents and housing prices, which could indirectly contribute to increased development pressures for additional housing within Mountain View and nearby cities. Additional residential development in Mountain View or other nearby cities would generally be in accordance with the General Plans of those cities and would be anticipated to occur mainly within the developed, urban service areas, as outlined in local and regional plans. Such other projects would undergo their own environmental review under CEQA at the time they are proposed. While some incremental, indirect pressure for additional housing in the region is likely, this is not expected to be a significant growth inducing impact of the Precise Plan.

4.1.2 Removal of Obstacles to Growth

East Whisman is located within the incorporated limits of the City of Mountain View, and implementation of the Precise Plan would not result in an expansion of urban services or the pressure to expand beyond the City's existing boundaries or sphere of influence.

The project would not open undeveloped land to further growth or provide expanded utility capacity that would be available to serve future unplanned development. With development consistent with policies of the Precise Plan, the project would not tax community services to the extent that construction of new facilities (outside of those already identified as part of the General Plan) would be necessary. The project would not encourage or facilitate other activities that would cause significant environmental effects. Instead, it would facilitate the intensification and diversity of uses in an area of low-density office and industrial land in an existing urban setting, consistent with goals and policies the City's General Plan. For the reasons described, the project would not result in a significant growth-inducing impact.

Impact GRO-1: **T**he project would not result in significant growth-inducing impacts. **[Less than Significant Growth-Inducing Impact]**

SECTION 5.0 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

This section was prepared pursuant to CEQA Guidelines Section 15126.2(c), which requires a discussion of the significant irreversible changes that would result from the implementation of a proposed project. Significant irreversible changes include the use of nonrenewable resources, the commitment of future generations to similar use, irreversible damage resulting from environmental accidents associated with the project, and irretrievable commitments of resources.

5.1 USE OF NONRENEWABLE RESOURCES

During construction and operation of projects under the Precise Plan, nonrenewable resources would be consumed. Unlike renewable resources, nonrenewable resources cannot be regenerated over time. Nonrenewable resources include fossil fuels and metals. Renewable resources, such as lumber and other wood byproducts, could also be used.

Energy, as discussed in more detail in Section 3.5, would be consumed during both the construction and operational phases of future projects. The construction phase would require the use of nonrenewable construction material, such as concrete, metals, and plastics, and glass. Nonrenewable resources and energy would also be consumed during the manufacturing and transportation of building materials, site preparation, and construction of the buildings. The operational phase would consume energy for multiple purposes including building heating and cooling, lighting, appliances, and electronics. Energy, in the form of fossil fuels, will be used to fuel vehicles traveling to and from project sites.

Future development of projects under the Precise Plan would result in a substantial increase in demand for nonrenewable resources. Green building, however, is a key City strategy to achieve long-term sustainability and to reach its GHGs reduction goals. Future East Whisman projects would be subject to the CBC and CalGreen energy-efficiency requirements. Further, new non-residential construction project participating in the Bonus FAR Program will achieve LEED BD+C Platinum or equivalent. All new residential construction participating in the Bonus FAR Program shall achieve 120 points on the Green Point Rated system or equivalent and submeter (or use other appropriate technology that can track individual energy use) each residential unit. When the recycled water system is adjacent to the property, all new construction shall install the infrastructure necessary to connect to the recycled water system. If recycled water is not available, new construction is required to construct the on-site irrigation to be recycled water conversion ready per the City's standards and to connect to the recycled water system once the system is complete.

The projects would minimize potable water consumption by extending existing recycled water infrastructure to the site and using recycled water for landscape irrigation. In addition, as discussed in Section 3.5 Energy, the electricity for the project would be provided by SVCE from sources that are 100 percent carbon-free. For these reasons, future projects would minimize the use of nonrenewable energy resources.

5.1.1 Commitment of Future Generations to Similar Use

The project would be developed on a site that is already fully developed for urban uses. Development of the Precise Plan would commit a substantial amount of resources to prepare the site, construct the buildings, and operate them, but it would not result in development of a previously undeveloped area. The mixed-use nature of the Precise Plan would not commit future generations committed to a particular use.

5.1.2 Irreversible Damage from Environmental Accidents

The project does not propose new or uniquely hazardous uses, and its operation would not be expected to cause environmental accidents that would impact other areas. As discussed in Section 3.8 Hazards and Hazardous Materials, there are no significant unmitigatable hazards and hazardous materials conditions on-site or off-site that would substantially affect the public and surrounding environment. There are no significant unmitigatable geology and soils impacts from implementation of future projects. For these reasons, the future projects implemented under the Precise Plan would not result in irreversible damage that may result from environmental accidents.

SECTION 6.0 ALTERNATIVES

6.1 INTRODUCTION

Section 15126.6 of the CEQA Guidelines requires that an EIR describe a reasonable range of alternatives to the proposed project that could feasibly attain most of the stated objectives while avoiding or reducing significant impacts. The CEQA Guidelines emphasize a reasonable approach that "foster(s) informed decision making and public participation," and focuses on alternatives that avoid or substantially lessen the significant impacts.

The three critical factors to consider in selecting and evaluating alternatives are: (1) the significant impacts from the proposed project which could be reduced or avoided by an alternative, (2) the project's objectives, and (3) the feasibility of the alternatives available. Each of these factors is described below.

6.2 SIGNIFICANT IMPACTS SUMMARY

As mentioned above, the CEQA Guidelines advise that the alternatives analysis in an EIR should be limited to potentially feasible alternatives that would avoid or substantially lessen any of the significant effects of the project and would achieve most of the project objectives. As discussed in detail within Section 3.0 of this EIR, the project would result in the following significant, unavoidable impacts:

- Transit delay at intersections with a deficient LOS
- Project-level and cumulative-level VMT impact due to project generated VMT on both a citywide and countywide basis.

6.3 PROJECT OBJECTIVES

Pursuant to CEQA Guidelines Section 15124, the EIR must include a statement of the objectives. The Precise Plan specified objectives are as follows:

- Create a sustainable, transit-oriented residential neighborhood and employment center with an increased diversity of land uses, multiple mobility choices, numerous high-quality open spaces, vibrant local and local-serving businesses, and housing options for all incomes and stages of life.
- Ensure East Whisman is anchored by a central open space, surrounded by the area's highest-intensity transit-oriented commercial and residential buildings. Buildings would be smallest adjacent to existing neighborhoods and designed to respect their scale and character.
- Develop a central Mixed-Use Area featuring a complete neighborhood, with stores, services and restaurants for residents, neighbors, and workers, and a range of plazas and open spaces throughout the area. Office and residential buildings would be integrated compatibly, and older industrial buildings remodeled or redeveloped into attractive developments that further support the area's vision.
- Foster North and South Employment Areas containing office campuses with significant landscaping and open areas and limited surface parking. These campuses would buffer the

residential areas from major freeways and Moffett Field, but still provide public spaces that serve the surrounding community.

- Enliven East Whisman through the presence of the Village Center, a cluster of local-serving retail and services located at East Middlefield and North Whisman Roads. The Village Center would be a welcoming gateway into the neighborhood and provides convenient access to shopping and other daily needs and services for residents and employees who live in and around East Whisman.
- Enhance pedestrian and bicycle connections to the surrounding region, light-rail, services, housing, and employers, creating a range of new public spaces and transportation options. Active transportation would be promoted through wide sidewalks covered with tree canopy, ample bicycle lanes on public streets, and an active, vibrant, and interesting streetscape.

6.4 ALTERNATIVES ANALYSIS

CEQA, the CEQA Guidelines, and case law on the subject have found that feasibility can be based on a wide range of factors and influences. The CEQA Guidelines Section 15364 defines feasibility as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." Factors to be taken into account when addressing the feasibility of alternatives can include (but are not necessarily limited to) the suitability of an alternate site, economic viability, availability of infrastructure, consistency with a general plan or with other plans or regulatory limitations, jurisdictional boundaries, and whether the project proponent can "reasonably acquire, control or otherwise have access to the alternative site" (Section 15126.6(f)(1)).

Notably, the inclusion of an alternative in an EIR requires only that the alternative be "potentially feasible," typically an initial determination made by agency staff and consultants. The ultimate determination of "actual feasibility" of the alternatives considered in an EIR can only be made by agency decision-makers, who have discretion under CEQA to reject as "infeasible" alternatives that embody what the decision-makers believe to be unacceptable policy tradeoffs. After weighing "economic, environmental, social, and technological factors," such decision-makers "may conclude that an alternative is impractical or undesirable from a policy standpoint and reject it as infeasible on that ground." Similarly, "an alternative may be found infeasible on the ground it is inconsistent with the project objectives as long as the finding is supported by substantial evidence in the record" (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001).

6.4.1 Alternatives Considered but Rejected

6.4.1.1 *Location Alternative*

The CEQA Guidelines encourage consideration of an alternative site when significant effects of the project might be avoided or substantially lessened (Section 15126.6(f)(2)(A)). Only locations that would avoid or substantially lessen any of the significant impacts of the project and meet most of the project objectives need to be considered for inclusion in the EIR.

A Location Alternative would need to be at least of comparable size as the Precise Plan area (approximately 412 acres) within an urbanized area of Mountain View or nearby jurisdiction. The Location Alternative would need to have adequate transit access, roadway access, and utility capacity

to serve the development proposed. Historic buildings or other cultural resources could not be present.

No Location Alternatives were identified (aside from the North Bayshore area which already had a Precise Plan approved for increased residential and commercial development), due to the large size and site-specific nature of the proposed project. The quantity of development included as part of the Precise Plan within Mountain View or other adjacent jurisdiction would be expected to have similar VMT impact, especially if transit was less available. Since no suitable alternative site was found that could meet the basic objectives specified in the Precise Plan and General Plan and suitably reduce the significant traffic and transit delay impacts, a Location Alternative was not analyzed further.

6.4.1.2 *Design Alternative – Reduced Parking*

A Design Alternative to the proposed project would be to significantly reduce the parking supply. In general, the amount of parking provided for development influences the vehicle trip generation. Higher parking ratios allow more vehicle ownership and operation. Lower parking ratios typically mean that fewer employees would drive and fewer residents would own and regularly operate vehicles. Parking supply is a key consideration in the market feasibility of any new development, so this factor must be carefully balanced with the availability of alternative travel modes and infrastructure.

The Precise Plan's goals for increasing alternative mode shares to help reduce vehicle trips are ambitious, especially as it relates to TDM plan implementation and monitoring. In particular, new and re-built office will be required to achieve a driveway-measured vehicle trip generation less than 1.0 vehicle trip per 1,000 square feet during the morning and evening peak hours. Additionally, TDM plans will be required to show that the parking provided is adequate to serve the needs of the development, considering the project's trip-reduction measures. Maximum parking ratios apply to most project sites in the Plan area, meaning that the Plan does not specifically require minimum parking in most places. As a result, developments can provide the minimum parking necessary to serve their aggressive TDM programs.

Further reduction in the commercial and residential parking maximums from the parking ratios described in the Precise Plan was not considered feasible at this time, however, given the currently limited multi-modal infrastructure and services available to the area. Additionally, it would not be guaranteed that a parking reduction would eliminate the project VMT impact given that increased traffic from rideshare companies would potentially occur if car ownership was not feasible due to an overall lack of parking. For these reasons, a Design Alternative with reduced Parking was not further considered.

6.4.2 Analyzed Alternatives

6.4.2.1 *No Project Alternative*

Alternative Description

The CEQA Guidelines stipulate that an EIR include a No Project Alternative to allow decision-makers to compare the impacts of approving the project with the impacts of not approving the project. Under the No Project Alternative, development would occur consistent with the current

General Plan and zoning in the East Whisman area. The constraining factor on development is the zoning, which is predominantly ML (Limited Industrial), allowing up to 0.35 FAR for office, R&D and light industrial uses. Additional FAR consistent with the General Plan would require rezoning.

The CEQA Guidelines stipulate that an EIR specifically include a "No Project" alternative. The purpose of a No Project alternative is to allow decision-makers to compare the impacts of approving the project with the impacts of not approving the project. The CEQA Guidelines specifically advise that the No Project alternative is "what would be reasonably expected to occur in the foreseeable future if the project is not approved, based on current plans and consistent with available infrastructure and community services." When the project is the revision of an existing land use or regulatory plan, policy, or ongoing operation, the "No Project" alternative will be the continuation of the plan, policy, or operation into the future. Thus, the projected impacts of the proposed plan or alternative plans are compared to the impacts that would occur under the existing plan (Section 15126.6(e)(3)(A)).

The General Plan identified an increase in office intensity for the area (and no residential uses) for the East Whisman Change Area. However, the existing zoning only supports about 100,000 square feet of additional office floor area, and the intensification of employment density within existing light industrial and R&D buildings. Implementation of infrastructure projects described in the General Plan and funded by development fees would also continue.

Comparison of Impacts

East Whisman is currently an employment-centric area with a higher jobs-to-residents ratio today (at 7.60), as compared to City of Mountain View's average of 0.96 and Santa Clara County's average of 0.50. Additional employees from new, redeveloped and refurbished office space (without the robust TDM plan requirements and complete streets multimodal infrastructure included as part of the Precise Plan that promotes walking, bicycling or taking transit and emphasizes non-vehicle site design features), would likely result in the same or greater significant and unavoidable VMT impact as the Precise Plan. The significant, unavoidable transit delay impact would be lessened due to fewer traffic trips from the limited development allowed under the current zoning.

Without the proposed addition of the 5,000 residential units, as well as more varied hotel and commercial uses, there would be less of a potential to reduce vehicle trips due to internalization (meaning some people could accomplish many of their daily needs remaining within East Whisman and traveling using transit and/or active mode). For this reason, higher GHG emissions due to a higher per-capita emissions rate and a significantly greater VMT impact would occur (because the employee trip length in Mountain View is almost twice the average residential trip).

Without the addition of future residential uses in the East Whisman area, impacts to new residents from construction and operational activities, including air quality, groundborne vibration, and hazardous materials impacts, would not occur. City conditions of approval and mitigation measures are included in this EIR to reduce these impacts to a less than significant level; however, these impacts would be less likely to occur without the introduction of sensitive residential receptors into the area.

Relationship to Project Objectives

The No Project Alternative would still allow increased intensity of office use in the East Whisman area. Without the Precise Plan's diversity of uses (in particular, residential uses), open space, multimodal infrastructure, and streetscape improvements, the area would not meet the broader goal of creating a vibrant, multi-use, transit-oriented neighborhood where people can work and play without using a vehicle.

Conclusion

This alternative, while feasible, could result in more severe VMT impacts; though, it would reduce the significant, unavoidable transit delay impact. It would not meet any project objectives related to creating a mixed-use, transit-oriented development.

6.4.2.2 *Additional Housing Alternative*

Description

East Whisman is currently an employment-centric area with a higher jobs-to-residents ratio today, at 7.60 as compared to the City of Mountain View's average of 0.96 and Santa Clara County's average of 0.50. The proposed addition of 5,000 units in East Whisman would bring the Precise Plan ratio closer to the City and County average. The Additional Housing Alternative evaluates the additional residential development needed to achieve at least a 15 percent reduction in VMT per capita below Existing Conditions. This alternative assumes:

- 7,500 housing units (2,500 more than the proposed Precise Plan)
- 2.2 million square feet of existing R&D and industrial space rebuilt/re-occupied as office space (no net new office space, whereas the Precise Plan proposes 2.3 million square feet)
- 100,000 square feet of retail and restaurant uses (same as the proposed Precise Plan)
- 200 hotel rooms (same as the proposed Precise Plan)

Comparison of Environmental Impacts

The following Table 6.4-1 presents a summary of the VMT results for Cumulative with Project conditions and the Additional Housing Alternative. Under Cumulative with Project Conditions, the estimated East Whisman VMT per capita is 18.1, which is five percent lower than under Existing Conditions. VMT per capita for the Additional Housing Alternative would be 15 percent lower than Existing Conditions. The Additional Housing Alternative would generate seven percent fewer daily vehicle trips and 13 percent lower VMT than under Cumulative with Project Conditions, which is a result of shorter average trip distances by residential trips than office trips. The average trip length of City of Mountain View employees is 70 percent longer than the average trip length of City of Mountain View residents.

Table 6.4-1: Additional Housing VMT Results			
	Existing	**Cumulative with Project**	**Cumulative with Additional Housing Alternative**
East Whisman Area Land Use			
Total Office Use (ksf)	3,042	8,452	6,152
R&D and Industrial Use (ksf)	2,609	444	444
Residential Units	899	6,048	8,548
Daily Trip Generation Estimates			
Office & Retail	44,780	70,700	52,650
Residential	6,080	34,500	45,240
Total	50,860	105,200	97,890
East Whisman Area Service Population			
Employees	15,630	27,360	20,380
Residents	2,070	12,820	18,930
Employees/Residents Ratio	7.55	2.13	1.08
Service Population (Employees + Residents)	17,700	40,180	39,302
VMT			
VMT (Shared Accounting)	338,310	728,730	634,760
VMT/Capita	19.11	18.14	16.15
% Change in VMT/Capita from Existing Conditions	-	-5%	-15%
Source: Fehr & Peers. Transportation Analysis. Appendix H.			

The transit delay impact would remain at the same significant, unavoidable level due to increased traffic congestion. Temporary construction pollutant and GHG emissions would be higher due to longer construction period/duration and extended use of equipment (assuming approximately 1,000 square feet per housing unit for total of 2.5 million new residential square feet); however, this impact would likely be less than significant with implementation of BAAQMD measures and MM AQ 3.1.

Relationship to Project Objectives

The Additional Housing Alternative would allow increased intensity of residential and non-office commercial use in the East Whisman area, with no net new office space (only repurposed R&D and

industrial space for office use). This alternative would increase the diversity of uses in the project area and would somewhat meet the East Whisman Change Area goal of establishing a transit-oriented employment center with a diversity of land uses. Without the office developments to provide funding and land for the multimodal infrastructure and streetscape improvements, the area would not fully meet the broader goal of creating a vibrant, multi-use, transit-oriented neighborhood.

Conclusion

This alternative would reduce the significant, unavoidable VMT impact to a less than significant level; though not the significant transit delay impact. Though temporary air pollutant and GHG emissions would be higher due to additional construction, the already less than significant GHG impact would be further lessened. The Additional Housing Alternative would meet project objectives related to creating a mixed-use, transit-oriented development; however, the lack of office development would not be consistent with the specified General Plan East Whisman Change area policies calling for greater office intensity.

6.4.2.3 *Reduced Office Alternative*

Description

The Reduced Office Alternative would include 1.7 million square feet of new office space (as compared to the proposed project's 2.3 million square feet) and would include the same 5,000 housing units, 100,000 square feet of retail and restaurant space, and 200 hotel rooms as the proposed project. The Reduced Office Alternative would represent a 26 percent reduction in the amount of office space allowed in the Precise Plan area.

Comparison of Environmental Impacts

With less square footage constructed, temporary air pollutant and GHG emissions during construction would be less. The Reduced Office Alterative would reduce the Precise Plan's significant transit delay impact (due to increased traffic congestion); however, the VMT impact would remain significant and unavoidable. The VMT per service population (Employees+Residents) actually increases on an areawide and citywide basis, as shown below in Table 6.4-2. VMT increases because a smaller portion of the Precise Plan area office uses would be subject to the office-trip target (the existing R&D and industrial space rebuilt/re-occupied as new office space would not be subject to the Precise Plan office trip-cap target); therefore, the Cumulative condition with Reduced Office Alternative VMT per service population is higher than the Cumulative with Project Conditions VMT per service population in these two instances. The impact would remain significant and unavoidable. GHG emissions per service population would also increase to a similar degree as VMT increases.

Table 6.4-2: Reduced Office VMT Comparison					
	Existing Conditions	**Existing with Project**	**Cumulative**	**Cumulative with Project**	**Cumulative with Reduced Office**
East Whisman Area					
Vehicle Miles Traveled	676,620	1,336,490	807,690	1,457,450	1,392,460
Service Population	17,700	37,200	20,710	40,180	37,780
VMT/Service Population	38.23	35.93	39.00	36.27	36.86
City of Mountain View					
Vehicle Miles Traveled	5,354,760	5,973,000	6,747,390	7,359,710	7,291,670
Service Population	147,520	167,020	199,390	218,860	216,460
VMT/Service Population	36.30	35.76	33.84	33.63	33.69
Santa Clara County					
Vehicle Miles Traveled	72,905,840	73,441,360	102,748,480	103,429,440	103,315,630
Service Population	2,733,420	2,752,920	3,206,610	3,226,080	3,223,680
VMT/Service Population	26.67	26.68	32.04	32.06	32.05

Relationship to Project Objectives

The Reduced Office Alternative would allow increased intensity of residential and non-office commercial use in the East Whisman area, with 26 percent less net new office space (as well as repurposed R&D and industrial space for office use). This alternative would increase the diversity of uses in the project area and would somewhat meet the East Whisman Change Area goal of establishing a transit-oriented employment center with a diversity of land uses. With less office development to provide funding and land for the multimodal infrastructure and funding for streetscape improvements, however, the area would not be as likely to fully meet the broader goal of creating a vibrant, multi-use, transit-oriented neighborhood.

Conclusion

While temporary construction-related air pollutant and GHG emissions would be less, the Reduced Office Alternative would increase the severity of the operational VMT impact on an areawide and citywide basis, with countywide VMT being slightly less but still above the impact threshold. GHG emissions per service population would also increase. The Reduced Office Alternative would meet project objectives related to creating a mixed-use, transit-oriented development; though with lesser office intensity.

6.4.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines state than an EIR shall identify an environmentally superior alternative. If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (Section 15126.6(e)(2)).
The environmentally superior alternative would be the No Project Alternative, which would avoid all project impacts. This alternative would not meet any project objectives.

The Additional Housing Alternative would be the environmentally superior alternative because it would reduce significant, unavoidable VMT impact to a less than significant level.

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SECTION 8.0 LEAD AGENCY AND CONSULTANTS

8.1 LEAD AGENCY

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Community Development Department
Eric Anderson, Senior Planner

8.2 CONSULTANTS

8.2.1 EIR Consultants

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Environmental Consultants and Planners
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Amie Ashton, Project Manager
Tyler Rogers, Assistant Project Manager
Daniel Debrito, Assistant Project Manager
Zach Dill, Graphic Artist

Fehr & Peers, Inc.
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All appendices and hardcopies of this report can be viewed at:

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