

## **RESOLUTION NO. 18-015**

**A RESOLUTION OF THE COUNCIL OF THE CITY OF CUPERTINO ADOPTING THE 2018 CUPERTINO PEDESTRIAN PLAN PROJECT AND THE CUPERTINO PEDESTRIAN PLAN PROJECT MITIGATED NEGATIVE DECLARATION, FOR WHICH AN INITIAL STUDY WAS PREPARED, ALL IN ACCORDANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AS AMENDED, AND ADOPTING A RELATED MITIGATION MONITORING AND REPORTING PROGRAM**

WHEREAS, prior to the adoption of this Resolution, the City of Cupertino prepared an Initial Study and approved for circulation a Mitigated Negative Declaration for the 2018 Cupertino Pedestrian Plan under Project No. 2016-17 (the “Initial Study/Mitigated Negative Declaration”), all in accordance with the requirements of the California Environmental Quality Act of 1970, together with state and local guidelines implementing said Act, all as amended to date (collectively “CEQA”); and

WHEREAS, the Initial Study/Mitigated Negative Declaration concluded that implementation of the Project could result in a certain significant effect on the environment and identified a mitigation measure that would reduce the significant effect to a less-than-significant level; and

WHEREAS, in connection with the approval of a project involving the preparation of an initial study/mitigated negative declaration that identifies one or more significant environmental effects, CEQA requires the decision-making body of the lead agency to incorporate feasible mitigation measures that would reduce those significant environment effects to a less-than-significant level; and

WHEREAS, whenever a lead agency approves a project requiring the implementation of measures to mitigate or avoid significant effects on the environment, CEQA also requires a lead agency to adopt a mitigation monitoring and reporting program to ensure compliance with the mitigating measures during project implementation, and such a mitigation monitoring and reporting program has been prepared for the Project for consideration by the decision-maker for the City of Cupertino as lead agency for the Project (the “Mitigation Monitoring and Reporting Program”); and

WHEREAS, the City of Cupertino is the lead agency on the project, and the City Council is the decision-making for the proposed approval to undertake the Project; and

WHEREAS, the City Council has reviewed and considered the Initial Study/Mitigated Negative Declaration and related Mitigation and Reporting Program for the Project and intends to take actions on the Project in compliance with CEQA and state and local guidelines CEQA; and

WHEREAS, the Initial Study/Mitigated Negative Declaration, attached hereto as Attachment 1, and incorporated herein by reference; and

WHEREAS, the Mitigation Monitoring and Reporting Program for the Project, attached hereto as Attachment 2, and incorporated herein by reference; and

WHEREAS, the Project will not individually or cumulatively have an adverse effect on wildlife resources, as defined in Section 711.2 of the California Department of Fish and Game Code.

WHEREAS, the Active Transportation Program and Transportation Development Act (TDA) provide funding for projects that improve safety and convenience for walking; and

WHEREAS, a local agency must have a current Pedestrian Transportation Plan to be eligible for TDA funds and the current Pedestrian Transportation Plan was adopted in 2002; and

WHEREAS, a local agency must have projects reviewed by a local bicycle and pedestrian advisory committee for TDA funds, and this Plan has been reviewed by the Bicycle Pedestrian Commission; and

WHEREAS, the 2018 Cupertino Pedestrian Transportation Plan complies with the San Francisco Bay Area Regional Transportation Plan; and

WHEREAS, the 2018 Cupertino Pedestrian Transportation Plan has been prepared by consultants in conjunction with the Cupertino Bicycle Pedestrian Commission and City Staff; and

WHEREAS, the 2018 Cupertino Pedestrian Transportation Plan provides policy, project, and programmatic recommendations that will help Cupertino create an inviting, safe, and connected pedestrian network that promotes active living and enhances the quality of life for all community members and visitors; and

WHEREAS, the 2018 Cupertino Pedestrian Transportation Plan includes a summary of current pedestrian safety trends and a selection of recommendations that will help Cupertino better understand and mitigate pedestrian safety issues, prioritize safety projects, and track improvements in pedestrian safety in the future; and

WHEREAS, the 2018 Cupertino Pedestrian Transportation Plan provides resources and recommendations to help Cupertino achieve the mobility and Complete Streets goals set forth in the City's Community Vision 2040; and

WHEREAS, the 2018 Cupertino Pedestrian Transportation Plan will encourage more people to walk in Cupertino through guidance that will increase and improve pedestrian access to community destinations for people of all ages and abilities; and

WHEREAS, the Cupertino Bicycle Pedestrian Commission recommends City Council Approval of the 2018 Cupertino Pedestrian Transportation Plan; and

WHEREAS, the 2018 Cupertino Pedestrian Transportation Plan is attached hereto as Attachment 3, and incorporated herein by reference; and

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF CUPERTINO:

THAT THE CITY COUNCIL does hereby make the following findings:

- (1) It has independently reviewed and analyzed the Initial Study/Mitigated Negative Declaration and other information in the record and has considered the information contained therein, prior to acting upon or approving the Project,
- (2) The Initial Study/Mitigated Negative Declaration for the Project has been completed in compliance with CEQA and consistent with state and local guidelines implementing CEQA, and

- (3) The Initial Study/Mitigated Negative Declaration represents the independent judgment and analysis of the City of Cupertino as lead agency for the Project. The City Council designates the Public Works Department at the City of Cupertino located at 10300 Torre Avenue, Cupertino, California 95014, as the custodian of documents and records on which this decision is based.

THAT THE CITY COUNCIL does hereby find that based on the entire record of proceedings before it and all information received that there is no substantial evidence that the Project will have a significant effect on the environment and does hereby adopt the Mitigated Negative Declaration and the related Mitigation Monitoring and Reporting Program prepared for the Project (2016 No. 17). The Initial Study/Mitigated Negative Declaration and Mitigation and Reporting Program are attached hereto as Attachment 2 and 3.

THAT THE CITY COUNCIL hereby approves the 2018 Pedestrian Transportation Plan.

PASSED AND ADOPTED this 20 day of February, 2018 by the following vote:

<u>Vote</u>	<u>Members of the City Council</u>
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AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

APPROVED:

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Grace Schmidt, City Clerk

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Darcy Paul, Mayor, City of Cupertino

# Attachment 1



*Initial Study/Mitigated Negative Declaration*

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# **Cupertino Pedestrian Transportation Plan Project**

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Prepared by



**CUPERTINO**

January 2018



PUBLIC WORKS DEPARTMENT  
Timm Borden, Director

CITY HALL  
10300 TORRE AVENUE ~ CUPERTINO, CA 95014-3266  
(408) 777-3354 ~ FAX (408) 777-3333

**DRAFT**  
**CITY OF CUPERTINO**  
**MITIGATED NEGATIVE DECLARATION**

As provided by the Environmental Assessment Procedure adopted by the City Council of the City of Cupertino on May 27, 1973, and amended on March 4, 1974, January 17, 1977, May 1, 1978, and July 7, 1980, the City of Cupertino City Council has reviewed the proposed project described below to determine whether it could have a significant effect on the environment as a result of project implementation. "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affect by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines Section 15382).

**PROJECT INFORMATION AND LOCATION**

Project Name: Cupertino Pedestrian Transportation Plan  
Applicant: City of Cupertino  
Location: City of Cupertino

**PROJECT DESCRIPTION**

The project proposes to implement the Pedestrian Transportation Plan, a plan to construct pedestrian network facilities and improvements to existing facilities throughout the City of Cupertino. New facilities would be constructed in existing right-of-way. Larger project components (i.e. pedestrian/bicycle bridges), would be subject to further environmental review to determine the extent of environmental impact.

## **FINDINGS OF DECISIONMAKING BODY**

The City Council finds the project described is consistent with the General Plan and will not have a significant effect on the environment based on the analysis completed in the attached Initial Study. The City, before the public release of this draft Mitigated Negative Declaration (MND), has agreed to make project revisions that mitigate the project's effects to a less than significant level. The City agrees to implement the mitigation measures identified in the attached Initial Study and summarized below.

### **Biological Resources:**

Impact BIO-1: Construction activities associated with the proposed project could result in the loss of fertile eggs, nesting raptors or other migratory birds, or nest abandonment.

MM BIO-1.1: Construction shall be scheduled to avoid the nesting season to the extent feasible. The nesting season for most birds, including most raptors in the San Francisco Bay area, extends from February through August.

MM BIO-1.2: A preconstruction nesting bird survey shall be completed by a qualified biologist prior to tree removal or any construction related activity that occurs during the breeding season (February 1 through August 31) to avoid potential impacts to nesting birds. Surveys shall be completed by a qualified biologist no more than 7 days prior to initiation of construction activities. Surveys shall include the project site, staging area, and areas within 500 feet surrounding the project site. If nesting bird activity is observed, the biologist in consultation with CDFW, will determine an adequate buffer zone and other minimization measures to ensure the nest will not be disturbed by project construction.

### **Cultural Resources:**

Impact CUL-1: Implementation of the larger project components (e.g. pedestrian bridges) included in the proposed project could result in significant impacts to buried cultural resources, if encountered.

MM CUL-1.1: In the event of the discovery of prehistoric or historic archaeological deposits or paleontological deposits, work shall be halted within 50 feet of the discovery and a qualified professional archaeologist (or paleontologist, as applicable) shall examine the find and make appropriate recommendations regarding the significance of the find and the appropriate mitigation. The recommendation shall be implemented and could include collection, recordation, and analysis of any significant cultural materials.

MM CUL-1.2: Pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code of the State of California:

- In the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the landowner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

MM CUL-1.3: If cultural resources are encountered, a final report summarizing the discovery of cultural materials shall be submitted to the Director of Public Works prior to issuance of building permits. This report shall contain a description of the mitigation program that was implemented (e.g., monitoring and testing program), a list of the resources found, a summary of the resources analysis methodology and conclusion, and a description of the disposition/curation of the resources. The report shall verify completion of the mitigation program to the satisfaction of the Director Public Works.

#### PUBLIC REVIEW PERIOD

The 30-day public circulation period for the Initial Study and draft MND began on January 12, 2018 and ended on February 10, 2018.

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Timm Borden  
Director of Public Works

#### CERTIFICATE OF THE CITY CLERK

This is to certify that the above Mitigated Negative Declaration was filed in the Office of the City Clerk of the City of Cupertino on January 12, 2018

  
City Clerk

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## ACRONYMS AND ABBREVIATIONS

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AFY	Acre-feet per year
BAAQMD	Bay Area Air Quality Management District
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNPS	California Native Plant Society
dB	Decibel
EIR	Environmental Impact Report
ESAs	Endangered Species Acts
FEMA	Federal Emergency Management Agency
LID	Low Impact Development
MND	Mitigated Negative Declaration
NOD	Notice of Determination
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
PM	Particulate Matter
PTP	Pedestrian Transportation Plan
RWF	Regional Wastewater Facility
RWQCB	Regional Water Quality Control Board
SJWC	San José Water Company
SWPPP	Storm Water Pollution Prevention Plan
TACs	Toxic Air Contaminants
TCMs	Transportation Control Measures
USEPA	U.S. Environmental Protection Agency
USFWS	United States Fish and Wildlife Service



## **SECTION 1.0 INTRODUCTION AND PURPOSE**

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### **1.1 PURPOSE OF THE INITIAL STUDY**

The City of Cupertino as the Lead Agency, has prepared this Initial Study for the Cupertino Pedestrian Transportation Plan in compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations §15000 et. seq.) and the regulations and policies of the City of Cupertino, California.

The project proposes to improve and expand the existing pedestrian network throughout the City of Cupertino. This Initial Study evaluates the environmental impacts that might reasonably be anticipated to result from implementation of the proposed project.

The City previously circulated an Initial Study for the proposed project from September 19, 2017 to October 18, 2017; however, the document was not adopted due to changes in the project description made prior to project approval. Therefore, the City is recirculating the Initial Study for the project which includes all of the previously evaluated and some additional pedestrian improvements in the City. Comments were received on the previous Initial Study from the California Department of Transportation (Caltrans) related to the project description and the potential need for encroachment permits. The City has considered these comments in the preparation of this updated Initial Study.

The additional improvements evaluated in the Initial Study include three new sidewalk improvements (Mary Avenue, Stevens Creek Boulevard, and Alcalde Road), a walkway (San Fernando Avenue), a new Class 1 Path (Mary Avenue), two grade separated crossings (Phar Lap Drive and McClellan Road), and the reconfiguration of the Rainbow Drive and Stelling Road intersection. These improvements are described in detail in Section 3.0 *Project Description*.

### **1.2 PUBLIC REVIEW PERIOD**

Publication of this Initial Study marks the beginning of a 30-day public review and comment period. During this period, the Initial Study will be available to local, state, and federal agencies and to interested organizations and individuals for review. Written comments concerning the environmental review contained in this Initial Study during the 30-day public review period should be sent to:

Julie Chiu, Associate Civil Engineer  
City of Cupertino, Department of Public Works  
[Juliec@cupertino.org](mailto:Juliec@cupertino.org)  
408.777.7710

### **1.3 CONSIDERATION OF THE INITIAL STUDY AND PROJECT**

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



## **1.4 NOTICE OF DETERMINATION**

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

## **SECTION 2.0      PROJECT INFORMATION**

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### **2.1              PROJECT TITLE**

Cupertino Pedestrian Transportation Plan

### **2.2              LEAD AGENCY CONTACT**

Julie Chiu, Associate Civil Engineer  
City of Cupertino, Department of Public Works  
[Juliec@cupertino.org](mailto:Juliec@cupertino.org)  
408.777.7710

### **2.3              PROJECT APPLICANT**

City of Cupertino, Department of Public Works

### **2.4              PROJECT LOCATION**

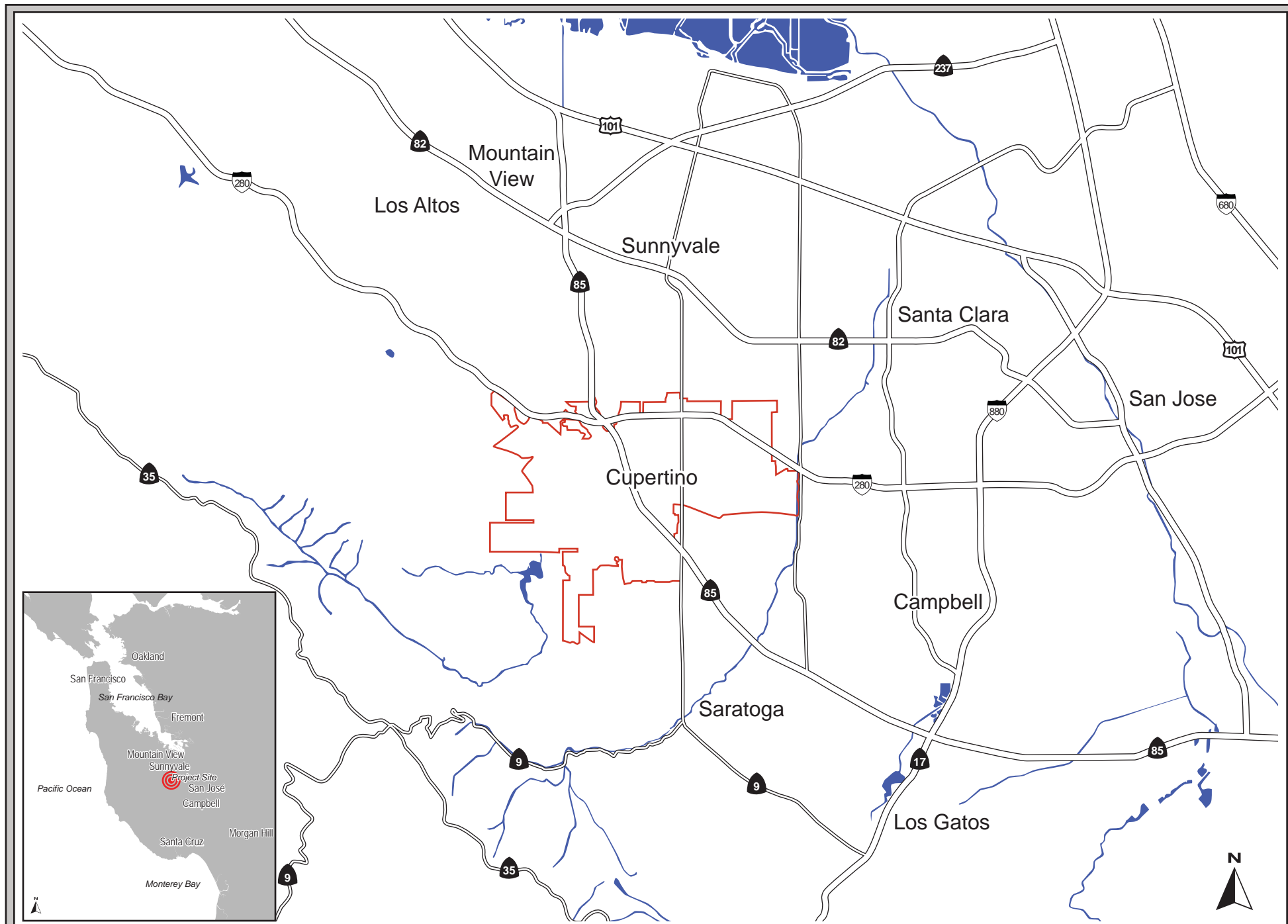
The Pedestrian Transportation Plan proposes upgrading, expanding, and installing new pedestrian facilities throughout the City of Cupertino. Regional and aerial maps of the City are shown on Figure 2.0-1 and 2.0-2.

### **2.5              ASSESSOR'S PARCEL NUMBER**

Most of the proposed pedestrian network would be completed within existing public right-of-ways which generally, do not have individual assessor parcel numbers.

### **2.6              GENERAL PLAN DESIGNATION AND ZONING DISTRICT**

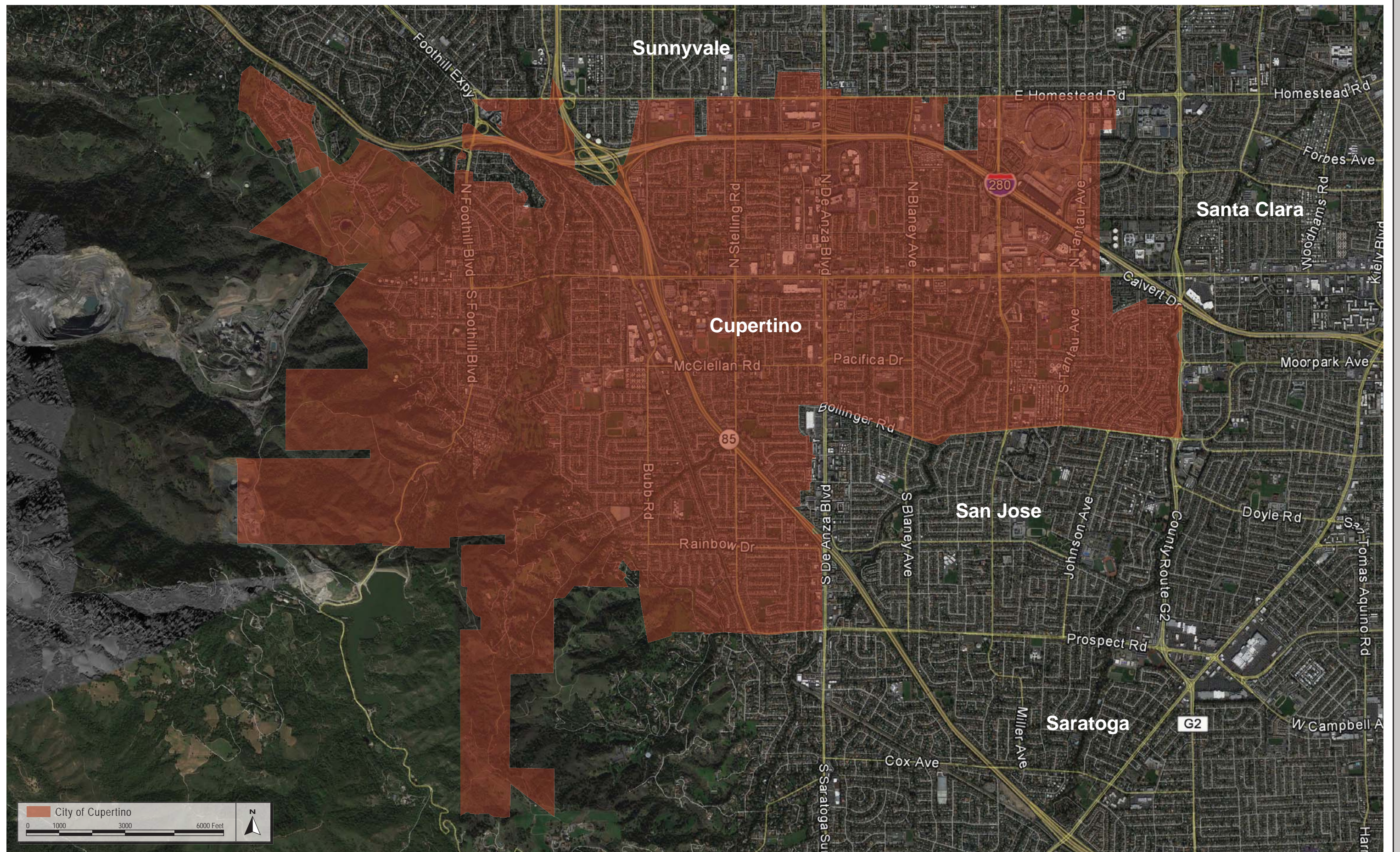
Most of the length of the proposed pedestrian network would be completed within existing public right-of-ways, which generally do not have individual General Plan or zoning designations. The proposed pedestrian facilities run through areas with various General Plan land use designations and zoning areas throughout the City.



VICINITY MAP

FIGURE 2.0-1





AERIAL PHOTOGRAPH

FIGURE 2.0-2



## SECTION 3.0 PROJECT DESCRIPTION

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### 3.1 BACKGROUND INFORMATION

The proposed project is the update to the existing Cupertino Pedestrian Transportation Plan that was adopted in 2002. The Pedestrian Transportation Plan (PTP) serves as the blueprint for Cupertino to achieve its vision of an inviting, safe, and connected pedestrian network that enhances the quality of life for all community members and to establish a guiding framework for the development and maintenance of pedestrian facilities throughout Cupertino.

The PTP builds upon existing City policies and strategies, including the *Cupertino Bicycle Transportation Plan* (Bicycle Transportation Plan), which was adopted in 2016. Some of the proposed project components discussed in this Initial Study were also included in the Bicycle Transportation Plan.<sup>1</sup>

### 3.2 PROJECT OVERVIEW

Tables 3.2-1 – 3.2-5 below, list the proposed project components, separated by project type. Within the draft PTP, the projects are further categorized based on prioritization for implementation, which will be primarily based on the identification of funding sources. For the location of the planned improvements on maps of the City, refer to Figures 3.0-1 – 3.0-5 at the end of *Section 3.0*.

#### 3.2.1.1 Pedestrian Pathway Projects

Pedestrian shared use paths are physically separated from motor vehicle traffic and are intended for use by pedestrians, bicyclists, and other non-motorized users. Pedestrian/bicycle bridges are included in pedestrian pathway projects and provide complete separation of pedestrians and bicyclists from vehicular traffic, often where no other pedestrian or bicycle facility is available. They connect transportation networks across barriers such as railroads, freeways, or other major transportation corridors. Grade-separated undercrossings are also considered to be pedestrian pathway projects.

Table 3.2-1 on the following page lists the proposed pedestrian pathway and pedestrian/bicycle bridge opportunities in the City. The listed projects were analyzed as part of the *Cupertino Bicycle Transportation Network* Initial Study. As with the Bicycle Transportation Plan, further environmental review may be required for implementation of these off-street improvements. Figure 3.0-1 shows the location of the proposed improvements on a map of the City. These improvements are those most likely to result in ground disturbance.

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<sup>1</sup> The overlapping project components of the proposed project and the Bicycle Transportation Plan are identified in this Initial Study. The environmental review for the PTP is consistent with the environmental review of the Bicycle Transportation Plan.

<b>Table 3.2-1</b> <b>Proposed Pedestrian Pathways &amp; Ped/Bicycle Bridges</b>	
<b>Recommendation</b>	<b>Location</b>
Create pedestrian/bike connection	Imperial Ave. between Alcazar Ave. and Almaden Ave.
Enhance pedestrian/bike connection	Bandley Dr. at Greenleaf Dr.
Construct shared use path	Union Pacific ROW
Construct pedestrian/bicyclist bridge	SR-85 Bridge
Construct shared use path	I-280 Canal Path
Construct shared use path	Vallco West Pathway
Construct shared use path	Regnart Creek
Construct shared use path	Deep Cliff Golf Course
Construct shared use path	Varian Park Path
Construct pedestrian/bicyclist bridge	Carmen Rd. Bridge at Stevens Creek Blvd.
Construct shared use path	Wilson Park
Construct shared use path	San Tomas Aquino Creek Trail Extension
Construct pedestrian/bicyclist bridge	West Cupertino UPRR Crossing
Construct shared use path	The Oaks Path
Construct pedestrian/bicyclist bridge	McClellan Rd. at Stevens Creek
Construct grade-separated undercrossing	Phar Lap Dr. at Stevens Creek Blvd.
Construct grade-separated undercrossing	McClellan Rd., east or west of Stevens Creek Blvd.
Construct shared use path	Mary Ave. – Don Burnett Bridge to Stevens Creek Blvd.

### 3.2.1.2 *Sidewalk Improvement Locations*

Sidewalks provide a dedicated space, typically adjacent to right of ways, to safely accommodate pedestrian travel. Table 3.2-2 lists the proposed sidewalk improvement project locations in the City. Figure 3.0-2 shows the location of the proposed improvements on a map of the City.

<b>Table 3.2-2</b> <b>Proposed Sidewalk Project Locations</b>	
<b>Street</b>	<b>Roadway Segment</b>
Stevens Creek Blvd.	North side, Lebanon Dr. to Lockwood Dr.
Stevens Creek Blvd.	North side, Lockwood Dr. to Prado Vista Rd.
Stevens Creek Blvd.	South side, Lockwood Dr. to Prado Vista Rd.
Stevens Creek Blvd.	South side, Camino Vista Rd. to Foothill Blvd.
Rae Lane	North side, west of Linda Vista Dr.
McClellan Rd.	North side, SR 85 to Rose Blossom Dr.
McClellan Rd.	South side, Bonny Dr. to McClellan Pl.
Foothill Blvd.	West side, Stevens Creek Blvd. to Rancho Ventura St.
Foothill Blvd.	East side, between Rancho Ventura St. and Walnut Cir.
Foothill Blvd.	East side, between Stevens Creek Blvd. and Rancho Ventura St.
Lebanon Dr.	West/south side, Stevens Creek Blvd. to Lockwood Dr.
Lockwood Dr.	East side, Stevens Creek Blvd. to Lebanon Dr.
Lebanon Dr.	East/north side, Stevens Creek Blvd. to Lockwood Dr.

<b>Table 3.2-2</b> <b>Proposed Sidewalk Project Locations</b>	
Bubb Rd.	East side, Edward Way to Krzich Pl.
Stelling Rd.	West side, Catalano Ct. to Orion Ct.
Orange Ave.	Granada Ave. to Alcazar Ave.
Mann Dr.	Woodbury Dr. to Eaton Pl.
De Anza Blvd.	West side, Stevens Creek Blvd. to Rodrigues Ave.
Bandley Dr.	Stevens Creek Blvd. to Valley Green Dr.
Stevens Creek Blvd.	North side, SR 85 to Stelling Rd.
Byrne Ave.	McClellan Rd. to Granada Ave.
McClellan Rd.	Leandro Ave. to Orange Ave.
Beardon Rd.	Alves Rd. to Valley Green Dr.
Mary Ave. (NEW)	West side, Dog Park to Oaks Shopping Center
Stevens Creek Blvd. (NEW)	West of Phar Lap where missing, connect to proposed UPRR
Alcalde Rd. (NEW)	Avenida Lane to Foothill Blvd.

### 3.2.1.3 *Traffic Calming Projects*

Traffic calming uses physical engineering measures to reduce speeds, alter driver behavior, and improve conditions for non-motorized street users. Traffic calming engineering techniques include installation of tighter curb radii to slow vehicles making right turns, curb extensions, and extensions of the sidewalk or curb line into the roadway. Table 3.2-3 lists the proposed traffic calming opportunities in the City. Figure 3.0-2 shows the location of the proposed improvements on a map of the City.

<b>Table 3.2-3</b> <b>Proposed Traffic Calming Opportunities</b>	
<b>Recommendation</b>	<b>Location</b>
Install mini traffic circle	Pasadena Ave. at Lomita Ave.
Square west leg of intersection	Byrne Ave. at San Fernando Ave.
Narrow curb radii	Mann Dr. at Woodbury Dr.
Narrow curb radii	Mann Dr. at Monte Ct.
Narrow curb radii	Mann Dr. at Gardenview Ln.
Narrow curb radii	Mann Dr. at Oakview Ln.
Narrow curb radii	De Anza Blvd. at Scofield Dr.
Narrow curb radii	De Anza Blvd. at Sunrise Dr.
Narrow curb radii	De Anza Blvd. at Rodrigues Ave.
Construct curb extension	Bandley Dr. at Mariani Ave. (southeast corner)
Mark high-visibility crosswalk	Bandley Dr. at Lazaneo Dr. (north leg)
Construct curb extensions	Bandley Dr. at Lazaneo Dr.
Construct curb extensions	Bandley Dr. at Alves Dr. (south leg)
Construct curb extensions	Phar Lap Dr. at Stevens Creek Blvd.
Construct curb extensions	Miller Ave. at Greenwood Dr.
Narrow curb radii	Phar Lap Dr. at Clearcreek Ct.
Narrow curb radii	Phar Lap Dr. at Oakdell Pl.
Narrow curb radii	Phar Lap Dr. at Clearwood Ct.
Reconfigure intersection	De Anza Blvd. at McClellan Rd.

<b>Table 3.2-3</b> <b>Proposed Traffic Calming Opportunities</b>	
<b>Recommendation</b>	<b>Location</b>
Narrow curb radii	Estates Dr. at Glenview Ave.
Construct curb extensions	Rainbow Dr. at Gardenside Ln.
Construct curb extensions	Phil Ln. at Finch Ave.
Construct curb extensions	Finch Ave. at Calle de Barcelona (north and south legs)

### 3.2.1.4 *Proposed Intersection Improvements*

Table 3.2-4 lists the proposed intersection improvement opportunities in the City. Improvements to intersections include more visible crosswalk markings, installation of rectangular rapid flashing beacons (RRFB), and adjusting raised median curblines. Figure 3.0-4 shows the location of the proposed improvements on a map of the City.

<b>Table 3.2-4</b> <b>Proposed Intersection Improvements</b>	
<b>Recommendation</b>	<b>Location</b>
Mark high-visibility crosswalk	Stevens Creek Blvd. at Orange Ave. (west leg)
Install pedestrian warning signs	San Fernando Ave. between Byrne Ave. and Blackberry Farm Park
Add right-turn phase	Stevens Creek Blvd. at SR 85 NB on ramp (from Class IV design)
Mark high-visibility crosswalk	Stevens Creek Blvd. at Pasadena Ave. (west leg)
Mark high-visibility crosswalk	Stevens Creek Blvd. at Imperial Ave. (west leg)
Adjust raised median curbline	Stevens Creek Blvd. at Stelling Rd.
Mark high-visibility crosswalk	Stevens Creek Blvd. at Finch Ave. (west leg)
Reconfigure travel lane geometry	Finch Ave. at Stevens Creek Blvd. (south leg)
Mark crosswalk through parking lot	De Anza Blvd., east side at Saint Joseph Parish
Install RRFB	Valley Green Dr. at Bandley Dr. (west leg)
Mark high-visibility crosswalk	Bandley Dr. at Mariani Ave. (north leg)
Consider all-way stop control	Bandley Dr. at Lazaneo Dr.
Mark high-visibility crosswalk	Stevens Creek Blvd. at Tantau Ave. (east leg)
Mark standard crosswalk	Estates Dr. at Vicksburg Dr. (east leg)
Mark standard crosswalk	Estates Dr. at Vicksburg Dr. (south leg)
Install RRFB	Miller Ave. at Greenwood Dr.
Consider stop control for Alves Dr.	Alves Dr. at Saich Way
Consider stop control for Alves Dr.	Alves Dr. at Beardon Dr.
Consider leading pedestrian interval with added right turn phase	De Anza Blvd. at I-280 EB on-ramp
Shift crosswalk to N leg; install median island and RRFB	Stelling Rd. at Alves Dr.
Mark high-visibility crosswalk	Rainbow Dr. at Gardenside Ln.
Reconfigure intersection and crosswalk	Torre Ave. at Town Center Ln.
Mark high-visibility crosswalk	Tantau Dr. at I-280 EB off-ramp
Install RRFB	McClellan Rd. at September Dr.



<p align="center"><b>Table 3.2-4</b> <b>Proposed Intersection Improvements</b></p>	
<b>Recommendation</b>	<b>Location</b>
Adjust raised median curbline	Stevens Creek Blvd. at Mary Ave. (east leg)
Adjust raised median curbline	Stevens Creek Blvd. at Stelling Rd (north leg)
Adjust raised median curbline	Stevens Creek Blvd. at Stelling Rd (east leg)
Mark high-visibility crosswalk	Stevens Creek Blvd. at Mary Ave (west leg)
Mark high-visibility crosswalk	Stevens Creek Blvd. at Orange Ave. (east leg)
Mark high-visibility crosswalk	Stevens Creek Blvd. at Saich Way (west leg)
Remove existing beacon and install RRFB.	Stevens Creek Blvd. at Pasadena Ave.
Install RRFB	McClellan Rd. at Bonny Dr. (west leg)
Adjust raised median curbline	Mary Ave. at Stevens Creek Blvd. (north leg)
Reconfigure intersection and crosswalks	Rainbow Dr. at Stelling Rd.

### 3.2.1.5 *Other Pedestrian Projects*

Table 3.2-5 on the following page lists the other pedestrian projects, not categorized in the above tables. It is currently unknown what type of facility would be constructed on San Fernando Avenue. Therefore, it is included in this section. The list of proposed projects in Table 3.2-5 are not displayed in Figures 3.0-1 – 3.0-4.

<p align="center"><b>Table 3.2-5</b> <b>Other Pedestrian Projects</b></p>	
<b>Recommendation</b>	<b>Location</b>
Remove bollards	De Anza Blvd, west side between Stevens Creek Blvd and Alves Dr.
Consider creating pedestrian connection	Hanford Dr., east end
Improve bus stop accommodation	De Anza Blvd., east side north of Lazaneao Dr. (VTA Route 55 stop)
Remove newspaper box	De Anza Blvd., west side south of Stevens Creek Blvd.
Repair stairway	McClellan Rd. at Tressler Ct.
Shorten turn lane access	Stevens Creek Blvd. at Oaks entrance (part of Class IV design)
Consolidate one-way USPS driveways	Stevens Creek Blvd., north side at USPS office
Shorten turn lane access*	Stevens Creek Blvd. at west entrance to De Anza College (part of Class IV design)
Construct walkway	San Fernando Avenue between Byrne Ave. and Blackberry Farm Park entrance
<p>* Project was analyzed as part of the <i>Cupertino Bicycle Transportation Network</i> Initial Study. As with the Bicycle Transportation Plan, further environmental review may be required for implementation of these off-street improvements.</p>	

### **3.3 STORMWATER OUTFALLS AND STORM DRAINAGE**

The majority of proposed project components would be located on existing streets and within public right-of-ways that have inlets that direct stormwater into existing storm drains. In areas where new pedestrian facilities would be constructed on unpaved surfaces, the facilities would be designed to convey stormwater towards storm drains or bio-treatment areas. Stormwater treatment measures to be implemented would be consistent with the Santa Clara Valley Stormwater Municipal Permit's C.3 provisions and handbook and the City's Climate Action Plan. These would include:

- Installing self-treating and self-retaining areas in bio-treatment areas such as bioretention and rain garden landscaped areas, as permitted; and
- Reducing impervious surfaces by utilizing permeable/pervious/porous pavements.

The project would implement pre- and post-construction-related measures to conform to the City of Cupertino's Municipal Code Chapter 9.18. A discussion of the best management practices to be implemented can be found in *Section 4.9, Hydrology and Water Quality*.

### **3.4 IMPLEMENTATION SCHEDULE**

As described previously, the City has not yet determined the sequence of project implementation. Prioritization of improvements will be determined as funding sources are identified.

### **3.5 CONSISTENCY WITH ZONING, PLANS, AND OTHER APPLICABLE LAND USE CONTROLS**

#### **3.5.1 Land Use & Zoning Designations**

The proposed PTP network is consistent with the land use designations in the City of Cupertino's General Plan and zoning ordinance.

#### **3.5.2 Property and Easement Acquisitions**

The project would be implemented on existing streets and within paved and unpaved public right-of-ways, to the extent practical. Any proposed improvements that would result in the taking of private property and/or easements could be required to undergo further environmental review prior to project construction.

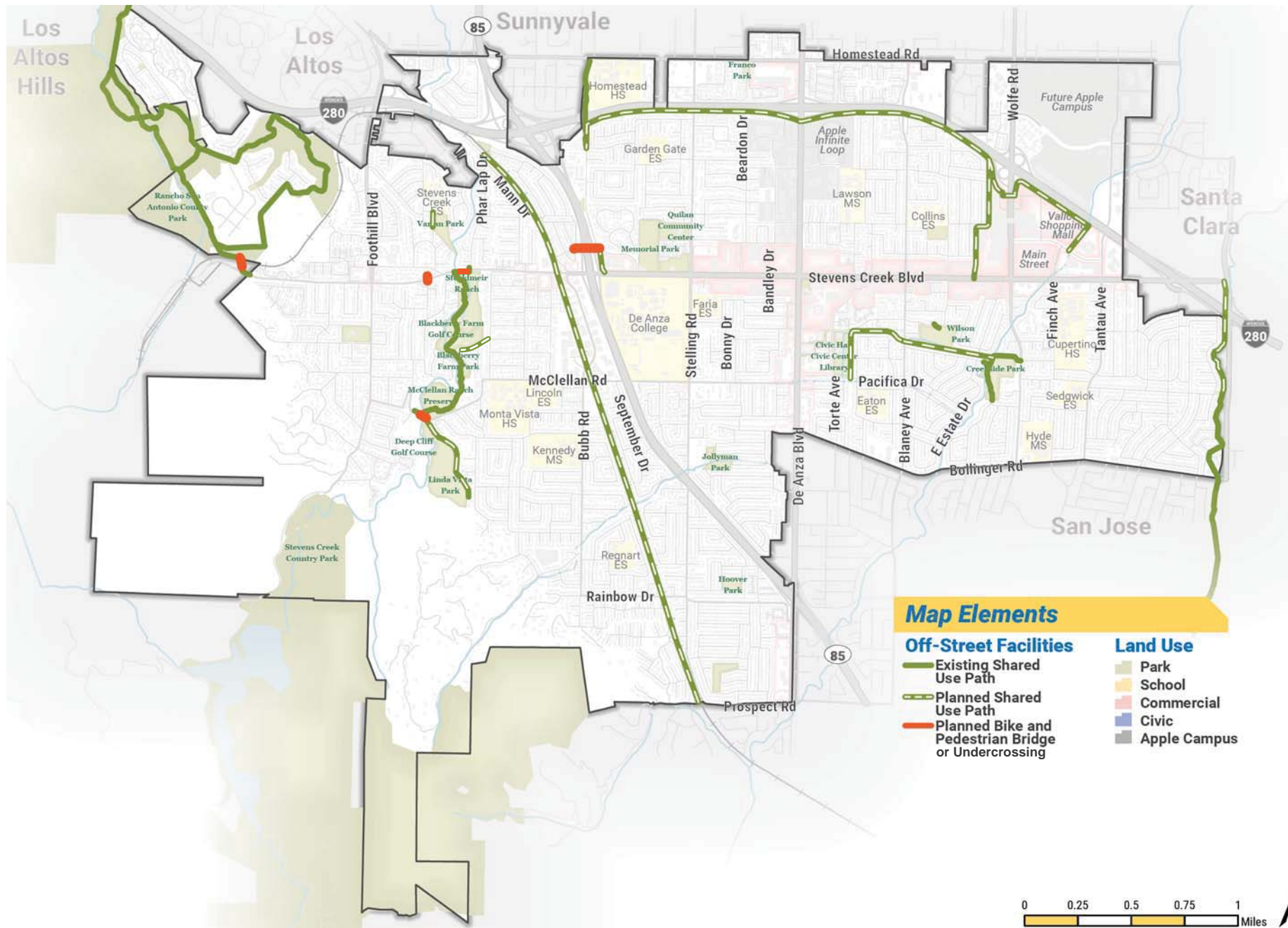
### **3.6 PURPOSE AND NEED**

The proposed project is an update to the existing PTP that was adopted by the City in 2002. The purpose of the PTP is to establish a framework for the development and maintenance of pedestrian facilities throughout Cupertino and recommend policies, programs, and messaging to support and promote walking. The PTP seeks to:

- Improve pedestrian safety and reduce the number and severity of pedestrian-related collisions, injuries, and fatalities;
- Increase and improve pedestrian access to community destinations across the City of Cupertino for people of all ages and abilities; and

- Continue to develop a connected pedestrian network that fosters an enjoyable walking experience.

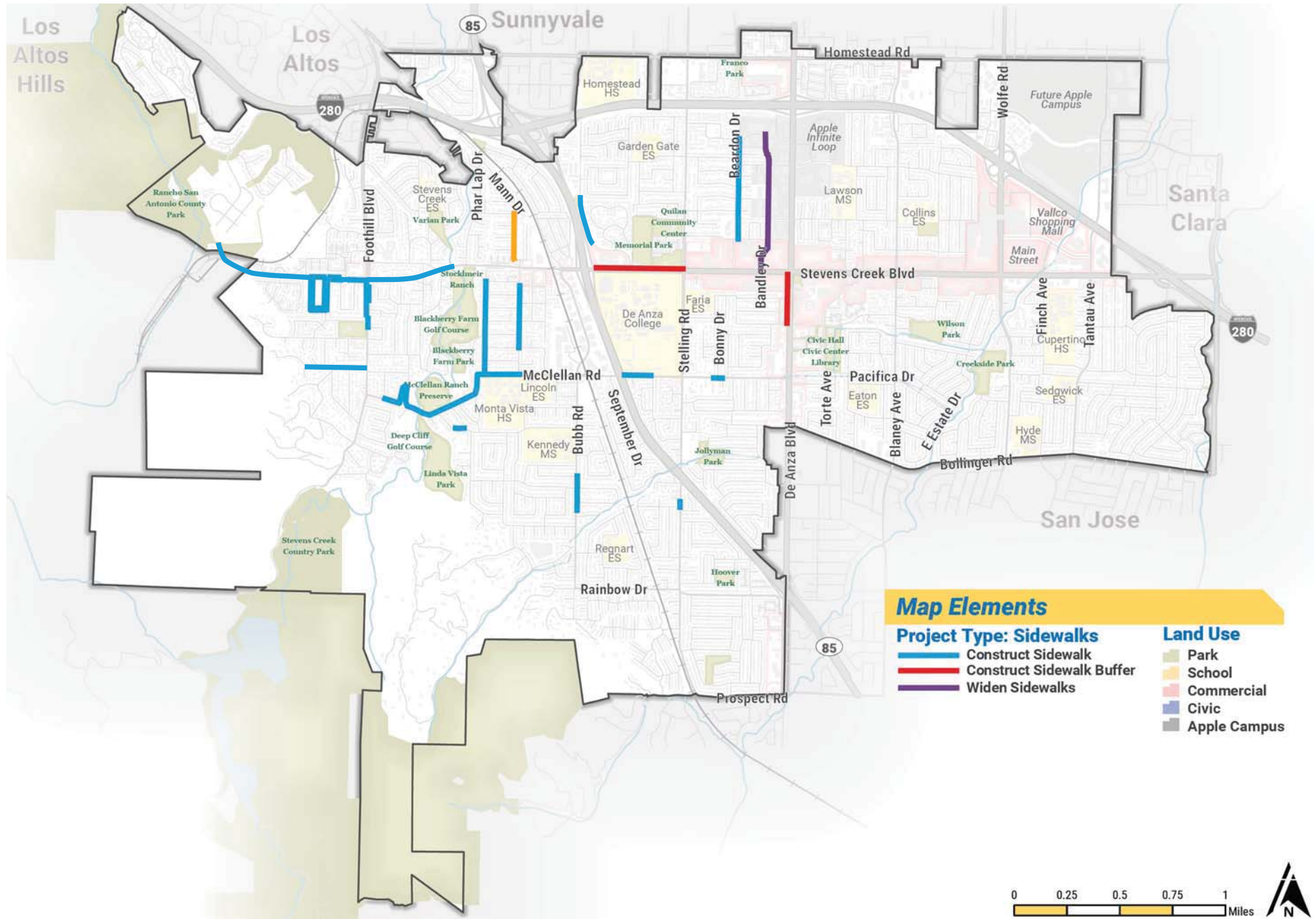
This Initial Study is intended to provide programmatic CEQA environmental clearance for the PTP as a whole. Larger projects identified in the Bicycle Transportation Plan and PTP, such as the proposed pedestrian bridges and undercrossings, are identified in this Initial Study as needing further environmental review. This Initial Study is intended to cover the full environmental review for the remaining projects, as listed in Tables 3.2-2 – 3.2-5.



PEDESTRIAN PATHWAY PROJECTS

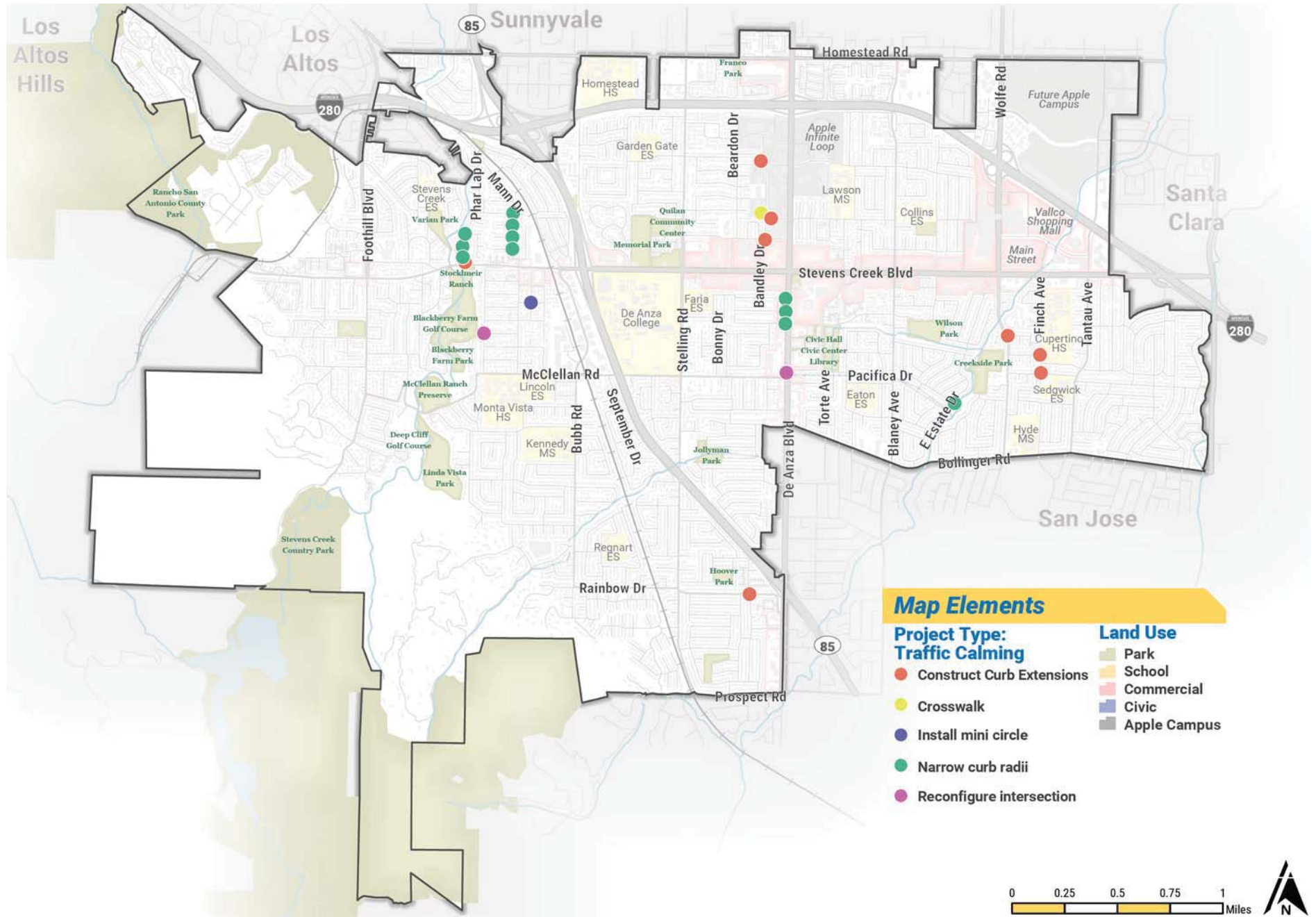
FIGURE 3.0-1





PROPOSED SIDEWALK PROJECTS

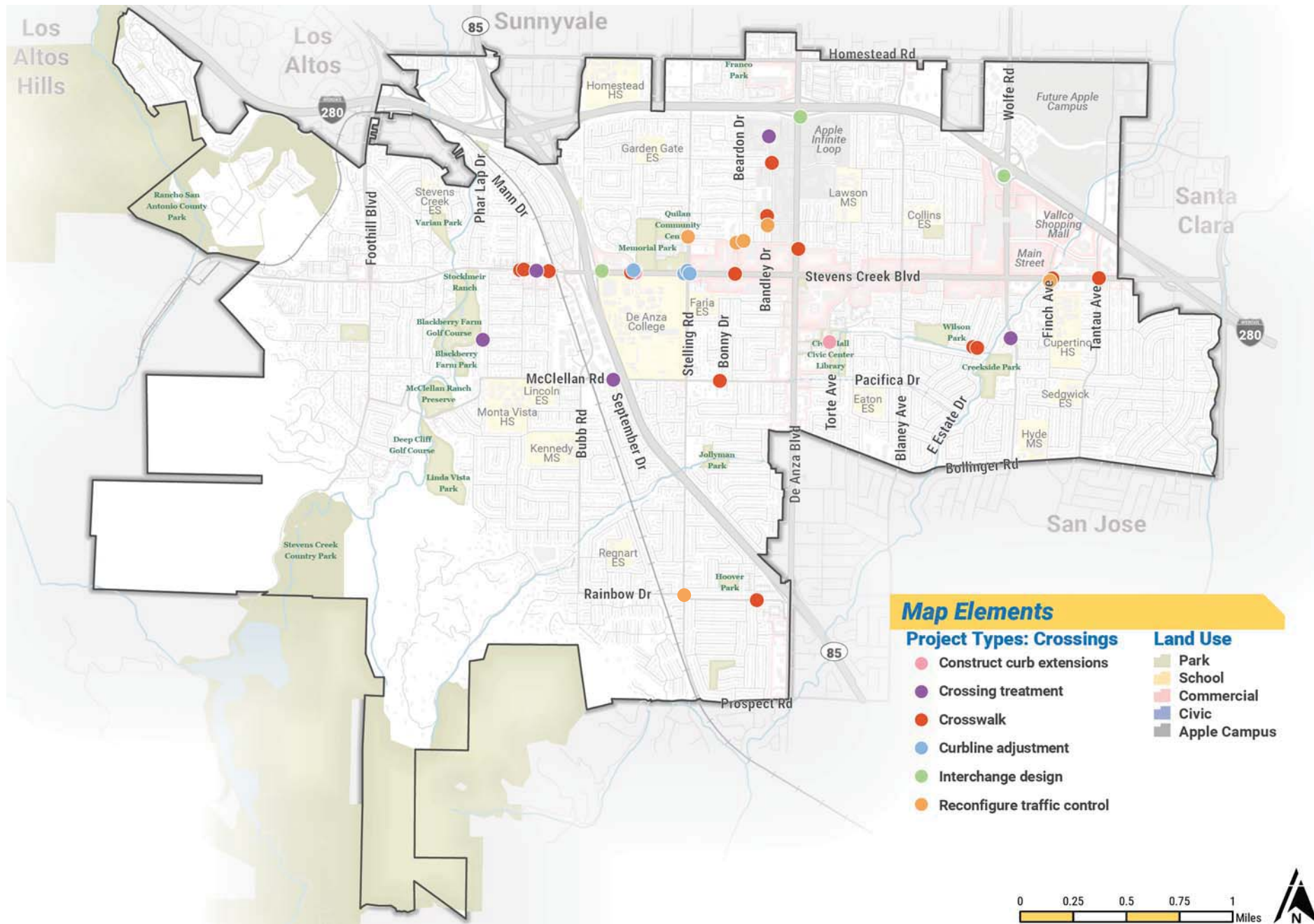
FIGURE 3.0-2



PROPOSED TRAFFIC CALMING PROJECTS

FIGURE 3.0-3





PROPOSED INTERSECTION IMPROVEMENTS

FIGURE 3.0-4

## SECTION 4.0 ENVIRONMENTAL SETTING, CHECKLIST, AND IMPACT DISCUSSION

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

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

The discussion for each environmental subject includes the following subsections:

- **Environmental 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 sites and in the surrounding area, as relevant.
- **Checklist and Discussion of Impacts** – This subsection includes a checklist for determining potential impacts and discusses the project’s environmental impact as it relates to the checklist questions. For significant impacts, feasible mitigation measures are identified. “Mitigation measures” are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered 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.
- **Conclusion** – This subsection provides a summary of the project’s impacts on the resource.

### **Important Note to the Reader**

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



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

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

## 4.1 AESTHETICS

### 4.1.1 Environmental Setting

#### 4.1.1.1 *Existing Conditions*

The City of Cupertino is an urbanized area developed primarily with a mix of uses, including single- and multi-family residential, office, public/quasi-public (schools and parks), industrial, and commercial. The majority of the planned pedestrian facilities and improvements would be constructed on existing city and residential streets.

There are a number of mature and young trees located throughout the City. Representative photos of some pedestrian improvement locations and facilities are provided in Photos 1-5 on the following pages.

#### 4.1.1.2 *Scenic Views*

The Montebello foothills at the south and west boundaries of the valley floor provide a scenic backdrop to the City of Cupertino. The central portion of the City is flat for the most part and views of the foothills from the proposed pedestrian network are obscured by existing buildings and/or trees. Neither Highway 85 nor Interstate 280 within Cupertino are designated scenic highways.



**Photo 1:** McClellan Road, facing west. Sidewalks and bicycle facilities are absent from McClellan on the south side of the road.



**Photo 2:** Intersection of McClellan Road (right) and De Anza Blvd., facing west.



**Photo 3:** Location of potential curb radii reduction at Sunrise Drive and S. De Anza Boulevard.





**Photo 4:** Location of potential installation of RRFB at intersection of Bonny Drive and McClellan Road.



**Photo 5:** Potential UPRR shared use path location.

#### 4.1.2 Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
d) Create a new source of substantial light or glare which will adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2

Aesthetic values are, by nature, very subjective. Opinions as to what constitutes a degradation of visual character will differ among individuals. The proposed pedestrian facilities would be constructed adjacent to existing streets, and would be visible from adjacent land uses. The following discussion addresses the proposed changes to the visual setting of the project area and factors that are part of the community's assessment of the aesthetic values of a project's design.

##### 4.1.2.1 *Impacts to Scenic Views or Scenic Resources*

The proposed pedestrian facilities and improvements would be located in a highly developed area on the floor of the Santa Clara Valley. Scenic resources along state scenic highways would not be affected since there are no designated state scenic highways in Cupertino. For these reasons, the proposed project would not have a direct adverse effect on a scenic vista or damage scenic resources. **(No Impact)**

Scenic views from the immediate project vicinity are limited. The Montebello foothills to the south of the City are largely obscured by existing development and trees. Any proposal that includes an elevated bicycle/pedestrian bridge would require additional review of potential visual impacts. Implementation of the proposed project would not substantially block scenic views and is not anticipated to have a substantial effect on a scenic vista. **(Less Than Significant Impact)**

##### 4.1.2.2 *Changes in Visual Character*

The project proposes to implement the PTP within the City. Most of the improvements would be completed on-street within existing right-of-ways. Project components listed in Tables 3.2-2 – 3.2-5 (see *Section 3.0*) would not result in the removal of any trees within the project vicinity. Larger projects, including the proposed pedestrian/bicycle bridges and undercrossings may require further environmental review to determine the extent of aesthetic impact, if at all.

For these reasons and those stated above, implementation of the PTP would have a less than significant impact on the visual character of areas adjacent to the proposed alignments. **(Less Than Significant Impact)**

#### **4.1.2.3      *Light and Glare Impacts***

The proposed pedestrian network would be located along lighted streets and would not include a substantial amount of new lighting. **(Less Than Significant Impact)**

#### **4.1.3      Conclusion**

Implementation of the proposed project would not result in significant visual or aesthetic impacts. **(Less Than Significant Impact)**



## 4.2 AGRICULTURAL AND FORESTRY RESOURCES

### 4.2.1 Environmental Setting

#### 4.2.1.1 *Existing Conditions*

##### **Agricultural Resources**

The Santa Clara County Important Farmland 2012 map designates most of Cupertino as *Urban and Built-Up Land*. *Urban and Built-Up Land* is defined as residential land with a density of at least six units per 10-acre parcel, as well as land used for industrial and commercial purposes, golf courses, landfills, airports, sewage treatment, and water control structures.

The locations of the proposed projects are within the urban area of Cupertino, and are not zoned or used for agricultural purposes, nor are they the subject of Williamson Act contracts.<sup>2</sup>

##### **Forest Resources**

The proposed project locations are not within lands classified as forest land or timberland. There is no forest land or timberland located in the Cupertino.

### 4.2.2 Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2,3,4
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2,3
d) Result in a loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2

<sup>2</sup> California Department of Conservation, Division of Land Resource Protection. *Santa Clara County Williamson Act FY 2013/2014*. 2013.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2

#### **4.2.2.1      *Agricultural Resources Impact***

The project improvements, most of which are on existing City streets, are not designated, zoned, or used as farmland or for agricultural purposes. The proposed project, therefore, would not convert farmland to non-agricultural use, or otherwise result in impacts to agricultural resources. **(No Impact)**

#### **4.2.2.2      *Forest Resources Impact***

There are no forest resources in Cupertino. The proposed project, therefore, would not impact forest resources. **(No Impact)**

#### **4.2.3      Conclusion**

Implementation of the proposed project would not result in significant impacts to agriculture or forestry resources. **(No Impact)**

## **4.3 AIR QUALITY**

### **4.3.1 Environmental Setting**

Clean air is a natural resource of vital importance. Pollutants in the air can cause health problems, especially for children, the elderly, and people with heart or lung problems. Healthy adults may experience symptoms during periods of intense exercise. Pollutants can also cause damage to vegetation, animals, and property.

#### **4.3.1.1 *Regulatory Framework***

##### **Clean Air Plan**

Regional air quality management districts such as BAAQMD must prepare air quality plans specifying how state 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 closely-related BAAQMD goals: protecting public health and protecting the climate. To protect public health, the plan describes how BAAQMD will continue its progress toward attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities.

The 2017 CAP includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

#### **4.3.1.2 *Existing Conditions***

##### **Climate and Topography**

The City of Cupertino is located in the Santa Clara Valley within the San Francisco Bay Area Air Basin. The City is located in proximity to both the Pacific Ocean and the San Francisco Bay, which has a moderating influence on the climate. This portion of the Santa Clara Valley is bounded to the north by the San Francisco Bay and the Santa Cruz Mountains to the southwest. The surrounding terrain greatly influences winds in the valley, resulting in a prevailing wind that follows along the northwest-southeast axis of the valley.

##### **Regional and Local Criteria Pollutants**

Major pollutants listed in "criteria" documents by the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and suspended particulate matter (PM). These pollutants can have health effects such as respiratory impairment and heart/lung disease symptoms.

The Bay Area is currently designated as an "attainment area," meaning the area meets the relevant standards for carbon monoxide, nitrogen dioxide, and sulfur dioxide. The region is classified as a "nonattainment area" for both the federal and state ozone standards, although a request for

reclassification to “attainment” of the federal standard is currently being considered by the USEPA. The area does not meet the state standards for particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>).

### **Local Community Risks/Toxic Air Contaminants and Fine Particulate Matter**

Besides criteria air pollutants, there is another group of substances found in ambient air referred to as Toxic Air Contaminants (TACs). These contaminants tend to be localized and are found in relatively low concentrations in ambient air; however, exposure to low concentrations over long periods can result in adverse chronic health effects.

Fine Particulate Matter (PM<sub>2.5</sub>) is a complex mixture of substances that includes elements such as carbon and metals; compounds such as nitrates, organics, and sulfates; and complex mixtures such as diesel exhaust and wood smoke. Long-term and short-term exposure to PM<sub>2.5</sub> can cause a wide range of health effects.

Common stationary source types of TACs and PM<sub>2.5</sub> include gasoline stations, dry cleaners, and diesel backup generators which are subject to permit requirements. The other, often more significant, common source is motor vehicles on freeways and roads.

### **Sensitive Receptors**

BAAQMD defines sensitive receptors as facilities where sensitive receptor population groups (e.g., children, the elderly, and the acutely and chronically ill) are likely to be located. These land uses include residences, school playgrounds, child-care centers, retirement homes, convalescent homes, hospitals, and medical clinics. The proposed project includes improvements to pedestrian facilities adjacent to sensitive land uses including residential areas and schools (e.g. Lincoln Elementary School, Monta Vista High School, Cupertino high School, and De Anza College).

#### **4.3.2 Checklist and Discussion of Impacts**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1, 6
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1



	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

#### 4.3.2.1 *Project-Level Significance Thresholds*

The thresholds of significance for criteria air pollutants are a net increase of 54 pounds or more per day of reactive organic gas (ROG), nitrous oxide (NO<sub>x</sub>), and/or PM<sub>2.5</sub>; or 82 pounds or more a day of PM<sub>10</sub>. These thresholds are based on thresholds identified by BAAQMD in 2011.<sup>3</sup>

The BAAQMD *CEQA Air Quality Guidelines* recommend that projects be evaluated for community risk when they are located within 1,000 feet of freeways, high traffic volume roadways (10,000 average annual daily trips or more), and/or stationary permitted sources of TACs. The thresholds for TACs are an increased cancer risk of greater than 10.0 in one million, increased non-cancer risk of greater than 1.0 on the hazard index (chronic or acute), or a PM<sub>2.5</sub> increase of 0.3 µg/m<sup>3</sup>.

#### 4.3.2.2 *Clean Air Plan Consistency*

The 2017 CAP contains control measures, consistent with the state's climate protection goals, aimed at reducing Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. These control measures are organized into five categories: Stationary Source Measures, Mobile Source Measures, Transportation Control Measures (TCMs), Land Use and Local Impact Measures, and Energy and Climate Measures.

The project is the implementation of the PTP which would improve and expand upon the existing pedestrian network throughout the city. With implementation of the improvements, it is expected that pedestrian movements throughout the city would improve and would enable more pedestrians to utilize the right-of-ways, which would potentially reduce vehicles on the road. The project, therefore, supports the primary goals of the CAP in that it would reduce mobile source emissions from a reduction in vehicle miles traveled. **(No Impact)**

#### 4.3.2.3 *Short-Term Construction-Related Impacts*

Project construction activities would be minimal and would marginally affect local air quality during the construction period, if at all. Significant construction (e.g. earthmoving) is not expected to occur

<sup>3</sup> As previously discussed in Section 4.0, on December 17, 2015, the California Supreme Court issued an opinion in "*CBIA vs. BAAQMD*" holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project's future users or residents unless the project risks exacerbating those environmental hazards or risks that already exist. Nevertheless, the City has policies and regulations that address existing conditions affecting a proposed project, which are included in Section 4.3.2.2.

The City has carefully considered the thresholds prepared by BAAQMD and the recent court ruling, and regards the thresholds to be based on the best information available for the San Francisco Bay Area Air Basin and conservative in terms of the assessment of health effects associated with TACs and PM<sub>2.5</sub>. Therefore, the analysis in this Initial Study is based upon the methodologies and thresholds in the BAAQMD CEQA Air Quality Guidelines.

from project implementation. As noted in *Section 3.0 Project Description*, construction of the proposed pedestrian/bicycle bridges and undercrossings may require further environmental review to determine the extent of air quality impacts, if at all. The remainder of this discussion is related to those proposed project components that are covered by this Initial Study.

Construction activities are a source of organic gas emissions. Solvents in adhesives, non-water based paints, thinners, some insulating materials, and caulking materials would evaporate into the atmosphere and contribute to the photochemical reaction that creates urban ozone. Asphalt used in paving is also a source of organic gases for a short time after its application.

### **Construction Dust Emissions**

Construction dust could affect local air quality at various times during construction on unpaved right-of-ways. The dry, windy climate of the area during the summer months creates a high potential for dust generation when and if underlying soils are exposed to the atmosphere. Construction activities, particularly during site area preparation, would temporarily generate fugitive dust in the form of PM<sub>10</sub> and PM<sub>2.5</sub>. However, these activities are not expected as part of the construction of most of the proposed pedestrian improvements, as they would mainly occur on existing streets.

Consistent with BAAQMD's Basic Construction Measures, the proposed project would include the following Best Management Practices to be implemented by the construction contractor to reduce air pollutant emissions to avoid any significant impacts to local air quality:

1. All exposed surfaces (e.g., staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All visible mud or dirt track-out onto adjacent public areas shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
3. All vehicle speeds on unpaved areas shall be limited to 15 mph.
4. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible and feasible after grading unless seeding or soil binders are used.
5. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
6. 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.
7. A publicly visible sign shall be posted with the telephone number and person to contact at the City of Cupertino regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Additional measures are included to reduce localized construction equipment exhaust emissions:

1. All mobile diesel-powered off-road equipment larger than 50 horsepower and operating on any site for more than two days continuously shall meet U.S. EPA particulate matter emissions standards for Tier 2 engines or equivalent; and
2. All portable diesel-powered off-road equipment (e.g., air compressors) operating on any site for more than two days continuously shall meet U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent.

Note that the construction contractor can use other comparable measures to minimize construction period DPM emissions, upon approval by the City. Such measures may be the use of alternative powered equipment (e.g., LPG-powered lifts), alternative fuels (e.g., biofuels), added exhaust devices, or a combination of measures.

The BAAQMD basic and additional construction mitigation measures to reduce air pollutant and construction equipment exhaust emissions are included in the project to avoid and/or reduce any impacts to local air quality. **(Less Than Significant Impact)**

#### **Construction TAC and PM<sub>2.5</sub> Health Risks**

Construction equipment generates diesel exhaust, which is a known TAC. Diesel exhaust poses both a health and nuisance impact to nearby receptors. Given that the majority of the project would require minimal site excavation/grading, if at all, and construction of the project would be relatively brief, it is not expected that the project would generate construction TACs long enough to result in human health risks. **(Less Than Significant Impact)**

#### **4.3.2.4 *Operational-Related Impacts from the Project***

The project is the implementation and construction of a series of pedestrian facility improvements and expansions throughout the City of Cupertino. Operational use of the improvements is expected to result in a decrease in automobile use and would, therefore, be considered a beneficial air quality impact. **(No Impact)**

#### **4.3.2.5 *Odors***

The project does not propose a use that would generate objectionable odors. **(No Impact)**

#### **4.3.3 Conclusion**

Implementation of the proposed project would not result in significant air quality impacts. **(Less Than Significant Impact)**

## **4.4 BIOLOGICAL RESOURCES**

### **4.4.1 Environmental Setting**

#### **4.4.1.1 *Regulatory Framework***

##### **Special Status Species**

##### Threatened and Endangered Species

State and federal “endangered species” legislation has provided California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal Endangered Species Acts (ESAs), candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society (CNPS) are collectively referred to as “species of special status.”

Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the take of a listed species. 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 (California Fish and Game Code, Section 86). “Take” is more broadly defined by the federal Endangered Species Act to include “harm” of a listed species (16 USC, Section 1532(19), 50 CFR, Section 17.3).

##### Migratory Birds

State and federal laws protect most bird species. The Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., sec. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

##### Birds of Prey

Birds of prey, such as owls and hawks, are protected in California under provisions of the State Fish and Game Code, Section 3503.5, (1992), which states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered a “taking” by the CDFW.

#### **4.4.1.2 *Existing Conditions***

The City of Cupertino is an urbanized area with a diversity of land uses. The majority of the project components would be built on existing right-of-ways that are adjacent to residential, commercial, industrial, parks, and open space uses. The pedestrian pathways adjacent to creeks (e.g. Regnart Creek) may require additional environmental review as specific improvement plans are finalized. Habitats in developed urban areas are relatively low in species diversity. Species that use this habitat



are urban and suburban adapted birds, such as rock dove, mourning dove, house sparrow, scrub jay, and starling.

#### 4.4.2 Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2

##### 4.4.2.1 *Biological Resources Impacts*

#### **Adopted Plans & Policies**

The project is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

### **Impacts to Special-Status Species**

Given that the majority of the project improvements would be constructed on existing right-of-ways that lack suitable habitat for many special-status animal species, the project is not anticipated to result in impacts to special-status plant and animal species. The proposed bicycle and pedestrian bridges with alignment adjacent to creeks, as described in the environmental review prepared for the Bicycle Transportation Plan, may require further environmental review as project design plans are finalized. **(Less Than Significant Impact)**

### **Impacts to Nesting Birds and Raptors**

The majority of the project area is currently developed with impervious surfaces (i.e. streets, boulevards etc.). Project components not developed with impervious surfaces are along Regnart Creek, the UPRR right-of-way, the I-280 canal, and at potential bridge locations (see Table 3.2-1). Construction related activities associated with construction of the proposed pedestrian improvements may result in disturbance to nesting birds in trees within the project area.

**Impact BIO-1:** Construction activities associated with the proposed project could result in the loss of fertile eggs, nesting raptors or other migratory birds, or nest abandonment. **(Significant Impact)**

The following mitigation measures would be implemented during construction of the bridges and trails identified in Table 3.2-1 to avoid abandonment of raptor and other protected migratory birds nests. Impacts would be less than significant with the following mitigation measures:

#### **Mitigation Measures:**

**MM BIO-1.1:** Construction shall be scheduled to avoid the nesting season to the extent feasible. The nesting season for most birds, including most raptors in the San Francisco Bay area, extends from February through August.

**MM BIO-1.2:** A preconstruction nesting bird survey shall be completed by a qualified biologist prior to tree removal or any construction related activity that occurs during the breeding season (February 1 through August 31) to avoid potential impacts to nesting birds. Surveys shall be completed by a qualified biologist no more than 7 days prior to initiation of construction activities. Surveys shall include the project site, staging area, and areas within 500 feet surrounding the project site. If nesting bird activity is observed, the biologist in consultation with CDFW, will determine an adequate buffer zone and other minimization measures to ensure the nest will not be disturbed by project construction.

Implementation of MM BIO-1.1 and MM BIO-1.2 would reduce impacts to nesting raptors and migratory birds to a less than significant level. **(Less Than Significant with Mitigation Incorporated)**

## **Impacts to Trees**

Construction of the proposed pedestrian improvements would primarily occur on existing right-of-ways, and would not result in the loss of trees as a result of implementation. For the shared pedestrian/bicycle facilities discussed in the environmental review for the Bicycle Transportation Plan that would result in the loss of trees and overlap with the proposed PTP, further environmental review may be required as project designs are finalized. Mitigation measures will be included in each project, consistent with the City of Cupertino's Tree Ordinance, as necessary, to reduce potential impacts to trees to a less than significant level. All other improvements included in the proposed project would have a less than significant impact to trees. **(Less Than Significant Impact)**

### **4.4.3      Conclusion**

The project would not impact a local habitat conservation plan. Implementation of the proposed project would have a less than significant impact on riparian habitat, riparian species, migration corridors, and trees. **(Less Than Significant Impact with Mitigation Incorporated)**

## 4.5 CULTURAL RESOURCES

### 4.5.1 Environmental Setting

Cultural resources are evidence of past human occupation and activity and include both historical and archaeological resources. These resources may be located above ground, underground, or underwater and have significance in history, prehistory,<sup>4</sup> architecture or culture of the nation, State of California, or local or tribal communities. Cultural resources are generally identified in historic or cultural resources inventories maintained by the county or local cities or towns, and also on the California Register of Historical Resources (California Register) and the National Register of Historic Places (National Register).

Heritage trees are considered cultural resources in the City of Cupertino and are recognized as a cultural resource in the General Plan. As defined in the Protected Trees Ordinance (Section 14.18.020), a Heritage tree is any tree or grove of trees which, because of factors including, but not limited to, its historic value, unique quality, girth, height or species, has been found by the Planning Commission to have a special significance to the community.

Paleontological resources are fossils; the remains or traces of prehistoric life preserved in the geological record. They range from well-known and well publicized fossils (such as mammoth and dinosaur bones) to scientifically important fossils (such as paleobotanical remains, trace fossils, and microfossils). Potentially sensitive areas with fossil bearing sediments near the ground surface in areas of Santa Clara County are generally in or adjacent to foothill areas rather than the younger Holocene age deposits on the valley floor. Geologic units of the Holocene age are generally not considered sensitive for paleontological resources, because biological remains younger than 10,000 years are not usually considered fossils.

### 4.5.2 Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
c) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1

<sup>4</sup> Events of the past prior to written records are considered prehistory.



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

#### 4.5.2.2 *Prehistoric, Historic, Archaeological, and Paleontological Resources*

Construction of the proposed pedestrian improvements would primarily occur along paved right-of-ways and would not include the removal of or impacts to identified historical resources or a site recognized in the *Cupertino General Plan* (General Plan) as a Historic Site or Commemorative Site. Implementation of the project, therefore, would not impact historic resources in the City of Cupertino. **(Less Than Significant Impact)**

The majority of the project area is currently developed with impervious surfaces (i.e. streets, boulevards etc.). Project components not developed with impervious surfaces are along Regnart Creek, the UPRR right-of-way, and the I-280 canal, and at bridge locations. Construction related activities associated with building the proposed pedestrian/bicycle bridges or undercrossings may uncover, while highly unlikely, buried prehistoric or historic deposits which could provide information on prehistory or the history of this site, its inhabitants, and the role it played in the development of the City.

**Impact CUL-1:** Implementation of the larger project components (e.g. pedestrian bridges and undercrossings) included in the proposed project could result in significant impacts to buried cultural resources, if encountered. **(Significant Impact)**

**Mitigation Measures:** As a condition of approval, the proposed project shall implement the following mitigation measures to reduce impacts to cultural resources to a less than significant level:

**MM CUL-1.1:** In the event of the discovery of prehistoric or historic archaeological deposits, work shall be halted within 50 feet of the discovery and a qualified professional archaeologist (or paleontologist, as applicable) shall examine the find and make appropriate recommendations regarding the significance of the find and the appropriate mitigation. The recommendation shall be implemented and could include collection, recordation, and analysis of any significant cultural materials.

**MM CUL-1.2:** Pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code of the State of California:

- In the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

**MM CUL-1.3:** If cultural resources are encountered, a final report summarizing the discovery of cultural materials shall be submitted to the Director of Public Works prior to issuance of building permits. This report shall contain a description of the mitigation program that was implemented (e.g., monitoring and testing program), a list of the resources found, a summary of the resources analysis methodology and conclusion, and a description of the disposition/curation of the resources. The report shall verify completion of the mitigation program to the satisfaction of the Director Public Works.

The project area is located on the valley floor and most likely contains geologic units of Holocene age; therefore, it is highly unlikely that the project area contains any paleontological resources. **(Less Than Significant Impact)**

#### **4.5.3 Conclusion**

Implementation of the proposed project would not impact historic resources. Subsurface cultural resources could be encountered during construction on unpaved surfaces. Mitigation measures are included in the project to reduce impacts to a less than significant level. **(Less Than Significant Impact with Mitigation Incorporated)**

## **4.6 GEOLOGY AND SOILS**

### **4.6.1 Environmental Setting**

#### **4.6.1.1 *Existing Conditions***

##### **Geology and Soils**

The City of Cupertino is located in the western portion of the Santa Clara Valley and lower portion of the Santa Cruz Mountain foothills. The Santa Clara Valley is located within the Coast Ranges geomorphic province of California; an area characterized by northwest-trending ridges and valleys, underlain by strongly deformed sedimentary and metamorphic rocks of the Franciscan Complex. Overlying these rocks are sediments deposited during recent geologic times. The Santa Clara Valley consists of a large structural basin containing alluvial deposits derived from the Diablo Range to the east and the Santa Cruz Mountains to the west. Valley sediments were deposited as a series of coalescing alluvial fans by streams that drain the adjacent mountains. These alluvial sediments make up the groundwater aquifers of the area. Soil types at the project site include clay, similar to other low-lying areas of the City. Soil on-site has a moderate to high potential for expansion.<sup>5</sup>

##### **Seismicity and Seismic Hazards**

The City of Cupertino is located within the San Francisco Bay Area, which is classified as Zone 4, the most seismically active zone in the United States. The Monta Vista and San Andreas Faults are south of the City.

Hazards associated with seismic activity along regional and local faults include fault rupture, ground shaking, liquefaction, differential settlement, landslides, and waves in bodies of water. The northeast portion of Cupertino along SR 85 is located within a fault rupture hazard zone.<sup>6</sup>

##### **Liquefaction**

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

The lands adjacent to Stevens Creek, Calabazas Creek, Saratoga Creek and San Tomas Aquino Creek are located within a designated State of California Liquefaction Hazard Zone and a Santa Clara County Liquefaction Hazard Zone.<sup>7</sup> The remainder of the City is not located in these zones.

##### **Lateral Spreading**

Lateral spreading typically occurs as a form of horizontal displacement of relatively flat-lying alluvial material toward an open or “free” face such as an open body of water, channel, or excavation. There are no open faces within the project area.

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<sup>5</sup> Natural Resources Conservation Service. Web Soil Survey. Accessed July 13, 2017. Available at: <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

<sup>6</sup> Santa Clara County. *Geologic Hazard Zones*. October 26, 2012.

<sup>7</sup> Ibid.

## Landsliding

Landslides occur when the stability of a slope changes from a stable to unstable condition. In general, steep slopes are less stable than more gently inclined ones. Landslides can also be triggered by seismic shaking. The project's geographic scope is not located within a State of California Landslide zone.<sup>8</sup> The City's General Plan also maps geologic and seismic hazards. The project area is primarily on the valley floor, an area with relatively low levels of landsliding hazards.

### **4.6.2 Checklist and Discussion of Impacts**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
1. Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,5
2. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
3. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,5
4. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
c) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,5
d) Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2

<sup>8</sup> County of Santa Clara. Geologic Hazards Zones Map 26. Accessed July 13, 2017. Available at: <http://www.sccgov.org/sites/planning/GIS/GeoHazardZones/Documents/GeohazardMapsATLAS2.pdf>.



The project does not propose to construct improvements or facilities that would require the use of septic tanks or alternative waste water disposal systems; therefore, impacts related to the use of these systems are not applicable to the proposed project and not discussed further.

#### **4.6.2.2      *Soils Impacts***

The proposed project improvements would not be exposed to substantial slope instability, erosion, or landslide-related hazards due to the flat topography of the project area. Soils within the project area, however, have a moderate to high expansion potential. The presence of expansive soil could damage future pedestrian improvements unless avoided by incorporating appropriate engineering into grading designs. The project would not result in loss, injury, or death related to expansive soils. The project proposes to be designed and constructed in accordance with applicable standard practices in the California Building Code, as adopted by the City of Cupertino, to reduce expansive soil impacts to a less than significant level. **(Less Than Significant Impact)**

#### **4.6.2.3      *Seismic and Seismic-Related Impacts***

The project is located in a seismically active region and would therefore, experience strong ground shaking during the lifetime of the proposed project components. While no active faults are known to cross the project area and the site does not lie within an Alquist-Priolo zone, ground shaking due to an earthquake could damage the proposed pedestrian facilities. Project components in liquefaction hazard zones would be constructed to reduce geologic hazard impacts to a less than significant level. Incorporation of standard construction measures in conformance with City policies would reduce seismic hazards and impacts to a less than significant level. **(Less Than Significant Impact)**

#### **4.6.3      Conclusion**

The project would result in less than significant seismic shaking, soil erosion, expansive soil, and other geologic impacts. **(Less Than Significant Impact)**

## 4.7 GREENHOUSE GAS EMISSIONS

### 4.7.1 Environmental Setting

Unlike emissions of criteria and toxic air pollutants, which are discussed in *Section 4.3 Air Quality* and have local or regional impacts, emissions of greenhouse gases have a broader, global impact. Global warming associated with the “greenhouse effect” is a process where greenhouse gases accumulating in the atmosphere contribute to an increase in the temperature of the earth’s atmosphere over time. The principle greenhouse gases contributing to global warming and associated climate change are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated compounds. Greenhouse gas emissions contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural sectors.

#### 4.7.1.1 *Regulatory Framework*

##### **State of California**

##### AB 32 and Related Executive Orders and Regulations

The Global Warming Solutions Act (also known as “Assembly Bill (AB) 32”) sets the State of California’s 2020 greenhouse gas emissions reduction goal into law. The Act requires that the greenhouse gas emissions in California be reduced to 1990 levels by 2020. Prior to adoption of AB 32, the Governor of California also signed Executive Order S-3-05 which identified CalEPA as the lead coordinating State agency for establishing climate change emission reduction targets in California. Under Executive Order S-3-05, the state plans to reduce greenhouse gas emissions to 80 percent below 1990 levels by 2050. Additional state law and regulations related to the reduction of greenhouse gas emissions includes SB 375, the Sustainable Communities and Climate Protection Act (see discussion below), the State’s Renewables Portfolio Standard for Energy Standard (Senate Bill 2X) and fleet-wide passenger car standards (Pavley Regulations).

In December 2008, the CARB approved the Climate Change Scoping Plan, which proposes a comprehensive set of actions designed to reduce California’s dependence on oil, diversify energy sources, save energy, and enhance public health, among other goals. Per AB 32, the Scoping Plan must be updated every five years to evaluate the mix of AB 32 policies to ensure that California is on track to achieve the 2020 greenhouse gas reduction goal. On May 22, 2014, the First Update to the Scoping Plan was approved by the CARB. The First Update identifies opportunities to leverage existing and new funds to further reduce greenhouse gas emissions through strategic planning and targeted low carbon investments. In addition, the First Update defines climate change priorities for CARB for the next five years and sets the groundwork to achieve long-term goals set forth in Executive Orders S-3-05 and B-16-2012.<sup>9</sup>

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<sup>9</sup> California Air Resources Board. “First Update to AB 32 Scoping Plan.” May 27, 2014. Accessed July 27, 2017. Available at: <http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm>

## Regional and Local Plans

### 2017 Bay Area Clean Air Plan

BAAQMD and other agencies prepare clean air plans as required under the state and federal Clean Air Acts. The Bay Area 2017 Clean Air Plan (2017 CAP) focuses on two closely-related BAAQMD goals: protecting public health and protecting the climate. Consistent with the GHG reduction targets adopted by the state of California, the 2017 CAP lays the groundwork for BAAQMD's long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. The 2017 CAP includes a wide range of control measures designed to decrease emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

### City of Cupertino General Plan

The Cupertino General Plan includes an Environmental Resources/Sustainability Section, with policies that call for energy efficiency, alternative transportation planning, and green building.

### Cupertino Climate Action Plan

The City of Cupertino Climate Action Plan seeks to identify emission reduction strategies that are informed by the goals, values, and priorities of the community. The Climate Action Plan describes the City's current emissions inventory and establishes future reduction targets. In addition, community-wide reduction measures and actions that can be implemented to help achieve future emission targets are described in the Climate Action Plan.

#### **4.7.1.2 Existing Conditions**

The City of Cupertino is highly urbanized with a diversity of land uses. Greenhouse gas emissions within the City are mostly the result of vehicle trips to, from, and throughout the City. The existing pedestrian network consists of disjointed sidewalks, pathways, and crosswalks throughout the City and does not contribute to overall greenhouse gas emissions in the area.

#### **4.7.2 Checklist and Discussion of Impacts**

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

GHG emissions worldwide cumulatively contribute to the significant adverse environmental impacts of global climate change. No single land use project could generate sufficient GHG emissions on its own to noticeably change the global average temperature. The combination of GHG emissions from

past, present, and future projects in the City of Cupertino, the entire state of California, across the nation, and around the world, contribute cumulatively to the phenomenon of global climate change and its associated environmental impacts.

#### **4.7.2.1      *Greenhouse Gas Emissions Threshold***

As discussed in CEQA Guidelines Section 15064(b), the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the Lead Agency and must be based to the extent possible on scientific and factual data. The first checklist question is assessed using quantitative thresholds for GHG emissions identified by BAAQMD in 2009. Using a methodology that models how new land use development in the San Francisco Bay area can meet Statewide AB 32 GHG reduction goals, BAAQMD identified a significance threshold of 1,100 metric tons of CO<sub>2</sub>e per year.<sup>10</sup>

The City has carefully considered the thresholds prepared by BAAQMD and regards the quantitative thresholds to be based on the best information available for development in the San Francisco Bay Area Air Basin. Evidence supporting these thresholds has been presented in the following documents:

- BAAQMD. 2009. *CEQA Thresholds Options and Justification Report*.
- BAAQMD. 2011. *California Environmental Quality Act Air Quality Guidelines*. (Appendix D).
- CARB. 2008. Climate Change Scoping Plan. (Statewide GHG Emission Targets)

BAAQMD has not identified a threshold of significance for construction-related GHG emissions.

#### **4.7.2.2      *Greenhouse Gas Emission Impacts from the Project***

The project is the implementation of a series of pedestrian network improvements that would facilitate a reduction in vehicle use by providing safer, alternative transportation routes throughout the City. The project, therefore, would not release or contribute to greenhouse gas emissions and is considered a beneficial impact to the environment. **(No Impact)**

#### **4.7.2.3      *Consistency with Adopted Plans and Policies***

As discussed in *Section 4.7.1.2*, the State of California has adopted the Scoping Plan. Greenhouse gas emissions are also addressed in the City of Cupertino Climate Action Plan.

The nature of the project is such that these measures are not relevant to project operations and, therefore, cannot be implemented.

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<sup>10</sup> In addition to this bright-line threshold, an “efficiency” threshold was identified for urban high density, transit-oriented development projects that are intended to reduce vehicle trips but that may still result in overall emissions greater than 1,100 metric tons per year. This efficiency threshold is 4.6 metric tons of CO<sub>2</sub>e per service population (e.g., residents and employees) per year.



## **Sustainable Communities Strategy**

Plan Bay Area, which includes a Sustainable Communities Strategy that links transportation and land use planning, grew out of California's 2008 Senate Bill 375 (Steinberg), which requires each of the state's 18 metropolitan areas to reduce greenhouse gas emissions from cars and light trucks. Plan Bay Area promotes compact, mixed-use commercial and residential development focused in Priority Development Areas that is walkable and bikeable and close to mass transit, jobs, schools, shopping, parks, recreation, and other amenities.

The project is the implementation of a series of pedestrian network improvements that would enable resident to utilize non-automobile transit routes, thus reducing greenhouse gas emissions. The project is, therefore, compliant with and contributing to achieving the Sustainable Communities Strategy.

## **Cupertino Climate Action Plan**

The proposed project is the implementation of the PTP, which would reduce long-term emissions, consistent with the CAP.

The project would not conflict with plans, policies, or regulations for reducing greenhouse gas emissions adopted by the California legislature, CARB, BAAQMD, or City of Cupertino. **(Less Than Significant Impact)**

### **4.7.3            Conclusion**

Implementation of the proposed project would not result in significant greenhouse gas emission impacts, would be consistent with adopted plans and policies related to the reduction of greenhouse gas emissions, and would be considered a beneficial impact. **(Less Than Significant Impact)**

## 4.8 HAZARDS AND HAZARDOUS MATERIALS

### 4.8.1 Environmental Setting

Hazardous materials encompass a wide range of substances, some of which are naturally-occurring and some of which are man-made. Examples include motor oil and fuel, metals (e.g., lead, mercury, and arsenic), asbestos, pesticides, herbicides, and chemical compounds used in manufacturing and other uses. A substance may be considered hazardous if, due to its chemical and/or physical properties, it poses a substantial hazard when it is improperly treated, stored, transported, disposed of, or released into the atmosphere in the event of an accident. Determining if such substances are present on or near project sites is important because exposure to hazardous materials above regulatory thresholds can result in adverse health effects on humans.

#### 4.8.1.1 *Regulatory Framework*

Hazardous waste generators and users in the City are required to comply with regulations enforced by several federal, state, and county agencies. The regulations are designed to reduce the risk associated with human exposure to hazardous materials and minimize adverse environmental effects. The Santa Clara County Fire Department coordinates with the County's Hazardous Materials Compliance Division 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.

#### 4.8.1.2 *Existing Conditions*

##### Site Conditions

Known sources of historical hazardous materials contamination in Cupertino are mainly the result of leaking underground storage tanks. Within the project area, all known sources of hazardous materials contamination are currently in the process of remediation and/or statements of case closure for the incidents have been issued. There are no buildings within the areas of proposed project components.

### 4.8.2 Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
f) For a project within the vicinity of a private airstrip, will the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,8

#### 4.8.3 Hazards and Hazardous Materials Impacts

As described above, leaking underground storage tanks have been identified in the project area but have received a case closed status or are in the process of remediation. Improvements to existing sidewalks or the construction of new sidewalks/interchanges and spot improvements along streets and boulevards would not require extensive grading, and it is unlikely that construction activities would expose workers to contaminated soils or groundwater. **(Less Than Significant Impact)**

The project does not include the routine transport, use, or disposal of hazardous materials or emissions and would therefore, not emit or handle hazardous materials within a quarter mile of schools in the project area. **(No Impact)**

The project area is not located within an airport land use plan, wildfire hazard zone, or in the vicinity of a private airstrip. Construction of the proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan. For these reasons, implementation of the

proposed project would not result in significant hazardous material impacts related to these issues.  
**(No Impact)**

#### **4.8.4            Conclusion**

Implementation of the proposed project, in accordance with federal, state, and local laws and regulations, would not result in a significant hazardous materials impact. **(Less Than Significant Impact)**



## **4.9 HYDROLOGY AND WATER QUALITY**

### **4.9.1 Environmental Setting**

#### **4.9.1.1 *Regulatory Framework***

##### **National Flood Insurance Program**

In 1968, Congress created the National Flood Insurance Program (NFIP) in response to the rising cost of taxpayer funded disaster relief for flood victims and the increasing amount of damage caused by floods. The NFIP makes federally-backed flood insurance available for communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage.

The Federal Emergency Management Agency (FEMA) manages the NFIP and creates Flood Insurance Rate Maps (FIRMs) that designate 100-year floodplain zones and delineate other flood hazard areas. A 100-year floodplain zone is the area that has a one in 100 (one percent) chance of being flooded in any one year based on historical data. As discussed in more detail in *Section 4.9.1.2* below, some of the project components are located within a 100-year flood zone.

##### **Water Quality (Nonpoint Source Pollution Program)**

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 U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board have been developed to fulfill the requirements of this legislation. USEPA's 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, which for the Cupertino area is the San Francisco Regional Water Quality Control Board (RWQCB).

##### **Statewide Construction General Permit**

The State Water Resources Control Board 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 prior to commencement of construction.

##### **Municipal Regional Stormwater NPDES Permit (MRP)/C.3 Requirements**

The San Francisco Bay RWQCB also has issued a Municipal Regional Stormwater NPDES Permit (Permit Number CAS612008) (MRP). In an effort to standardize stormwater management requirements throughout the region, this permit replaces the formerly separate countywide municipal stormwater permits with a regional permit for 77 Bay Area municipalities, including the City of Cupertino. Under provisions of the NPDES Municipal Permit, redevelopment projects that add and/or replace more than 10,000 square feet of impervious surface, or 5,000 square feet of uncovered parking area, are required to design and construct stormwater treatment controls to treat post-construction stormwater runoff. Amendments to the MRP require all of the post-construction runoff to be treated by using Low Impact Development (LID) treatment controls, such as infiltration, evaporation, harvesting, or biotreatment facilities, where feasible.

The MRP also identifies subwatershed and catchment areas subject to hydromodification management controls. Projects that add or replace one acre of impervious surfaces are subject to the hydromodification standard and associated requirements in the MRP.<sup>11</sup>

### **City of Cupertino Municipal Code**

Chapter 16.52 *Prevention of Flood Damage* of the City of Cupertino Municipal Code governs construction in Special Flood Hazard Areas (Zone A, AO, or A1-30 on FIRM maps) having special flood or flood-related erosion hazards. Under this regulation, the Director of Public Works reviews all development permits to determine that the permit requirements of this chapter have been satisfied.

Chapter 9.18 *Stormwater Pollution Prevention and Watershed Protection* of the City of Cupertino Municipal Code outlines the City's minimum requirements designed to control the discharge of pollutants into the City of Cupertino's storm drain system and to assure that discharges from the City of Cupertino storm drain system comply with applicable provisions of the Federal Clean Water Act and NPDES Permit.

#### **4.9.1.2 Existing Conditions**

##### **Hydrology and Drainage**

The project area is located within the West Valley Watershed. Each watershed is made up of one or more main creeks, as well as many smaller tributaries, each with its own sub-watershed. Creeks in the West Valley Watershed include portions of the Sunnyvale East Channel and Calabazas Creek, and Regnart Creek.<sup>12</sup> Watershed elements include not only these tributaries but groundwater. Cupertino is located within the Santa Clara Valley Groundwater Basin and includes the McClellan groundwater recharge facility.

The proposed pedestrian facility and spot improvements would be constructed on existing impervious surfaces (e.g. streets and boulevards). Runoff from the project area would connect with existing storm drains in streets which would drain into Regnart Creek and San Tomas Aquino Creek, which eventually drains into San Francisco Bay.

##### **Groundwater**

The project area is located in the Santa Clara Valley Groundwater Basin between the Diablo Mountains to the east and the Santa Cruz Mountains to the west. The City of Cupertino is located in the Santa Clara Plain Groundwater Recharge Area.<sup>13</sup> Groundwater in the project area varies depending on location in the City. Fluctuations in the level of subsurface water can occur due to variations in rainfall, temperature, and other factors.

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<sup>11</sup> Santa Clara Valley Urban Runoff Pollution Prevention Program. *Hydromodification Management (HM) Applicability Map City of Cupertino*. November 2010. Accessed July 14, 2017. Available at: [http://www.scvurppp-w2k.com/HMP\\_app\\_maps/Cupertino\\_HMP\\_Map.pdf](http://www.scvurppp-w2k.com/HMP_app_maps/Cupertino_HMP_Map.pdf)

<sup>12</sup> Santa Clara Valley Water District. "West Valley Watershed." Accessed July 14, 2017. Available at: <http://www.valleywater.org/uploadedImages/Services/HealthyCreeksEcoSystems/WatershedInformation/WestValley/WestValley2005Mapxl.jpg?n=1070.aspx>.

<sup>13</sup> Santa Clara Valley Water District. 2012 Groundwater Management Plan.

## 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 surfaces into storm drains. The runoff often contains contaminants such as oil, 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 habitat of natural waterways such as Regnart Creek, which drains into Calabazas Creek and eventually into San Francisco Bay.

## Flooding and Other Inundation Hazards

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the majority of the City of Cupertino is located within the FEMA Flood Zone, X500. X500 Zones are areas of 500-year flood with average depths of less than 1 foot and an area inundated by 0.2% annual chance of flooding. The portions of Cupertino located within FEMA Zone A are adjacent to Calabazas Creek and Stevens Creek.<sup>14</sup> Areas within Zone A have a 1% annual chance of flooding. Central Cupertino is located within FEMA Flood Zone X, which are moderate risk areas within the 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance flooding where average depths are less than 1 foot, areas of 1-percent-annual-chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1-percent-annual-chance flood by a levee.

The project area is not subject to flooding due to seiches or tsunamis.<sup>15</sup> In the event of a Stevens Creek Dam failure, sections of Cupertino would be subject to dam inundation.<sup>16</sup>

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<sup>14</sup> Federal Emergency Management Agency, *Flood Insurance Rate Map, Santa Clara County, California*, Community-Panel Number 06085C0209H, May 18, 2009.

<sup>15</sup> Association of Bay Area Governments. *Interactive Flooding Map*. Accessed April 13, 2016. Available at: <http://gis.abag.ca.gov/website/Hazards/?hlyr=femaZones>

<sup>16</sup> City of Cupertino. *A Resolution of the City Council of the City of Cupertino Approving the Join Stevens Creek Dam Failure Plan*. October, 16, 2012. Accessed July 17, 2017. Available at: <http://www.cupertino.org/index.aspx?page=1210>.

## 4.9.2

### Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on-or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on-or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
e) Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
h) Place within a 100-year flood hazard area structures which will impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,9
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,5
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2



#### **4.9.2.1      *Hydrology and Drainage Impacts***

The majority of the project area is currently developed with impervious surfaces (i.e. streets, boulevards etc.). Project components not developed with impervious surfaces are along Regnart Creek, the UPRR right-of-way, the I-280 canal, and at bridge locations. Construction related activities associated with building the proposed pedestrian/bicycle bridges and undercrossings are a more likely source of substantial drainage impacts which may result in stormwater pollution associated with erosion and sedimentation. As stated previously, these project components may be required to undergo a separate, more extensive environmental review as design plans are finalized. Runoff generated by the project would flow into existing storm drains or be treated using LID stormwater controls where appropriate. The project would, therefore, not alter the existing drainage pattern of the area. **(Less Than Significant Impact)**

#### **4.9.2.2      *Groundwater***

Except for possibly the proposed undercrossings, construction of project components in unpaved areas is not expected to excavate soils to levels that would reach groundwater. As stated previously, these project components may be required to undergo a separate, more extensive environmental review as design plans are finalized. Implementation of the proposed project would, therefore, not substantially deplete groundwater resources or interfere with groundwater recharge. **(Less Than Significant Impact)**

#### **4.9.2.3      *Water Quality Impacts***

##### **Construction-Related Impacts**

The majority of the project is planned for implementation on existing paved right-of-ways. Project improvements on undeveloped land would require minimal grading, if at all. It is not anticipated that these improvements would generate construction-related pollutants that would adversely impact water quality. For the larger projects included in the PTP, including bicycle/pedestrian bridges and undercrossings, may require further environmental review prior to implementation to determine extent of water quality impacts. Implementation of the following standard measures during installation of the remaining projects would ensure that construction-related impacts to water quality would be reduced to a less than significant level.

In conformance with the City of Cupertino's Municipal Code Chapter 9.18, the project includes the following standard measures:

- The project shall implement construction BMPs to avoid impacts to surface water quality during construction, to the satisfaction of the Director of Public Works. Construction BMPs would include, but would not be limited to the following measures:
  - Preclude non-stormwater discharges to the stormwater system.
  - Incorporate site-specific Best Management Practices for erosion and sediment control during the construction period consistent with the NPDES permit.
  - Cover soil, equipment, and supplies that could contribute to non-visible pollution prior to rainfall events or monitor runoff.

- Perform monitoring of discharges to the stormwater system to ensure that stormwater runoff during construction is contained prior to discharge to allow sediment to settle out and filtered, if necessary to ensure that only clear water is discharged to the storm system.

### Post-Construction Measures

In conformance with the City of Cupertino's Municipal Code Chapter 9.18, the project includes the following standard measures; if applicable:

- To protect groundwater from pollutant loading of urban runoff, BMPs which are primarily infiltration devices (such as infiltration trenches and infiltration basins) must meet, at a minimum, the following conditions:
  - Pollution prevention and source control BMPs shall be implemented to protect groundwater;
  - Use of infiltration BMPs cannot cause or contribute to degradation of groundwater;
  - Infiltration BMPs must be adequately maintained;
  - Vertical distance from the base of any infiltration device to the seasonal high groundwater mark must be at least 10 feet. In areas of highly porous soils and/or high groundwater table, BMPs shall be subject to a higher level of analysis (considering potential for pollutants such as on-site chemical use, level of pretreatment, similar factors); and
- Best Management Practices (BMPs) shall be selected and designed to the satisfaction of the Director of Public Works in accordance with the requirements contained in the most recent versions of the following documents:
  - City of Cupertino Post-Construction BMP Section Matrix;
  - SCVURPPP "Guidance for Implementing Storm Water Regulations for New and Redevelopment Projects;"
  - NPDES Municipal Stormwater Discharge Permit issued to the City of Cupertino by the California Regional Water Quality Control Board, San Francisco Bay Region;
  - California BMP Handbooks;
  - Bay Area Stormwater Management Agencies Association (BASMAA) "Start at the Source" Design Guidance Manual;
  - BASMAA "Using Site Design Standards to Meet Development Standards for Stormwater Quality – A Companion Document to Start at the Source;" and
  - City of Cupertino Planning Procedures Performance Standard.

Implementation of standard measures would ensure that the project would not result in significant construction-related water quality impacts. **(Less Than Significant Impact)**

### **Post-Construction Impacts**

The project itself would not generate pollution from project operations since once it is constructed, there would be not be ongoing operations. The project itself would not create or contribute runoff since it would be maintaining similar imperviousness as existing conditions. Pollution from project

operations, if at all would be generated from pedestrians using the facilities. Implementation of standards measures, as discussed above, would ensure that the project would not result in significant post-construction water quality impacts. **(Less Than Significant Impact)**

#### **4.9.2.4      *Flood Impacts and Other Inundation Hazards***

As discussed previously, the portions of the project area is within the 100-year, or one percent flood zone. The project does not propose to build housing and would not result in the relocation of housing elsewhere. The project, therefore, would not place housing within a 100-year flood hazard area or would impede or redirect flood flows within a 100-year flood hazard area.

The project is located in parts of Cupertino that are subject to inundation in the event of a complete failure of the Stevens Creek Dam. The facilities included in the proposed project would be subject to flooding in the event of dam failure; however, they do not increase the potential for this failure to occur. Pedestrians utilizing the facilities would not be at greater risk from the effects of dam failure when compared to other citizens of the City. Implementation of the project would not expose additional residents to a significant risk of loss, injury or death as a result of dam failure. **(Less Than Significant Impact)**

The project is not located in an area of projected sea level rise, earthquake-induced waves or mudflows. **(Less Than Significant Impact)**

#### **4.9.3      Conclusion**

Implementation of the proposed project would not result in significant hydrology or water quality impacts. **(Less Than Significant Impact)**

## 4.10 LAND USE AND PLANNING

### 4.10.1 Environmental Setting

The proposed project is the implementation of the City of Cupertino's PTP. Proposed project components are planned throughout the City of Cupertino along existing public streets, boulevards, along the I-280 canal, UPRR tracks, and Regnart Creek, as listed in Table 3.0-1 and 3.0-2. The pedestrian facilities and spot improvements are planned on existing right-of-ways and along existing maintenance roads adjacent to I-280, the UPRR tracks, and Regnart Creek.

The proposed project segments and spot improvements would be adjacent to a variety of land uses, including residential, commercial/retail, institutions, office, schools, and parks.

#### 4.10.1.1 *Regulatory Framework*

##### **General Plan and Zoning Ordinance**

The majority of the planned improvements are located within existing City of Cupertino public roadways designated as right-of-way in the General Plan and zoning ordinance.

##### **Other Public Agencies**

Planned pedestrian facilities could be located within the right-of-ways of the Santa Clara Valley Water District (near creeks), Caltrans (all highway facilities), and California Public Utilities Commission lands (UPRR tracks).

### 4.10.2 Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2

#### 4.10.2.1 *Consistency with General Plan and Zoning Ordinances*

The proposed pedestrian network would be within existing Cupertino street right-of-ways and adjacent primarily to residential and commercial/retail uses. Streets and boulevards proposed for pedestrian facilities are not subject to zoning regulations by the City of Cupertino since streets and

boulevards are considered public right-of-ways. The project is, therefore, consistent with the General Plan land use and zoning designations within the project area.

Pedestrian facilities proposed within the Santa Clara Valley Water District, Caltrans, and California Public Utilities Commission right-of-ways have not yet been designed, however, it is anticipated that the facilities would be designed consistent with the plans, policies, and requirements of those agencies. **(No Impact)**

#### **4.10.2.2      *Land Use Compatibility***

The majority of the proposed pedestrian network would be constructed within existing City streets. The proposed sidewalk, traffic calming, intersection, and other improvements would not create a barrier to development or physically divide a community. In fact, those facilities would serve to better connect areas of the City that have limited pedestrian access. The project is not located within a habitat conservation plan or natural community conservation plan area. **(No Impact)**

#### **4.10.3      Conclusion**

Implementation of the proposed project would not result in a significant land use impact. **(No Impact)**



## 4.11 MINERAL RESOURCES

### 4.11.1 Environmental Setting

Mineral resources found and extracted in Santa Clara County include construction aggregate deposits such as sand, gravel, and crushed stone. There are several areas in the City of Cupertino that are designated by the State Mining and Geology Board under the Surface Mining and Reclamation Act of 1975 (SMARA) as containing mineral deposits which are of regional significance; however, the General Plan indicates that these areas are either depleted or unavailable due to existing development. The project area is not within one of the areas of Cupertino designated as containing mineral deposits of importance.

### 4.11.2 Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2

#### 4.11.2.1 *Mineral Resources Impact*

As the mineral resources in Cupertino are either depleted or inaccessible, implementation of the proposed project would not result in the loss of available mineral resources. **(No Impact)**

### 4.11.3 Conclusion

Implementation of the proposed project would not result in the loss of availability of a known mineral resources. **(No Impact)**

## **4.12 NOISE AND VIBRATION**

### **4.12.1 Environmental Setting**

#### **Noise**

Noise is defined as unwanted sound. Noise can be disturbing or annoying because of its pitch or loudness. Pitch refers to relative frequency of vibrations; higher pitch signals sound louder to people.

A decibel (dB) is measured based on the relative amplitude of a sound. Ten on the decibel scale marks the lowest sound level that a healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis such that each 10 decibel increase is perceived as a doubling of loudness. The California A-weighted sound level, or dBA, gives greater weight to sounds to which the human ear is most sensitive.

Sensitivity to noise increases during the evening and at night because excessive noise interferes with the ability to sleep. Twenty-four hour descriptors have been developed that emphasize quiet-time noise events. The Day/Night Average Sound Level,  $L_{dn}$ , is a measure of the cumulative noise exposure in a community. It includes a 10 dB addition or “penalty” to noise levels from 10:00 PM to 7:00 AM to account for human sensitivity to night noise.

#### **4.12.1.1 *Regulatory Framework***

##### **City of Cupertino General Plan**

The General Plan provides a policy framework for guiding future land use and urban design decisions and contains a system of control and abatement measures to protect residents from exposure to excessive or unacceptable noise levels.

##### **Municipal Code**

The City of Cupertino regulates noise within the community in Chapter 10.48 (Community Noise Control) of the Municipal Code.

#### **4.12.1.2 *Existing Conditions***

The majority of the planned pedestrian network is on existing streets and boulevards that are dominated by vehicular noise on these roadways.

The project area is not located within two miles of an airport or private airstrip, or within an airport land use plan area.

#### 4.12.2 Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project result in:					
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-3
b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1-3
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
f) For a project within the vicinity of a private airstrip, will the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2

CEQA does not define what noise level increase would be considered substantial. Typically, project-generated noise level increases of three dBA CNEL or greater would be considered significant where exterior noise levels would exceed the normally acceptable noise level standard. Where noise levels would remain at or below the normally acceptable noise level standard with the project, noise level increases of three dBA CNEL or greater would be considered significant.

##### 4.12.2.1 *Noise and Vibration Impacts from the Project*

Future project noise would result from pedestrian facility users. It is expected that noise within the project area, however, would be primarily from normal vehicular traffic on streets and boulevards which would dominate most, if not all, noise generated from pedestrians using the network. City parks, open space, and creek areas have lower noise levels; however, these areas are urban in nature and the introduction of trail users would result in a nominal increase in noise levels to sensitive receptors and wildlife. Noise from project operation would not substantially increase ambient noise levels in the project area. Implementation of the proposed project is not anticipated to result in a significant noise impact. **(Less Than Significant Impact)**

Noise impacts to pedestrian users along City streets and boulevards and over state highway facilities would be similar to those currently experienced by bicyclists and pedestrians traveling in the City. The construction of pedestrian facilities could serve to move pedestrians away from roadway traffic, thus potentially reducing noise levels. **(Less Than Significant Impact)**

Construction activities can generate high noise levels, especially during the construction of project infrastructure when heavy equipment is used. Since the majority of the proposed pedestrian network spot improvements involve sidewalk extensions and crosswalks, the use of heavy equipment would not be expected for future project construction. For the larger, more extensive projects included in the proposed project (e.g. UPRR, I-280 canal, Regnart Creek, pedestrian/bicycle bridges, and undercrossings), further environmental review may be required to determine the extent of noise impacts, however, the use of construction equipment would be subject to the City's noise ordinance which would reduce impacts to a less than significant level. **(Less Than Significant Impact)**

As stated in *Section 4.10 Land Use*, the project area is not located within an airport land use plan or within the vicinity of a private airstrip. The project would, therefore, not expose people in such areas to excessive noise levels. **(No Impact)**

#### **4.12.3            Conclusion**

The project would result in less than significant operational and construction noise, vibration, and air traffic impacts. **(Less Than Significant Impact)**

## 4.13 POPULATION AND HOUSING

### 4.13.1 Environmental Setting

The proposed project is the expansion and improvement of the existing pedestrian network within Cupertino. The project does not propose the construction of housing.

### 4.13.2 Checklist and Discussion of Impacts

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

#### 4.13.2.1 *Growth Inducement Impacts*

The project area is located within the City of Cupertino. The project does not propose the construction of new homes or businesses, and would not construct utilities or infrastructure beyond what is required to serve the project. The project is intended to better serve and accommodate the existing Cupertino residents and visitors, and would not induce unplanned growth in the City. **(No Impact)**

#### 4.13.2.2 *Housing Displacement Impacts*

Pedestrian facilities would be constructed on existing right-of-ways and would not result in the removal of existing housing or structures. The project would not, therefore, displace people or housing. **(No Impact)**

### 4.13.3 Conclusion

Implementation of the proposed project would not result in growth inducement or impacts to the existing housing supply. **(No Impact)**



## 4.14 PUBLIC SERVICES

### 4.14.1 Environmental Setting

The project is located throughout the City of Cupertino. Fire, police and emergency services are provided by the City. The pedestrian network would be expanded within existing developed areas, which includes parks and schools.

### 4.14.2 Checklist and Discussion of Impacts

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

#### 4.14.2.1 *Impacts to Fire and Police Protection Services*

The project area is located within an urbanized area of Cupertino that is currently served by the Santa Clara County Fire Department and Santa Clara County's Sheriff's Office. The introduction of more individuals along the proposed pedestrian network may result in increase for service within the area, however, the reported incidents would be similar to those already occurring on existing roadways and at neighborhood parks in the City. Increased pedestrian presence on pedestrian facilities throughout the City may result in an increase in need for police protection services, however, the increase would not be to a point where new police and fire facilities would be need to be constructed. **(Less Than Significant Impact)**

#### 4.14.2.2 *Impacts to Schools, Parks, and Other Public Facilities*

Project implementation may increase use of community parks and amenities due to improved access to such facilities. It is not anticipated that the increase in use would exceed the capacity of existing facilities such that new facilities would need to be constructed; therefore, the project would not result in a significant impact to schools, parks, or other public facilities. **(Less Than Significant Impact)**

#### 4.14.3 Conclusion

The project could result in a slight increase in demand for emergency services within the project area, however, the increase would not exceed the capacity for the City of Cupertino to provide services to its residents and visitors. The project would provide additional recreational opportunities by improving access to parks, schools, and community amenities. The project, therefore, would not result in significant impacts to public services. **(Less Than Significant Impact)**

## 4.15 RECREATION

### 4.15.1 Environmental Setting

The Department of Recreation and Community Services is responsible for park planning and development, and a comprehensive leisure program for the City. The City of Cupertino is served by approximately 214 acres of parkland, including neighborhood parks, community parks, and school playing fields. Leisure services facilities within the City include the Quinlan Community Center, Cupertino Sports Center, Monta Vista Recreation Center, Cupertino Senior Center, and Blackberry Farm.

### 4.15.2 Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

The project would improve and expand pedestrian facilities throughout the City to facilitate pedestrian movement, which may result in an increase in the use of parks and recreational facilities. The incremental increase in use of these parks and recreational facilities would not result in substantial or accelerated physical deterioration of these facilities. The project would not result in significant impacts to parks and recreational facilities. **(Less Than Significant Impact)**

### 4.15.3 Conclusion

Implementation of the proposed project would not result in an adverse impact to recreational resources in the City. **(Less Than Significant Impact)**

## 4.16 TRANSPORTATION/TRAFFIC

The list of planned project improvements to the pedestrian network are listed in Table 3.0-1 and 3.0-2 in *Section 3.0 Project Description* of this Initial Study.

### 4.16.1 Environmental Setting

#### 4.16.1.1 *Regulatory Framework*

The following policies found in the Cupertino General Plan are applicable to the proposed project:

Policy M-2.1:       **Street Design.** Adopt and maintain street design standards to optimize mobility for all transportation modes including automobiles, walking, bicycling and transit.

Policy M-2.2:       **Adjacent Land Use.** Design roadway alignments, lane widths, medians, parking and bicycle lanes, crosswalks and sidewalks to complement adjacent land uses in keeping with the vision of the Planning Area.

Policy M-2.3:       **Connectivity.** Promote pedestrian and bicycle improvements that improve connectivity between planning areas, neighborhoods and services, and foster a sense of community.

Policy M-2.6:       **Traffic Calming.** Consider the implementation of best practices on streets to reduce speeds and make them user-friendly for alternative modes of transportation, including pedestrians and bicyclists.

Policy M-3.1:       **Bicycle and Pedestrian Transportation Plan.** Adopt and maintain a Bicycle and Pedestrian Transportation Plan, which outlines policies and improvements to streets, extension of trails, and pathways to create a safe way for people of all ages to bike and walk on a daily basis.

Policy M-3.3:       **Pedestrian and Bicycle Crossings.** Enhance pedestrian and bicycle crossings and pathways at key locations across physical barriers such as creeks, highways and road barriers.

#### 4.16.1.2 *Existing Conditions*

### **Existing Transportation Network**

#### Roadway Network

The existing roadway network in Cupertino is made up of major streets, boulevards, and neighborhood streets throughout the City. The main east/west streets include Stevens Creek Boulevard and McClellan Road. North/south streets include Tantau Avenue, Wolfe Road/Miller Avenue, Blaney Avenue, De Anza Boulevard, Stelling Road, Bubb Road, and Stevens Canyon Road/Foothill Boulevard. Interstate 280 generally forms the northern boundary of the City while SR-85 bisects it in a northwest to southeast direction.

## Pedestrian and Bicycle Facilities

Pedestrian facilities are primarily comprised of sidewalks and pedestrian signals at intersections along most major streets throughout Cupertino.

The existing pedestrian facilities (i.e. sidewalks) are primarily along major streets and boulevards, and residential neighborhoods.

## Transit Services

The Santa Clara Valley Transportation Authority bus routes circulate throughout Cupertino. Bus stops are located on major streets including Stevens Creek Boulevard, De Anza Boulevard, Stelling Road, Bollinger Road, Homestead Road, Wolfe Road, and Tantau Avenue.

### **4.16.1.3      *Existing Conditions***

The existing pedestrian network is primarily along major streets and boulevards, and residential neighborhoods throughout Cupertino. The network is largely disjointed and does not provide adequate connectivity among existing pedestrian facilities in the City.

### **4.16.2      Checklist and Discussion of Impacts**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2



	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2

### Impacts to Pedestrian, Bicycle, and Transit Facilities

The project is the implementation of the PTP that would improve and expand upon the existing pedestrian network throughout the City. The project would not result in an increase in vehicle trips since the intent of the project is for residents within the City to utilize the network for transportation.

Implementation of the planned improvements would not conflict with any policies of the City of Cupertino or other agencies (e.g. the Valley Transportation Authority) regarding pedestrian, bicycle, and transit facilities, nor would it interfere with any existing or planned facilities. The project is intended to improve the pedestrian network in the City and would, therefore, be considered a beneficial impact to pedestrian, bicycle, and transit facilities in the project area. **(No Impact)**

### Air Traffic Patterns

The project area is not located within an airport land use plan or in the vicinity of a private airstrip. Project implementation would not impact local air traffic patterns. **(No Impact)**

### Site Access and Hazards

The project would improve access on streets and boulevards within parks, near schools, and other community amenities throughout the City. It is not expected that the project would increase hazards to pedestrians because of improved sidewalks and signalization as part of the pedestrian network. Nonetheless, an improved pedestrian network would likely increase use of bikeways and thus inadvertently expose bikeway users to hazards from vehicular traffic. The increase in hazards to pedestrians would be reduced via implementation of improved markings and signalization at intersections. **(Less Than Significant Impact)**

#### 4.16.3 Conclusion

Implementation of the proposed project would not result in significant transportation impacts. **(Less Than Significant Impact)**

## **4.17 UTILITIES AND SERVICE SYSTEMS**

### **4.17.1 Environmental Setting**

#### **4.17.1.1 *Existing Conditions***

##### **Water**

Water service to the project area is supplied primarily by the San José Water Company (SJWC) and the California Water Service Company, which also maintains the water system. SJWC serves approximately 139 square miles of the Santa Clara Valley, including most of San José, most of Cupertino, the entire cities of Campbell, Monte Sereno, Saratoga, the Town of Los Gatos, and parts of unincorporated Santa Clara County. SJWC relies on groundwater, imported treated water, and local surface water for its potable water supply. In 2010, SJWC received approximately 39 percent of its water supply from groundwater, 50 percent from imported treated water, and 11 percent from local surface water.<sup>17</sup> In 2010, SJWC delivered 133,066 acre-feet of water per year (AFY) which is expected to increase to 159,479 AFY by 2035.

##### **Storm Drainage**

As discussed in *Section 4.9 Hydrology and Water Quality*, existing right-of-ways in the City drain into existing storm drains. Runoff from the project would depend on the specific location of the pedestrian facility and/or segment within the larger pedestrian network.

##### **Wastewater/Sanitary Sewer System**

The Cupertino Sanitary District (District) provides sanitary sewer service to the project area. The District collects and transports wastewater to the San José/Santa Clara Regional Wastewater Facility (RWF) located in north San José. The District purchases 7.85 million gallons per day of water treatment capacity from the RWF.<sup>18</sup> Approximately five million gallons of wastewater a day is generated within the District and conveyed to the RWF.<sup>19</sup>

##### **Solid Waste**

Garbage and recycling collection services in the City of Cupertino are provided by Recology. Solid waste collected from the City is delivered to Newby Island Sanitary Landfill.

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<sup>17</sup> San José Water Company. *2010 Urban Water Management Plan*. April 2011.

<sup>18</sup> City of Milpitas. "Agreement for Treatment Plant Capacity Transfer". 2009. Accessed July 17, 2017. Available at: <[http://www.ci.milpitas.ca.gov/pdfs/council/2009/010609/item\\_17.pdf](http://www.ci.milpitas.ca.gov/pdfs/council/2009/010609/item_17.pdf)>

<sup>19</sup> Cupertino Sanitary District. *2015 Annual Report*. 2015.

#### 4.17.2 Checklist and Discussion of Impacts

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

##### 4.17.2.1 *Water Service and Supply*

The project would include minimal landscaping that would require water for maintenance, however, would otherwise not construct features that would require water or water services. The project, therefore, would not substantially increase water demand to the extent that new entitlements and sources of water would be required. **(Less Than Significant Impact)**

##### 4.17.2.2 *Storm Drainage*

As discussed in *Section 4.9 Hydrology and Quality*, the project would be constructed to direct runoff towards existing storm drains or bioswales to treat stormwater runoff. The construction of bioswales for stormwater treatment would not result in adverse impacts to the existing storm drainage system. **(Less Than Significant Impact)**

#### **4.17.2.3      *Wastewater/Sanitary Sewer System***

The project does not propose the construction of features that would require connection to the City's wastewater/sanitary sewer system and therefore, would not exceed wastewater requirements. **(No Impact)**

#### **4.17.2.4      *Solid Waste***

The project does not propose the construction of features that would need to be served by solid waste facilities. **(No Impact)**

#### **4.17.3      Conclusion**

Implementation of the proposed project would not result in a significant impact to utilities and service systems. **(Less Than Significant Impact)**

## 4.18

## MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1-9
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-9
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1-9

4.18.1 Project Impacts

The proposed project, with implementation of the mitigation measures described in *Section 4.0* of this Initial Study, would not significantly degrade or impact the quality of the environment. As discussed in *Section 4.5 Cultural Resources*, the project would not have a significant impact on cultural resources with the incorporation of the described mitigation measures. **(Less Than Significant Impact with Mitigation Incorporated)**

4.18.2 Cumulative Impacts

Cumulative impacts refer to two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts. The project would not result in impacts to agricultural and forest resources or mineral resources and, therefore, would not contribute to the cumulative impacts of those resources. For project components that would require construction of pedestrian/bicycle bridge improvements, construction of undercrossings, improvements on the UPRR tracks, along creeks, or the I-280 canal, additional environmental review may be required to determine potential environmental impacts.

The project would lead to an increase in the number of pedestrians using the network which would increase the number of people on the streets at any given time. Project implementation would result



in an improved and safer pedestrian network, which would reduce the risks associated with traditional pedestrian use on urban and residential streets.

There are no planned or proposed developments in the project area that could contribute to cumulative aesthetic, air quality (including construction-related impacts), hydrology and water quality, noise, population and housing, recreation, or utilities and service system impacts. The project's archaeological resources and geology and soils impacts would be specific to the location of the proposed project component and would not contribute to cumulative impacts elsewhere.

The project's cumulative impacts to greenhouse gas emissions is discussed in *Section 4.7 Greenhouse Gas Emissions*, and it was concluded that the project would have a less than significant (cumulative) impact on greenhouse gas emissions.

Based on the discussion above, the project would not have cumulatively considerable impacts. **(Less Than Significant Impact)**

#### **4.18.3        Direct or Indirect Adverse Effects on Human Beings**

Based on the analysis completed in *Section 4.0* of this Initial Study, the project would not result in direct or indirect adverse effects on human beings. **(Less Than Significant Impact)**

## Checklist Sources

1. Professional judgment and expertise of the environmental specialist preparing this assessment, based upon a review of the site and surrounding conditions, as well as a review of the project plans.
2. City of Cupertino. *General Plan*. November 2005.
3. City of Cupertino. *Municipal Code*. February 19, 2013.
4. California Department of Conservation. *Santa Clara County Important Farmland 2012*. Map.
5. County of Santa Clara. Geologic Hazards Zones Map 18. Accessed July 21, 2017. Available at:  
<https://www.sccgov.org/sites/dpd/PlansOrdinances/GeoHazards/Pages/GeoMaps.aspx>
6. California Air Resources Board. *First Update to AB 32 Scoping Plan*. May 27, 2014. Accessed July 21, 2017. Available at:  
<http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm>
7. County of Santa Clara, Planning Office. "Airport Land-Use Commission". Accessed July 21, 2017. Available at:  
<http://www.sccgov.org/sites/planning/PlansPrograms/ALUC/Pages/ALUC.aspx>.
8. CalFire. "Santa Clara County FHSZ Maps" Accessed July 21, 2017. Available at:  
[http://www.fire.ca.gov/fire\\_prevention/fhsz\\_maps\\_santaclara.php](http://www.fire.ca.gov/fire_prevention/fhsz_maps_santaclara.php).
9. Federal Emergency Management Agency, *Flood Insurance Rate Map, Santa Clara County, California*. Community-Panel Number 06085C0209H, May 18, 2009.

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Available at: <http://gis.abag.ca.gov/website/Hazards/?hlyr=femaZones>
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Available at:  
<http://www.sccgov.org/sites/planning/PlansPrograms/ALUC/Pages/ALUC.aspx>.
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<http://www.sccgov.org/sites/planning/GIS/GeoHazardZones/Documents/GeohazardMapsATLAS2.pdf>.
- Federal Emergency Management Agency, *Flood Insurance Rate Map, Santa Clara County, California*, Community-Panel Number 06085C0209H, May 18, 2009.
- Natural Resources Conservation Service. Web Soil Survey. Accessed July 13, 2017. Available at:  
<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- San José Water Company. *2010 Urban Water Management Plan*. April 2011.
- Santa Clara County. *Geologic Hazard Zones*. October 26, 2012.
- Santa Clara Valley Urban Runoff Pollution Prevention Program. *Hydromodification Management (HM) Applicability Map City of Cupertino*. November 2010. Accessed July 14, 2017.  
Available at: [http://www.scvurppp-w2k.com/HMP\\_app\\_maps/Cupertino\\_HMP\\_Map.pdf](http://www.scvurppp-w2k.com/HMP_app_maps/Cupertino_HMP_Map.pdf)

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<http://www.valleywater.org/uploadedImages/Services/HealthyCreeksEcoSystems/WatershedInformation/WestValley/WestValley2005Mapxl.jpg?n=1070.aspx>.

## **SECTION 6.0      LEAD AGENCY AND CONSULTANTS**

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### **6.1              LEAD AGENCY**

City of Cupertino, Department of Public Works  
Julie Chiu, Associate Civil Engineer

### **6.2              CONSULTANTS**

#### **David J. Powers & Associates, Inc.**

Environmental Consultants and Planners  
Jodi Starbird, Principal Project Manager  
Caroline Weston, Assistant Project Manager  
Zach Dill, Graphic Artist



# Attachment 2

# **Mitigation Monitoring and Reporting Program**

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## **Cupertino Pedestrian Transportation Plan**

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February 2018

<b>MITIGATION MONITORING AND REPORTING PROGRAM</b> <b>Cupertino Pedestrian Transportation Project</b>				
<b>Impacts</b>	<b>Mitigation and/or Avoidance Measure(s)</b>	<b>Timeframe and Responsibility for Implementation</b>	<b>Method of Compliance</b>	<b>Oversight of Implementation</b>
<b>Biological Resources</b>				
<b>Impact BIO-1:</b> Construction activities associated with the proposed project could result in the loss of fertile eggs, nesting raptors or other migratory birds, or nest abandonment.  <b>Less Than Significant Impact with Mitigation Incorporated</b>	<b>MM BIO-1.1:</b> Construction shall be scheduled to avoid the nesting season to the extent feasible. The nesting season for most birds, including most raptors in the San Francisco Bay area, extends from February through August.  <b>MM BIO-1.2:</b> A preconstruction nesting bird survey shall be completed by a qualified biologist prior to tree removal or any construction related activity that occurs during the breeding season (February 1 through August 31) to avoid potential impacts to nesting birds. Surveys shall be completed by a qualified biologist no more than 7 days prior to initiation of construction activities. Surveys shall include the project site, staging area, and areas within 500 feet surrounding the project site. If nesting bird activity is observed, the biologist in consultation with CDFW, will determine an adequate buffer zone and other minimization measures to ensure the nest will not be disturbed by project construction.	If tree removal on the site is to occur between February 1 <sup>st</sup> and August 31 <sup>st</sup> , the City shall be responsible for implementing MM BIO-1.2 no more than 7 days prior to the initiation of demolition/ construction activities.	All measures shall be printed on all construction documents, contracts, and project plans and shall be reviewed by the Director of Public Works prior to the issuance of permits.  The results of the preconstruction nesting bird survey, including any protection measures, shall be submitted to the Director of Public Works prior to the start of grading or tree removal.	Director of Public Works

<b>MITIGATION MONITORING AND REPORTING PROGRAM</b> <b>Cupertino Pedestrian Transportation Project</b>				
<b>Impacts</b>	<b>Mitigation and/or Avoidance Measure(s)</b>	<b>Timeframe and Responsibility for Implementation</b>	<b>Method of Compliance</b>	<b>Oversight of Implementation</b>
<b>Cultural Resources</b>				
<b>Impact CUL-1:</b> Implementation of the larger project components (e.g. pedestrian bridges) included in the proposed project could result in significant impacts to buried cultural resources, if encountered.  <b>Less Than Significant Impact with Mitigation Incorporated</b>	<b>MM CUL-1.1:</b> In the event of the discovery of prehistoric or historic archaeological deposits or paleontological deposits, work shall be halted within 50 feet of the discovery and a qualified professional archaeologist (or paleontologist, as applicable) shall examine the find and make appropriate recommendations regarding the significance of the find and the appropriate mitigation. The recommendation shall be implemented and could include collection, recordation, and analysis of any significant cultural materials.  <b>MM CUL-1.2:</b> Pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code of the State of California: <ul style="list-style-type: none"> <li>In the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the landowner shall re-inter the human remains and items associated with Native American</li> </ul>	During construction, the City and contractor shall be responsible for notification of any discoveries.	All measures shall be printed on all construction documents, contracts, and project plans and shall be reviewed by the Director of Public Works prior to the issuance of permits.	Director of Public Works

<b>MITIGATION MONITORING AND REPORTING PROGRAM</b> <b>Cupertino Pedestrian Transportation Project</b>				
<b>Impacts</b>	<b>Mitigation and/or Avoidance Measure(s)</b>	<b>Timeframe and Responsibility for Implementation</b>	<b>Method of Compliance</b>	<b>Oversight of Implementation</b>
	<p>burials on the property in a location not subject to further subsurface disturbance.</p> <p><b>MM CUL-1.3:</b> If cultural resources are encountered, a final report summarizing the discovery of cultural materials shall be submitted to the Director of Public Works prior to issuance of building permits. This report shall contain a description of the mitigation program that was implemented (e.g., monitoring and testing program), a list of the resources found, a summary of the resources analysis methodology and conclusion, and a description of the disposition/curation of the resources. The report shall verify completion of the mitigation program to the satisfaction of the Director Public Works.</p>			

Source: *Cupertino Pedestrian Transportation Project Initial Study/Mitigated Negative Declaration*, January 2018.



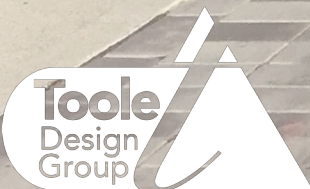
# Attachment 3

# CITY OF CUPERTINO PEDESTRIAN TRANSPORTATION PLAN

FINAL REPORT | FEBRUARY 2018



Prepared by:



Prepared for:





# City of Cupertino

## Pedestrian Transportation Plan

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# Chapter 1: Introduction and Purpose

## Introduction

The City of Cupertino is undertaking a number of ambitious initiatives to improve pedestrian and bicycling conditions throughout the city. This Pedestrian Transportation Plan (PTP) will be the blueprint for Cupertino to achieve its vision of an inviting, safe, and connected pedestrian network that enhances the quality of life for all community members and visitors.

This Plan serves as an update to the first Cupertino Pedestrian Transportation Plan that was adopted in 2002. Since that time, communities now have better tools and metrics to evaluate areas of opportunity and conflict and to envision and implement improvements that will have a measurable impact. The purpose of this PTP is to establish a guiding framework for the development and maintenance of pedestrian facilities throughout Cupertino and recommend policies, programs, and messaging to support and promote walking.

The PTP builds upon the City's comprehensive strategies to create a connected, multimodal transportation network and enhance quality of life throughout Cupertino. For example, the Cupertino Bicycle Transportation Plan (adopted 2016) envisions a citywide multimodal bicycle network, and this document complements the proposed bicycle network to create comprehensive active transportation options of safe routes for pedestrians and bicyclists.

The PTP also builds upon the regional and national awareness of the importance of pedestrian safety. No matter which mode of transportation one uses, at some point during a trip, every person is a pedestrian. Policies such as Vision Zero, which seeks to eliminate all traffic fatalities and injuries, underscore the importance of creating safe, functioning, and connected pedestrian networks.

The development of the PTP is a testament to the City's focus and commitment to these issues. This and other efforts have a great potential to positively influence the City's vibrancy, transportation safety and equity, and quality of life.

## Vision and Goals

### Vision Statement

The City of Cupertino envisions an inviting and safe walking environment that promotes active living and healthy transportation choices, enhances the quality of life for all community members and visitors, and is a seamless and integral part of the City's connected, multi-modal transportation network.

The goals described in Table 1 aim to achieve this vision.

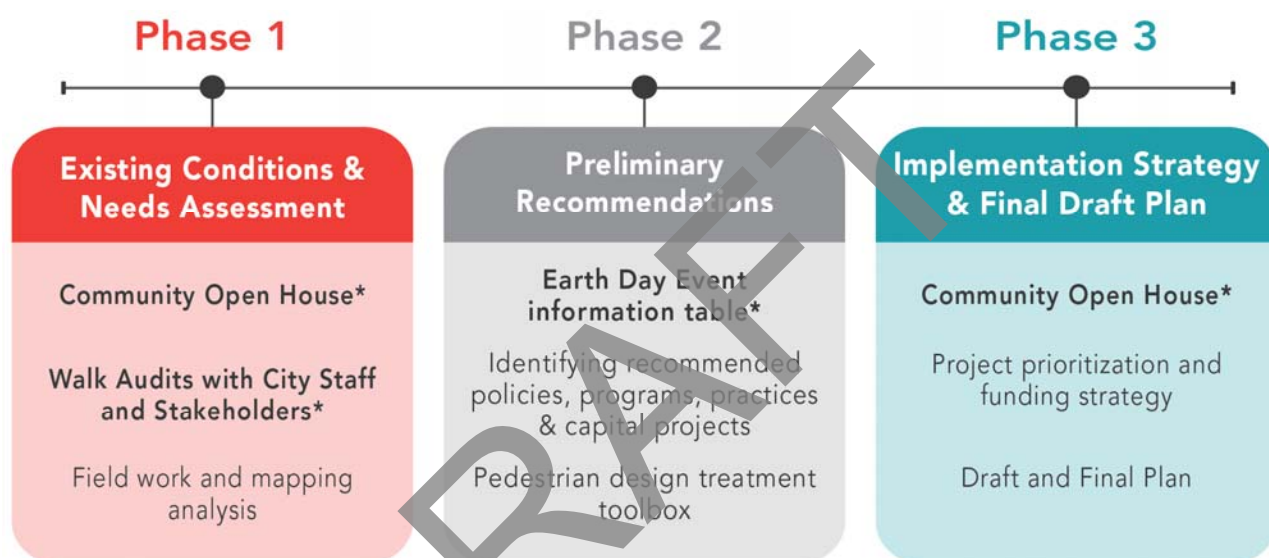
Goals	
Safety	Improve pedestrian safety and reduce the number and severity of pedestrian-related collisions, injuries, and fatalities.
Access	Increase and improve pedestrian access to community destinations across the City of Cupertino for people of all ages and abilities.
Connectivity	Continue to develop a connected pedestrian network that fosters an enjoyable walking experience.

Table 1. PTP Goals

## Planning Process

This update to the original 2002 Pedestrian Transportation Plan was developed over a one year period, beginning in early 2017. Major focus areas of this PTP were guided by the City's desire to create data-driven practices to identify, prioritize, and implement capital improvements and support programs for pedestrians and pedestrian facilities. The PTP was also guided by strategic input provided by the Bicycle Pedestrian Commission on stakeholder concerns and priorities, and by feedback from the community-at-large on specific locations and issues of concern and preferred types of pedestrian improvements.

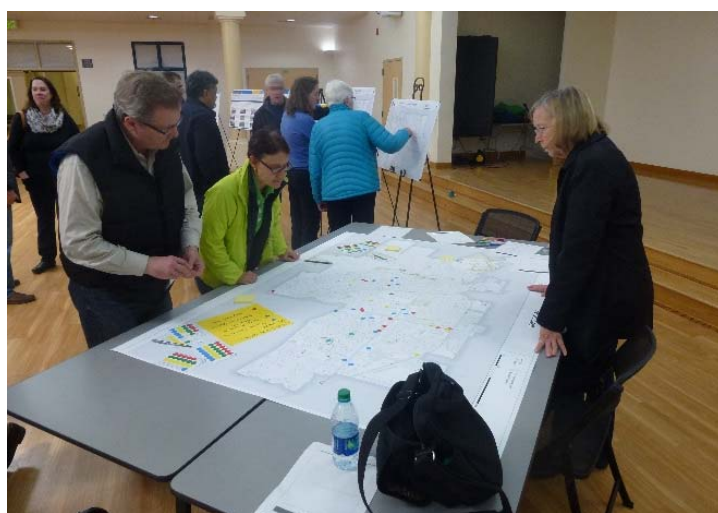
The process to develop the PTP was organized into three Phases as seen in Figure 1 below. The City conducted a robust community outreach effort and engaged with the community during each phase of the PTP's development, as noted by the asterisks in Figure 1.



\* Indicates community engagement event

**Figure 1. PTP Planning Process**

The input gathered throughout the planning process complimented a data-driven analysis of existing conditions and a needs assessment (see Chapter 2) to develop the recommendations and improvements detailed in the PTP.



**Figure 2. Community members share their ideas at the Community Open House on how to make Cupertino more walkable.**

## Chapter 2: Walking in Cupertino Today

---

This chapter presents existing conditions data that formed the basis for drawing conclusions about the current challenges to pedestrian travel in Cupertino. These challenges are addressed through policy and program recommendations in Chapter 3 and project recommendations in Chapter 4.

The existing conditions include:

- Land Use, Community Demographics, and Travel Patterns
- Destinations and Demand
- Pedestrian Network
- Street Types
- Collision Analysis

A review of relevant plans and policies is provided in Appendix A.

### Land Use, Community Demographics, and Travel Patterns

#### Land Use

Cupertino is a suburban city that has been largely developed since the 1960s to today. The city has many single-family, residential neighborhoods, several distinct retail corridors along arterial streets, and major employment centers. As a percentage of total area, 65.6 percent of the city is single-family residential; 7.1 percent is multi-family residential; 11.1 percent is mixed-use; and 16.2 percent is classified as “other.”<sup>1</sup> The more intensive development is mostly located in the flatter areas of the city, while the foothills are lower density and feature open spaces. Cupertino’s built form also reflects suburban values of vehicular access, such as wide, high-speed roadways and ample vehicle parking in front of set-back businesses and office buildings.

The City is making significant investments to improve access, safety and comfort for people to walk and bike. Newer development, such as Main Street Cupertino, also reflect a change in community values that places a premium on walkable, bikeable places.

While the walking environment varies throughout Cupertino, five pedestrian typologies or zones may be considered for planning purposes to identify appropriate treatments and levels of investment:

- Cupertino’s Priority Development Area, along the Stevens Creek and DeAnza Boulevard corridors
- Commercial and employment centers
- Residential neighborhoods
- Schools
- Access to parks, trails, and open spaces

#### Community Demographics

The most recent American Community Survey (ACS) five-year estimate from 2015 puts the City’s population at just over 60,000 residents. Of those residents, approximately 65 percent of the population is Asian and 30 percent white; approximately 50 percent of residents are immigrants. Many Asian households speak a language other than English at home (43 percent), and approximately 25 percent of households have limited English spoken at home.

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<sup>1</sup> Source: General Plan: Community Vision 2015-2040 (Adopted 2015).



As shown in Figure 3, over 20 percent of residents are school-age children, and nearly 27 percent of households in the city have a member who is under 18 years old. Additionally, seniors make up a sizable proportion of the community at 13.5 percent of residents.

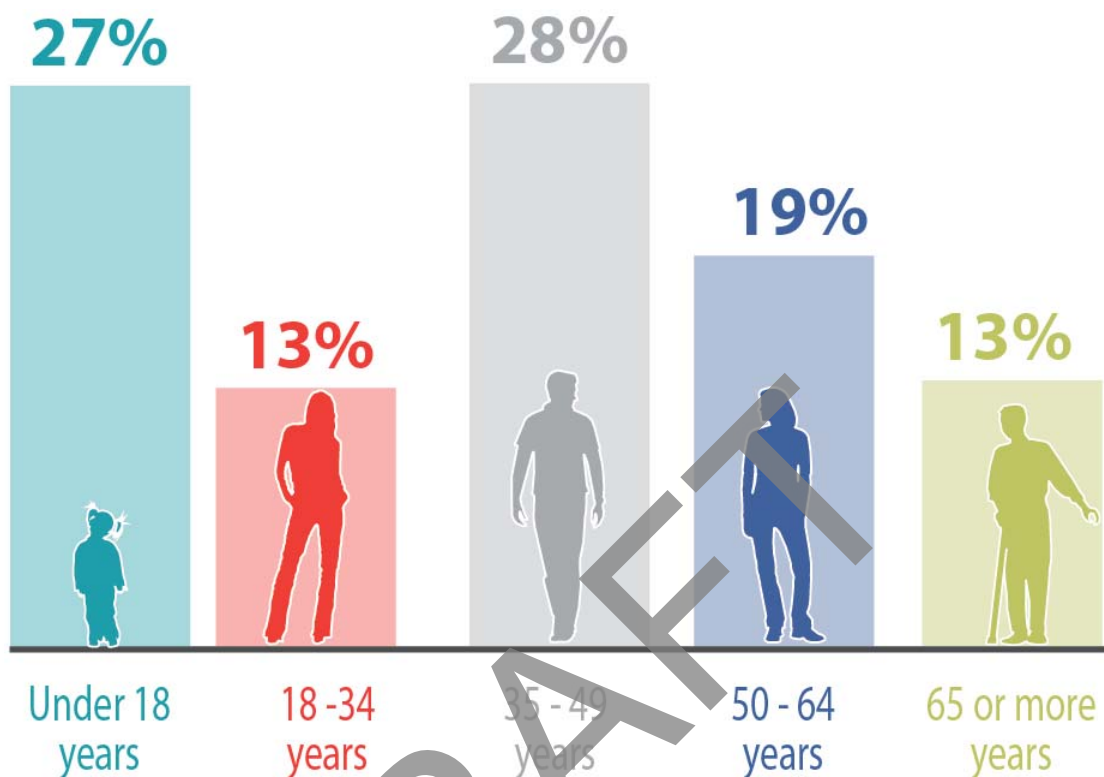


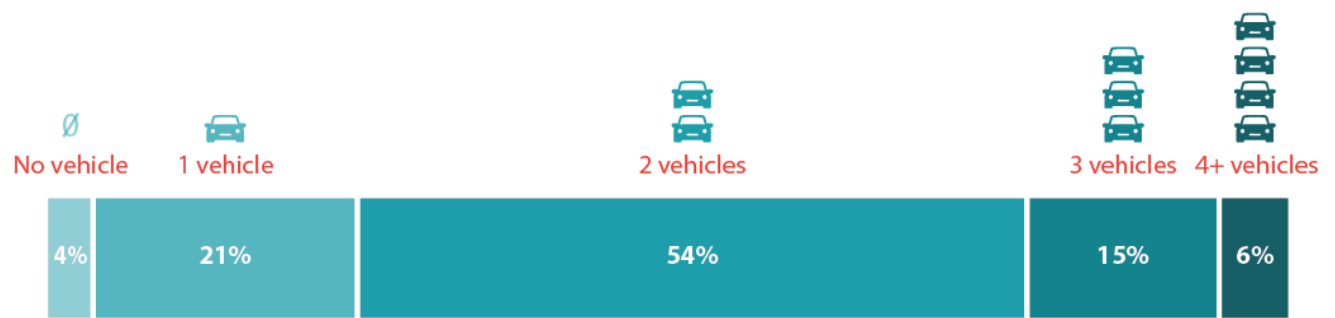
Figure 3. Cupertino's Population by Age (Source: 2015 American Community Survey)

Cupertino is a relatively affluent community with a median household income of \$141,953, which is nearly 40 percent higher than the area median income for the San Jose region.<sup>2</sup> Cupertino housing costs are high for the region, with a median listing price per square foot of \$941 for homes, versus a San Jose area regional median of \$593.<sup>3</sup>

The majority of Cupertino households have two or more motor vehicles available, as shown in Figure 4 below.

<sup>2</sup> San Jose MSA area median income was \$101,980 in 2015.

<sup>3</sup> Zillow data, accessed 29 September 2017.



**Figure 4. Vehicles Available per Household (Source: 2015 American Community Survey)**

### Travel Patterns

Most data available about travel in Cupertino relate to commute trips. All of the data presented below should be evaluated with the understanding that commute trips generally only account for 10 to 15 percent of all trips, based on state and national surveys.<sup>4</sup> Other trip purposes include visiting friends and family, errands, entertainment outings, and recreation. Lastly, the data does not include student travel to DeAnza College which is another major generator of daily travel to Cupertino.

### Work Travel Trends

A majority of Cupertino residents commute today using single-occupancy vehicles, as shown in Table 2. Commuting by walking is not common in Cupertino. These trends are similar to other regional mid-sized cities, though transit mode share is lower in Cupertino than other neighboring cities, likely because Cupertino is not on the Caltrain line. Notably, a relatively high percentage of residents work from home (6.1 percent) which means they may take trips by foot in residential neighborhoods at any time of day outside of commute times. Additionally, those commuters who take transit from Cupertino may walk to get to and from the bus stop at the beginning and end of the work day.

	Cupertino	Mountain View	Santa Clara	San Jose	California
Drive Alone	80.0%	72.3%	76.5%	77.1%	73.4%
Carpooled	8.9%	8.0%	9.7%	11.3%	10.8%
Public Transit	2.3%	6.0%	4.0%	3.9%	5.2%
Bicycle	0.7%	6.0%	1.7%	1.0%	1.1%
Walked	1.2%	2.5%	3.2%	1.6%	2.7%
Other	0.8%	1.6%	0.9%	1.2%	1.4%
Worked at Home	6.1%	3.5%	4.1%	3.9%	5.3%

**Table 2. Commute Trip Mode Split (Source: 2015 American Community Survey)**

<sup>4</sup> Cupertino-specific data is unavailable; this range references the National Household Travel Survey (15 percent) (nation-wide data) and California Household Travel Survey (9.9 percent) (state-wide data).

The numbers in Table 2 are also reflective of the fact that very few (9.2 percent) of employed Cupertino residents also work in the city. Cupertino residents generally travel at least 20 minutes to get to work, and many work in nearby communities of San Jose, Sunnyvale, Santa Clara, Mountain View and Palo Alto.<sup>5</sup>

While most residents leave Cupertino for work, the daytime population triples based on City Economic Development data from March 2017.

### School Travel Trends

The City of Cupertino has a robust Safe Routes to School Program, and partners with the County, local school districts, schools, parents, and students to promote safety and access. The Safe Routes to School program collects travel data at 14 schools within Cupertino, and this data is key to understanding school travel trends. Data is collected twice per year, via student travel tallies conducted in classrooms. The tallies indicated that a majority of students are driven to school in a family vehicle or carpool (59 percent in the morning, and 47 percent in the afternoon). Around 20 percent of students walk to school in the morning, and 25 percent walk home in the afternoon, which is notably high when compared to other communities.

### Recreation Facilities Travel Trends

Currently the visitorship to parks by pedestrians is high to very high, attracting children, youth, families and seniors. One of the City of Cupertino's key objectives in planning for neighborhoods is to distribute parks and open space within the community so that all residents can safely walk or bike to a recreation facility. The City of Cupertino is also committed to ensuring that walking and biking routes are reasonably free of physical barriers, including streets with heavy traffic; and provide pedestrian links between parks wherever possible.

## Destinations and Demand

### Destinations

There are several destinations throughout the city that attract people by foot, as shown in Figure 5. Many retail hubs are located in the "Heart of the City," Cupertino's primary commercial corridor, including Main Street, Vallco Shopping Center, The Oaks, and several shopping centers along Stevens Creek and DeAnza Boulevard. The City's Civic Center is a hub for community life and an inviting place to walk. Apple is the most prominent employer in Cupertino and has office buildings throughout Cupertino. The new Apple Park campus on North Wolfe Road will generate new pedestrian activity in the northeast area of the city. Within residential neighborhoods, schools and parks are the main destination for walking trips. These destinations are illustrated in Figure 5.

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<sup>5</sup> 2015 American Community Survey

# Cupertino Pedestrian Transportation Plan

## Pedestrian Activity Generators

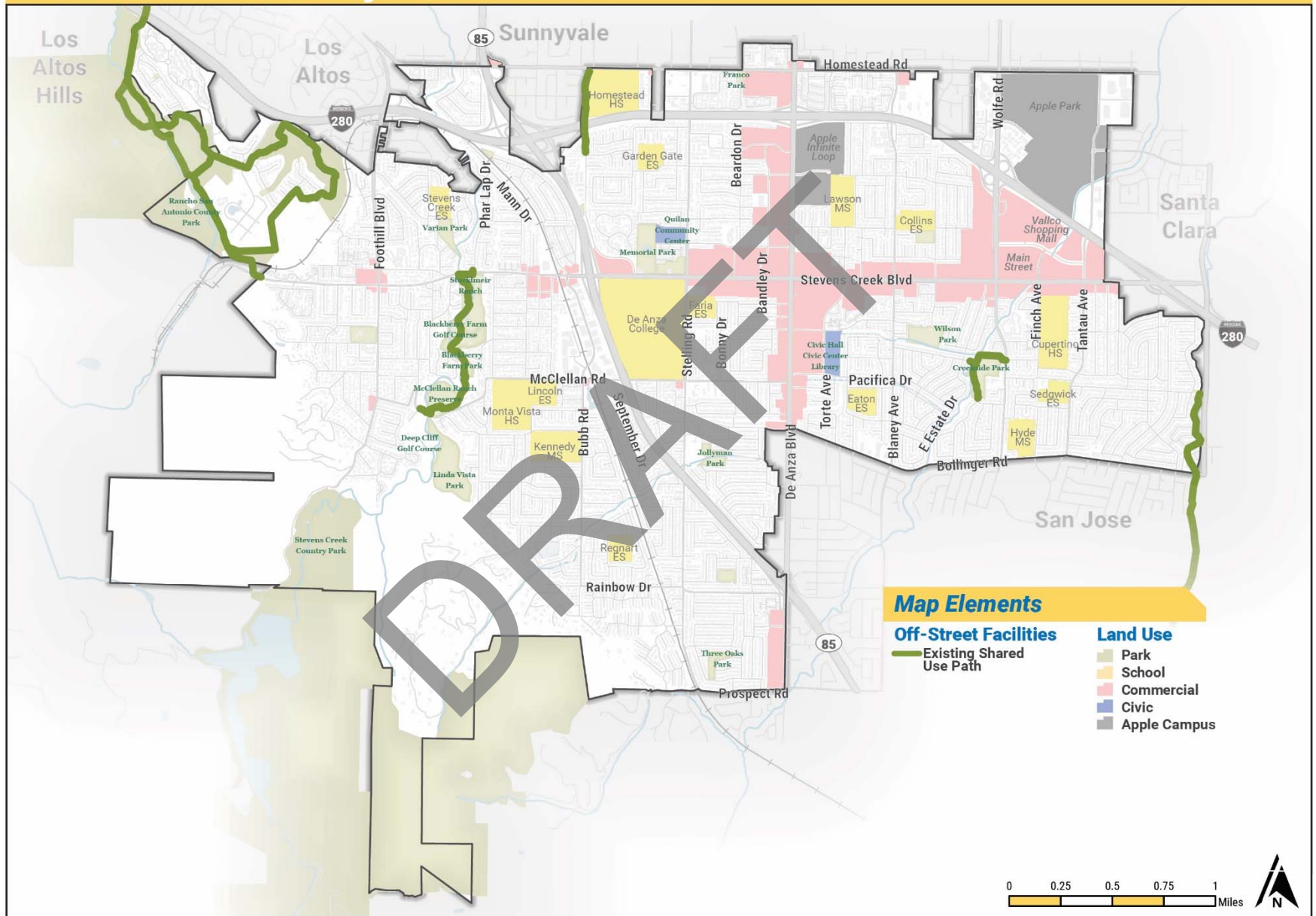


Figure 5. Pedestrian Destinations/Activity Generators

## Pedestrian Demand

Identifying pedestrian demand and activity patterns helps the City better understand where pedestrian activity is most likely to be. Analyzing pedestrian demand allows the City to focus improvements in areas that will have the greatest impact and benefit the most people.

Potential demand (or locations where pedestrians can be expected) may be based on factors such as the location of employment and population centers (densities); land uses including open space, trail, sidewalk, and crosswalk network connectivity; proximity to transit, schools and other activity centers; and demographics.

Cupertino is home to many interesting and popular destinations, including retail and community hubs, and pedestrian activity is expected to be highest in these areas. Based on a technical analysis of these factors, the areas that have been identified as having high potential pedestrian demand include:

- Stevens Creek Boulevard retail district between Stelling Road and De Anza Boulevard
- Stevens Creek Boulevard adjacent to DeAnza College
- Stevens Creek Trail/Blackberry Farm Park area
- School areas

Figure 6 shows the areas of potentially high pedestrian activity. These locations could have higher pedestrian traffic in the future if infrastructure is improved so that residents and visitors can better connect to these areas. Additional information about the Pedestrian Demand Analysis methodology can be found in Appendix B.



**Map Elements**

**Demand**

Low High

0 0.25 0.5 0.75 1 Miles

N

10



## Pedestrian Network

A well-connected pedestrian network is a vital component to livable communities, which thrive on multimodal travel options for all, regardless of age, background or ability. Multimodal travel incorporates the needs of pedestrians, bicyclists, and transit users in street design – not just motor vehicles.

Well-designed streets accommodate pedestrians through a variety of treatments which enhance the safety, convenience, and mobility of pedestrians. The following are several key elements for a safe, connected, attractive and comfortable pedestrian network: sidewalks, crossings, traffic calming, and off-street facilities.

### Sidewalks

Sidewalks provide a dedicated space with the primary purpose of accommodating pedestrian travel. On streets without curbs, striped shoulders or pedestrian lanes can delineate pedestrian space from vehicle space; these work best in residential areas with low volumes of vehicle traffic.

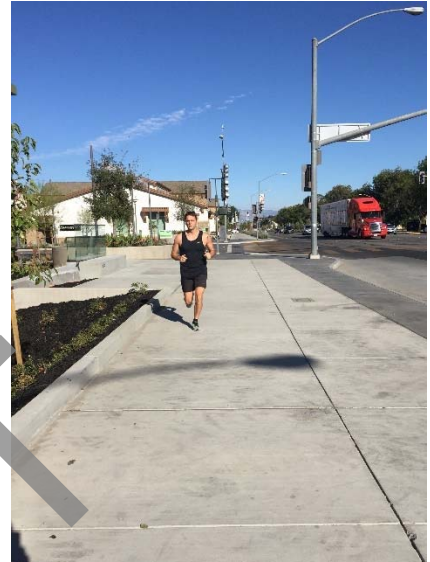
Sidewalks are the most essential piece of pedestrian infrastructure, and the coverage and quality is very good in Cupertino. Private streets and semi-rural areas identified in Figure 9 are not required to provide sidewalks but are good candidates for pedestrian lanes. Most of these areas consist of local streets that are more likely to be low-volume and low-speed environments.

### Crossings

Crossing intersections and roadways often present conflicts and stressful environments for pedestrians. Marked crosswalks, and other treatments such as advance yield lines and median crossing islands, help motorists anticipate the presence of pedestrians. These treatments also provide increased legitimacy and comfort to people crossing streets.

In Cupertino, pedestrians are accommodated at intersections through various treatments such as marked crosswalks, pedestrian signal heads and push buttons (at signalized intersections), curb ramps and median islands. While crossing is legal at all intersections whether or not it is marked (unless signed to prohibit crossings), marked crosswalks help make drivers aware of the likelihood of pedestrians crossing. Crosswalks are marked on all legs of most major intersections in the city. Some intersections lack pedestrian crossings where signal timing does not provide a phase, such as Stevens Creek Boulevard at Finch Avenue.

In an FHWA study that evaluated marked crosswalks and unmarked crossings, the authors emphasized the importance of identifying appropriate solutions to improve safety and access, not only through the use of marked crosswalks; therefore, Cupertino should consider a variety of treatments in addition to marked crosswalks to facilitate safe and comfortable street crossings.



**Figure 7. Wide, landscaped sidewalks are provided in the commercial areas of the city.**



**Figure 8. Marked Crosswalks increase visibility for pedestrians.**

# Cupertino Pedestrian Transportation Plan

## Sidewalk Inventory

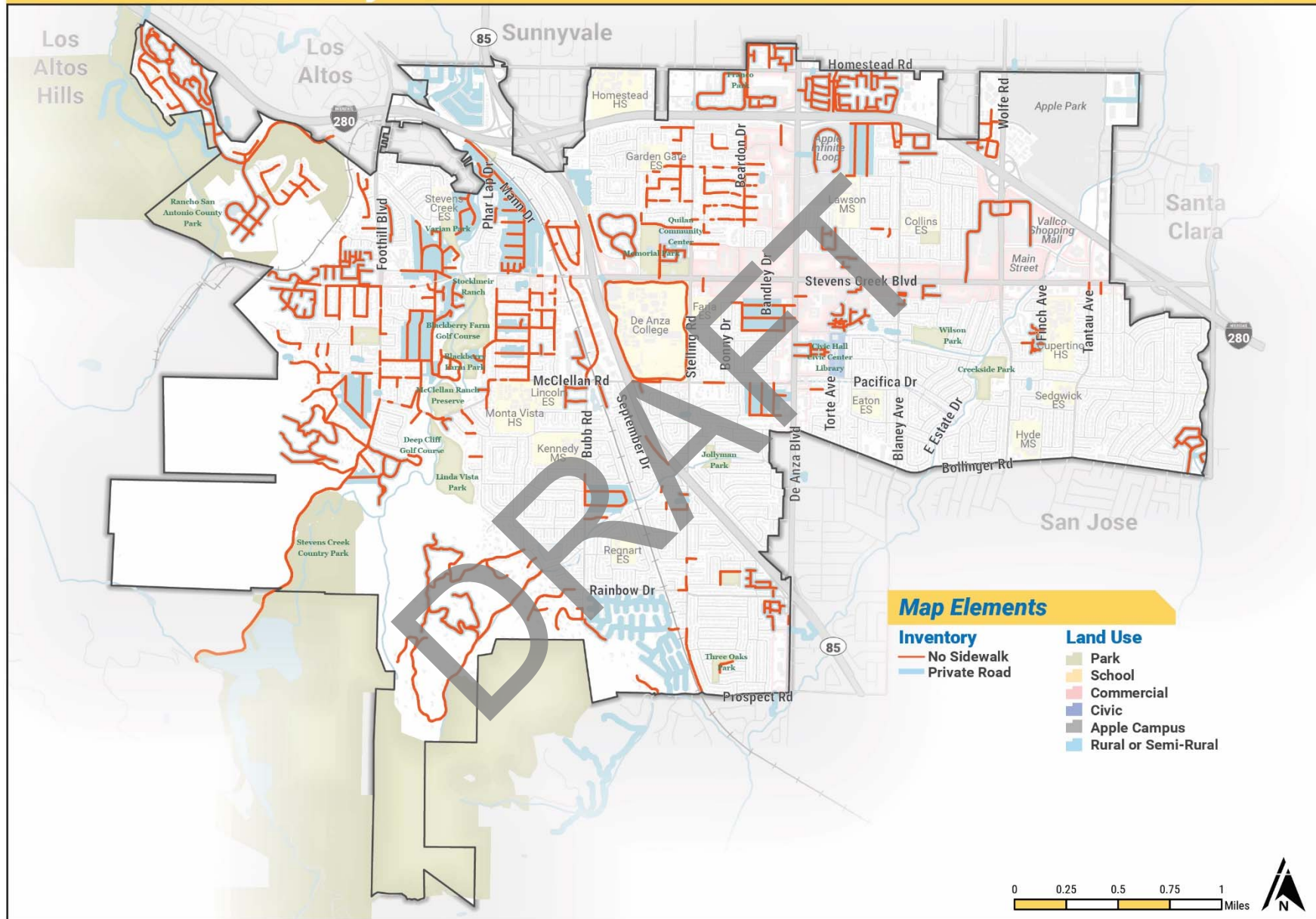


Figure 9. Sidewalk Inventory with Semi-Rural Areas and Private Streets

## Traffic Management

Traffic management strategies, such as slowing vehicle speeds and volumes, are key to creating a safer pedestrian environment. Roadway treatments such as installing speed humps/tables and traffic circles can help in slowing traffic speed. Other design elements such as truck aprons, pinch points, and curb extensions can extend the sidewalk and reduce the amount of time pedestrians are in crosswalks.

The City had a Neighborhood Traffic Management Program that installed traffic calming treatments to improve neighborhood livability based on collected data regarding traffic speeds and volumes. Approved traffic calming treatments included speed humps, traffic bars, traffic circles, chokers, and diverters. Slow traffic speeds also make for a more comfortable walking environment and also give drivers more time to react to a potential conflict with another road user, and slower speeds can mitigate the severity of a crash, especially between an automobile and a pedestrian.

## Off-Street Facilities

Off-street facilities, such as shared-use paths or pedestrian bridges over busy roadways, provide more protection for pedestrians and an increased level of comfort.

Existing off-street facilities include the Stevens Creek Trail, Mary Avenue Bridge and San Thomas/Saratoga Creek Trail which are popular among Cupertino pedestrians. The 2016 Bicycle Transportation Plan recommended construction of a number of additional trails and bridges to serve bicyclists that will also serve pedestrians. These projects are also recommendations of this plan. See Figure 11 for the location of proposed and existing off-street facilities.

## Stevens Creek Trail Extension

In 2009, a coordinated Stevens Creek Trail planning effort was undertaken between the cities of Cupertino, Los Altos, Mountain View and Sunnyvale. An advisory body composed of council members from each city (the Joint Cities Working Team (JCWT)) was installed, and a trail consultant engaged to assess the feasibility of potential route options. The consultant subsequently published a Feasibility Study in March 2015. It identified three route options through Cupertino, but made no specific recommendation. These options were:

- Mary Avenue to Stevens Creek Blvd, utilizing the Don Burnett Pedestrian Bridge
- Foothill Blvd to Stevens Creek Blvd
- Construction of a new pedestrian bridge across I-280 connecting Cupertino's Homestead Villa and Oakdell Ranch neighborhoods. A tunnel under I-280 was found to be infeasible.

A series of public outreach events then followed, intended to gauge public reaction to the study. After considering both the feasibility study and public input, the JCWT issued its recommendation to the four cities in September 2015. No specific route recommendation was made for Cupertino. However, the JCWT did recognize the need for a long term trail vision, and that should circumstances change regarding the availability of land in the area that further studies be undertaken to identify feasible route. City Council accepted the Joint Cities Coordinated Stevens Creek Trail Feasibility Study in June 2016. For further information, refer to the Four Cities Coordinated Stevens Creek Trail Feasibility Study (September 2015 final version).



**Figure 10. Traffic calming treatments help to reduce vehicle speeds and make walking safer and more**





# Cupertino Pedestrian Transportation Plan

## Existing & Planned Off-Street Facilities

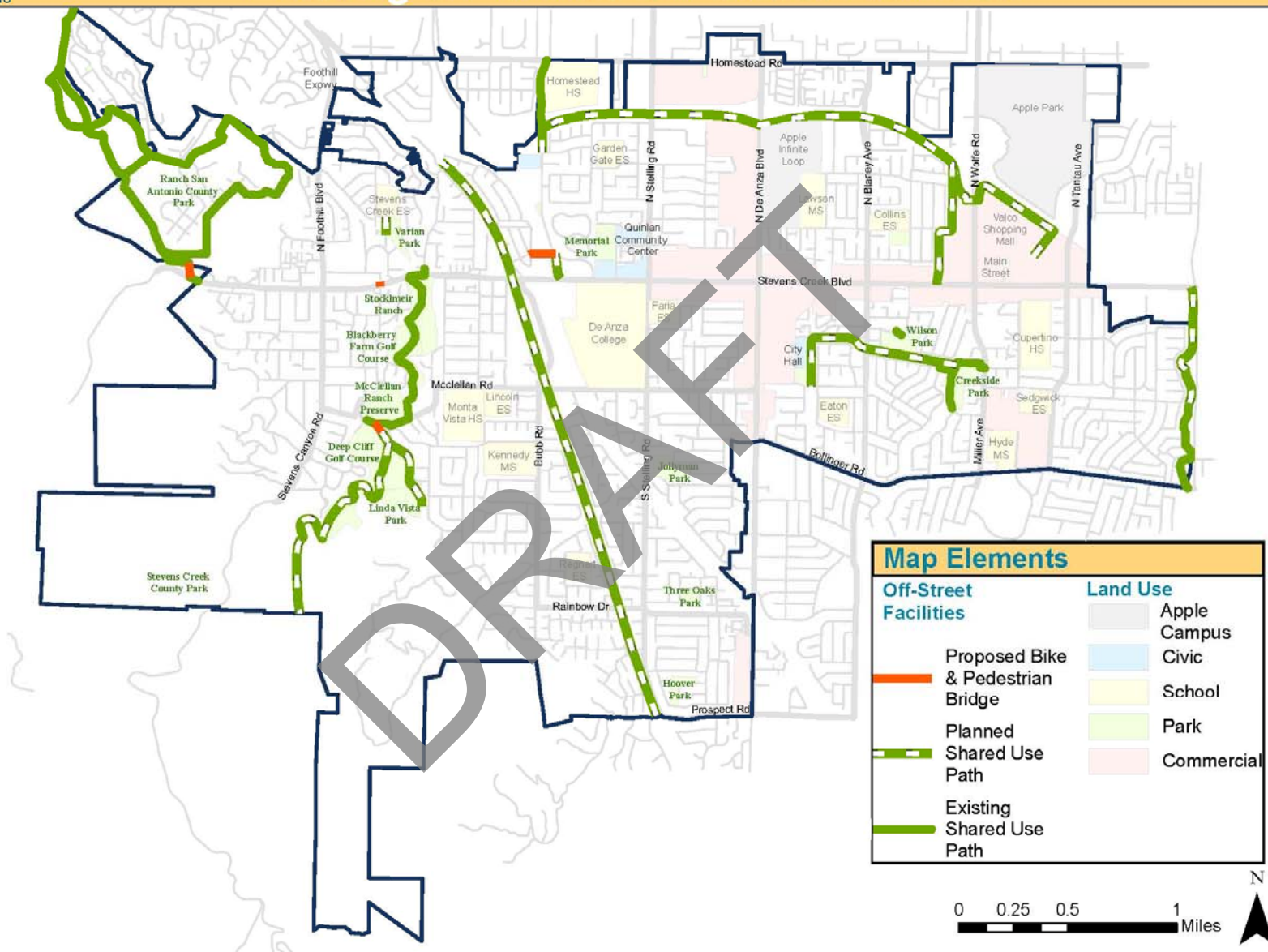


Figure 11. Existing and planned off-street facilities

## Street Types

Cupertino's pedestrian network spans a range of place and street types. The following street types have been defined by the City in the Mobility Element of the General Plan.

- Freeways and Expressways
- Boulevards (Arterials)
- Main Street
- Avenue (Major and Minor Collector)
- Neighborhood Connector
- Residential Street
- Regional Pedestrian/Bike Pathway
- Local Pedestrian/Bike Pathway

All street types other than Freeways and Expressways are intended to serve pedestrians as well as other modes. Higher activity areas are centered on Boulevard street types (Stevens Creek and DeAnza) which are intended to be regional transportation corridors. These streets have many demands on them from multiple modes: automobiles, trucks, transit, pedestrians and bicyclists. Figure 12 on the following page shows street classifications from Cupertino's General Plan.

Avenues and neighborhood connectors also serve pedestrians and are expected to accommodate all modes. Residential streets, marked as yellow on Figure 12, prioritize pedestrian and bicycle travel and are good candidates for traffic calming since the volume of traffic is lower on these streets than along arterial roads. Many of these local streets are disconnected or discontinuous, making trips more circuitous than they would be with a more connected street network. Trips that are even a quarter-mile long may prevent people from considering walking as a transportation option.

The street network is not the only route of travel available to pedestrians; people also walk on local and regional pathways. The Stevens Creek Trail is an example of a regional pathway that currently connects Stevens Creek Boulevard to McClellan Road for non-motorized users. Local trails function as cut-throughs in City parks and as small connectors from the ends of cul-de-sacs to adjacent streets.

Since pedestrians are not constrained to the road or path network, they can and do cut across parking lots and other private property. These informal connections allow walking trips to be shorter and may be considered as part of pedestrian transportation.

# Cupertino Pedestrian Transportation Plan

## Street Typology

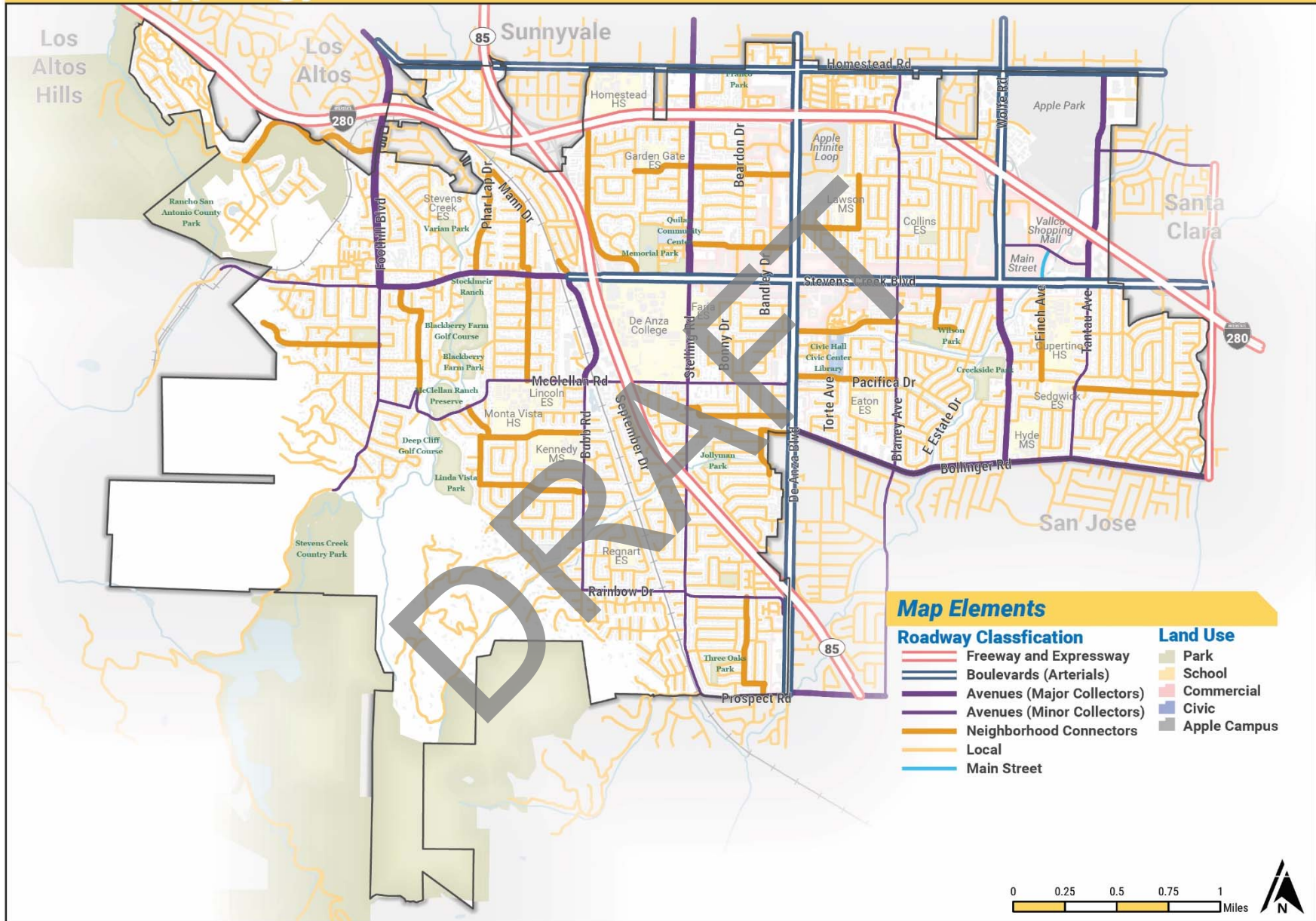


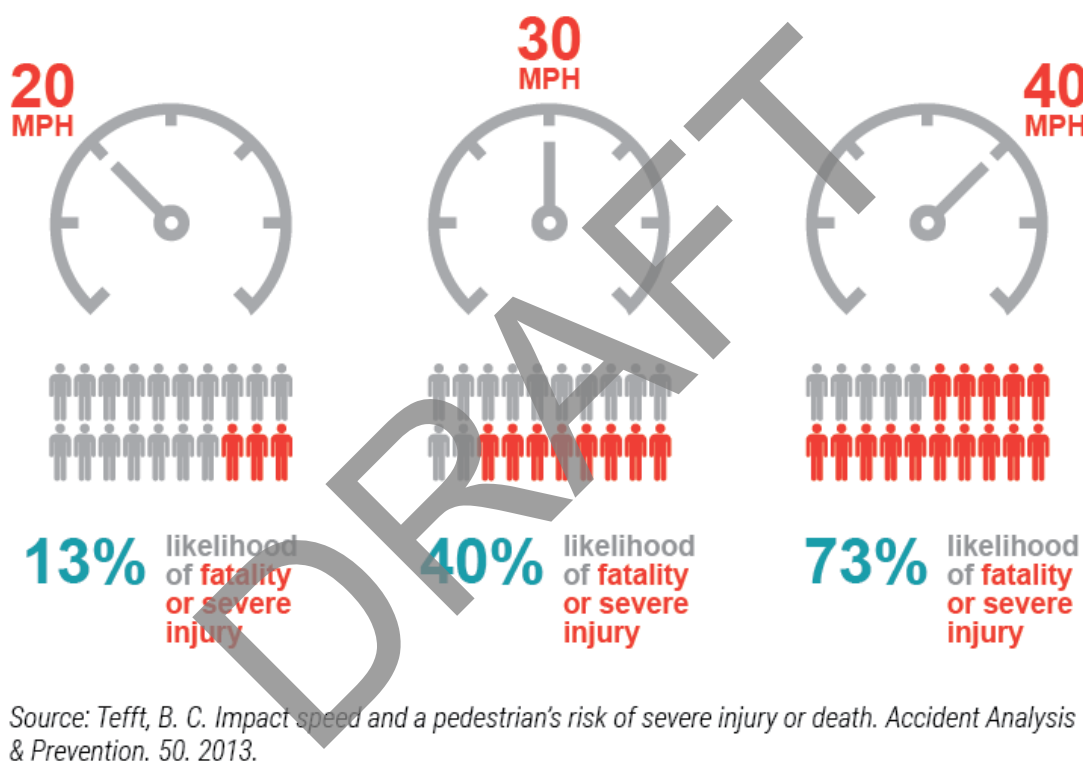
Figure 12. Street Typology Map (Source: Cupertino General Plan Mobility Element - Adopted 2015)



## Collision Analysis

Preventing and mitigating the severity of pedestrian crashes is a key goal of the PTP. While many parts of Cupertino are highly walkable and provide a safe and comfortable walking environment, even locations with sidewalks and crossing treatments can experience pedestrian/automobile collisions.

Traffic speed directly impacts the chances of surviving a crash. While this is true for all modes, pedestrians are especially vulnerable and have a high chance of being seriously injured or killed when speeds reach moderate levels. A pedestrian involved in a crash with a vehicle traveling 25 mph has a 30 percent chance of suffering a serious injury or being killed, while at 40 mph the risk is 80 percent, as illustrated in Figure 13. Higher speeds also increase the likelihood of a crash as stopping distances are greater at higher speed. As a result, speed reduction is a critical strategy for reducing pedestrian injuries.



**Figure 13. Greater impact speeds increase the risk of severe injury or death.**

To better understand the collision history in Cupertino, injury crash data from 2005 to 2014 were reviewed. This data comes from police reports. It is possible that some additional pedestrian crashes occurred during this period which were not reported. Near misses are also not included in this data. However, they may impact how comfortable a person feels walking and subsequently how likely s/he is to choose to walk.

Over the ten-year period, 137 pedestrian injury crashes occurred. Overall, pedestrian crashes were likely to be more severe than other modes, as shown in Table 3. It should be noted that these percentages only include injury crashes.

Crash Severity	Pedestrian	Bicyclist	Motorist
Fatal	3.7%	1.0%	0.5%
Serious Injury	17.5%	9.5%	4.5%
Moderate Injury	35.0%	57.7%	21.0%
Minor Injury	43.8%	31.9%	74.0%

**Table 3. Injury Crash Severity by Mode, 2005-2014**

### Geographic Crash Analysis

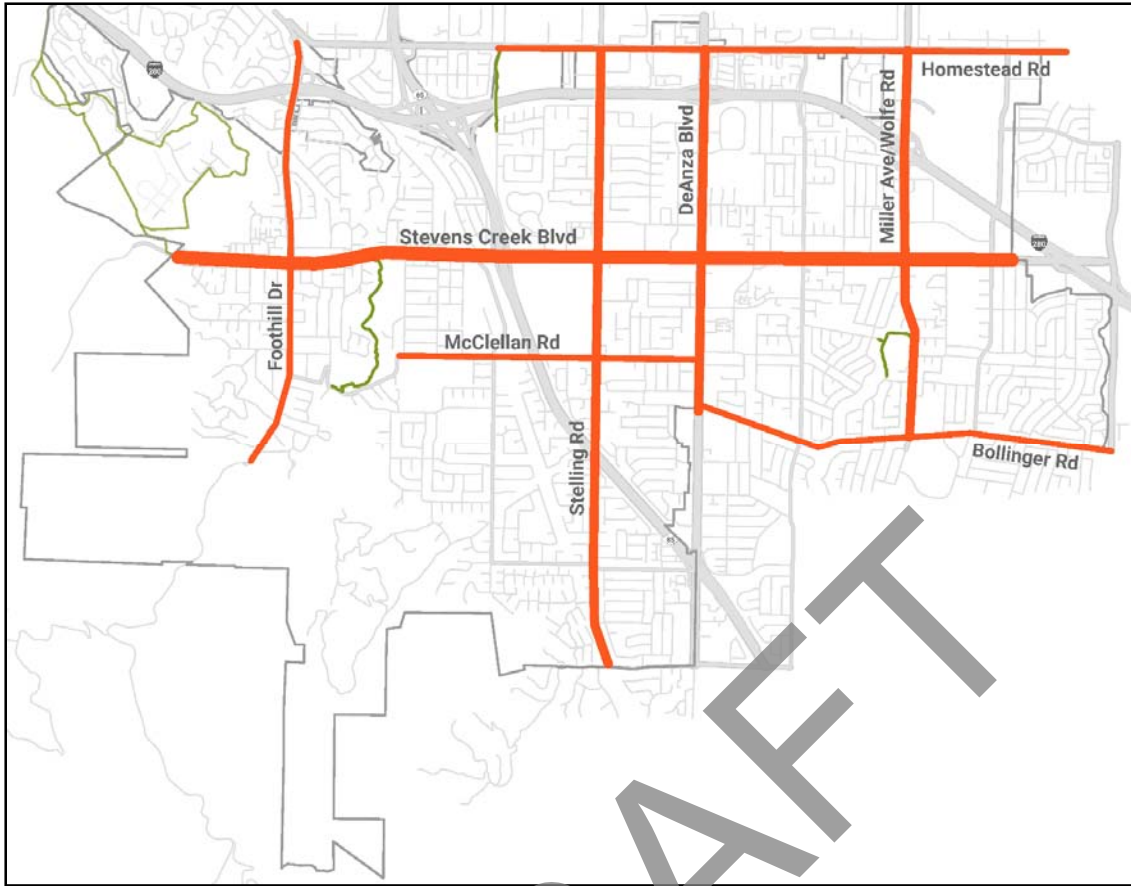
The majority of crashes in Cupertino occur on the Arterials and Major Collectors. Table 4 shows a summary of pedestrian crashes from 2005 to 2014 and includes a tally of crashes that occurred on streets with five or more crashes.<sup>6</sup> During this time period, 71 percent of pedestrian injury crashes occurred on eight streets. These eight streets are considered “High-Injury Corridors” and improvements to these streets could significantly reduce motor vehicle and pedestrian crashes in Cupertino. See Figure 14 for a geographic illustration of these corridors.

Street Name	Crashes <sup>7</sup>
Stevens Creek Boulevard	39
Stelling Road	18
Miller Avenue/Wolfe Road	15
Homestead Road	12
DeAnza Boulevard	11
McClellan Road	7
Bollinger Road	6
Foothill Boulevard	5

**Table 4. High-Injury Corridors with the most frequent pedestrian collisions resulting in injury**

<sup>6</sup> Tally includes number of crashes where the street is identified in the crash data either as the Primary Road or Secondary Road and includes instances where the crash occurred on a cross street within 25' of the intersection.

<sup>7</sup> Crash totals by corridor include those crashes occurring on the streets or at intersections with those streets. Crashes occurring at the intersection of two high-crash corridors are counted on *both* corridors.



**Figure 14. High-injury corridors: From 2005 to 2014, 71 percent of pedestrian injury crashes occurred on eight corridors.**

In particular, there are ample opportunities to improve pedestrian safety on Stevens Creek Boulevard. Twenty-nine of the crashes occurred at intersections on Stevens Creek Boulevard or within 25' of an intersection. The same number of crashes on Stevens Creek Boulevard involved a driver violating a pedestrian's right of way, meaning that the driver did not yield appropriately to a pedestrian when s/he was in a crosswalk or on a sidewalk.

A majority of crashes where pedestrians are injured in Cupertino occur when the pedestrian is in a crosswalk at the intersection. In most of these crashes, a driver failed to yield, as shown in Figure 15.

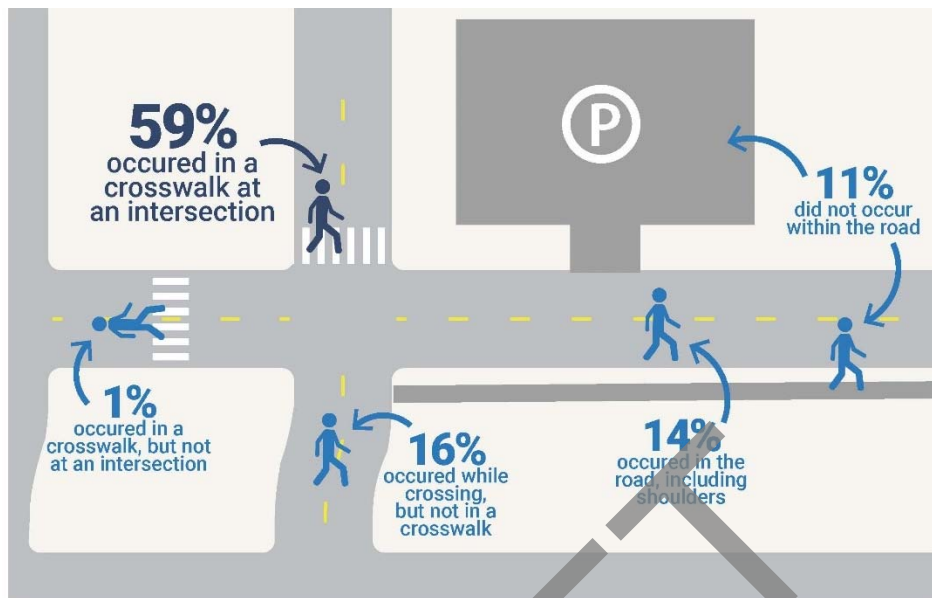


Figure 15. Location of pedestrian crashes.

See Figure 16 for the location of all pedestrian crashes between 2005-2014.

# Cupertino Pedestrian Transportation Plan

## Pedestrian Collisions 2005-2014

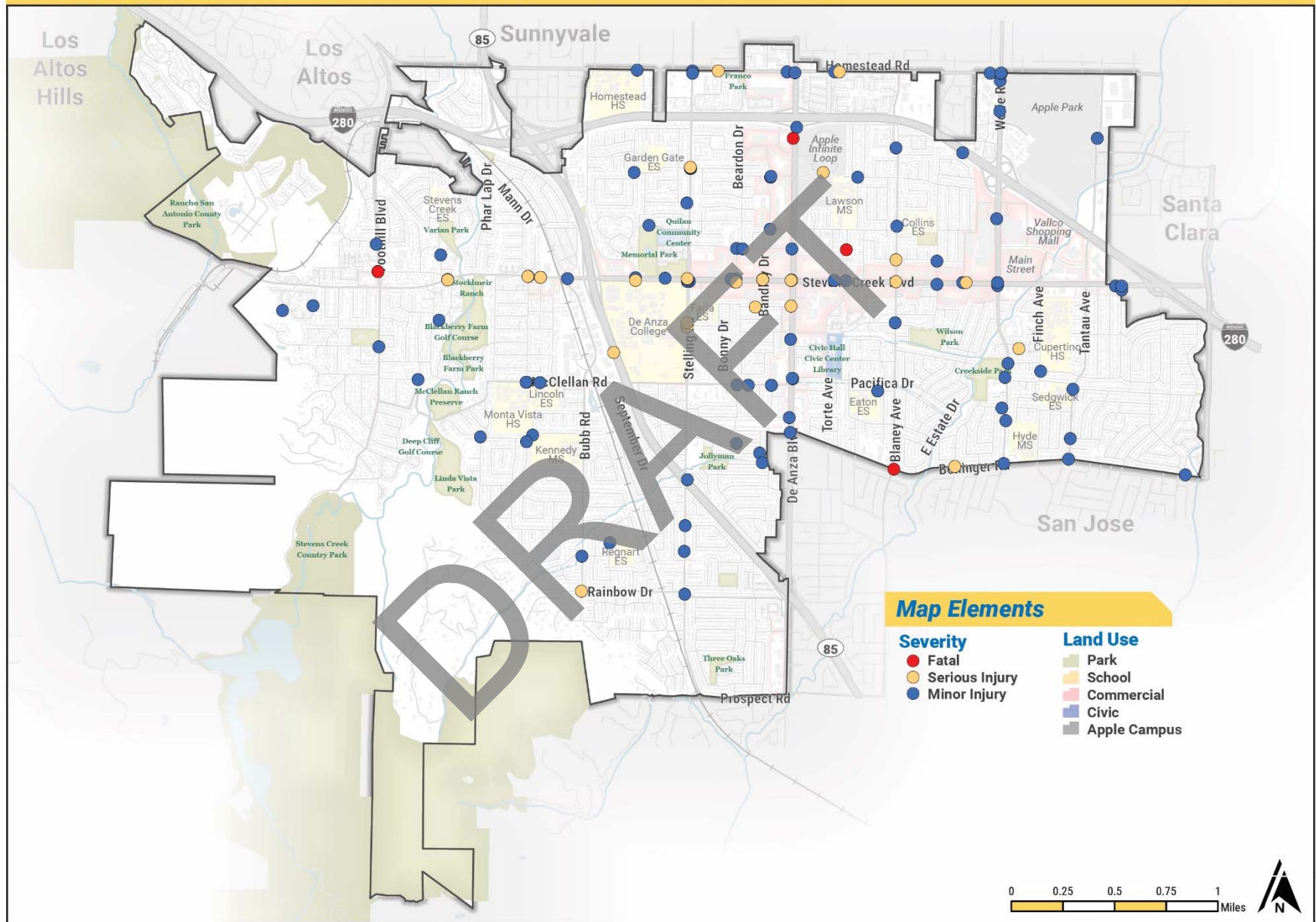


Figure 16. Pedestrian Collisions in Cupertino, 2005 to 2014



## Non-Geographic Crash Analysis

The largest number of pedestrian crashes (50 percent) were the result of a driver's violation of the pedestrian right of way, and most of these crashes occurred when a pedestrian was in the crosswalk at an intersection. This finding will help focus engineering, education and enforcement recommendations. It appears that fewer pedestrians are struck when crossing the street where a marked crosswalk does not exist. This may be because fewer pedestrians are crossing at unmarked locations, thus fewer are exposed to the risk of a crash. Additionally, a pedestrian was found at fault in only 15 percent of crashes. More crashes happened on weekdays and during the half of the year from October to March (64 percent).

Lastly, the data indicates that children and young adults (ages 5 to 17 and 18 to 24) and elderly pedestrians (ages over 74) are over-represented in injury crashes. Figure 17 compares the percentage of population represented by each age group, as well as the percentage of pedestrian victims from 2005 to 2014. Note that child pedestrians included here are ages 5 to 17; only one pedestrian victim in that time frame was under the age of five.

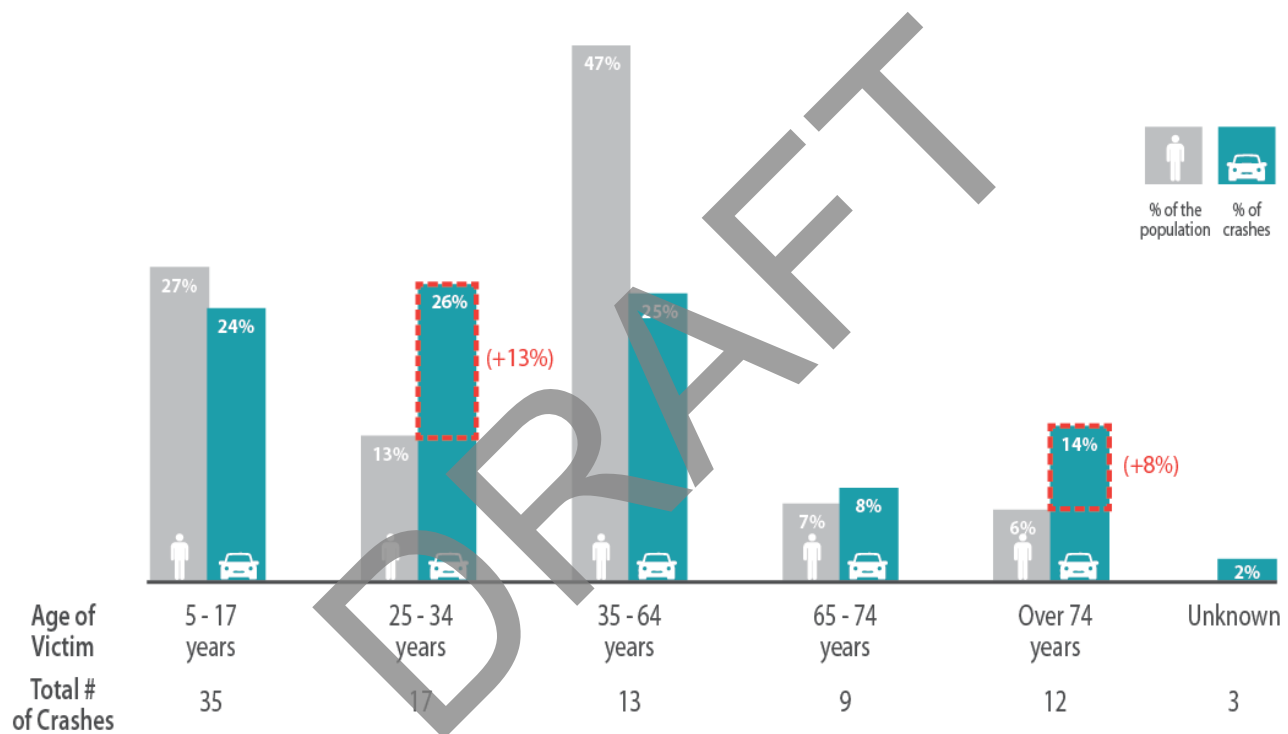


Figure 17. Percentage of Population Compared to Percentage of Pedestrian Victims, 2005-2014.

## Chapter 3: Policy and Program Recommendations

---

Cupertino has already made significant investments in making its streets friendlier to pedestrians. This chapter identifies a series of focused policies, programs, and practices to further promote pedestrian safety and access. These recommendations were developed based on a review and evaluation of the City's current operations and compared with national best practices.

This chapter includes recommendations on the following topics and are summarized in Table 5:

- Infrastructure and Operations
- Evaluation and Planning
- Project Implementation
- Education and Enforcement

DRAFT

Category	Topic Area	Recommendations
Infrastructure and Operations	Street Design	<ul style="list-style-type: none"> <li>• Develop and adopt a Complete Streets Design Manual</li> <li>• Ensure design standards/design speeds in pedestrian areas do not contribute to a routine need for traffic calming</li> <li>• Adopt a Complete Streets internal process checklist for project development, design, review and approval, and operations and maintenance</li> </ul>
	Neighborhood Traffic Management	<ul style="list-style-type: none"> <li>• Formalize the City's traffic calming practices</li> <li>• Employ traffic calming strategies in locations where traffic speeds are too high for pedestrian areas</li> <li>• Expand the City's traffic calming toolbox</li> <li>• Reconsider criteria for setting speed limits</li> <li>• Consider establishing 15 mph school zones and other slow zones near parks, community facilities, or senior housing</li> <li>• Use new radar speed signs and other technologies to collect speed data</li> </ul>
	Accessibility	<ul style="list-style-type: none"> <li>• Establish an accessible design checklist for design projects</li> <li>• Conduct ADA trainings for City staff</li> <li>• Encourage representation of people with disabilities in pedestrian-related projects and programs</li> </ul>
Evaluation and Planning	Pedestrian Volume	<ul style="list-style-type: none"> <li>• Include pedestrian and bicycle counts as a routine element of motor vehicle counts</li> <li>• Conduct annual pedestrian volume counts along the City's high-injury corridors.</li> <li>• Collect pedestrian volume data before and after installation of new pedestrian facilities</li> <li>• Conduct pedestrian volume counts at specific pedestrian crosswalk locations to determine where warrants for Pedestrian Hybrid Beacons (HAWK signals) and other traffic control devices may be met</li> <li>• Conduct pedestrian and bicycle counts for the planning and evaluation of the City's trail systems.</li> </ul>
	Pedestrian Safety	<ul style="list-style-type: none"> <li>• Develop crash report (Annual collision analysis to identify trends and problems areas)</li> <li>• Evaluate pedestrian safety outcomes</li> <li>• Conduct Road Safety Audits (RSAs) and/or Walk Audits</li> </ul>
Education and Enforcement	Safety Education	<ul style="list-style-type: none"> <li>• Continue to promote walking and bicycling to school through the Safe Routes to School program</li> <li>• Consider developing and implementing a targeted safety campaign for other groups (adults, seniors, drivers, etc.)</li> </ul>
	Enforcement	<ul style="list-style-type: none"> <li>• Use enforcement as an opportunity for education by distributing pedestrian safety pamphlets in-lieu of, or in addition to, citations</li> <li>• Implement sustained enforcement efforts and involve the media</li> </ul>
Project Implementation	Funding (See Chapter 5)	<ul style="list-style-type: none"> <li>• Continue to fund high-priority sidewalk gap closure projects through the Capital Improvement Program (CIP)</li> <li>• Develop a line item in the CIP for implementation of the PTP</li> <li>• Ensure that pedestrian improvements are included in other street projects, such as resurfacing, bridge replacement, or lane reconfiguration</li> <li>• Explore the possibility of obtaining Highway Safety Improvement Program (HSIP) funds</li> <li>• Secure a funding source to be used for broader pedestrian safety education efforts that could target traffic safety education and awareness</li> </ul>
	Agency Coordination (See Chapter 5)	<ul style="list-style-type: none"> <li>• Continue to collaborate with related agencies (transportation, health, schools, emergency services) within and adjacent to Cupertino</li> <li>• Explore opportunities for improving coordination with major employers</li> </ul>

Table 5. Summary of Recommendations for Pedestrian-related Policies, Programs and Practices

## Infrastructure and Operations

### Street Design

Development and implementation of policies and standards that govern the design of streets can be one of the most effective ways to improve conditions for pedestrians throughout the transportation system. Cupertino has established guidelines for the Stevens Creek Boulevard (Heart of the City Specific Plan) and the Monta Vista Commercial Area (Monta Vista Design Guidelines). However, the City does not currently have comprehensive design standards that apply to all streets. The City currently uses national and state guidance such as the California Manual on Uniform Traffic Control Devices (CA MUTCD) and the National Association of City Transportation Officials' (NACTO) Urban Street Design Guide.

Goals and strategies in the Cupertino General Plan, adopted in 2015, support the need for Cupertino to develop multimodal street design standards (Policy M-2.1). The need for improving walkability through better connectivity and context-sensitive street design is outlined in the Plan (Policies M-2.2, M-2.3, and M-2.4). The General Plan also establishes a policy to limit street widening for the sole purpose of improving vehicular traffic flow (Policy M-3.4).

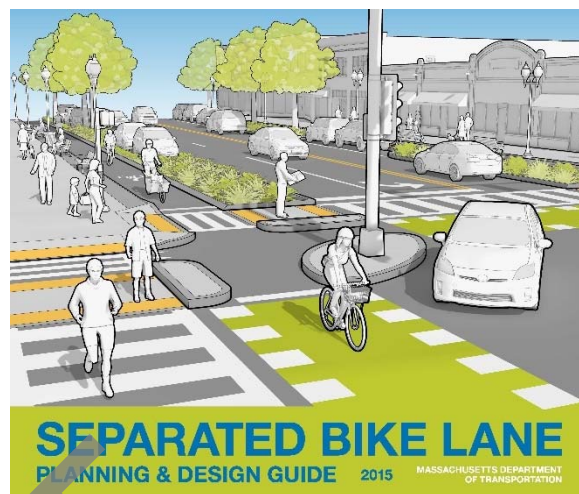


Figure 18. The Massachusetts DOT's Separated Bike Lane Planning & Design Guide shows how to best accommodate bicycle facilities in pedestrian realms.

### Recommendations

- **Develop and adopt a Complete Streets Design Manual.** Building on the policy established in the General Plan, adopting street design standards that promote pedestrian safety and comfort would ensure that pedestrian improvements are implemented systematically throughout the city during new construction and street retrofits. While existing design resources such as the NACTO Urban Design Guide are valuable and should continue to be used to inform the City's design practices, adopted City standards hold more weight, are easier to enforce and provide more design details.
- **Adopt a Complete Streets internal process checklist for project development, design, review and approval, and operations and maintenance.** The Complete Streets process ensures a greater maintenance and enforcement program to ensure the public right-of-way remains accessible.
- **Ensure design standards/design speeds in pedestrian areas do not contribute to a routine need for traffic calming.** Wide streets provide a visual cue to drivers that speeding is safe and expected, which predictably results in speeding problems that must then be managed through traffic calming or enforcement. Street design standards that address this problem proactively would be a more effective long-term approach.

### Best Practice Examples

- San Francisco Better Streets Plan, 2011. <http://www.sf-planning.org/ftp/BetterStreets/>
- Boston Complete Streets Guide, 2013. <http://bostoncompletestreets.org/>
- City of Alexandria Complete Streets Design Guidelines, 2016. <https://www.alexandriava.gov/localmotion/info/default.aspx?id=91090>

### Resources

- NACTO Urban Street Design Guide. <http://nacto.org/publication/urban-street-design-guide/>

## Neighborhood Traffic Management

As discussed in Chapter 2, vehicle speed directly impacts the chances of surviving a crash, especially for pedestrians who are especially vulnerable and have a high chance of being seriously injured or killed when speeds reach moderate levels.

Systematic reduction of speeds on Cupertino streets would improve safety for all modes, while also helping to meet other City goals. The Cupertino General Plan includes a recommendation to reduce speeds through traffic calming on Cupertino streets (Policy M-2.6). The City has an informal neighborhood traffic management program, and primarily responds to community members concerns on a case-by-case basis. The City has not recently used other traffic management tools such as diverters and speed humps, due to concerns that traffic issues may be diverted to other streets.

The City currently evaluates speed limits every 10 years and is planning to review established speed limits citywide in 2019. As part of this process, speed studies are conducted to determine current operating speeds. Speed studies are also conducted in response to resident concerns.

### Recommendations

- **Formalize the City's traffic calming practices.** A neighborhood traffic management program would provide a transparent process for developing area-wide traffic calming improvements. Ideally, this program would have dedicated funding to allow for a more proactive approach.
- **Employ traffic calming strategies in locations where traffic speeds are too high for high priority pedestrian travel areas.** Due to the original design of many Cupertino streets, high speeds occur on many streets. The City should prioritize and implement traffic calming on streets near parks, trails, and schools that have observed speeding problems.
- **Expand the traffic calming toolbox.** As part of a formalized traffic calming program, criteria and considerations for the use of various traffic calming treatments should be documented. For example, the City currently uses speed humps only on a limited basis (e.g., on bicycle boulevards), due to traffic diversion concerns. While this concern may be valid in some areas, speed humps or other vertical treatments such as raised intersections may be included as part of a menu of traffic calming options. Before and after counts may be taken on the treated streets as well as on parallel streets to monitor impacts and potential diversion.
- **Reconsider criteria for setting speed limits.** Some cities, such as Seattle and Boston, are experimenting with approaches for setting speed limits that better align with community goals. For example, Cupertino could consider pedestrian safety when setting speed limits. The California



Figure 19. Traffic calming devices enhance the pedestrian environment and allow pedestrians to feel safer and more comfortable.



Vehicle Code (CVC) allows speed limits to be set at 5mph lower than the 85<sup>th</sup> percentile speed.<sup>8</sup> Changes to the speed limit should be accompanied by geometric changes and enforcement.

- **Consider establishing 15 mph school zones and other slow zones near parks, community facilities, or senior housing.** To protect the most vulnerable members of society, Cupertino should consider reducing speed limits in school zones or other slow zones. Lower speeds in such zones would greatly reduce the chance of a fatality or serious injury if a pedestrian is hit by a motor vehicle.
- **Use new radar speed signs and other technologies to collect speed data.** The City owns and regularly installs radar signs that display vehicle speeds and can also record speed data. Other portable technologies, such as StealthStat, a pole-mounted radar system, could be used to expand coverage of speed data collection without the use of pneumatic tubes.

### Best Practice Examples

- City of San Ramon. Residential Traffic Calming Program: Policies, Procedures, Resources. <http://www.sanramon.ca.gov/transp/images/rtc.pdf>
- City of Seattle. Speed Limits. <https://www.seattle.gov/visionzero/speed-limits>

### Resources

- PEDSAFE. <http://pedbikesafe.org/PEDSAFE/countermeasures.cfm>
- ITE Traffic Calming Website. <http://www.ite.org/traffic/index.asp>
- Federal Highway Administration. Methods and Practices for Setting Speed Limits: an Informational Report, 2012. [https://safety.fhwa.dot.gov/speedmgt/ref\\_mats/fhwasa12004/fhwasa12004.pdf](https://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa12004/fhwasa12004.pdf)

### Americans with Disabilities Act (ADA) Accessibility

The City's ADA Transition Plan was completed in 2014. It includes recommendations for removal of programmatic and policy barriers to accessibility (e.g., changes to City Municipal Code allowing the use of service animals in City facilities) as well as removal of physical barriers for City-owned facilities. The Transition Plan establishes a policy and prioritization framework for the use of City funds to improve accessibility. While the Plan includes criteria for how to prioritize projects in the public right-of-way (ROW), it does not provide a comprehensive recommendation for sidewalks throughout the City's street network.

The City updates curb ramps in routine CIP resurfacing projects. In 2016, the City was awarded Community Development Block Grant (CDBG) funds to replace curb ramps that do not meet ADA guidelines. Sidewalk gap closure projects are ongoing and typically funded through the City's CIP.



Figure 20. In Seattle, WA, ADA-compliant crossings ensure mobility for people with disabilities.

<sup>8</sup> Caltrans. California Manual for Setting Speed Limits. 2013. <http://www.dot.ca.gov/trafficops/camutcd/docs/california-manual-for-setting-speed-limits.pdf>

## Recommendations

- **Establish an accessible design checklist for design projects.** A checklist will help to ensure ADA considerations are covered at all level of designs, thereby helping to improve compliance.
- **Conduct ADA trainings for City staff.** To effectively implement ADA changes across the city, the City should focus on ADA trainings for current employees while working to dedicate more staff to ADA compliance review, planning, and engineering. FHWA provides numerous training modules on this and related topics.
- **Improve representation of people with disabilities.** Representation of people with disabilities and other accessibility advocates on the Cupertino Planning Commission, advisory boards, and as community advisors for planning projects will help to bring greater awareness and attention to ADA concerns.

## Best Practice Example

- Howard County, Maryland. WalkHoward. <https://walkhoward.org/resources/>

## Resources

- U. S. Access Board. Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way. 20911. <https://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/proposed-rights-of-way-guidelines>
- American Planning Association. Complete Streets: Best Policy and Implementation Practices. <https://www.smartgrowthamerica.org/app/legacy/documents/cs/resources/cs-bestpractices-chapter5.pdf>

## Evaluation and Planning

Collection and analysis of pedestrian-related data helps agencies prioritize resources, make more informed decisions, establish need when submitting grant applications, and evaluate trends and outcomes. Prior to collecting new data, it is important to have a clear sense for how the data will be used and managed. Ideally, data collection and analysis would be closely tied to established goals and policies and would help Cupertino monitor progress implementing the PTP.

### Pedestrian Volume Data Collection

Cupertino does not routinely collect pedestrian volume data. Collection of pedestrian volume data can help the City prioritize investments over time or demonstrate the impact of infrastructure investments such as new sidewalks.

A variety of count methods can be used; generally, automated methods that collect continuous count data over a period of a week or more are preferred to ensure reliable estimates. Short-duration counts can be extrapolated to annual averages using expansion factors that account for daily and seasonal fluctuations in



**Figure 21. Infrared counter on multi-use trail in Denver, CO.**  
*Credit: Colorado Department of Transportation.*

pedestrian activity. This process is discussed in NCHRP Report 797 and the Federal Highway Administration (FHWA) Traffic Monitoring Guide (see the “Resources” section).

### Recommendations

- **Collect pedestrian and bicycle volumes as part of every traffic count**, both for private development transportation impact studies and City-led data collection.
- **Conduct annual pedestrian volume counts along the City’s high-injury corridors.** As mentioned above, pedestrian intersection (or midblock) volume data would help the City understand the relative safety of different intersections. This would provide insight into the likely benefit of making infrastructure improvements. For example, an intersection with a high number of pedestrian crashes and low pedestrian volumes indicates a likely design problem whereas an intersection with a similar number of crashes and high pedestrian volume may not have obvious design deficiencies.
- **Collect pedestrian volume data before and after installation of new pedestrian facilities.** Data collected before and after installation of pedestrian facilities, such as sidewalks and crossing treatments, can demonstrate the impact of infrastructure investments, which may lead to greater support for future investment.
- **Conduct pedestrian volume counts at existing pedestrian crosswalk locations to determine where warrants for Pedestrian Hybrid Beacons (HAWK signals) or other traffic control devices may be met.** HAWK signals have been proven to be one of the most effective pedestrian crossing treatments for multilane roads. However, they are subject to warrant criteria, as outlined in the MUTCD. Some existing midblock crossing locations may meet those warrants and be suitable candidates for implementation of HAWK signals.
- **Conduct pedestrian and bicycle counts for the planning and evaluation of the City’s trail systems.** Data can be used for the evaluation and planning of the Stevens Creek Trail, Saratoga Creek Trail and Don Burnett Bridge/Homestead to Mary Ave. trail.

### Best Practice Example

- Alameda County Transportation Commission. Bicycle and Pedestrian Count Program. [http://www.alamedactc.org/app\\_pages/view/9644](http://www.alamedactc.org/app_pages/view/9644)

### Resources

- NCHRP Report 797. Guidebook on Pedestrian and Bicycle Volume Data Collection. 2014. <http://www.trb.org/Publications/Blurbs/171973.aspx>
- FHWA. Traffic Monitoring Guide. 2016. <https://www.fhwa.dot.gov/policyinformation/tmguide/>

### Pedestrian Safety Analysis and Planning

Review and analysis of pedestrian crashes is an important strategy for saving lives and reducing injuries across the city. Cupertino staff typically receives collision reports from the Santa Clara County Sheriff’s Office, but lacks an established, ongoing process for reviewing crashes and developing solutions.

## Recommendations

- **Develop an annual crash report.** Many cities undertake a periodic analysis of crashes which can help identify trends and problem areas. A collision analysis has been conducted for the PTP; to understand and respond to emerging needs, crash analysis should be conducted on a routine basis, such as every year or every two years.
- **Evaluate pedestrian safety outcomes.** As projects stemming from this PTP are implemented, the City should evaluate the pedestrian safety outcomes, particularly projects that respond to a safety concern. Since pedestrian crashes are rare in many locations, field observations could be used to determine the safety impact. For example, the City could evaluate yielding behavior before and after the addition of enhanced crossing treatments to an existing crosswalk. Over time, such information could help the City select and prioritize which treatments to use based on their effectiveness in Cupertino.
- **Conduct Road Safety Audits (RSAs).** RSAs can be used to identify multidisciplinary strategies at locations and corridors with a history of pedestrian crashes. Such locations may not have had fatalities in the past, but have a risk for future fatalities based on higher than expected levels of non-fatal crashes. RSAs are typically focused on low-cost improvements. RSAs should be considered for the streets identified as high-injury corridors in the collision analysis in Chapter 2.
- **Conduct Walk Audits.** Walking audits provide an interactive opportunity to receive feedback from key stakeholders about the study area as well as discuss potential solutions and their feasibility. They can be led by City staff, advocacy groups such as Walk Bike Cupertino, neighborhood groups, or consultants. Multiple walk audits were conducted as part of the development of the PTP, including sections of Stevens Creek Boulevard and DeAnza Boulevard (see Appendix C). Specific locations identified for future walk audit locations include segments of the high-injury corridors identified through analysis of recent collisions in Chapter 2:
  - Bollinger Road from DeAnza Boulevard to the City limit
  - DeAnza Boulevard from Homestead Road to Bollinger Road
  - Foothill Blvd and Stevens Canyon Road from Foothill Expressway to Stevens Creek County Park
  - Miller Avenue/Wolfe Road from Homestead Road to Bollinger Road
  - Stelling Road from Homestead Road to the City limit



Figure 22. Road Safety Audits bring together planners and engineers to address high-crash locations.

## Best Practice Examples

- City of Fort Collins. Traffic Safety Report, 2015. <http://www.fcgov.com/traffic/pdf/traffic-safety-summary-2016.pdf?1476201877>
- City of Boston. Vision Zero: Rapid Response <http://www.visionzeroboston.org/rapidresponse>
- Massachusetts Department of Transportation. City of New Bedford, Coggeshall Street Road Safety Audit. [https://www.massdot.state.ma.us/Portals/8/docs/traffic/SafetyAudit/District5/New\\_Bedford\\_Coggeshall\\_St\\_RSA.pdf](https://www.massdot.state.ma.us/Portals/8/docs/traffic/SafetyAudit/District5/New_Bedford_Coggeshall_St_RSA.pdf)



## Resources

- FHWA. Road Safety Audit Guidelines, 2006. <https://safety.fhwa.dot.gov/rsa/guidelines/>
- FHWA. Pedestrian Road Safety Audit Guidelines and Prompt Lists, 2007. [http://www.pedbikeinfo.org/pdf/PlanDesign\\_Tools\\_Audits\\_PedRSA.pdf](http://www.pedbikeinfo.org/pdf/PlanDesign_Tools_Audits_PedRSA.pdf)

## Education and Enforcement

### Safety Education

Cupertino has a well-developed Safe Routes to School program that includes participation across all public schools in the city.<sup>9</sup> A wide variety of materials and resources are made available, including safety tips for all modes, walking and bicycling maps, drop-off instructions for individual schools, and other education and encouragement ideas.

### Recommendations

- **Continue to promote walking and bicycling to school through the Safe Routes 2 School program.**
- **Consider developing and implementing a targeted safety campaign.** As suggested in Chapter 5, Cupertino may explore the possibility of obtaining funding to conduct a broad safety campaign, targeting all modes and user groups, such as drivers and seniors. This campaign should address key issues affecting pedestrian safety such as traffic speed and yielding at crosswalks. A combination of education and enforcement strategies is likely needed and most effective.

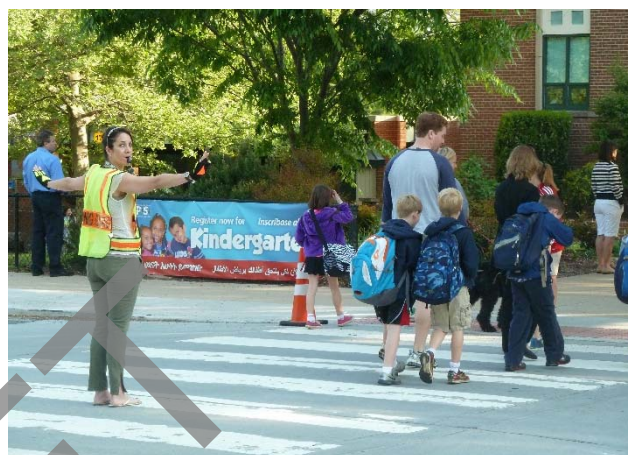


Figure 23. Safe Routes to School programs educate students while encouraging active trips to and from school.

### Best Practice Examples

- StreetSmart. <http://beststreetsmart.net/index2.php>
- Bike Arlington. PAL: Safety on Our Streets. <http://www.bikearlington.com/pages/pal-safety-on-our-streets/>

## Resources

- National Center for Safe Routes to School. <http://www.saferoutesinfo.org/>.

### Enforcement

The Santa Clara County Sheriff's Office works closely with schools in Cupertino to educate children on traffic safety laws. They have also conducted focused enforcement to increase yielding to pedestrians at crosswalks.

### Recommendations

- **Implement sustained enforcement efforts and involve the media.**
- **Use enforcement as an opportunity for education by distributing pedestrian safety pamphlets in-lieu of, or in addition to, citations.**

<sup>9</sup> City of Cupertino. What is Safe Routes 2 School (SR2S)? [www.cupertino.org/saferoutes](http://www.cupertino.org/saferoutes)



### Best Practice Example

- National Highway Traffic Safety Administration. Evaluation of the Miami-Dade Pedestrian Safety Demonstration Project. [http://www.pedbikeinfo.org/collateral/PSAP%20Training/gettraining\\_references\\_Miami-Dade.pdf](http://www.pedbikeinfo.org/collateral/PSAP%20Training/gettraining_references_Miami-Dade.pdf)

### Resources

- National Highway Traffic Safety Administration. Pedestrian Safety Enforcement Operations: A How-To Guide. <https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/812059-pedestriansafetyenforceoperahowtoguide.pdf>

DRAFT

## Chapter 4: Project Recommendations

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Implementation of the project recommendations in this chapter will result in a more livable Cupertino, where residents and visitors can more safely and comfortably walk for transportation and recreation.

### Development of Recommendations

Location-specific project recommendations were identified in four ways:

- Walk audits: areas defined through demand analysis, staff input and geographic/street type diversity
- WikiMap comments: responses to comments received on the PTP online map
- Public workshop comments: responses to comments received at the first public workshop
- City staff input: locations identified by City staff in response to known issue areas and existing in-process street design projects

The recommendations included in this chapter focus on targeted locations of high need and opportunity, but there are similar challenges that exist in other parts of the city. *As such, the project list and maps do not represent the entire realm of projects that could be completed to improve pedestrian travel in Cupertino.* In addition, specific recommendations for infrastructure projects in school areas are being addressed through a separate, parallel Safe Routes to School process. More information can be found at <http://www.cupertino.org/our-city/departments/public-works/transportation-mobility/safe-routes-2-school>

### Walk Audits

Walk Audits were conducted of six areas, identified through demand analysis and representing a range of street types throughout the city. Consultant and City staff visited these areas on March 14 and 15, 2017. The areas were:

#### Arterials

- Route 1: De Anza Boulevard, between Mariani Avenue and Rodrigues Avenue and Bandle Drive, from Valley Green Drive to Stevens Creek Boulevard
- Route 4: Stevens Creek Boulevard, between SR 85 and Stelling Road
- Route 5: Stevens Creek Boulevard, between Finch Avenue and Tantau Avenue

#### Local Streets

- Route 2: Phar Lap Drive and Mann Drive
- Route 3: Miller Avenue, Vicksburg Drive, La Mar Drive
- Route 6: Monta Vista neighborhood

These audits had multiple purposes:

1. Identify specific issues impacting the pedestrian environment and travel along the walk audit routes,
2. Catalog issues by street type or place within Cupertino for presentation in the PTP,
3. Create a shared understanding of infrastructure and behavioral issues that create a challenging, uncomfortable or unsafe pedestrian environment, and
4. Discuss potential countermeasures and/or policy and programmatic changes that can address identified issues

City staff accompanied consultants on all walk audits and answered questions about specific existing and planned infrastructure within the walk audit areas, as well as general City practices with respect to

pedestrian projects and policies. Site-specific issues within these areas were noted for recommended improvements. A complete summary of the walk audits can be found in Appendix C.

Many of the walk audit recommendations along the high-crash corridors are included in the prioritized project list. Additional audits are recommended along all the high-crash corridors for a more comprehensive evaluation. Recommended treatment types for the remaining walk audit routes are intended to serve as model applications of the toolkit facilities that appear in this chapter. These treatments will guide the City's response to future requests and studies on local and collector street types. Figure 24 illustrates the walk



audit locations.

**Figure 24. Walk Audit Locations**

### WikiMap and Public Workshop Comments

Comments received on the WikiMap and at the Public Workshop are listed in Appendix D. Comments from these sources that address high-priority locations are included within the prioritized list of project recommendations. Remaining locations have been catalogued for review by City staff and should be considered in future development efforts.

### Staff Input

City of Cupertino staff are routinely contacted by residents with concerns about the pedestrian environment and observe issues around the city. This institutional knowledge contributed locations to the analysis of potential recommendations. Crossing treatments and sidewalk installation projects were made for locations based on this staff input. Additionally, staff recognized the pedestrian benefits of some elements in the Class IV bikeway design for Stevens Creek Boulevard and McClellan Road, and those project elements are included here as pedestrian projects.

## Identified Issues

These four sources of information about pedestrian issues in the city centered on a few key areas. These issues can be mitigated by applying treatments in the pedestrian toolbox identified later in this chapter.

**1. Boulevard intersections:** Boulevard intersections are likely locations of pedestrian/automobile conflict. This was observed during walk audits, has been reported by residents, and is borne out in the collision data presented in Chapter 2. The following issues are most critical.

- **Marked crosswalks:** Lack of marked crosswalks on all legs at signalized intersections creates delay and inconvenience for pedestrians who must cross multiple legs to reach their destination. It also exposes them to more potential conflicts with automobiles.
- **Concurrent pedestrian/automobile movements:** During walk audits, drivers were observed encroaching on crosswalks to make right turns on red. Right turns on red may be restricted at some intersections (e.g., the Stevens Creek Boulevard Class IV bikeway design includes separate phasing), but most locations will likely continue to experience this conflict. This issue should be addressed through education efforts for residents and daily visitors.
- **Signal timing:** Signal phases along boulevards are very long in part due to accommodation of high traffic volumes. This leads to long wait times for pedestrians crossing. People were observed running to make a green signal or to complete a crossing even when a pedestrian countdown timer indicated too-short time remaining to make the full crossing.
- **Driveway proximity to intersection:** Some retail locations on boulevard corners have driveways within the functional area of the intersection. Turning movements into and out of these driveways create more opportunity for conflict between automobiles and between pedestrians and automobiles. The City has updated standards regarding proximity of driveways to the intersection since some of these were constructed, but retrofitting of existing locations may be warranted.
- **Curb radii:** Drivers turning off a higher-speed boulevard onto a local street do not receive a visual cue that they are entering a slower speed environment. They are also not forced to slow making right turns because curb radii are generally wide coming off the boulevard streets.

**2. Along boulevards:** Even with sidewalks provided, some additional issues exist on boulevards for pedestrians.

- **Sidewalk width and placement:** The current five-foot sidewalk standard does not create a comfortable walking environment when the sidewalk is adjacent to the curb. This condition is present on segments of Stelling Road, DeAnza Boulevard, Stevens Creek Boulevard and Homestead Road. Though pedestrians are somewhat buffered from automobile traffic by standard bike lanes, the sidewalk is still not of adequate width to be comfortable or to accommodate side-by-side pedestrian travel. Buffered sidewalks on boulevards were significantly more conducive to pedestrian comfort.
- **Crossing spacing:** Enhanced, comfortable, safe crossings are widely spaced along boulevards, up to nearly 0.5 miles in some locations. This can present challenges for accessing transit stops or other destinations located between crossings.
- **Driveway frequency:** Frequent driveways create potential conflicts between pedestrians and drivers accessing businesses. These are sometimes the result of smaller retail parcels all having their own access, and sometimes the result of multiple driveways to access a single parcel. Shared parking agreements may mitigate the need for frequent driveways.

- **Driveway cross slope:** Driveways in locations without a sidewalk buffer often create an unacceptable cross slope for the sidewalk. Some of these locations were identified in the ADA Transition Plan, but others exist throughout the city and create a hazard for people in wheeled mobility devices or pushing strollers and carts.
3. **Neighborhood speeds:** Local streets in neighborhoods tend to be wide (38' typical) with wide curb radii. These characteristics, along with generally low occupancy of on-street parking, can lead to higher-than-posted speeds for drivers. These issues can be compounded when a local street does not have frequent traffic control requiring drivers to stop. Residents have expressed concern about high speeds in several locations recently, and the City has addressed them with speed radar signs. La Mar Drive is a typical example.
  4. **Missing sidewalk:** Lack of sidewalks on one or both sides of the street was noted by several community members on local, neighborhood connector and avenue streets. This was also observed in walk audits. Recommended locations for sidewalk construction do not represent *all* locations of missing sidewalk on streets in Cupertino. Sidewalk gaps occur from parcel to parcel and along longer segments of some streets. Missing sidewalks are more of a concern where traffic volumes and speeds are high because of the greater potential for conflict and greater severity when crashes do occur.
  5. **Placement of curb ramps:** Many locations were observed across a range of street types that did not have curb ramps or had diagonal curb ramps. The City has been working on a program of ramp replacement, but even some new ramps were replaced as diagonal ramps when two directional ramps should be standard.
  6. **Lack of connectivity:** Cupertino's street network is often disconnected and indirect at the local neighborhood level. This can result in fewer people choosing to walk for trips because distances are longer or because the most direct route is on a busier street that is less pleasant for walking. Some public comments noted specific new connection points that would make school, park or retail access more convenient.

## Pedestrian Facility Toolbox

The pedestrian facility toolbox includes general design considerations for pedestrian facilities recommended in this Plan to make Cupertino a more pedestrian-friendly community. The guidance provided here is intended for engineers and planners within Cupertino to reference and to incorporate into their own design guidelines or standards as appropriate.

The toolkit provides an explanation of the different facilities, their purpose, and application. Some additional facility types have been included that, though not recommended to address issues identified in this plan, may be used in the future to address issues in other parts of the city.



## Sidewalks

**Sidewalks** play a critical role in the character, function, enjoyment, and accessibility of neighborhoods, main streets, and other community destinations. Sidewalks provide a dedicated space with the primary purpose of accommodating pedestrian travel.

All sidewalk gaps should be filled, except for private streets and semi-rural areas.

### Benefits

- Provide dedicated space while improving mobility and access for pedestrians.
- Can encourage walking and promote fitness and the general health of a community.



Figure 25. Detached Sidewalk

### Challenges

- Often difficult/costly to retrofit streets to add sidewalks.
- Sidewalks need to be maintained and often that responsibility is passed onto adjacent property owners.

### Applicability and Use

- Providing continuous sidewalks is critical to the development of a complete pedestrian network in Cupertino. Therefore, closing existing sidewalk gaps should be prioritized for implementation.
- Sidewalks should have a minimum width of five feet if set back from the curb, or six feet if at the curb face. However, sidewalk and street buffer width should both increase in proportion to adjacent motor vehicle volumes and pedestrian-use volumes.
- Preferred width: six feet in residential areas, but in commercial areas, near schools, at transit stops, downtown, near parks, or anywhere where high concentrations of pedestrian activity exists, the minimum width for a sidewalk should be eight feet.

## Striped shoulder/Pedestrian lane

Curbless streets exist in some Cupertino neighborhoods that have a semi-rural street typology or in privately-developed neighborhoods. Although sidewalks are the best way to provide separation from motor vehicles, adding a striped shoulder/pedestrian lane to curbless streets can work well in residential settings with low levels of vehicle traffic.

### Benefits

- Visually narrows the roadway to encourage drivers to slow down.



Figure 26. Striped pedestrian lane

## Challenges

- Must restrict on-street parking fully or to one side of street if space available. The latter necessitates marking parking, and both necessitate enforcement.

## Applicability and Use

- This condition is most appropriate for local streets with lower volumes and speeds.
- Not yet used in Cupertino, however recommended on streets that serve as a low-volume collector street, such as Mann Drive.
- While a striped shoulder/pedestrian lane can increase comfort for all people within the street right-of-way, traffic calming may be needed to ensure slow vehicle speeds that are appropriate for curbless streets.

## Traffic Calming

Traffic calming uses physical engineering measures to reduce speeds, alter driver behavior, and improve conditions for non-motorized street users. Traffic calming aims to slow the speeds of motorists to a “target speed,” usually 20 miles per hour or less for residential streets and 25 to 35 mph for collectors and minor arterials. A suite of infrastructure treatments are presented below.

## Curb Extensions

**Curb extensions** extend the sidewalk or curb line into the roadway and are intended to improve safety by slowing turning speeds, improving sight lines, shortening crossing distances, reducing exposure time, and increase visibility between roadway users.

### Benefits

- Shortens pedestrian crossing distance
- Prevents vehicles from blocking the crosswalk
- Extended sidewalk space can be used for plantings, street furniture, or green stormwater infrastructure.

### Challenges

- Can alter the drainage characteristics of the street
- May present challenges in accommodating existing and future bicycle facilities and large vehicle turning movements
- Landscaped curb extensions should only feature low-growing plants to preserve sight distances.

### Applicability and Use

- Valuable in locations with high volumes of pedestrian traffic
- Can be used as a traffic-calming element
- Can be used at: intersections and mid-block pedestrian crossings, but only where on-street parking is present
- May be used at transit stops (i.e., bus curb extensions) to increase transit stop waiting area capacity and facilitate in-lane stopping of transit vehicles
- May provide space for utilities, signs and amenities such as bus shelters or waiting areas, bicycle parking, public seating, public art, street vendors, newspaper stands, trash and recycling receptacles and green infrastructure elements



Figure 27. Curb extensions

- Already used on some streets in Cupertino

### Curb Radii

**Curb radii** are important to consider for slowing speeds of turning vehicles. A tighter curb radius forces drivers to slow in making right turns. For left turns, drivers have less room for error entering the cross street and so are also forced to slow. Curb radii can be adjusted through extension of an existing curb as in Figure 27.

### Truck Aprons

**Truck Aprons** may also be used to extend the curb. They are paving treatments that create the illusion of “moving the curb.” They are used to narrow the street at intersections to calm traffic without restricting the movement of larger vehicles. For most vehicles, they will function similarly to extending the entire curb, slowing right turns and narrowing the street. However, they are designed such that they do not restrict turning movements of larger vehicles that may need to access local streets periodically.

### Benefits

- Encourages slower vehicle turning speeds and increases driver awareness of crossing pedestrians
- Shortens pedestrian crossing distance
- Improves sight distance

### Challenges

- Retrofit installations may require drainage and utility relocation
- May not be feasible on steep grades

### Applicability and Use

- Truck aprons used on some local streets in Cupertino
- Often used on roundabouts, they can also be used as chicanes and curb extensions
- Curb radii generally in Cupertino could be narrowed



Figure 28. Narrowed curb radius

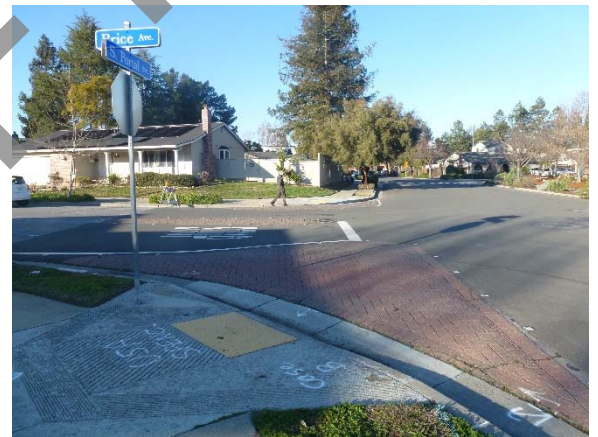


Figure 29. Truck apron, Cupertino



## Vertical Deflection

**Speed Humps/Tables** provide a gentle rise on the roadway, and consist of raised pavement approximately three to four inches high at the center, extending nearly the full width of the street. Speed humps/tables are very effective at slowing traffic. The height of a speed hump/table should taper near the gutter to maintain drainage and allow unimpeded bicycle travel.

### *Benefits*

- Highly effective method for slowing motor vehicles
- Can be relatively inexpensive and easy to maintain

### *Challenges*

- May impact traffic patterns
- Concerns about emergency vehicle speed may arise from installation of speed humps; however, proper design of the hump profile or use of channels in humps can mitigate impacts on emergency vehicles and other large vehicles such as buses

### *Applicability and Use*

- Grade should be considered; do not use on roadways with greater than 5 percent grade
- Speed tables are preferred by City of Cupertino (Standard Detail 1-17A)
- Already used on many local streets in Cupertino
- Design consideration should be given for large vehicles and bikes when determining approach angle and profile



Figure 30. Speed hump, Cupertino

## Horizontal Deflection

**Traffic circles** are circular islands that force drivers to slow at intersections and navigate around the center island. Circles may be used at uncontrolled or two-way stop controlled intersections. When properly design they reduce the speeds of motorists, which reduces collisions and improves bicycle and pedestrian safety. They can also encourage through traffic to stay on arterial streets, reducing the impact of cut through traffic on neighborhoods.

They are typically installed in the center of street intersections with three or four approach legs. Larger vehicles such as school buses that make wider turns can be accommodated by building traffic circles with a mountable exterior truck aprons.



Figure 31. Traffic circle

### *Benefits*

- May enhance the attractiveness of the street through opportunity for landscaping
- Visually narrows the roadway

### *Challenges*

- May impact traffic patterns
- May impact street drainage

### *Applicability and Use*

Traffic circles may be considered in the following situations:

- At intersections of residential streets to reduce speeds and/or to mitigate a history of angle crashes
- Already used on some local streets in Cupertino

**Chokers/Pinch points/Chicanes** can take the form of curb extensions, center islands, or staggered on-street parking placed mid-block. Chokers and pinch points narrow the roadway such that drivers must yield to oncoming traffic passing before proceeding, and/or create a winding travel path that encourages slower speeds. Chicanes compel drivers and bicyclists to navigate a narrowed “s” shaped pathway along the street created by the placement of curb extensions that alternate from one side of a street to the other, typically in groups of three.

### *Benefits*

- Narrows the roadway both physically and visually which slows vehicle speeds and increases safety/decreases severity of traffic crashes for all users, especially pedestrians
- Stormwater and greenspace elements can be combined to calm traffic while also making the street more attractive

### *Challenges*

- Requires removal of on-street parking to implement effectively
- May impact traffic patterns
- May impact street drainage

### *Applicability and Use*

Chokers, pinch points, and chicanes may be considered on residential streets where:

- There is a high volume of high speed cut through traffic
- A comprehensive neighborhood traffic calming program is present and other traffic calming measures have been implemented
- More effective at reducing speeds where on-street parking is not present and already forces the automobile’s path of travel away from the curb
- Children frequently walk or bicycle to and from school
- Already used on some local streets in Cupertino



Figure 32. Chicane



## Shared Use Paths

Shared use paths are physically separated from motor vehicle traffic and are for pedestrians, bicyclists, and other non-motorized users. Shared use paths, also referred to as multiuse trails, are often located in independent alignments, such as a greenbelt or riparian corridors. However, they are also regularly constructed along roadways.

### Benefits

- Separated from motor vehicle traffic
- Comfortable for less-confident adults, children, seniors, and persons with disabilities
- Provides recreational opportunities in addition to transportation

### Challenges

- Potentially costly and complicated right-of-way acquisition
- Topography and drainage can greatly impact design
- Can present safety concerns when placed adjacent to a roadway with frequent driveway or intersection crossings

### Applicability and Use

- Creating connections exclusively for people walking and biking, such as at the end of a cul de sac or along an independent alignment to create a new corridor
- Especially useful to create connections where parallel automobile connection is not comfortable or appealing for people walking or biking

## Pedestrian/Bicycle Bridges

Pedestrian/bicycle bridges provide complete separation of pedestrians and bicyclists from vehicular traffic, often where no other pedestrian or bicycle facility is available, and connect transportation networks across barriers such as railroads, freeways, or other major transportation corridors.

### Benefits

- Can provide a critical link in the transportation system by overcoming comfort and/or safety barriers.

### Challenges

- People are not likely to use the bridge if a more direct route is available.
- Must maintain wheelchair accessibility, resulting in longer approach ramps or elevator access.
- Very expensive



Figure 33. Shared use path



Figure 34. Pedestrian and bicycle bridge

## Applicability and Use

- Most appropriate over high-volume, high-speed highways, railroad tracks, or natural barriers.
- Appropriate where moderate to high pedestrian/bicycle demand exists to cross at a specific location that cannot be addressed through an at-grade solution.
- May be appropriate in locations where large numbers of school children cross busy streets, or where high volumes of seniors or mobility-impaired users need to cross a major roadway.

## Crossings

**Well-designed marked crosswalks** provide legitimacy and comfort to pedestrians crossing streets. Drivers are legally required to yield to pedestrians at intersections, even when there are no pavement markings, though providing marked crosswalks communicates to drivers that pedestrians may be present. At mid-block locations, a crosswalk exists only if it is marked.

## Benefits

- Increase the visibility of pedestrians crossing at intersections and mid-block crossings
- Crosswalks marked with continental, ladder, or zebra patterns have been found to be significantly more visible to motorists<sup>10</sup> and to reduce crashes by 48 percent<sup>11</sup>
- Guide pedestrians to crossing locations



Figure 35. Crosswalk (with Median Island)

## Challenges

- Enforcing stop-bar compliance so drivers do not stop in crosswalks

## Applicability and Use

- Installation of marked crosswalks should be completed per guidance in the Crosswalk Installation Policy found in Appendix E of this plan
- Marked crosswalks should be at least 10 feet wide or the width of the approaching sidewalk. In areas of heavy pedestrian volumes, marked crosswalks can be up to 25 feet wide
- To maintain visibility near crossings, parking should be prohibited within 20 feet of a crosswalk

<sup>10</sup> K. Fitzpatrick, S. Chrysler, V. Iragavarapu, and E.S. Park. Detection Distances to Crosswalk Markings: Transverse Lines, Continental Markings, and Bar Pairs. Transportation Research Record: Journal of the Transportation Research Board, No. 2250. Transportation Research Board of the National Academies, Washington, DC, 20011.

<sup>11</sup> L. Chen, C. Chen, R. Ewing, C. McKnight, R. Srinivasan, and M. Roe. Safety Countermeasures and Crash Reduction in New York City—Experience and Lessons Learned. Accident Analysis and Prevention. In print, 2012. Retrieved August 14, 2015. <http://dx.doi.org/10.1016/j.aap.2012.05.009>

## Raised Crossings

**Raised crosswalks** use vertical deflection to reduce motorist speeds upon approach of the crosswalk. **Raised intersections** are created by raising the roadway to the same level as the sidewalk, which creates a speed table across an entire intersection. Both treatments are intended for locations where desired approach speeds are 25mph or less.

### Benefits

- Similar to speed humps and other vertical speed control elements, raised crosswalks and intersections reinforce slow speeds and encourage motorists to yield to pedestrians at the crosswalk
- Increase visibility between motorists and pedestrians
- Raised intersections create a safe, slow-speed crossing and public space at minor intersections

### Challenges

- Potential coordination with emergency responders
- Potential drainage impacts
- Very expensive

### Applicability and Use

- Applying raised crossings at the crosswalks of right-turn slip lanes can improve pedestrian safety by encouraging improved yielding behavior and slowed turning speeds.
- Raised intersections are most appropriate in areas of high pedestrian demand.
- Raised intersections are flush with the sidewalk and ensure that drivers traverse the crossing slowly. Crosswalks do not need to be marked unless they are not at grade with the sidewalk.



Figure 36. Raised midblock marked crosswalk



Figure 37. Raised intersection

## Advance Yield Lines

Advance yield lines, which are composed of solid white triangles (often referred to as “shark’s teeth”), indicate where drivers should yield to pedestrians in crosswalks.

### Benefits

- Provide advance warning of pedestrian crossing to drivers before reaching crossing location
- By slowing traffic, improve visibility for pedestrians and drivers whose view might otherwise be blocked by a vehicle in the adjacent lane on multi-lane approaches



## Challenges

- On-going maintenance owing to wear on markings located within the wheel path

## Applicability and Use

- Typically used on street approaches with two or more lanes.
- When applied to midblock crosswalks, advance yield lines should be 20 to 50 feet from the crosswalk depending on speed.
- Parking should be restricted between the stop or yield line and the crosswalk to improve visibility
- Effective to combine with RRFBs.



Figure 38. Advance yield lines

## Median Crossings Islands

**Median crossing islands** (also known as center islands, refuge islands, and pedestrian safety islands) are raised islands installed in the center of a street at intersections or midblock. Median crossing islands reduce pedestrian exposure time and allow pedestrians to deal with only one direction of traffic at a time by providing a protected space in the middle of the street.

## Benefits

- Improve safety and comfort for children, the elderly, the disabled, and others who travel slowly, as well as bicyclists.
- Improve crossing experience at unsignalized locations, as pedestrians are only required to negotiate one direction of traffic at a time.
- Provide traffic calming effects.



Figure 39. Median crossing island

## Challenges

- Availability of space within the roadway.
- Identification of applicable locations where island does not prevent a left turn movement.

## Applicability and Use

- May be appropriate at: signalized intersections and crossings where there is a high proportion of young, elderly, and other slower-moving pedestrians.
- Should also be considered at all uncontrolled intersections and midblock crossings where vehicle speeds and volumes make crossing the street difficult due to lack of adequate gaps, or where four or more lanes of traffic make pedestrians feel exposed or unsafe.
- Appropriate for consideration on collector and arterial streets.

## In-Street Signs

In-street signs are placed in the roadway to remind roadway users of the state law that the driver of a vehicle must yield the right-of-way to a pedestrian crossing the roadway within any marked crosswalk or at intersections. California's in-street Yield to Pedestrians signs bring roadway awareness to crosswalks, thereby helping to increase yield behavior.

### Benefits

- Improves motorist yielding at crossings
- Improves crosswalk visibility

### Challenges

- Easily damaged, though placing signs on medians may prevent this

### Applicability and Use

- Appropriate for unsignalized two-lane low-speed streets
- Signs should be placed at the location of the crosswalk
- Signs can be permanently installed in the roadway or mounted on a portable base to allow them to be taken in and out of the street during high-pedestrian activity times (e.g., during arrival/dismissal at a school or during a sporting event)



Figure 40. Yield to pedestrian signage

### Rectangular Rapid Flash Beacons

**Rectangular Rapid Flashing Beacons (RRFB)** are a pedestrian warning signal used at unsignalized street or mid-block crossings to assist people crossing the street. RRFBs consist of yellow LED lights in two rectangular clusters, or beacons, that employ a stutter flash pattern.

### Benefits

- Improves motorist yielding at crossings and decreases delay for people waiting for a gap to cross the street
- Relatively inexpensive compared to installation of a Pedestrian Hybrid Beacon or full signal

### Challenges

- Appropriate placement with respect to the proximity of a signalized intersection may be difficult due to existing pedestrian patterns and interrupting traffic patterns.

### Applicability and Use

- RRFBs must be pedestrian actuated either by a push-button or passive detection
- RRFBs are appropriate at: uncontrolled intersections, mid-block crossings, areas with high pedestrian volumes or a significant number of vulnerable pedestrians (e.g., near schools, senior centers, at trail crossings, or other locations where additional crossing protections are needed due to high volumes and speeds)
- RRFBs should be used on multilane streets only when posted speeds are < 35 mph. A crossing island may be needed on four-lane roadways and must be included for roadways with more than four lanes
- To maintain visibility near RRFBs, parking should be prohibited within 30 feet of the crosswalk
- RRFBs should be installed with a high-visibility crosswalk



Figure 41. Rectangular rapid flashing beacon



## Pedestrian Hybrid Beacon

**Pedestrian Hybrid Beacons** (also known as HAWK Beacons, “High Intensity Activated Crosswalks”), are similar to overhead half signals. The beacon display remains dark until activated by a pedestrian or bicyclist, at which time the signal phase begins with a flashing yellow and proceeds to double red.

### Benefits

- Improved safety and visibility for pedestrians.
- Provides dedicated crossing time for pedestrians.

### Challenges

- As pedestrian hybrid beacons are not currently used in Cupertino, some education regarding their use will be required. Initial compliance at new installations may be low.

### Applicability and Use

- Where standard traffic signal warrants prevent the installation of a full signal, the pedestrian hybrid beacon provides an alternative to meet pedestrian crossing needs.
- On multi-lane crossings with speeds equal to or greater than 35mph where yielding compliance has been poor, pedestrian hybrid beacons are more effective than RRFBs or crosswalks alone.



Figure 42. Pedestrian hybrid beacon

## Leading Pedestrian Interval

The Leading Pedestrian Interval (LPI) initiates the pedestrian WALK indication three to seven seconds before motor vehicles traveling in the same direction are given the green indication. This signal timing technique allows pedestrians to establish themselves in the intersection in front of turning vehicles, thereby increasing visibility and safety between all modes.

### Benefits

- Improves safety and visibility for pedestrians.
- Reduces pedestrian-vehicle crashes at intersections.

### Challenges

- May increase signal cycle length or reduce green time available to other users.

### Applicability and Use

- Use at intersections with high volumes of pedestrians and conflicting turning vehicles or at locations with a large population of elderly or school children who need the extra visibility and crossing time.



Figure 43. Leading Pedestrian Interval. Note that the pedestrian has been given the “Walk” signal prior to giving the motor vehicles the green indication.

- Minimum interval of three seconds needed to allow pedestrians to establish their position ahead of turning traffic.
- At intersections with a vehicular protected left, a lagging protected left arrow should be used for vehicular movements to accommodate the LPI.

## Curb Ramps

Curb ramps provide a transition between sidewalks and streets.

### Benefits

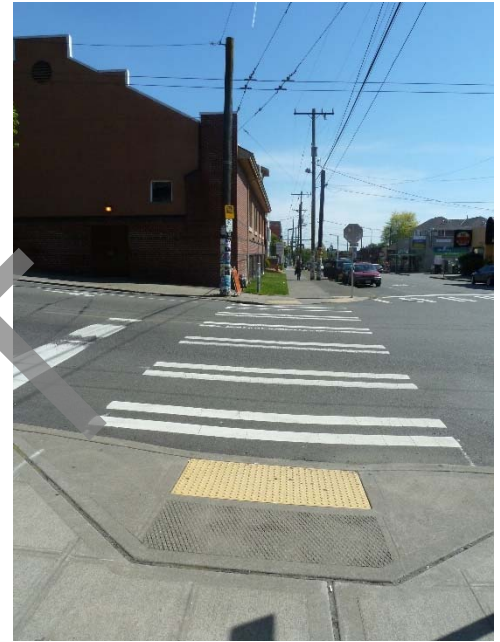
- Serve a wayfinding function for visually impaired pedestrians.
- They allow people using wheelchairs, strollers, walkers, crutches, bicycles, or people with mobility restrictions to more easily navigate the city.

### Challenges

- Potential difficulties in retrofitting curbs with compliant curb ramps, especially where utility relocation is necessary to provide directional ramps.

### Applicability and Use

- Must be installed at all intersection, midblock pedestrian crossings, and as mandated by federal law.
- Curb ramps are required to have landings and detectible warning surfaces (such as truncated domes) to meet ADA Standards.
- Consider providing wider curb ramps in areas of high pedestrian volumes and crossing activities; and at trail crossings.
- Ramps should provide direct connection to each crosswalk leg; and should not direct pedestrians diagonally into the intersection.



**Figure 44. Curb ramp**

## Chapter 5: Implementation Strategy

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Implementation of the recommendations included in this Plan will require funding from multiple sources and coordination with various agencies. To facilitate this, this chapter presents a method of prioritizing pedestrian improvement projects, construction cost estimates for the proposed improvements, a brief overview of funding strategies and sources, and implementation strategies.

### Routine Accommodation

Pedestrian projects can be developed either as stand-alone projects or as part of other projects through routine accommodation (e.g. including a crosswalk as part of a repaving project). Routine accommodation should be the first prioritization strategy for pedestrian projects; pedestrian facilities should routinely be included with all public and private projects, from roadway resurfacing to redevelopment.

### Project Prioritization

The project list is the result of several efforts completed during the plan process; however, it is not the full suite of projects that would make walking safer and more comfortable in Cupertino. Staff will continue to receive requests for implementation of pedestrian infrastructure projects, and staff will also want to continue moving forward with making Cupertino a more walkable city.

### Recommended Projects Prioritization

Within the scope of the PTP, the prioritization criteria presented in Table 6 was used to score the project list to identify a high-priority project list, displayed in table. Projects in these tables include recommendations from five sources:

- Cupertino 2016 Bicycle Transportation Plan
- The walk audits that occurred along high crash corridors (two along Stevens Creek Boulevard and one along DeAnza Boulevard/Bandley Drive)
- Sidewalk infill projects identified as a result of community comments
- Pedestrian components of the Class IV bikeway designs on Stevens Creek Boulevard and McClellan Road, and
- Staff-identified projects in locations with recurring community comment about pedestrian challenges.

Prioritizing projects from these sources results in the list and map shown in Table 6 and Figure 45. Most of these projects are on high-crash corridors with a high density of pedestrian destinations, both of which are key areas for the Safety and Access goals of this Plan. Projects in these locations will improve pedestrian safety and access in areas where people are likely to walk to schools, retail, parks and transit. However, this is not a comprehensive list of projects for these streets, or for Cupertino as a whole. This list represents the types of projects in select locations that should be high priorities for implementation by the City. The remaining high-crash corridors will be evaluated in more detail as part of the recommended walk audits, and the list of projects will expand.

Category	Measure	Pts	Notes
<b>Schools</b>		<b>40</b>	<b>Total Possible Points</b>
Schools/ Public Library	Within ¼ mi	30	Distance is from school parcel, not point
	Between ¼ and ½ mi	20	Distance is from school parcel, not point
	Between ½ mi and ¾ mi	15	Distance is from school parcel, not point
School connector route	On a route	10	Routes defined by SR2S program
<b>Safety</b>		<b>20</b>	<b>Total Possible Points</b>
Street classification*	Along high-injury corridor	15	Stevens Creek, De Anza, Foothill, McClellan, Stelling, Miller/Wolfe, Homestead, Bollinger
	Along boulevard or Avenue (not high-injury)	10	
	Along neighborhood connector	5	
	Along local	0	
Traffic speed	Slows traffic speeds	5	Includes traffic calming, new warning device or control, driveway consolidation, turn lane access shortening
<b>Destinations</b>		<b>25</b>	<b>Total Possible Points</b>
Parks, Quinlan Center	Within 1/4 mi	10	Distance is from parcel polygon
Transit stop	Within 500' of high volume stop	10	Based on VTA ridership data
	Within 500' of other stop	5	Based on VTA ridership data
Retail/business/ employment	Within 250' of parcels	5	Same parcels as indicated on Activity Generators map in Commercial and Apple Campus polygons
<b>Connectivity</b>		<b>15</b>	<b>Total Possible Points</b>
Pedestrian pathway	Adds new network connection	15	Includes bridges, Class I shared use paths and pedestrian cut-throughs, new sidewalk
<b>TOTAL PRIORITIZATION SCORE</b>		<b>100</b>	

Table 6. Project Prioritization Scoring Rubric

### Cost Estimate Assumptions

Pedestrian projects are typically implemented in one of two ways: as part of a larger roadway project, or as a standalone effort. The former is often more efficient, as costs for materials and labor can achieve economies of scale when folded into a larger project. Pedestrian facilities are typically a relatively small portion of a roadway project, whether it is a restriping, resurfacing or reconstruction project. While planned and programmed street improvements can help guide the implementation schedule for this plan, the City of Cupertino should also consider prioritizing improvements on streets where pedestrian projects are recommended.

A list of unit costs was developed based on recent projects and cost estimates throughout the Bay Area and input from Cupertino staff. These unit costs provided the basis for total cost estimates for each recommended project. Table 7 provides a unit cost summary for the construction of pedestrian and traffic calming facilities in Cupertino.

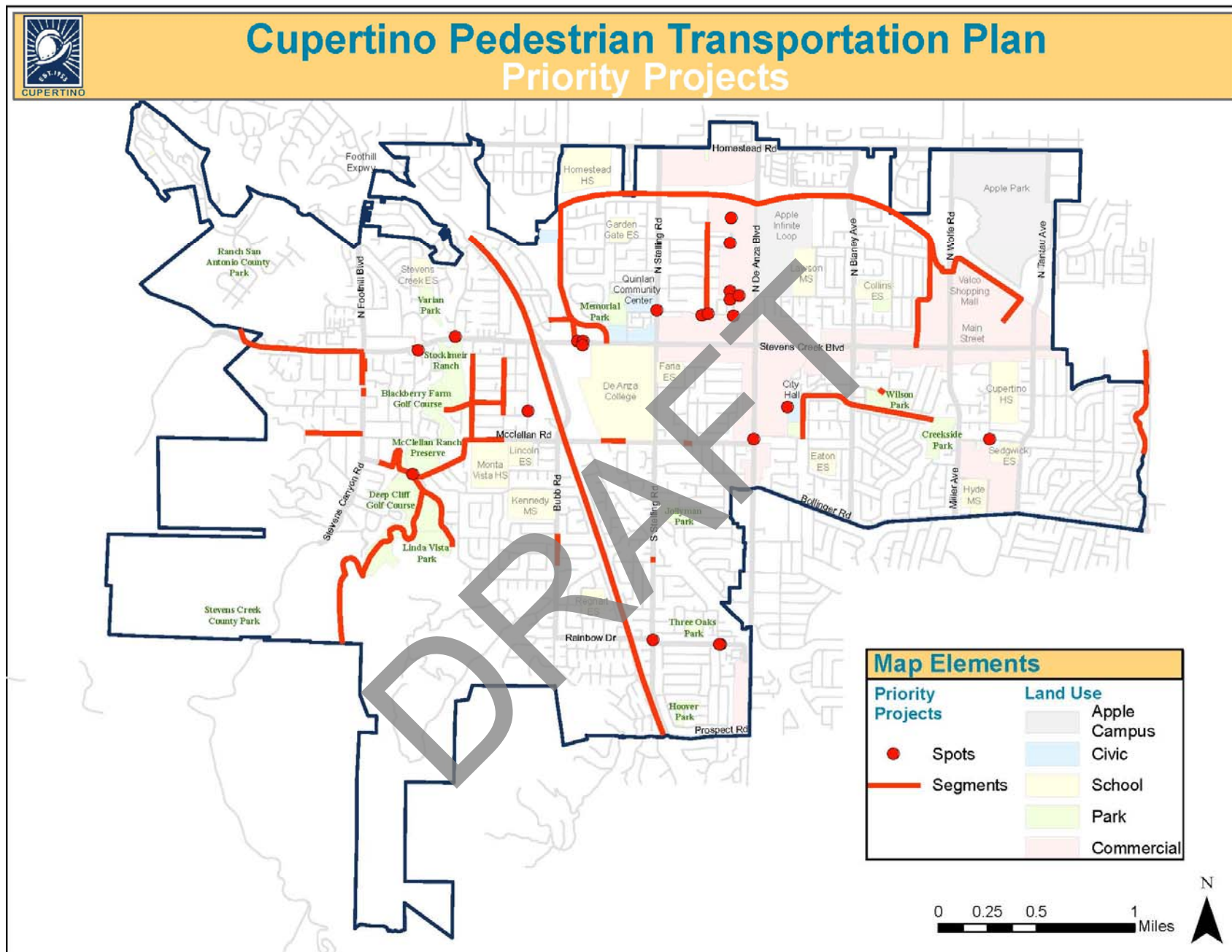
Treatment	Unit Cost	Unit
24" White (Thermo)	\$12.00	LF
24" Yellow (Thermo)	\$12.00	LF
12" White Crosswalk/Limit Line (Thermo)	\$7.00	LF
8" Channelization Line (Thermo)	\$5.00	LF
4" Shoulder Stripe (Thermo)	\$3.00	LF
Painted Curb	\$3.00	LF
Color Epoxy	\$6.00	SF
Thermoplastic Pavement Legend	\$8.00	SF
Soft Hit Posts	\$8.00	LF
Concrete Curb	\$30.00	LF
Concrete Curb and Gutter	\$40.00	LF
Concrete Sidewalk	\$15.00	SF
ADA Curb Ramp	\$3,500.00	EA
Hot Mix Asphalt, 1/2" Maximum Type A	\$90.00	TN
Sign Install	\$750.00	EA
Raised Pavement Markings	\$8.00	EA
RRFB (Double Sided, one side of street)	\$15,000.00	EA
Mini Traffic Circle (30' diam. With 8' apron)	\$12,000.00	EA
Curb Extension (Single bulb-out)	\$40,000.00	EA
Narrow Curb Radii (10' radii)	\$23,000.00	EA
Narrow Curb Radii (25' radii)	\$20,000.00	EA
Raised Intersection	\$100,000.00	EA
Median Refuge (New)	\$10,000.00	EA
Median Refuge (Improve Existing)	\$6,000.00	EA

**Table 7. Summary of Unit Costs for Construction of Pedestrian and Traffic Calming Facilities**

While they reflect typical costs, unit costs do not consider project-specific factors such as intensive grading, landscaping, or other location-specific factors that may increase actual costs.

These unit costs were used to develop costs for each high-priority project. These costs are shown in Table 7.





	Project	Location	Total Score	Cost
Tier 1	Sidewalk	McClellan Rd: Leandro Ave to Orange Ave construct sidewalk	80	\$2,040,000
	Sidewalk	McClellan Rd: south side, Bonny Dr to McClellan Pl construct sidewalk	80	\$57,000
	Grade Separated Crossing	Highway 85 Crossing: Grand Ave to Mary Ave	75	\$20,000,000
	Sidewalk	McClellan Rd: north side, SR 85 to Rose Blossom Dr construct sidewalk	75	\$158,000
	Sidewalk	Orange Ave: Granada Ave to Alcazar Ave construct sidewalk	75	\$2,000,000
	Shift crosswalk to N leg Install median island and RRFB	Stelling Rd at Alves Dr	75	\$80,000
	Shorten turn lane access	Stevens Creek Blvd at Oaks entrance (part of Class IV design)	75	\$100,000
	Add right-turn phase	Stevens Creek Blvd at SR 85 NB on ramp (from Class IV design)	75	\$150,000
	Shorten turn lane access	Stevens Creek Blvd at west entrance to De Anza College (part of Class IV design)	75	\$100,000
	Sidewalk	Byrne Ave: McClellan Rd to Granada Ave construct sidewalk	70	\$2,000,000
	Grade Separated Crossing	Carmen Rd Bridge at Stevens Creek Blvd Bike/Ped Bridge	70	\$10,000,000
	Sidewalk	Foothill Blvd: east side, btwn Stevens Creek Blvd and Rancho Ventura St construct sidewalk	70	\$900,000
	Sidewalk	Foothill Blvd: west side, Stevens Creek Blvd to Rancho Ventura St construct sidewalk	70	\$90,000
	Shared-Use Path	I-280 Canal Path Shared-Use Path	70	\$2,293,000
	Class 1 Path	Mary Ave: Don Burnett Bridge to Stevens Creek Blvd.	70	\$2,000,000
	Sidewalk	Mary Ave: West side, Dog Park to Oaks Shopping Center	70	\$300,000
	Bike/Ped Bridge	McClellan Rd at McClellan Ranch crossing Stevens Creek	70	\$1,800,000
	Shared-Use Path	Regnart Creek, Shared-Use Path	70	\$2,000,000
	Sidewalk	Stelling Rd: west side, Catalano Ct to Orion Ct construct sidewalk	70	\$40,000
	Class 1 Path	The Oaks Development Shared-Use Path	70	\$102,000
Tier 2	Grade Separated Crossing	McClellan Ranch West Undercrossing at McClellan Rd.- Bike/Pedestrian undercrossing	65	\$1,500,000
	Construct curb extensions	Phar Lap Dr at Stevens Creek Blvd	65	\$150,000

Table 8. Prioritized Projects, Project Score and Cost



	Project	Location	Total Score	Cost
Tier 2	Bike/Ped Bridge and Sidewalk In	West Cupertino UPRR Crossing Bike/Ped Bridge and Stevens Creek Blvd, west of Foothill where missing, connect to proposed UPRR	65	\$15,000,000
	Sidewalk	Bubb Rd: east side, Edward Way to Krzich Pl construct sidewalk	60	\$211,000
	Reconfigure intersection	De Anza Blvd at McClellan Rd	60	\$9,707,000
	Construct curb extensions	Phil Ln at Finch Ave	60	\$109,000
	Reconfigure intersection	Torre Ave at Town Center Ln	60	\$271,000
	Shared-Use Path	Union Pacific ROW Shared-Use Path	60	\$1,678,000
	Shared-Use Path	Vallco West Pathway Shared-Use Path	60	\$470,000
	Sidewalk	Foothill Blvd: east side, btwn Rancho Ventura St and Walnut Cir construct sidewalk	55	\$63,000
	Shared-Use Path	Ranch to Reservoir Trail extension (includes: Deep Cliff Golf Course Shared-Use Path and McClellan to Sevens Creek County Park)	55	\$6,000,000
	Sidewalk	San Fernando/Black Berry Farms Entrance between Byrne Ave and Black Berry Farms	55	\$1,500,000
Tier 3	Shared-Use Path	Wilson Park Shared-Use Path	55	\$100,000
	Consider stop control for Alves	Alves Dr at Saich Way, westbound	45	\$3,000
	Construct curb extension	Bandley Dr at Mariani Ave (southeast corner)	45	\$217,000
	Create ped/bike connection	Imperial Ave btwn Alcadar Ave and Almaden Ave	45	\$20,000
	Construct curb extensions and Mark high-visibility crosswalk	Rainbow Dr at Gardenside Ln	45	\$222,000
	Shared-Use Path	San Tomas Aquino Creek Trail Extension Shared-Use Path	40	\$4,000,000
	Consider stop control for Alves Dr	Alves Dr at Beardon Dr, eastbound	35	\$3,000
	Construct curb extensions	Bandley Dr at Alves Dr (south leg)	35	\$150,000
	Sidewalk	Beardon Rd: Alves Rd to Valley Green Dr construct sidewalk	35	\$1,187,000
	Sidewalk	Alcalde: Avenida Ln to Foothill blvd.	30	\$105,000
	Construct curb extensions Consider all-way stop control Mark high-visibility crosswalk	Bandley Dr at Lazaneo Dr	30	\$445,500
	Install RRFB	Valley Green Dr at Bandley Dr (west leg)	30	\$41,000

Table 8. Prioritized Projects, Project Score and Cost

## On-going Prioritization

In the future, these criteria should also be used to score project requests as they are received from residents.

One possible distinction to use in future planning is whether a project affects curb lines and drainage or not. Projects that do not impact curb lines (signage, striping, traffic control, some traffic calming) should be scored and added in their prioritized order to a project list funded by a CIP line item dedicated to on-going pedestrian infrastructure improvement. These lower cost projects can be implemented on an on-going basis.

Projects that do impact curb lines should be scored and considered for addition to the CIP as stand-alone items, or bundled by neighborhood (sidewalk construction) or corridor (curb radii changes). Projects scoring in the top tier should be considered for inclusion in the next two-year funding cycle. Those projects scoring lower should be added to a list and considered as funding is available. The requested projects list should be updated as requests are received, and the list should be re-scored every two years with updated crash data potentially defining new high-crash corridors.

## Agency Coordination

Coordination with other agencies can help Cupertino leverage resources to make a greater impact on the community's walkability. Cupertino staff currently work closely with the Santa Clara Valley Transportation Authority (VTA) to create links between transit stops and the sidewalk network. The Cupertino General Plan supports this collaboration, noting that transit use should be encouraged through the design of rights-of-way and provision of amenities such as shelters and trash receptacles (Policies M-4.4 and M-4.5).

Cupertino also coordinates with the school districts and the Santa Clara County Public Health Department on shared objectives and routinely works with partnering agencies such as Caltrans and neighboring jurisdictions.

## Recommendations

- **Continue to collaborate with transportation-related agencies within and adjacent to Cupertino.**
- **Explore opportunities for improving coordination with major employers.**

## Resources

- **FHWA. Pedestrian Safety Guide for Transit Agencies. 2008.**
- **VTA Santa Clara Countywide Bicycle Plan. Scheduled for adoption in fall 2017.**

## Funding Sources

Pedestrian projects in Cupertino, including sidewalk construction, are typically funded through the City's General Fund and are documented in its Capital Improvement Program (CIP). For instance, in the 2016-2017 CIP, a total of \$1,888,000 was allocated to the Orange and Byrne sidewalk project. Projects of similar magnitude, such as the McClellan Road sidewalk gap closure, have been implemented in previous years.

Funding for Americans with Disabilities Act (ADA) improvements identified in the City's ADA Transition Plan are also included in the CIP. Expenditures for these improvements are projected at \$75,000 annually for fiscal years 2017 through 2021.<sup>12</sup>

Potential funding sources include competitive state and federal grant opportunities which may be considered for future high-priority projects identified in the PTP.

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<sup>12</sup> City of Cupertino Public Works Department. Capital Improvement Program. Adopted FY 2017, Planned FY 2018-2021.  
<http://cupertino.org/Modules/ShowDocument.aspx?documentid=12098>

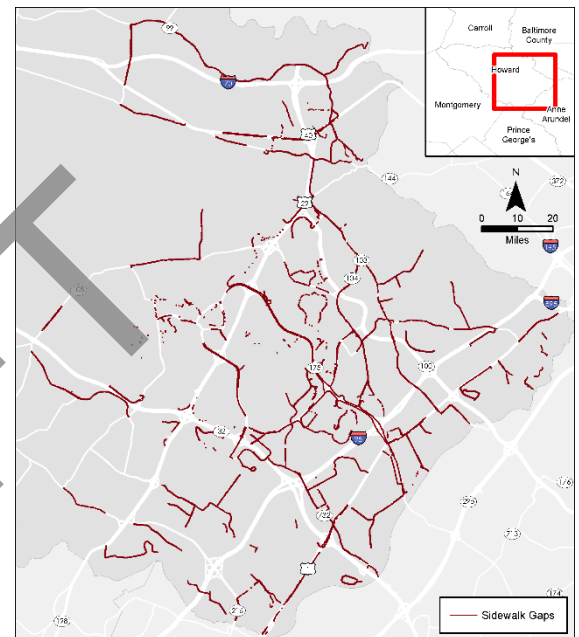
Traffic impact fees are another potential source of funding for pedestrian infrastructure projects, and Cupertino is in the process of developing a traffic impact fee program. Funds from the program are intended to be applied to bike and pedestrian improvements, including projects identified in the Pedestrian Transportation Plan.

Most local, state, and federal funding for transportation can be used for the design and construction of pedestrian-specific facilities or the inclusion of these facilities as part of larger programs, such as transit projects.

Below are recommendations for implementing the Pedestrian Transportation Plan and additional information for possible funding sources.

## Recommendations

- **Ensure that pedestrian improvements are included in other street projects, such as resurfacing, bridge replacement, or lane reconfiguration.** One of the most effective ways to build a complete, connected network of pedestrian routes is by implementing pedestrian facilities within the scope of larger projects. Resurfacing likely offers the greatest opportunity, and all projects within the public right-of-way should be reviewed for the potential to improve conditions for pedestrians
- **Continue to fund high-priority sidewalk gaps through the CIP.**
- **Develop a line item in the CIP for implementation of the Pedestrian Transportation Plan.** The PTP includes recommendations for sidewalks in addition to important pedestrian crossings, proactive traffic calming strategies, signal modifications, and other measures. To achieve the goals of the Plan, a reliable funding source is needed.
- **Explore the possibility of obtaining Highway Safety Improvement Program (HSIP) funds.** HSIP funds may be used to address high-crash locations or to systematically implement improvements that reduce the risk of pedestrian crashes. The City should initiate a conversation with Caltrans to better understand how these funds may be accessed.
- **Secure a funding source to be used for broader pedestrian safety education efforts that could target traffic safety education and awareness.** Funds dedicated by the City or from grants administered by the California Office of Traffic Safety could be used to develop and implement a pedestrian safety education campaign targeting both pedestrians and motorists (and potentially including bicyclists). To the extent possible, educational messages should be based on safety issues determined from previous crashes or other observed issues, such as failure to yield to pedestrians at crosswalks or pedestrian signal noncompliance.



**Figure 46. Simple sidewalk gap maps show where new infrastructure can best connect communities.**

## Best Practice Example

- City of Pasadena Department of Transportation. California Office of Traffic Safety Grant for the Safer Streets Pasadena – School Area Safety Program. <http://ww5.cityofpasadena.net/commissions/wp-content/uploads/sites/28/2016/09/2016-09-22-Transportation-Advisory-Commission-Agenda-Item-6A-Presentation.pdf>

## Resources

- Advocacy Advance. Highway Safety Improvement Program. [http://www.advocacyadvance.org/docs/highway\\_safety\\_improvement\\_program.pdf](http://www.advocacyadvance.org/docs/highway_safety_improvement_program.pdf)



- California Office of Traffic Safety. Pedestrian and Bicycle Safety Grants. [http://www.ots.ca.gov/Grants/Pedestrian\\_and\\_Bicycle\\_Safety.asp](http://www.ots.ca.gov/Grants/Pedestrian_and_Bicycle_Safety.asp)

## Funding Sources

### Federal Funding Opportunities

Several federal funding sources are available for pedestrian and bicycle-only projects, or for the inclusion of these facilities in other projects. Funding is primarily available through the Federal Highway Administration and the Federal Transit Administration via the Fixing America's Surface Transportation (FAST) Act, which was signed in 2015 and supports funding until 2020, and in previous transportation funding bills. The Department of Health and Human Services and the Department of Housing and Urban Development also provide funding support.

The Federal Highway Administration maintains a data table to assist communities in understanding which Federal funding programs could be used for bicycle and pedestrian projects. Specific program requirements must be met and eligibility must be determined on a case-by-case basis. For example, transit funds must be used to provide access to transit, and Congestion Mitigation and Air Quality Improvement (CMAQ) funds must benefit air quality in eligible areas. More detailed information can be found in the link below.

#### Resources

- FHA's Bicycle and Pedestrian Program webpage. [https://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/funding/](https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/)

### Federal Highway Administration (FHWA) Grant Programs

#### Transportation Investment Generating Economic Recovery (TIGER) Grant

TIGER grants fund a broad array of road, rail, transit, and bicycle and pedestrian projects. The program focuses on capital projects that generate economic development and improve access to reliable, safe, and affordable transportation, especially for disadvantaged communities. The grant funds projects that have gone through preliminary design stages, and prioritizes projects with broad stakeholder support. Applicants are required to demonstrate that project benefits outweigh the costs. Projects in urban areas must request at least \$10 million (with a 20% match).

#### Resources

- Tiger Discretionary Grants. [www.transportation.gov/tiger](http://www.transportation.gov/tiger)

### Section 402 State and Community Highway Safety Grant Program

The Section 402 program provides grants to states to improve driver behavior and reduce deaths and injuries from motor vehicle-related crashes. The program is jointly administered by the National Highway Traffic Safety Administration (NHTSA) and the Federal Highway Administration (FHWA) at the federal level and by State Highway Safety Offices at the state level. Funds may be used to reduce impaired driving, reduce speeding, improve pedestrian and bicycle safety, and reduce school bus deaths and injuries, among other programs. Child and adult bicycle safety education is also eligible for funding.

#### Resources

- Section 402 State and Community Highway Safety Grant Program. <http://www.ghsa.org/about/federal-grant-programs/402>

## Section 405 National Priority Safety Programs

Section 405 grants provide funding on a competitive basis to states to improve highway safety in a number of areas including impaired driving, occupant protection, distracted driving, and more. States are eligible to apply if they have met certain qualifications that pertain to each subgrant. Under this section, Nonmotorized Safety grants are eligible to states where pedestrian and bicyclist fatalities exceed 15 percent of the state's total annual crash fatalities. The funds may be used for law enforcement training, enforcement campaigns, and public education to improve pedestrian safety.

### Resources

- Section 405 National Priority Safety Programs. <http://www.ghsa.org/about/federal-grant-programs/405>

## Federal Transit Administration (FTA) Grant Programs

### Fixing America's Surface Transportation (FAST) Act Funding

The Fixing America's Surface Transportation (FAST) Act supports transit funding through fiscal year 2020; reauthorizes FTA programs; and includes changes to improve mobility, streamline capital project construction and acquisition, and increase the safety of public transportation systems across the country. The FAST Act's five years of predictable formula funding also includes funding for new grant programs for buses and bus facilities, innovative transportation coordination, workforce training, and public transportation research activities.

### Resources

- FTA's Grant Programs. [https://www.transit.dot.gov/grants/13093\\_3549.html](https://www.transit.dot.gov/grants/13093_3549.html)
- FTA's Bicycles & Transit. <https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/livable-sustainable-communities/bicycles-transit>

### Transit Oriented Development (TOD) Planning Pilot Grants (5309)

This program provides funding for:

- Advanced planning efforts that support transit-oriented development (TOD) associated with new fixed-guideway and core capacity improvement projects
- Projects that facilitate multimodal connectivity and accessibility
- Projects that increase access to transit hubs for pedestrian and bicycle traffic

### Resources

- FTA's Pilot Program for Transit-Oriented Development Planning. <https://www.transit.dot.gov/TODPilot>

### Bus and Bus Facilities Program (Ladders of Opportunity Initiative) (5309)

Funds from this program may be used to modernize and expand transit access specifically for the purpose of connecting disadvantaged and low-income individuals, veterans, seniors, youths, and others with local workforce training, employment centers, health care, and other vital services.

### Resources

- Bus and Bus Facilities Program (Ladders of Opportunity Initiative). <https://www.transit.dot.gov/funding/grants/applying/5309-bus-and-bus-facilities-program-ladders-opportunity-initiative>

### Enhanced Mobility of Seniors and Individuals with Disabilities Program

This program is intended to enhance mobility for seniors and persons with disabilities by providing funds for programs to serve transit-dependent populations beyond traditional public transportation services and Americans with

Disabilities Act (ADA) complementary paratransit services. (This program consolidates New Freedom eligible projects.) Bicycle and pedestrian improvements that provide access to an eligible public transportation facility and meet the needs of the elderly and individuals with disabilities are eligible for funding.

#### *Resources*

- Enhanced Mobility of Seniors & Individuals with Disabilities. <https://www.transit.dot.gov/funding/grants/enhanced-mobility-seniors-individuals-disabilities-section-5310>

#### **New Freedom Program (5217)**

The New Freedom grant program funds projects that help Americans with disabilities access jobs and participate in the work force. Lack of adequate transportation is a primary barrier to work for individuals with disabilities, and this program seeks to provide funding to facilitate transportation connections.

#### *Resources*

- New Freedom Program Guidance and Application Instructions. <https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/new-freedom-program-guidance-and-application-instructions>

#### **Mobility on Demand (MOD) Sandbox Program**

This program (funded by the FTA and Office of Research, Demonstration, and Innovation) provides funding for new service options in combination with available technologies that allow for greater individual mobility.

#### *Resources*

- Mobility on Demand (MOD) Sandbox Program. <https://www.transit.dot.gov/research-innovation/mobility-demand-mod-sandbox-program.html>

#### **Additional Federal Funding Opportunities**

##### **Community Services Block Grant Program (CSBG)**

The Community Services Block Grant provides funds to alleviate the causes and conditions of poverty in communities; transportation projects are eligible for funding. Administered by the Department of Health and Human Services, funding is allocated to states who pass the funding along to local communities. Funded projects have included: commercial district streetscape improvements; sidewalk improvements; safe routes to school; and neighborhood-based bicycling and walking facilities that improve local transportation options or help revitalize neighborhoods.

#### *Resources*

- Community Services Block Grant. <https://www.acf.hhs.gov/ocs/programs/csbgr>

##### **Sustainable Communities Regional Planning Grants and the Partnership for Sustainable Communities**

This grant program, administered by the Department of Housing and Urban Development (HUD), supports locally-led collaborative efforts that bring together diverse interests to determine how best to target housing, economic and workforce development, and infrastructure investments to create more jobs and regional economic activity.

The program places a priority on investing in partnerships, including nontraditional partnerships (e.g., arts and culture, recreation, public health, food systems, regional planning agencies and public education entities). The program focuses on six livable principles, the first of which is “Providing more transportation choices: Develop safe, reliable and economical transportation choices to decrease household transportation costs, reduce our nation’s dependence on foreign oil, improve air quality, reduce greenhouse gas emissions and promote public health.” The program is a key initiative of the Partnership for Sustainable Communities, in which HUD works with the U.S.

Department of Transportation (DOT) and the U.S. Environmental Protection Agency (EPA) to coordinate and leverage programs and investments.

#### *Resources*

- Partnership for Sustainable Communities – Partnership Grants, Assistance & Programs. <https://www.sustainablecommunities.gov/partnership-resources>
- Sustainable Communities Initiative. <https://portal.hud.gov/hudportal/HUD?src=/hudprograms/sci>

## State Funding Opportunities

### Active Transportation Program (ATP)

In 2013, Governor Brown signed legislation creating the Active Transportation Program (ATP). This program consolidated the Federal Transportation Alternatives Program (TAP), California's Bicycle Transportation Account (BTA), and Federal and California Safe Routes to School (SRTS) programs. The ATP program is administered by Caltrans Division of Local Assistance, Office of Active Transportation and Special Programs. A portion of the funds are administered by MPOs in the state which issue their own call for projects typically at the same time as the state call. In 2017, SB 1 augmented the ATP by \$100 million per year. Caltrans has typically issued a call for projects every year.

#### *Resources*

- Active Transportation Program (ATP). <http://www.dot.ca.gov/hq/LocalPrograms/atp/>

### System Safety Analysis Report Program (SSARP)

The SSARP program was established by Caltrans in 2016, and is designed to assist local agencies in performing collision analysis and the identification of safety issues on roadway networks for all modes. The program focuses on systemic safety analysis for motor vehicles with an emphasis on pedestrian and bicycle collisions. This analysis should result in a list of systemic, low-cost countermeasures that can be used to prepare designs to be used in applications for future HSIP funding cycles.

#### *Resources*

- Systematic Safety Analysis Report Program (SSARP). <http://dot.ca.gov/hq/LocalPrograms/HSIP/SSARP.htm>

### Highway Safety Improvement Program (HSIP)

HSIP funds are available for safety projects aimed at reducing traffic fatalities and serious injuries. Bike lanes, roadway shoulders, crosswalks, intersection improvements, underpasses and signs are examples of eligible projects. Projects in high-crash locations are most likely to receive funding. This program is funded through the Federal Highway Administration and is administered by Caltrans; all projects must result in the complete construction of safety improvements.

#### *Resources*

- Highway Safety Improvement Program (HSIP). <http://dot.ca.gov/hq/LocalPrograms/hsip.html>

### California Office of Traffic Safety (OTS)

The California Office of Traffic Safety (OTS) has grants available to reduce motor vehicle fatalities and injuries in specific areas of pedestrian and bicycle safety, roadway safety, community based organizations, police traffic services, alcohol and drugs, occupant protection, emergency medical services and traffic records.

#### *Resources*

- California Office of Traffic Safety – Grants. <http://www.ots.ca.gov/Grants/>

## Regional Funding Opportunities

### One Bay Area Grant

Metropolitan Transportation Commission's One Bay Area Grant (OBAG) combines the Surface Transportation (STP), Congestion Mitigation and Air Quality Improvement (CMAQ), and the Transportation Alternatives (TA) program funds into one program for focused growth in the Bay Area.

The program is in its second cycle, known as "OBAG 2," and is divided into a Regional Program which is managed by MTC and a County program which is managed by the nine Bay Area Congestion Management Agencies (CMAs) in the region. The regional program commits \$530 million over five years and the County Program consists of \$386 million over the same timeframe from fiscal years (FY) 2017-18 through FY 2021-2022.

Projects funded by the program must be in a Priority Development Area (PDA) or have a connection to a PDA. Jurisdictions that apply to the program must have a Complete Streets Resolution or have an updated General Plan that meets the California Complete Streets Act of 2008. The program funds:

- Local streets and roads maintenance
- Streetscape enhancements
- Bicycle and pedestrian improvements
- Safe Routes to School projects
- Transportation planning

#### Resources

- One Bay Area Grants. <http://mtc.ca.gov/our-work/invest-protect/focused-growth/one-bay-area-grants>

### Regional Active Transportation Program (ATP)

A portion of the statewide Active Transportation Program (ATP) is administered by the Metropolitan Transportation Commission (MTC) for projects within the nine-County Bay Area. Projects that wish to be considered for the MTC ATP must submit a regional supplemental application. The supplemental application includes a change to the scoring criteria for state Disadvantaged Communities, instead asking how projects will benefit people living in the regionally defined "Communities of Concern." The supplemental application also awards additional points for projects in jurisdictions that meet the OBAG Complete Streets policies. Other criteria include: project delivery, local match requirements, environmental review, and the listing of a project in a Community Based Transportation Plan (CBTP).

#### Resources

- Active Transportation Program (ATP). <http://www.dot.ca.gov/hq/LocalPrograms/atp/>

### Transportation Fund for Clean Air Regional Fund (TFCA)

The Bay Area Air Quality Management District (BAAQMD) administers a grant program based off a \$4 surcharge on cars and trucks registered within the Bay Area, known as the Transportation Fund for Clean Air (TFCA). This program funds projects that reduce criteria pollutant emissions from cars such as trip reduction programs and services, clean vehicle and clean fuel infrastructure and bicycle facilities. The program is split between the Regional Fund administered directly from the BAAQMD and the County Manager's Fund which is administered by CMAs. While the project funds Class I-IV bikeways, pedestrian paths could be funded if constructing a Class I trail project, which is shared between bicycles and pedestrians.

#### Resources

- Bay Area Air Quality Management District – Bicycle Facilities. <http://www.baaqmd.gov/grant-funding/public-agencies/bikeways-roads-lanes-paths>



## Santa Clara County Funding Opportunities

### Transportation Development Act Article 3

The Transportation Development Act Article 3 (TDA-3) provides annual funding for bicycle and pedestrian projects, and in Santa Clara County, the funds are managed by the Valley Transportation Authority (VTA). MTC gives each of the CMAs the authority on how to use the funds within their county. The distribution of funds varies, with some counties issuing a competitive call for projects while other counties distribute the funds based on the population share of each jurisdiction.

TDA-3 funds can be used for bicycle or pedestrian capital projects, maintenance of a multi-use path, bicycle safety education programs, development of a bicycle or pedestrian plan, and restriping Class II bicycle lanes. In Santa Clara County, VTA distributes the funds in two ways:

- Bicycle Expenditure Program (BEP) – Projects must be on the Board-adopted BEP list
- Guarantee Funds – Funds are allocated to cities within Santa Clara County based on population

### Resources

- Transportation Development Act Article 3. <http://mtc.ca.gov/our-work/fund-invest/investment-strategies-commitments/transit-21st-century/funding-sales-tax-and-0>

### Valley Transportation Authority Measure B

In 2016, Santa Clara County voters approved Measure B, a 30-year half-cent countywide sales tax to enhance transit, highways, expressways, pedestrian, bicycle and complete streets projects. VTA, the county Congestion Management Agency (CMA), will manage the funds which are expected to generate between \$6 billion and \$6.5 billion in 2017. VTA expects to spend \$250 million on bicycle and pedestrian projects over the 30-year period.

### Resources

- 2016 Measure B. <http://www.vta.org/measure-b-2016>

### Transportation Fund for Clean Air (TFCA) - County Manager Fund

The TFCA fund allocates 40 percent to VTA which administers Santa Clara County's portion of the TFCA program. The goal of the program is to reduce air pollution, conserve energy and reduce greenhouse gases, improve water quality by decreasing contaminated runoff from roadways, improve transportation options, and reduce traffic congestion. Projects are evaluated on the amount of Vehicle Miles Traveled (VMT) reduced based on the mode shift from single occupant vehicles to other modes. Projects also must demonstrate the cost-effectiveness of reducing criteria pollutants based on a formula provided by the BAAQMD. Funds can be used for the following project types:

- Design and construction of physical improvements that support motor vehicle emission reductions (bicycle and pedestrian facilities)
- Bicycle facility improvements
- Arterial traffic management including signal timing, transit signal pre-emption, bus stop relocation and smart streets
- Telecommuting and congestion pricing
- Rideshare programs
- Purchase of clean fuel buses and local feeder bus or shuttle service
- Rail-bus integration and regional transition information services
- Clean vehicle purchase or retrofits
- Automobile buy-back programs

### *Resources*

- **TFCA Program Documents.** <http://www.vta.org/projects-and-programs/programs/call-for-projects-tfca-program-documents>

DRAFT

## Appendix A. Plan and Policy Review

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As part of the existing conditions analysis, all applicable local, regional, state, and federal plan and policy documents were reviewed. Many of the documents endorse the development of safe, connected pedestrian networks, and some include specific project-level recommendations that have been considered as a part of the development of the PTP.

### Local Plans and Policies

#### Cupertino Municipal Code and Standard Details

The Cupertino Municipal Code covers all aspects of City regulations, including zoning and various development-related requirements. Regarding sidewalks, the Subdivision Code (which is a part of the Municipal Code) states that “formal” sidewalks are not required in semi-rural developments; sidewalk alternatives such as curb-separated walking areas may be provided.

The Cupertino Standard Details indicate sidewalk widths: 4.5 feet sidewalks are standard, and 10 feet sidewalks may be required in commercial areas. Both monolithic and detached sidewalk options are provided.

#### Cupertino General Plan/Community Vision 2015 – 2040 (2014)

Cupertino’s General Plan is very supportive of increased pedestrian comfort and access. The Vision statement of the Cupertino General Plan calls for a “walkable” and “bikeable” community with a “vibrant, mixed use Heart of the City.” Overall Plan goals that relate to walking include “Improve Connectivity” and “Enhance Mobility.” More specifically, the Mobility Element gives policy direction to transportation planning, including walking, within the City of Cupertino. Following California’s Complete Streets Act, the City of Cupertino seeks to enhance the transportation system for all modes of transportation. The Mobility Element addresses key challenges, such as the need to link land use and transportation, enhance connectivity, and reduce demand for single occupancy vehicles.

The following General Plan goals relate to walking:

- Goal M-2: Promote improvements to city streets that safely accommodate all transportation modes and persons of all abilities.
  - Complete Streets policies and strategies direct the City to develop multimodal street standards and design City streets to complement surrounding land uses. Additionally, policies support bicycle and pedestrian connectivity and accessibility, such as discouraging street closures and considering traffic calming strategies.
- Goal M-3: Support a safe pedestrian and bicycle street network for people of all ages and abilities.
  - Walkability and bikeability policies and strategies include adopting Bicycle and Pedestrian master plans, and enhancing the walking environment through roadway design and improvements (i.e., with new development, bicycle and pedestrian crossings) and planning for improvements and addressing network gaps in the City’s Capital Improvement Program.
- Goal M-5: Ensure safe and efficient pedestrian and bicycle access to schools while working to reduce school-related congestion.
  - Safe Routes to School policies and strategies include encouraging the Teen Commission to encourage walking and biking to school, prioritizing safe access to school in pedestrian projects, and connecting schools to shared use paths.
- Goal M-10: Ensure that the city’s transportation infrastructure is well-maintained for all modes of transportation and that projects are prioritized on their ability to meet the city’s mobility goals.

Transportation infrastructure policies call for the City to develop and implement transportation improvements that accommodate users of all modes of transportation.

### Cupertino ADA Transition Plan (2014)

In 2014, the City of Cupertino adopted an ADA Self-Evaluation and Transition Plan in accordance with the requirements of the Americans with Disabilities Act for public entities. The ADA Transition Plan reviews the programs, activities, and services provided by the City and identifies and prioritizes removal of current barriers to accessibility. The Transition Plan also includes a ten-year plan for accessibility barrier removal (15-year schedule for barrier removal within the public rights-of-way). The Plan prioritizes the criteria for barrier removal on public rights-of-way as follows:

1. Government offices and facilities
2. Bus stops and transportation facilities
3. Places of public accommodation such as commercial and business areas
4. Facilities containing employers
5. Other areas such as residential neighborhoods and underdeveloped regions of the City

The Plan notes that the City has an annual curb ramp program, and that a park accessibility project was completed, including curb ramps installed at Varian Park, Hoover Park, Three Oaks Park, Jollyman Park, and at Homestead Road and Barranca Drive. The Appendix of the ADA Transition Plan reviews public right-of-way accessibility compliance adjacent to City properties; the largest projects include Stevens Creek Boulevard and Monta Vista Park.

### Cupertino Pedestrian Transportation Plan (2002)

The City of Cupertino developed its first Pedestrian Transportation Plan in 2002, which identifies a set of goals, policies, and actions to improve safety and encourage more walking trips. The Plan recommends that the City pursue funding opportunities, support the Cupertino Bicycle and Pedestrian Advisory Committee (now called the Bicycle Pedestrian Commission), and develop bicycle and pedestrian safety programs and promotional activities.

The Pedestrian Transportation Plan establishes four overarching goals:

- Implement pedestrian-friendly land use planning and design policies
- Encourage and support non-motorized school access
- Adopt traffic engineering/planning policies that are pedestrian-friendly
- Implement safety education and encouragement programs

Related to traffic impact studies for new development, the Plan recommends the following criteria to determine if a development project had a significant impact on pedestrians:

- Consistency with the General Plan and other plans
- Permanent travel pattern or access changes
- Impact on existing pedestrian facilities
- Pedestrian safety (conformity with accepted design guidelines)
- Impact on pedestrian crossings

The Plan also includes design guidance for pedestrian facilities based on ADA guidance, including traffic signal policy recommendations.

In addition to guidance at the policy level and the development review process, the Pedestrian Plan identifies several recommended infrastructure projects. The Plan recommends 36 pedestrian capital projects, including crossing improvements, sidewalk infill, pathways, traffic calming, and pedestrian safety/circulation projects. Criteria that were

used to prioritize projects include safety, connectivity, demand, commuter/transportation trips, and local support. Some projects have been implemented since adoption of the plan document.

### Heart of the City Specific Plan (2014)

The Heart of the City Specific Plan guides development and redevelopment of the Stevens Creek Boulevard corridor to implement the vision of “pedestrian-inclusive gathering places” to support a sense of place for Cupertino residents and visitors. According to the Specific Plan, new development projects “should include pedestrian and bicycle pathways.” The Specific Plan also includes streetscape design guidelines that emphasize improving the pedestrian environment. Plan Bay Area, the 2013 long-range regional transportation plan adopted by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), identified the Heart of the City area as a Priority Development Area. Figure 47 shows the Heart of City Plan area and activity clusters.

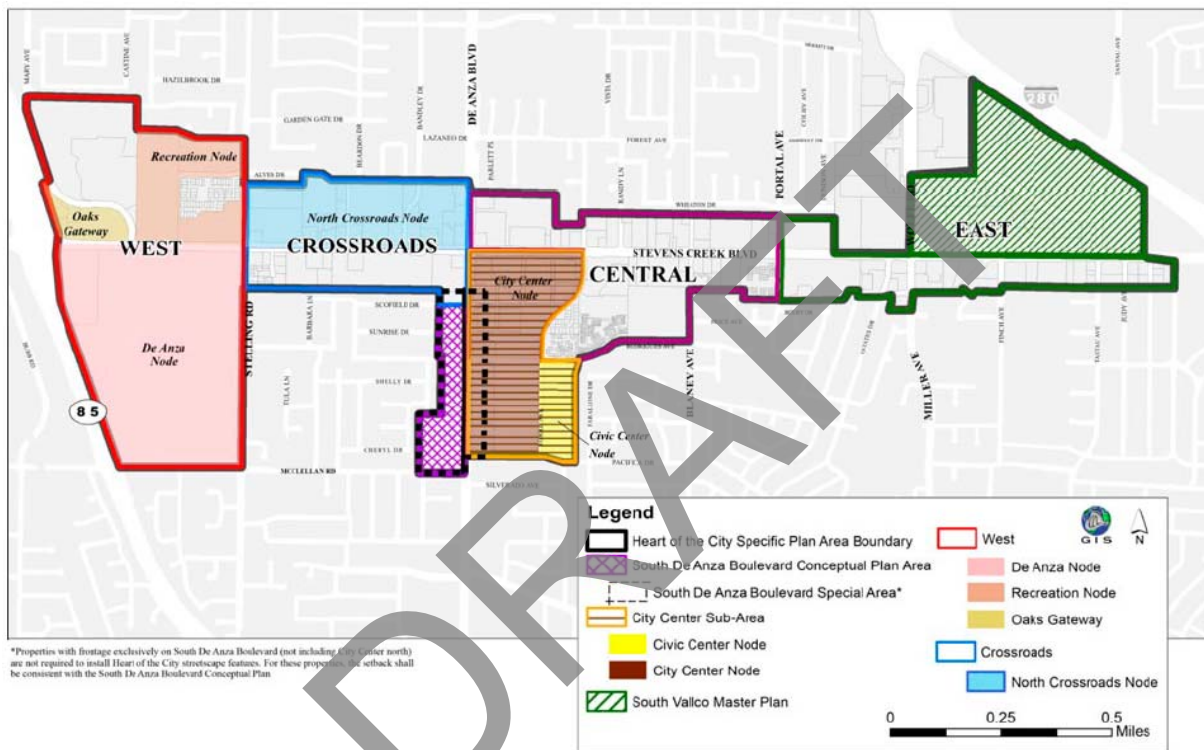


Figure 47. Heart of the City Special Centers Map, Heart of the City Specific Plan (2014)

### North Vallco and South Vallco Master Plans (2008), and South Vallco Connectivity Plan (2014)

The City of Cupertino has adopted one master plan for the North Vallco planning area and two plans for the South Vallco planning area.

#### North Vallco Planning Area

- This plan governs the 240-acre area bounded by Homestead Road, Tantau Avenue, I-280 and Wolfe Road.
- The North Vallco Master Plan develops a vision for the North Vallco area, which the General Plan identifies as a “Special Center” retained for employment, lodging, and neighborhood commercial uses. The Plan states that new development in the area is to “Provide connectivity for all modes, pedestrian and vehicular – including automobile, bicycle, shuttle and Segway.” Additionally, the Plan directs new development to “consider providing more through-streets to Pruneridge, Wolfe and Tantau to foster walking and bicycling between in-district destinations.”



## South Vallco Planning Area

- This plan governs the 125-acre area bounded by I-280 to the north, Stevens Creek Boulevard to the south, including Cupertino Square shopping center (formerly Vallco Fashion Park) along the east and west side of Wolfe Road and the office development along the east side of Tantau Avenue.
- The South Vallco Master Plan recommends enhancing streetscape and crosswalks landscaping, lighting, wayfinding, and other elements such as street furniture. To enhance the pedestrian environment and connections, the Plan recommends strategies such as traffic calming, consistent streetscape design, and implementing a network of shared-use paths.
- The South Vallco Connectivity Plan provides goals, objectives, and guidelines to support connectivity, safety, and design objectives for the South Vallco area. Related to pedestrian circulation, the Plan identifies connectivity-oriented goals to enhance multimodal transportation connections (including pedestrian connections) within the study area.

## Cupertino Bicycle Transportation Plan (2016)

The Bicycle Transportation Plan envisions “an exceptional bicycling environment” that facilitates people of all ages and abilities accessing their destinations on a bicycle.

Policy recommendations related to pedestrian transportation include:

- Expansion of the Safe Routes to School (SR2S) program
- Promote active transportation benefits through messages in City media and with tourism and economic development agencies (to promote Cupertino as a destination for active living).
- Establish a citywide Vision Zero policy with a target date of 2026, and study a potential policy of 15 mph school zone speed limits.

Some existing bicycle infrastructure noted in the plan also benefits pedestrians. This includes the Stevens Creek Trail, as well the Hammond Snyder Loop Trail, the San Tomas Aquino Creek Trail, and the Don Burnett Pedestrian Bridge. The plan makes recommendations for additional Class I trail facilities, and these recommendations are included in the PTP update as projects, too. All spot and linear projects in the Bicycle Plan are prioritized for implementation. Tier I projects that would also benefit pedestrians include the Union Pacific Trail, Highway 85 crossing, and I-280 Channel Trail.

The Plan also describes existing programs that have overlap benefitting pedestrians, such as the Safe Routes to School program and existing enforcement and evaluation activities. Programmatic recommendations relevant to pedestrian transportation include:

- Back-to-school encouragement messaging and parent surveys
- Walk & roll days and walking school buses
- Suggested walking routes to school maps
- Vision Zero targeted enforcement
- Annual review of bicycle and pedestrian data
- Student walking and bicycling hand tallies and electronic counts

## Stevens Creek Trail Grade Separation Study of Stevens Creek Blvd. and McClellan Rd.-Feasibility Report (2016)

This report provides an assessment of the feasibility to provide grade separation for Stevens Creek Trail at Stevens Creek Boulevard and McClellan Road. Six location proposed for a trail underpass or tunnel were studied. Three of the

locations do not support a grade-separated crossing and three have potential to provide a crossing below the roadway to create a trail fully separated from vehicle traffic.

### McClellan Road Sidewalk Feasibility Study

The McClellan Road Sidewalk Feasibility study assesses the feasibility of constructing sidewalks along McClellan Road between Orange Avenue and San Leandro Avenue, near three schools. The report evaluates potential sidewalk construction at sixteen locations, including detailed cost estimates. As shown in Figure 48, sidewalk improvements were prioritized at Mira Vista Road and at Byrne Avenue. The report recommends that the City pursue VTA funding (Transportation Development Act funds) and HSIP funding to implement these sidewalk improvements. This project is going to final design in 2018.



Figure 48. McClellan Road Project Map

## Regional Plans and Policies

### Stevens Creek Trail Feasibility Study (2002)

In 2002, the Stevens Creek Trail Feasibility study concluded that it is feasible to construct 7.7 miles of separated and on-street multi-use paths connecting to Rancho San Antonio and Stevens Creek County parks. To complete the trail, a public trail easement through the approximately 150 acre former quarry property south of Linda Vista Park will be established when the property is proposed for development. The former quarry haul road connects Linda Vista Park to McClellan Road.

### Parkside Trail Feasibility Study (2014)

This feasibility report explores the potential for extending trails through properties owned by Parkside Trails. These lands offer the potential to extend the Stevens Creek Trail and directly link Cupertino residents with nearby regional parks and open space preserves. Trails identified in this study include a route between Linda Vista Park and Stevens Creek Park.

### Stevens Creek Trail Extension (2015)

In 2009, a coordinated Stevens Creek Trail planning effort was undertaken between the cities of Cupertino, Los Altos, Mountain View and Sunnyvale. A Feasibility Study was completed in March 2015 that identified the following three route options through Cupertino, but made no specific recommendation.

- Mary Avenue to Stevens Creek Blvd, utilizing the Don Burnett Pedestrian Bridge
- Foothill Blvd to Stevens Creek Blvd
- Construction of a new pedestrian bridge across I-280 connecting Cupertino's Homestead Villa and Oakdell Ranch neighborhoods - A tunnel under I-280 was found to be infeasible.

After considering the feasibility study and public input, the Joint Cities Working Team (an advisory body of council members from each city) issued its recommendation to the four cities in September 2015; no specific route recommendation was made for Cupertino. However, the JCWT did recognize the need for a long-term trail vision, and that should circumstances change regarding the availability of land in the area, further studies be undertaken to identify a feasible route. For further information, refer to the Four Cities Coordinated Stevens Creek Trail Feasibility Study (September 2015 final version). The Stevens Creek Trail extension is not included as a project in this Plan. The City of Cupertino Council accepted the Joint Cities Coordinated Stevens Creek Trail Feasibility Study in June 2016.

### VTA Valley Transportation Plan 2040 (2014)

The Valley Transportation Plan 2040 sets the long-range vision for Santa Clara County's transportation system, and as a part of the Plan, Valley Transportation Authority (VTA) added a new category of projects for Multimodal Transportation Investments. VTA will begin a process for developing a pedestrian funding program, which may focus on transit access, Safe Routes to School, addressing network gaps, and urban design improvements. The Expressway Pedestrian Funding program also funds pedestrian improvements throughout the County's expressway network, and the Community Design and Transportation program funds pedestrian improvements and Complete Streets projects.

### VTA Union Pacific Rail Trail Feasibility Study (2001)

The VTA Union Pacific Rail Trail Feasibility Study assessed constructing a rail trail on the 8.7-mile Union Pacific Rail corridor. The proposed trail would connect to the Los Gatos Creek Trail and link the Rancho San Antonio County Park to the Vasona County Park. The study analyzes existing conditions, identifies opportunities and constraints and proposed alternative alignments. Due to funding constraints, the study recommends that VTA implement the trail in phases. The study recommends that a trail alignment through the City of Cupertino be located on-street north of Stevens Creek Boulevard, then shifts to the rail right-of-way south of Stevens Creek Blvd until the border with Saratoga.

## State and Federal Plans and Policies

### Assembly Bill 32: Global Warming Solutions (2006)

The Global Warming Solutions Act (AB 32) has a goal of California reaching 1990 greenhouse gas emission levels by 2020 by reducing emissions, including those caused by motor vehicles.

### Assembly Bill 1358: Complete Streets (2008)

All California Cities and Counties must include accommodations for all street users (pedestrians, bicyclists, transit riders, motorists, children, persons with disabilities, and elderly persons) in circulation element updates.

### Senate Bill 375: Sustainable Communities (2009)

SB 375 directs the Air Resources Board to set regional targets for the reduction of greenhouse gases. Metropolitan planning organizations must develop land use plans to meet these emission reduction goals by tying together regional housing needs and regional transportation planning to reduce greenhouse gas emissions from motor vehicle trips.

### Senate Bill 743: Environmental Quality: Transit Oriented Infill Projects, Judicial Review Streamlining for Environmental Leadership Development Projects, and Entertainment and Sports Center in the City of Sacramento (2013)

Senate Bill 743 eliminates motor vehicle-based measures (such as level of service and auto delay) in determining significant environmental impacts, including parking impacts when determining significant impacts in transit oriented infill projects. According to the legislative intent described in the bill, the intent of these changes was to balance congestion management goals with other policy goals focused on reducing greenhouse gas emissions, infill development, and promoting active transportation.

### Senate Bill 99: Active Transportation Program Act (2013)

The Active Transportation Program distributes federal funds for local and regional efforts to increase walking and bicycling. The funding is intended to increase the number of walking and bicycling trips, increase safety for those modes, and provide support for disadvantaged communities to achieve transportation equity.

### California Strategic Management Plan (2015)

This plan provides strategic direction for Caltrans, including targets of doubling walking trips and tripling bicycling trips by 2020. Additionally, the plan calls for reducing user fatalities and injuries, promoting community health through active transportation, and improving the quality of life for all Californians by increasing accessibility to all modes of transportation.

### California Transportation Plan 2025 (2006)

The California Transportation Plan's Vision Statement calls for California to have a "safe, sustainable, world-class transportation system that provides for the mobility and accessibility of people, goods, services, and information through an integrated, multimodal network that is developed through collaboration and achieves a Prosperous Economy, a Quality Environment, and Social Equity." The first goal of the plan includes enhancing modal choice and connectivity.

### Smart Mobility 2010 (2010)

The California Smart Mobility Call to Action provides new approaches to implementation and lays the groundwork for an expanded State Transportation Planning Program. It enhances the scope of the existing California Transportation Plan by analyzing the benefits of multi-modal, interregional transportation projects. The Smart Mobility framework

emphasizes travel choices and safety for all users, supporting the goals of social equity, climate change intervention, energy security, and a sustainable economy.

### California Statewide Bicycle and Pedestrian Plan (forthcoming)

A process is underway to develop the California Statewide Bicycle and Pedestrian Plan. The plan will be a visionary and comprehensive policy to support active modes of transportation. Policies that stem from this plan will guide decisions about future bicycle and pedestrian investments, and support local governments in creating a safe active transportation network.

### Caltrans Complete Streets Policy (2001) and Deputy Directive 64 (2008)

The California Complete Streets Policy states that the California Department of Transportation “views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.”

To support the Deputy Directive, Caltrans adopted the Complete Streets Implementation Action Plan in 2010. Various people across Caltrans contributed ideas and projects to include in the Complete Streets Implementation Action plan to make Complete Streets a reality in California.

### US DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations (2010)

On March 15, 2010, the United States Department of Transportation announced a policy statement, included below, with a list of recommended actions.

“The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.”

Recommended actions to support the policy statement include considering walking and biking equal to other modes, ensuring that there are transportation choices for people of all ages and abilities, going beyond minimum design standards, collecting data on walking and biking trips, and several other actions that make it easier for people to walk and bike.

### FHWA Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts

This publication highlights ways that designers can apply design flexibility found in current national design guidance to reduce multimodal conflicts and achieve “connected networks so that walking and bicycling are safe, comfortable, and attractive options for people of all ages and abilities.”

### NRPA Safe Routes to Parks

The National Recreation and Park Association (NRPA) is campaign for Safe Routes to Parks to improve access to Parks through walking, biking, or transit. The Save Routes to Parks is intended to provide local governments with critical evidence and best practice-based guidance on Safe Routes to Parks best practices that are backed by research and supported by national organizations. This frameworks is intended to be used as a guide that will engage leaders and community members in an ongoing process to ensure that community policies and practices support safe and equitable access to parks.



## Appendix B. Pedestrian Demand Analysis

Pedestrian demand analysis identifies locations where pedestrians are likely to be; see Chapter 2 for additional information.

Via an online survey and at a public workshop in January 2017, the community was asked where they would most like to see pedestrian improvements. The weighting used in this analysis (see Table 9) is based on this community feedback regarding priorities for pedestrian access. The data collected via the online survey and during the public workshop demonstrated that the community is most interested in pedestrian improvements that connect to schools, parks and trails. Respondents were less interested in connections to commercial areas and transit. Because this analysis is grounded in stated community values and attempts to measure potential demand, the output may not reflect pedestrian traffic as observed in the city today, or where people actually are.

Factor	Weighting (maximum points for the Factor)	Scoring within Factor
Within 1/3 mile of transit stop	15	Based on ridership at stop (1= low ridership stops, 15= highest ridership stops/lots of stops nearby)
Land Use	20	Based on type of land use (20=parks/public; 10=high-density residential; 5=medium-density residential; 1=low-density residential) <i>Note: Parks/public includes City parks plus community center such as Quinlan Community Center and the Public Library</i>
Major Employer	15	Based on size of employer (e.g. 15=Apple, 10=DeAnza College, 5=high schools, etc.)
Trail and Campus access points	20	20 if within a half mile of a major trail or campus access point; 10 if within a half mile of a minor trail or access point <i>Note: Access points were manually created for DeAnza College and trails</i>
Within half mile of school	10	10 if within a half mile of one or more schools
Maximum Score for Grid Overlay	80	

Table 9. Pedestrian Demand Factors

### Areas of Highest Pedestrian Demand

Figures 49 through 53 illustrate the component parts that were summed to result in the composite demand analysis (see Chapter 2 for areas of high potential pedestrian activity).

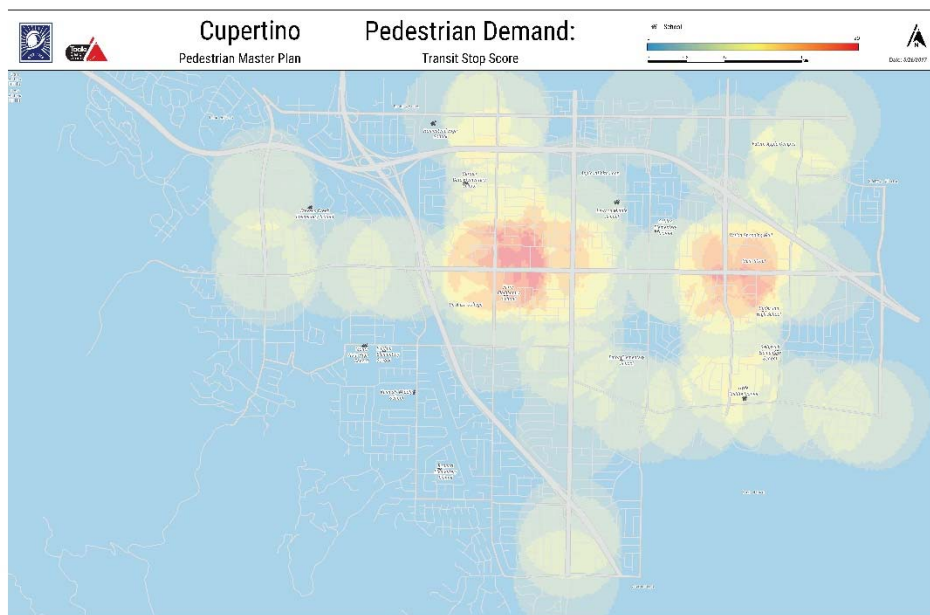


Figure 49. Transit demand component map

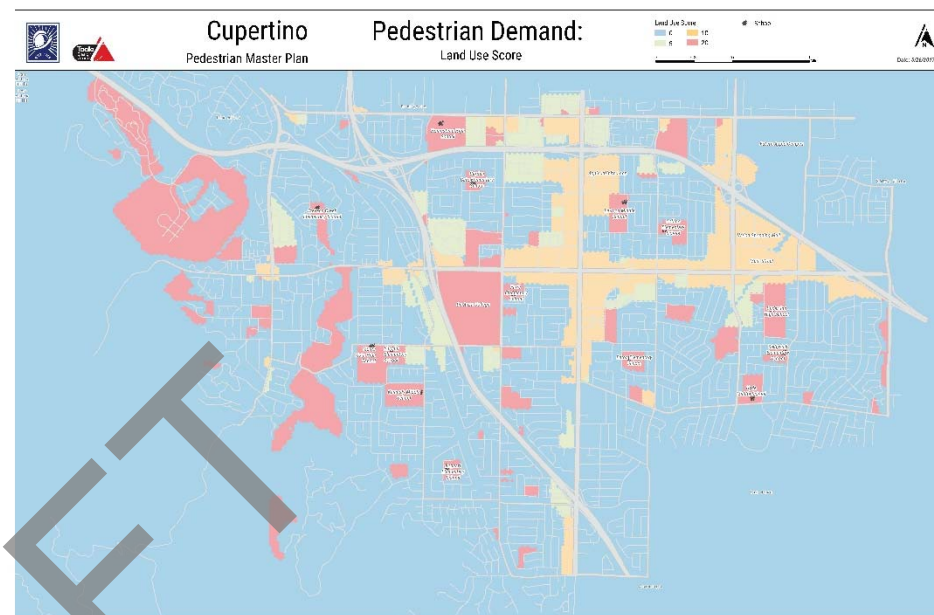


Figure 50. Land use demand component map

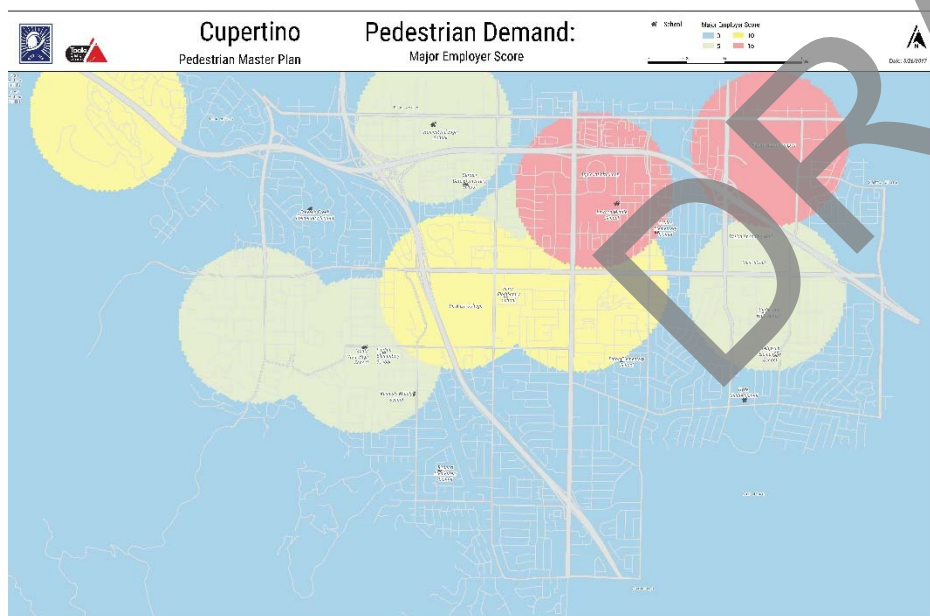


Figure 51. Major employer demand component map

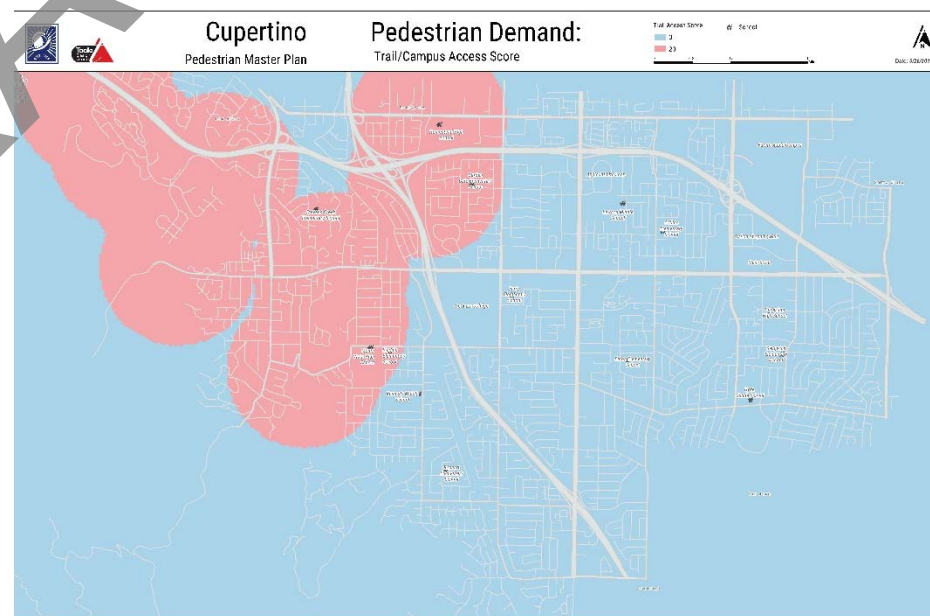


Figure 52. Trail and campus access demand component map



## Appendix C. Walk Audit Summary

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This Appendix summarizes the findings of six walk audits performed on March 14 and 15, 2017 as part of the existing conditions analysis for the Pedestrian Transportation Plan (PTP). These audits had multiple purposes:

1. Identify specific issues impacting the pedestrian environment and travel along the walk audit routes,
2. Catalog issues by street type or place within Cupertino for presentation in the PTP,
3. Create a shared understanding of infrastructure and behavioral issues that create a challenging, uncomfortable or unsafe pedestrian environment, and
4. Discuss potential countermeasures and/or policy and programmatic changes that can address identified issues

City staff accompanied consultants on all walk audits and answered questions about specific existing and planned infrastructure within the walk audit areas, as well as general City practices with respect to pedestrian projects and policies. Identified issues and opportunities from the walk audits are summarized by street type below and followed by specific write-ups of each audit location.

### Citywide Observations

Generally, walking in Cupertino is reasonably comfortable and safe. There are, however, several issues that occur across the city that may cause people to choose not to walk for a given trip or for exercise. These issues arise along the two main types of streets in the city: arterials (boulevards) and local streets.

#### Arterials<sup>13</sup>

Issues for pedestrians along arterials center at intersections, not along street segments. The two major issues along segments are: driveway crossings and the long distances between marked or signalized crossings. Driveways interrupt the pedestrian path of travel and present the opportunity for conflicts with automobiles. Large curb radii allow turning drivers to maintain higher speeds across the sidewalk at driveways. Some driveways also pre-empt the sidewalk, with asphalt paving through the pedestrian path of travel rather than a continuous concrete treatment through the driveway. Long distances between crossings, over a quarter mile in some locations, may spur pedestrians to choose unsafe locations to cross the street if destinations are located on both sides of the street.

Generally, sidewalk coverage along arterials is comprehensive. People have a place to walk along the road, and in many cases, this sidewalk is separated from automobile travel by a planted buffer. Some locations lack this buffer—much of Homestead Road, some of DeAnza Boulevard—but in those locations, pedestrians are still separated from automobile traffic by the presence of a bike lane. The lack of buffer also contributes to lower pedestrian comfort because there are no street trees to provide shade.

Intersections in Cupertino present problems for pedestrians with two features: large curb radii and turn conflicts at signalized intersections. The first feature is present at most cross streets with arterials; wide radii allow drivers to maintain speed as they turn onto a local street, across the path of pedestrian travel.

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<sup>13</sup> Though not classed as arterials, the issues identified here also apply to major collectors Stelling Road, Miller Avenue and Foothill Boulevard.

Analysis of recent crash data in Cupertino show that many pedestrian/vehicle collisions actually occur at signalized intersections when the pedestrian is in a crosswalk. This means drivers are failing to yield to pedestrians who have the right of way when they make turns. This type of behavior was observed during walk audits, both with drivers turning right on red (conflict with pedestrians crossing in front of them) and turning right on green (conflict with pedestrians traveling in the parallel direction).

### Local Streets

Issues on local streets in Cupertino occur at both intersections and along street segments. One of the biggest issues is that there is no clear message to drivers entering a local street from an arterial that they should slow speeds. While a speed limit sign or on-pavement speed marking may be present, the width of local streets connecting to arterials (typically at least 38') provide an unconstrained throughway that invites fast travel. The lack of pavement markings—centerlines, crosswalks, bike lanes—also contributes to the wide-open feeling of many local streets. This issue is compounded when streets are straight with few intersections where driver must stop. La Mar Drive is an example of this type of street and a location where residents frequently express concerns regarding speeding.

A higher percentage of local streets also do not have sidewalks. In most cases, these are streets where residents have elected to remain “semi-rural” or they are private streets; in both cases, sidewalks are not required. However, there are also local streets with intermittent sidewalk coverage as a result of annexation and subsequent installation of sidewalk only at the time of parcel development, for example Hermosa Avenue in Monta Vista. While automobile speeds and volumes are not high on many of these streets, pedestrians are still forced to share space with traffic, and in those situations pedestrians likely feel uncomfortable and vulnerable.

The issues of wide curb radii exist on local streets as well. When not stop-controlled, local-to-local street turns can be taken at higher speeds. Drivers may not be able to see and react to children playing in the street, for instance, in these situations.

Traffic calming measures are present on some local streets that can mitigate issues created by the infrastructure identified above. Speed humps are probably the most effective traffic calming infrastructure used in Cupertino today. Speed humps introduce vertical deflection that forces drivers to slow. Whereas traffic calming devices that rely on horizontal deflection (e.g., chokers) are more effective at slowing larger vehicles than smaller, more nimble cars. The few existing truck aprons that narrow curb radii can also be quite effective in slowing turning traffic on local streets.

### Walk Audit Routes

The list of audit locations reflects the two major street types mentioned above, plus some collector streets, and include locations in multiple neighborhoods within the city. Each route was between 0.75 and 1 mile in length. The routes are:

#### Arterials (Boulevards)

- Route 1: De Anza Boulevard and Bandley Drive, from Valley Green Drive to Rodrigues Avenue
- Route 4: Stevens Creek Boulevard, between SR 85 and Stelling Road
- Route 5: Stevens Creek Boulevard, between Finch Avenue and Tantau Avenue



#### Local Streets

- Route 2: Phar Lap Drive and Mann Drive
- Route 3: Miller Avenue, Vicksburg Drive, La Mar Drive
- Route 6: Monte Vista neighborhood

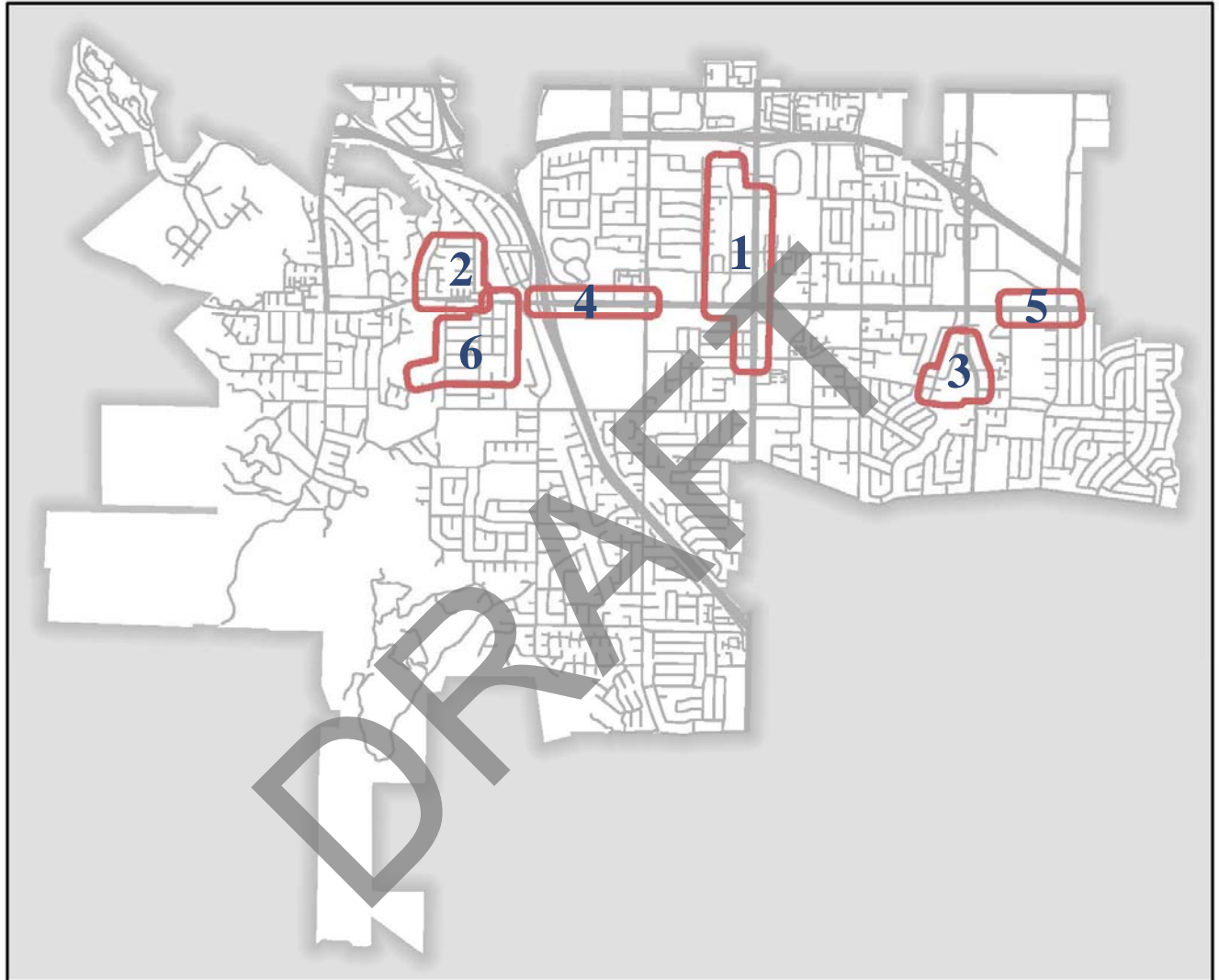


Figure 54. Reference map for route locations

## Route 1: DeAnza Boulevard and Bandley Drive

### Summary Observations

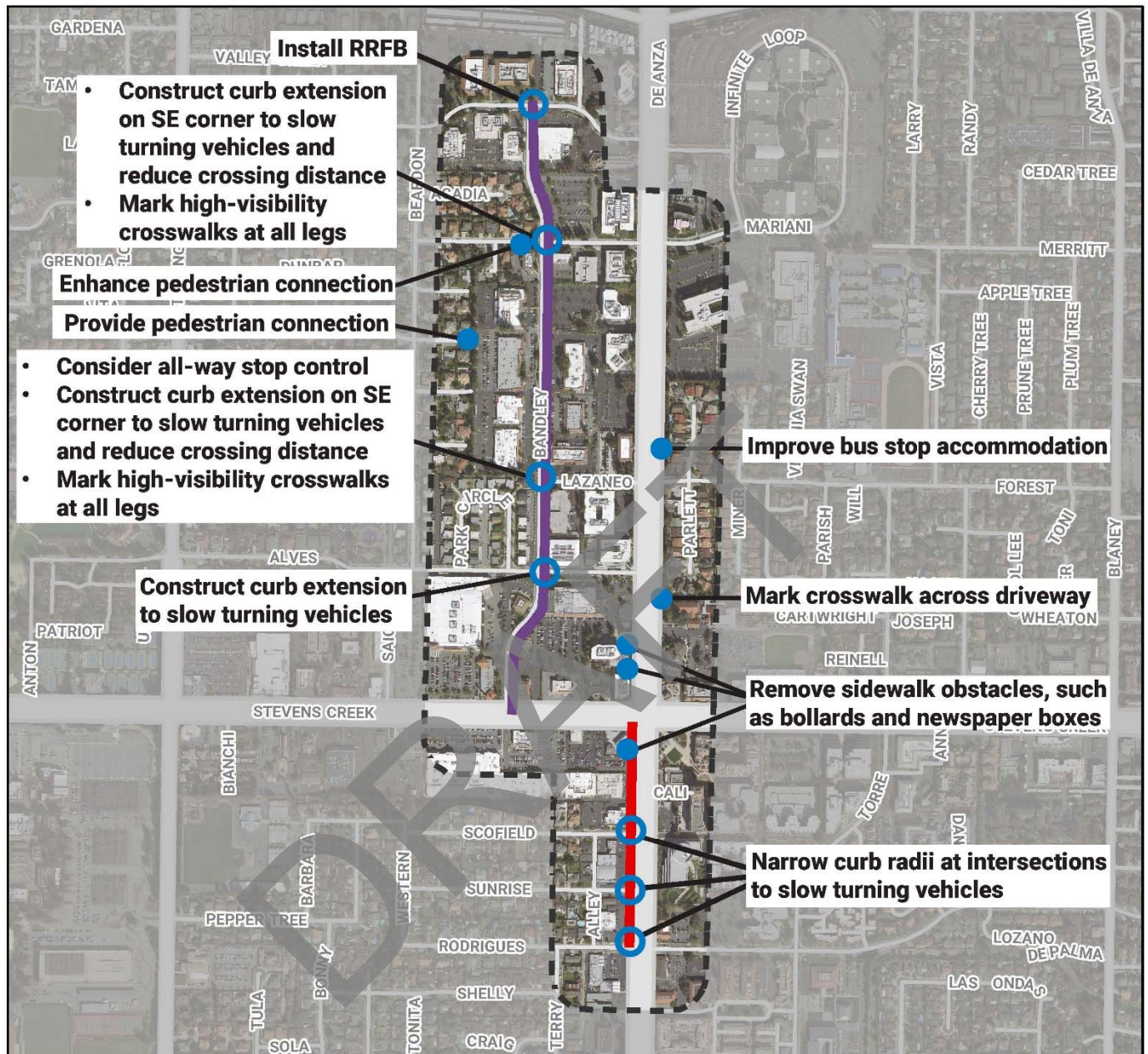
This area of the city has a significant amount of pedestrian activity, especially around the lunch hour when nearby employees walk to retail and dining destinations in shopping centers on Stevens Creek and DeAnza Boulevards, and to the Apple café on Bandley Drive. Generally, walking conditions are comfortable with sidewalk present on all streets and separated from the street by a buffer in many locations. However, the curb adjacent sidewalk on DeAnza south of Stevens Creek is less comfortable, and the minimum sidewalk widths on Bandley do not adequately accommodate larger groups of people walking together.

The intersection of DeAnza and Stevens Creek Boulevards is uncomfortable during most hours of the day due to turning vehicle conflicts and poor driver yielding behavior. This is also the case at Bandley and Valley Green Drives where the drivers do not stop consistently for people attempting using the crosswalk to cross at Valley Green Drive. Other intersections could benefit from smaller curb radii or crossing improvements.

### Issues and Treatment Highlights

The maps on the following pages show issues observed during the walk audits. The current area least friendly to pedestrian travel is probably also the one that will take the longest to change: DeAnza Boulevard from Stevens Creek Boulevard to Rodrigues Avenue. This area has curb adjacent sidewalk on the west side of the street that puts pedestrians closer to high-speed, high-volume traffic. The area also does not have any shade trees, and wide curb radii make it easy for drivers to make relatively fast right turns onto side streets. Changes to the sidewalk on this route would entail major construction and cost and are not likely until this area redevelops.

Driver yielding issues with right turns observed at the Stevens Creek/DeAnza intersection will be addressed with signalization phasing changes proposed in the Class IV bikeway design for Stevens Creek. Though issues at this particular intersection will be addressed with those changes, similar situations exist elsewhere in Cupertino, and a focused marketing campaign regarding driver yielding at intersections may help change behavior.



**Route 1: De Anza Boulevard and Bandlely Drive, from Valley Green Drive to Rodrigues Avenue**

## Recommendations

### Segment

- Construct sidewalk buffer
- Widen sidewalks

### Spot

- Intersection
- Other

Figure 55. Route 1

## Route 2: Phar Lap Drive and Mann Drive

### Summary Observations

This route was chosen because it includes both typical local streets and local streets falling into the semi-rural characterization. The main issues observed on Phar Lap Drive are typical of other local streets in the city: wide curb radii, wide cross section overall, and a lack of curb ramps. The width of Phar Lap Drive is somewhat mitigated by the presence of mature street trees and sidewalk, neither of which are present on Mann Drive which, though the same pavement width, feels wider and more prone to inducing driver speeding behavior. Neither street serves a major network purpose as both end slightly north of our study area, so low traffic volumes may make speeds less of an issue and on Mann Drive, the lack of sidewalk less of a concern.

### Issues and Treatment Highlights

The issue of street width on Mann Drive could be addressed by adding markings to the street to delineate shoulder areas and parking. This would provide defined space for pedestrians walking along the street in lieu of a sidewalk, and designating parking areas will reduce the need for parking in the shoulder area. This would be a new treatment for Cupertino and would necessitate cooperation of adjacent neighbors and an education campaign to familiarize all street users with the changes.

One issue not noted in the maps is that this area, though served by nearby Stevens Creek Elementary School, is cut off from it by a lack of connected streets and Stevens Creek itself. It is currently at least a ¾-mile walk to the school, a distance that is at the upper end of what an elementary school student can reasonably be expected to walk daily. If any opportunity arises for a connection between Phar Lap Drive and Creston Drive to the west, that would be advantageous to spur more student travel by foot.





**Route 2: Phars Lap Drive and Mann Drive**

## Recommendations

### Segment

Stripe 6' shoulders both sides

### Spot

○ Intersection  
● Other

Figure 56. Route 2



## Route 3: Miller Avenue, La Mar Drive and Creekside Park

### Summary Observations

This route provides access to and through Creekside Park, a popular destination for neighborhood residents and Citywide for many types of outdoor activities. Access from the neighborhood to the west is provided via a canal-adjacent trail that is well-maintained and lit, and access from the Miller Avenue side is provided at a signalized intersection with marked crosswalks at all legs. Local streets in the neighborhood are typical of Cupertino: approximately 38 feet wide, no marked centerlines (other than Estates Drive), few marked crosswalks, and little on-street daytime parking occupancy. Unlike other locations, a median island is present at the entrance to Vicksburg Drive from Miller Avenue which provides some traffic calming and a type of gateway to the neighborhood. However, residents still cite speeding as a concern on this street which led to recent installation of a radar speed read-out sign.

### Issues and Treatment Highlights

Speeding concerns have been reported on neighborhood local streets in this area as mentioned above on Vicksburg Drive and also on La Mar Drive. The aforementioned median island is the only traffic calming currently present in the audit area, and the addition of a mini circle at La Mar Drive and Estates Drive is an example of a project type that could help slow traffic. A circle may actually be more effective elsewhere along the stretch of La Mar Drive between Estates Drive and Blaney Avenue, perhaps at Lindsay Avenue; breaking up this long, straight stretch without traffic control could help slow speeds, but it lies outside this walk audit area.

Crosswalks are not marked consistently in the neighborhood and may have been added to emphasize pedestrian paths to Creekside Park, but they are not currently present on all legs of the intersections of Estates Drive with Vicksburg Drive and La Mar Drive. Consistent marking of crosswalks could reinforce pedestrian priority in these locations. Crosswalk marking will be separately addressed in the Pedestrian Transportation Plan through development of a Crosswalk Policy.

Lastly, bus stops located on Miller Avenue are located one block north of the signalized intersection at Calle de Barcelona. There is no marked or enhanced pedestrian crossing provided to access these stops. Transit riders need to walk to the signal to cross safely which is somewhat unlikely. Given that bus riders likely make a round-trip, they need to cross the street once, and some type of enhanced crossing should be provided for them.



**Route 3: Miller Avenue, Vicksburg Drive, La Mar Drive**

## Recommendations

### Segment

 Shared-use path

### Spot

 Intersection

 Other

Figure 57. Route 3

## Route 4: Stevens Creek Boulevard – SR 85 to Stelling Road

### Summary Observations

Pedestrians along this segment of Stevens Creek Boulevard face a number of challenges to safety and comfort, mostly related to intersections. Some of these issues will be addressed through implementation of the Class IV bikeway design and others will not. Sidewalks are provided on both sides of the street, with the north side curb-adjacent and the south side along DeAnza College separated from the street by a large planted buffer in most locations. Issues occur where high-speed automobile traffic can cross the pedestrian path of travel at driveways and an on-ramp.

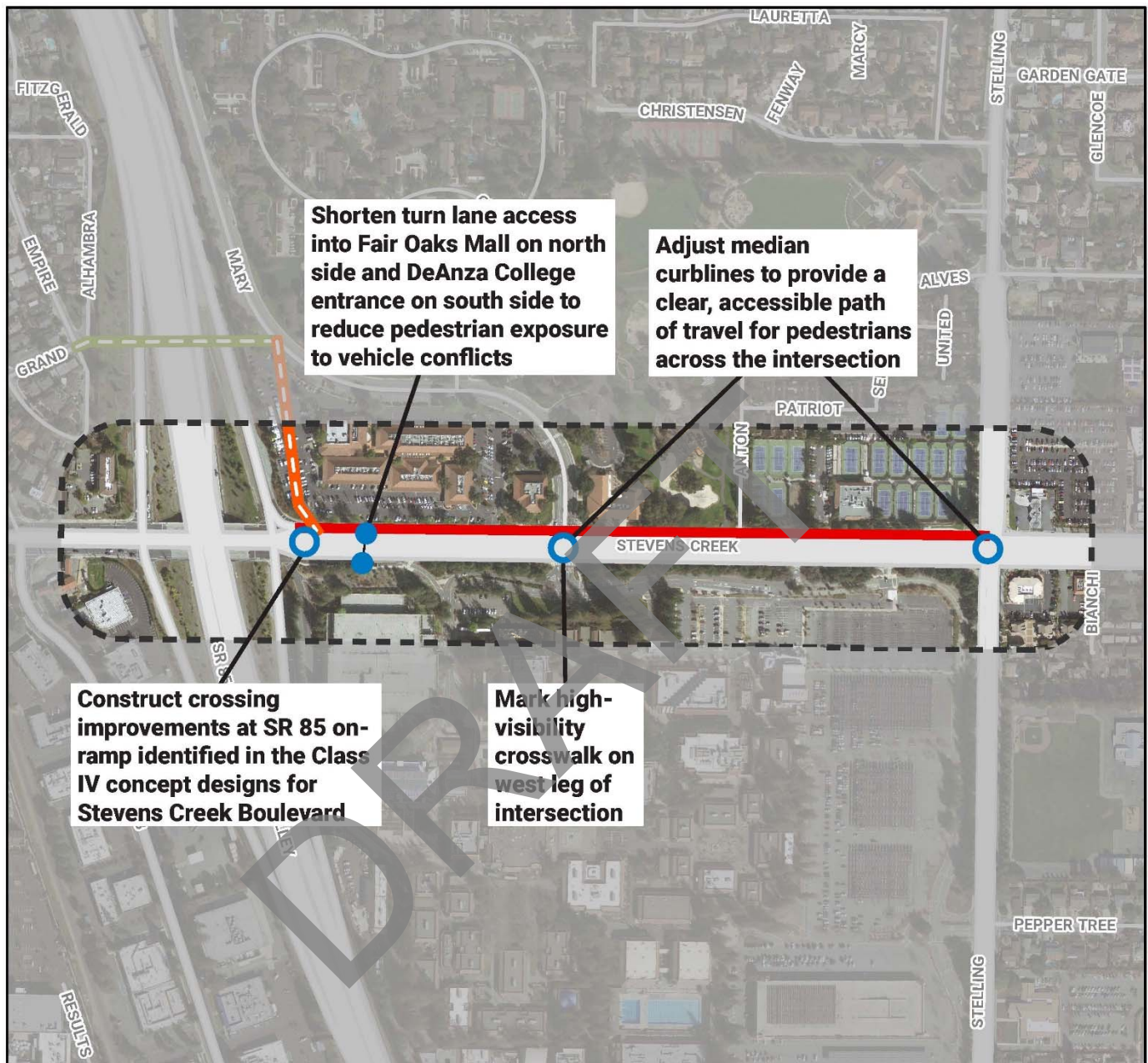
### Issues and Treatment Highlights

Issues related to potential pedestrian/vehicle conflicts are present at three locations: the SR 85 northbound on-ramp, the west driveway entrance to The Oaks shopping center, and the west driveway entrance to DeAnza College. Movement onto the SR 85 on-ramp is currently uncontrolled for drivers, and though the City has installed signage to reinforce driver yielding behavior, the location remains a challenge. The recommended addition of a right-turn signal here as a part of the Class IV bikeway design will largely remedy this issue for pedestrians. In the interim, additional warning and yield signage may increase driver compliance and pedestrian safety.

Both driveway entrances of concern have long dedicated deceleration lanes to exit from Stevens Creek Boulevard to the destination. Drivers can maintain high speeds across the pedestrian path of travel in these locations. The implementation of the Class IV bikeway design will shorten the distance over which a driver can access the driveways, slowing speeds. In the interim, it may be desirable to install a temporary bulb out at The Oaks driveway. There is less opportunity for an interim treatment at the DeAnza driveway.

Inadequate street lighting was noted by citizens and observed at the intersection of Stelling Road and Stevens Creek Boulevard. Bus stops adjacent to this intersection are used during low light hours, and pedestrian traffic is likely also generated by nearby land uses. Additional lighting at this intersection would help drivers see pedestrians and may help avoid conflicts between crossing pedestrians and turning vehicles.





**Route 4: Stevens Creek Boulevard, between SR 85 and Stelling Road**

## Recommendations






Segment	Spot
 Shared-use path	 Intersection
 Bike/ped bridge	 Other
 Construct sidewalk buffer	

Figure 58. Route 4

## Route 5: Stevens Creek Boulevard – Finch Road to Tantau Avenue

### Summary Observations

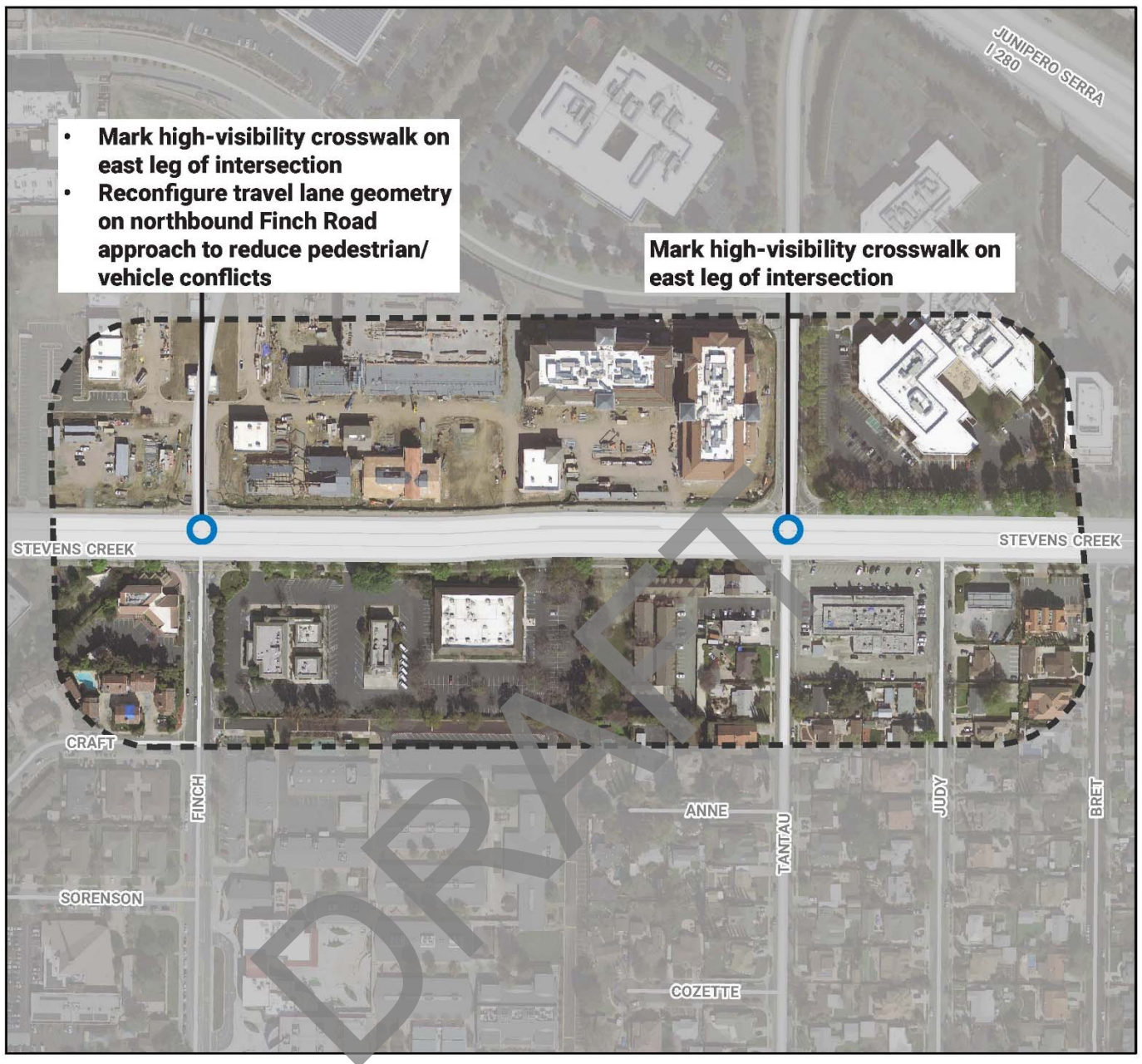
This segment of Stevens Creek Boulevard was selected because of proximity to the Main Street shopping area. Pedestrian accommodation along the street here is quite good: The Main Street development installed wide sidewalk on the north side of the street which will be shaded as street trees mature, and sidewalk along the south side is separated by a wide planter strip with mature street trees. Issues are concentrated at the intersections with Finch Road and Tantau Avenue.

### Issues and Treatment Highlights

The intersection with Finch Avenue is a critical connection for students at Cupertino High School accessing shopping and dining at Main Street, and traffic is heavy during before- and after-school times. Hundreds of students were observed crossing through this intersection at the lunch hour. There is currently no marked crosswalk on the east leg of this intersection which would provide the most direct access from the school across Stevens Creek Boulevard. The feasibility of adding a crosswalk here should be studied. Additionally, there is a channelized right turn movement from Finch Avenue onto Stevens Creek which is channelized by a small island. This creates a situation where driver movements are prioritized and pedestrians are dependent upon drivers yielding to cross Finch Avenue. Studying removal of the channelized right turn lane is recommended.

DRAFT





**Route 5: Stevens Creek Boulevard, between Finch Avenue and Tantau Avenue**

## Recommendations

### Spot

- Intersection
- Other

Figure 59. Route 5

## Route 6: Monta Vista Neighborhood

### Summary Observations

The Monta Vista Neighborhood has minimal sidewalk coverage because it was developed to less stringent County standards, and was only later annexed to the City of Cupertino. The County standards also led to most of the streets (except Pasadena Avenue) being narrower than typical Cupertino local streets, closer to 24 feet than 38 feet. This limited street size makes the lack of sidewalks more pronounced, forcing pedestrians to be in close contact with vehicles. That said, narrower roads tend to encourage drivers to be more cautious and drive slower, providing more natural traffic calming.

While the neighborhood is primarily residential and has low traffic volumes, it provides access to Monta Vista High, Kennedy Middle and Lincoln Elementary schools by foot, bike, and vehicle. The neighborhood also serves as an access point to Blackberry Farm Park and the Stevens Creek Trail via San Fernando Avenue

### Issues and Treatment Highlights

Additional traffic calming in the neighborhood could help lower speeds on wide streets or at intersections. Pasadena Avenue sees some higher speeds, which could be mitigated by adding a mini circle at the currently yield-controlled intersection with Lomita Avenue. Though the intersection with Granada Avenue is also wide, the all-way stop control serves to slow traffic there. The intersection at San Fernando and Byrne Avenues is also very wide owing to the angle of San Fernando, the large radii and lack of curbs. Tightening radii here with striping and flexposts could serve to create more of a gateway to this access point for Blackberry Farm Park. This could also reinforce the message to drivers that this is a location where additional awareness is warranted. Existing speed humps and the stop control already slow travel.

The lack of connection between the northern and southern portions of Imperial Avenue was also noted as an issue. There is currently a wall preventing access by all modes here. This street could provide a more direct connection from the neighborhood to schools on McClellan Avenue, especially from the higher density housing north along Imperial Avenue. The City should begin to explore the possibility of creating pedestrian (and bicycle) access through this location by removing at least a portion of this wall. Outreach to and close communication with neighbors would be necessary for this project.





**Route 6: Monta Vista neighborhood**

## Recommendations

### Segment

- Construct sidewalk
- Shared-use path

### Spot

- Intersection
- Other

Figure 60. Route 6

## Appendix D. Public Comments from Outreach Events/Activities

This appendix summarizes community responses from the PTP outreach events and activities, including:

- WikiMap Response Summary
- January 25, 2017 Public Workshop
- April 22, 2017 Earth Day Public Outreach Event

### WikiMap Response Summary

The WikiMap online outreach exercise was used to determine where participants experience pedestrian-related issues, where they typically walk, and where they would like to be able to walk to in the future. The WikiMap was open from January 22 to March 1, 2017.

This summary provided an overview of the responses. The data collected will be used to inform recommendations for policies, programs, and locations and types of pedestrian-related infrastructure projects.

### Survey Responses

Respondents were asked for five pieces of information: 1) to provide their demographic information, 2) identify barriers to walking, 3) locate where they have been involved in a crash or near miss, 4) where would they like to walk to and what prevents them from walking there today, and 5) where do they walk to today.

### Respondent Information

A total of 37 individuals contributed to the WikiMapping public outreach tool; however, not all respondents contributed to each individual section of the WikiMap. Demographic data collected (see Figure 61) indicate a fairly representative sample based on gender, but a skewed sample based on age with under-representation from younger residents and over-representation from seniors, based on recent Census data. Approximately 78 percent of people have at least two vehicles available at their household, equaling 2.32 vehicles per household, as shown in Figure 62.

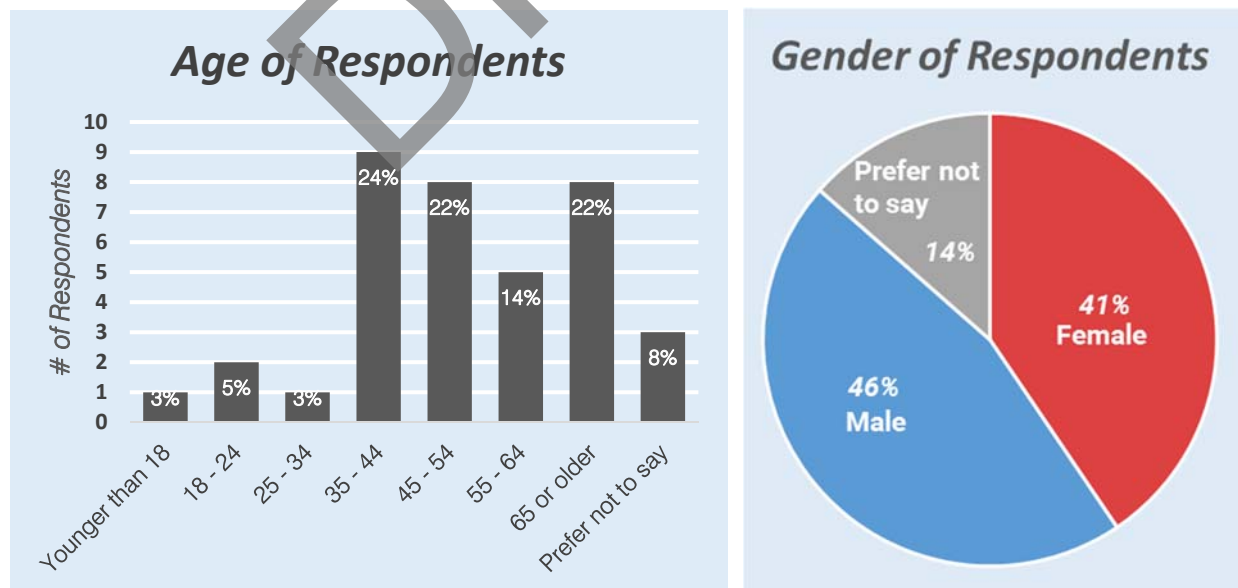


Figure 61. Age and Gender of WikiMap Respondents

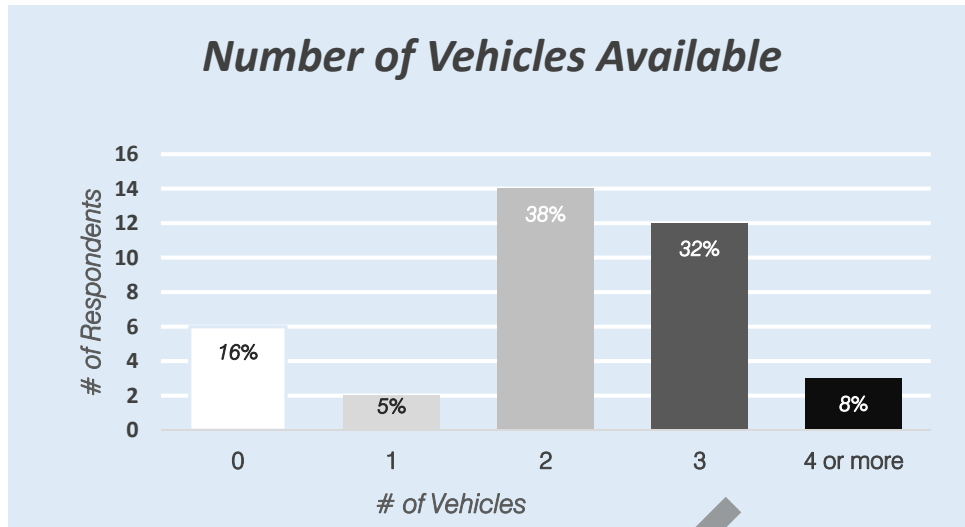


Figure 62. Number of Vehicles Available to Respondents

### Barriers to Walking

Attendees were asked to identify locations where barriers to walking exist. After placing a barrier point on the map, users were prompted to respond to the question “What type of barrier is located here?” with the following choices provided:

1. Dangerous intersection
2. Fast-moving traffic
3. Lack of traffic signal
4. Lack of marked crosswalk
5. Disconnected streets
6. Lack of sidewalk
7. Linear barrier (e.g., freeway)
8. Other (explain below)

Respondents could select multiple issues for a single location. Table 10 lists the findings from the barrier survey. A total of 13 respondents contributed 79 comments. Two individuals contributed a combined total of 25 comments, or 32 percent of all comments. Excluding those two individuals, the average number of comments is 3.2 per respondent. Nearly half of the respondents stated they believe there a lack of sidewalks, lack of marked crosswalks, and fast-moving traffic are barriers to walking.



<b>Barrier Type</b>	<b>Share of Total Comments (%)</b>	<b>Comments (count)</b>	<b>Respondents (count)</b>	<b>Share of Total Respondents (%)</b>
Lack of Sidewalk	39%	31	6	46%
Fast-Moving Traffic	13%	10	6	46%
Dangerous Intersection	10%	8	4	31%
Lack of Marked Crosswalk	10%	8	6	46%
Disconnected Streets	5%	4	2	15%
Lack of Traffic Signals	5%	4	2	15%
Linear Barrier	0%	0	0	0%
Other	18%	14	4	31%
<b>Total</b>	<b>100%</b>	<b>79</b>	<b>30</b>	

**Table 10. Identify Barriers to Walking (13 total respondents)**

“Lack of Sidewalks” had the highest number of total comments accounting for a total of 39 percent of all comments and 46 percent of respondents contributed. Responses were concentrated along McClellan Road, Stevens Creek Boulevard west of Foothill Boulevard, and along Starling Drive east of Foothill Boulevard.

“Fast-Moving Traffic” accounted for 13 percent of all comments and 46 percent of respondents contributing. Identified locations were predominantly along minor collectors and arterial roadways, typically along commercial corridors and near interstate on/off ramps.

There were eight “Dangerous Intersections” identified on the WikiMap by four individuals. Two intersections were located on arterial roadways, three on minor collectors, and three on local roadways. Issues on arterials were related to turning vehicles and potential conflicts with pedestrians. Minor Collector streets have visibility issues due to poor lighting, a sharp turn on McClellan Road, and motorist compliance. Local roadway concerns were related to school pickup/drop-off operations contributing to low crosswalk compliance rates, and motorists driving in unsafe manners.

“Other” barriers included seven comments that were correctly categorized as “other” and seven additional comments that further described barriers that have their own category type (lack of sidewalk, dangerous intersection, etc.). Figure 63 indicates locations of all comments received regarding barriers to walking.

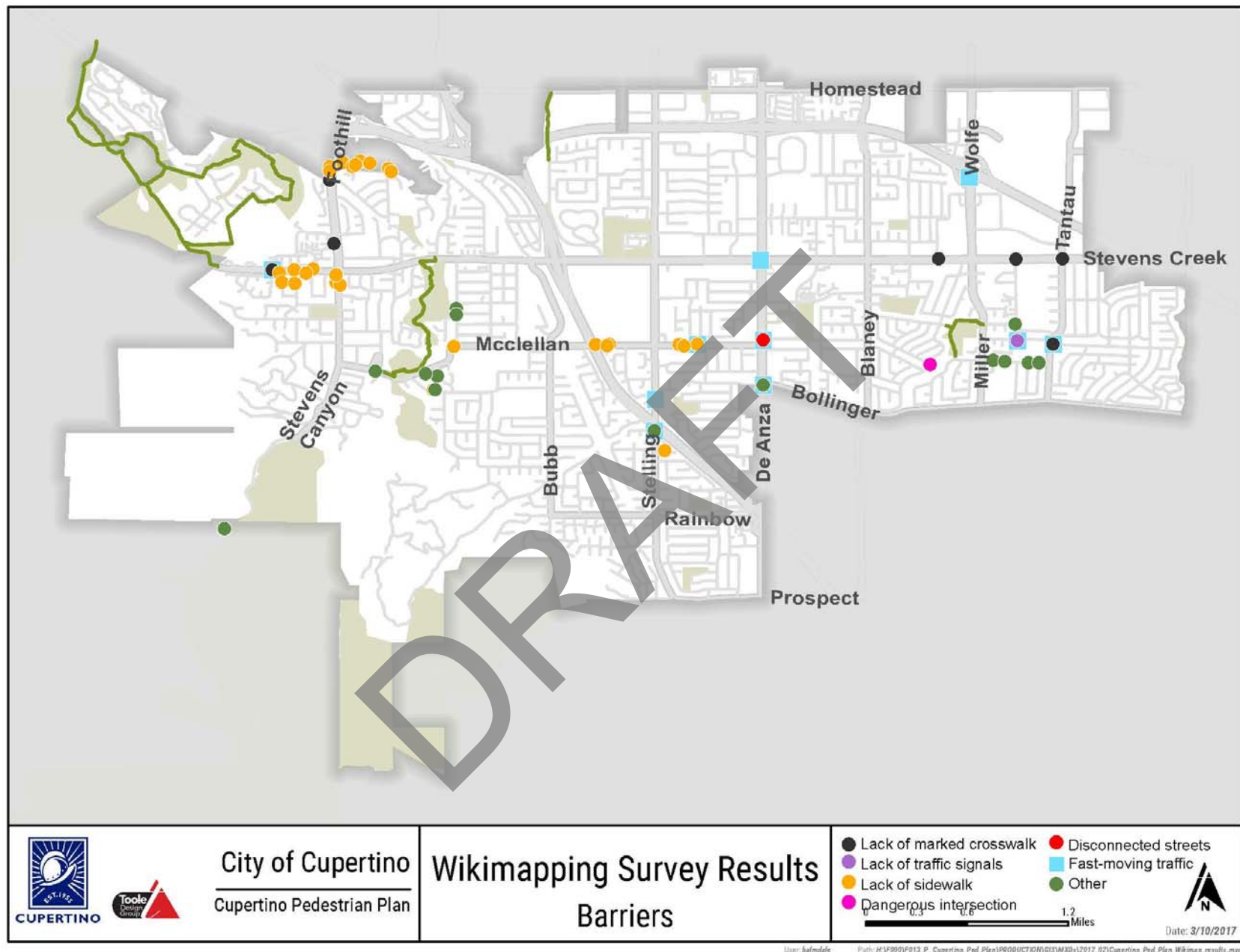


Figure 63. Barriers to Walking

### Crash and Near Miss Locations

Users were asked to identify locations where they were involved in either a crash or a near miss event. Crashes and near misses are displayed roadway user type (bicyclist, pedestrian, motorist) on the following map. There were 11 respondents who contributed 32 comments identifying where the event occurred, whether the event was a crash or near miss; if they were a motorist, a bicyclist, or a pedestrian, and if they reported the crash/near miss. There was one instance of a reported crash that occurred which involved a motorist. The remaining 31 comments were near miss events.

Table 11 identifies the type crash or near miss location for each type of participant. In the 32 events identified, 53 percent of respondents were pedestrians, 34 percent were motorists, and the remaining 13 percent were bicyclists. There is a concentration of near misses on the east side of Cupertino (east of Miller), however 10 of these 15 were identified by one individual (see Figure 64). This self-reported data about near misses echoes findings from the analysis of SWITRS crash data that indicated a concentration of pedestrian crashes occurring at intersections.

Location	Bicyclist	Motorist	Pedestrian	Total	Percent
Along Roadway		3	4	7	22%
Driveway	1		1	2	6%
Intersection	3	8	12	23	72%
<b>Total</b>	<b>4</b>	<b>11</b>	<b>17</b>	<b>32</b>	<b>100%</b>
<b>Percent</b>	<b>13%</b>	<b>34%</b>	<b>53%</b>		

Table 11. Roadway User and Location of Event (11 total respondents)

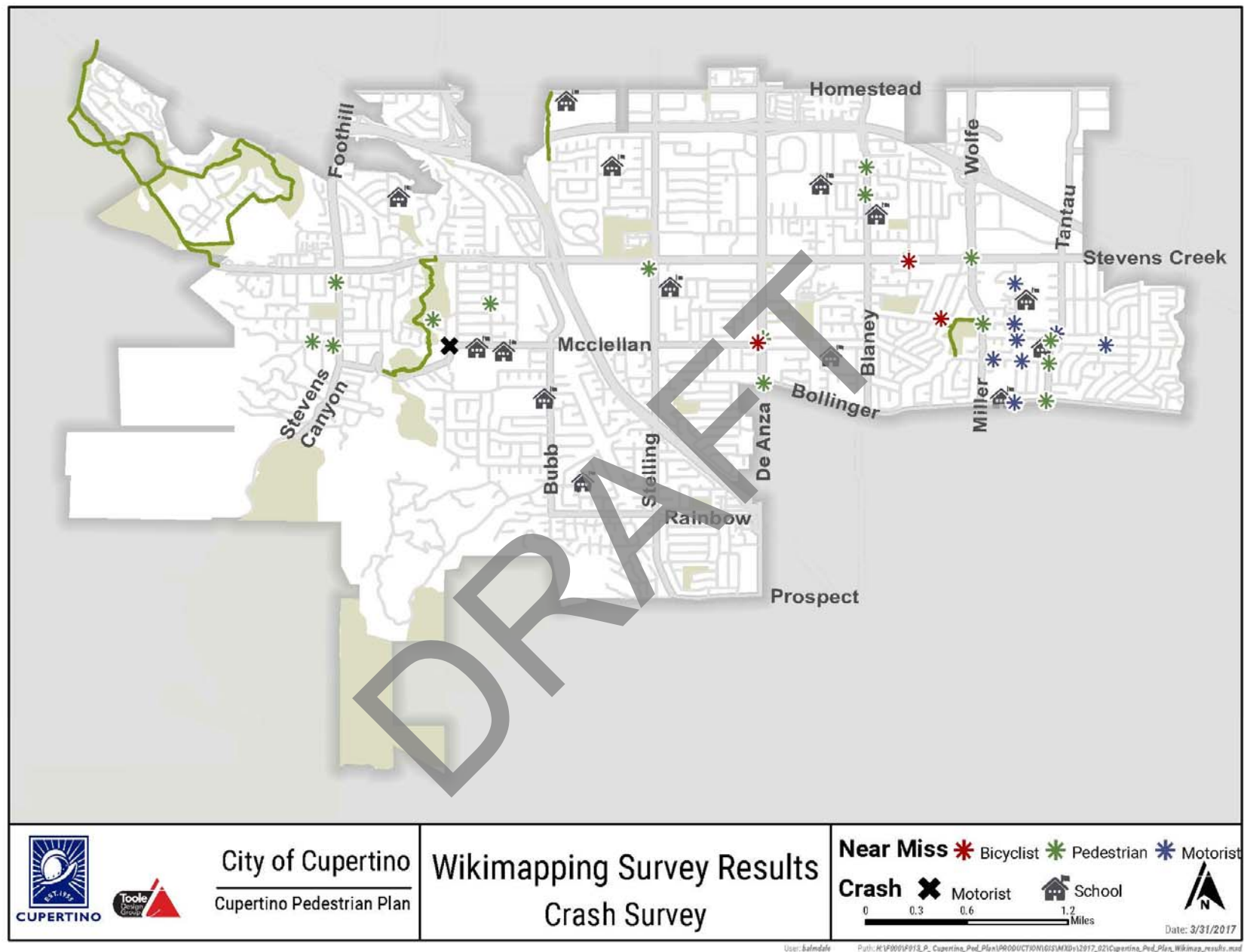


Figure 64. Crash Survey

## Places I Walk To

Survey respondents were asked to locate on the WikiMap where they currently walk to using the following six categories:

1. Dining
2. Recreation
3. School
4. Shopping
5. Social/Entertainment
6. Work

There was a total of 15 respondents who contributed a total of 79 responses (see Table 12). Forty-four percent of the comments identified recreational destinations, followed by school destinations accounting for 18 percent of comments. Figure 65 illustrates where people currently walk to. Destinations are concentrated along major roadways and along off-street trails. Two roadways have many destinations where people are walking to: Stevens Creek Boulevard and McClellan Road.

Destination	Share of Total Comments (%)	Comments (count)	Respondents (count)	Share of Total Respondents (%)
Dining	13%	10	3	20%
Recreation	44%	35	11	73%
School	18%	14	5	33%
Shopping	10%	8	4	27%
Social/Entertainment	10%	8	5	33%
Work	5%	4	2	13%
<b>Total</b>	<b>100%</b>	<b>79</b>	<b>30</b>	

Table 12. Typical Walking Destinations (15 total respondents)



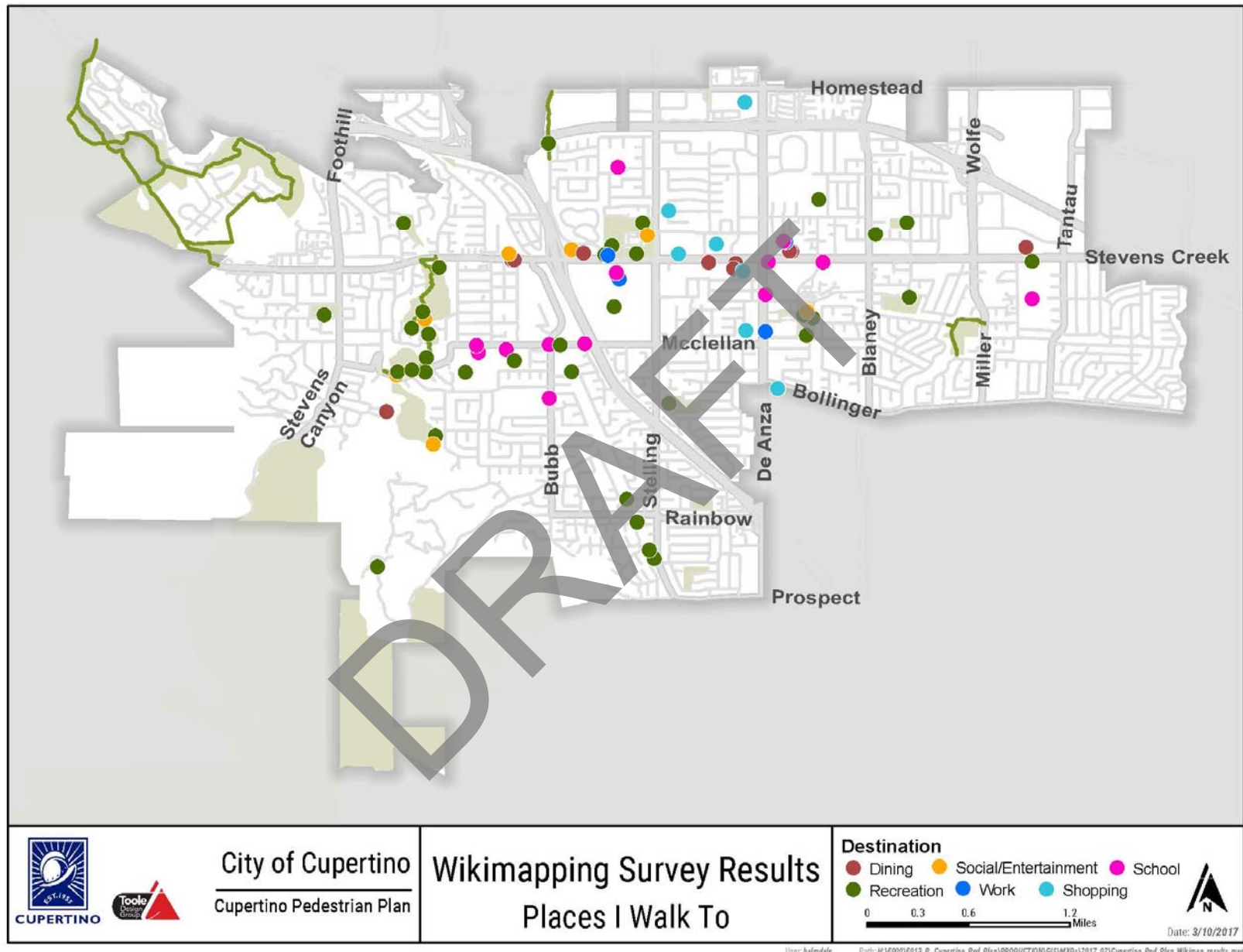


Figure 65. Places I Walk To

### Places I Would Like to Walk To

A total of eight people entered 12 comments regarding destinations they would like to be able to walk to and listing which barrier prevented them from walking. The same destinations asked previously for the typical destinations surveyors walk to were used, and Figure 66 shows the locations of those would-be destinations.

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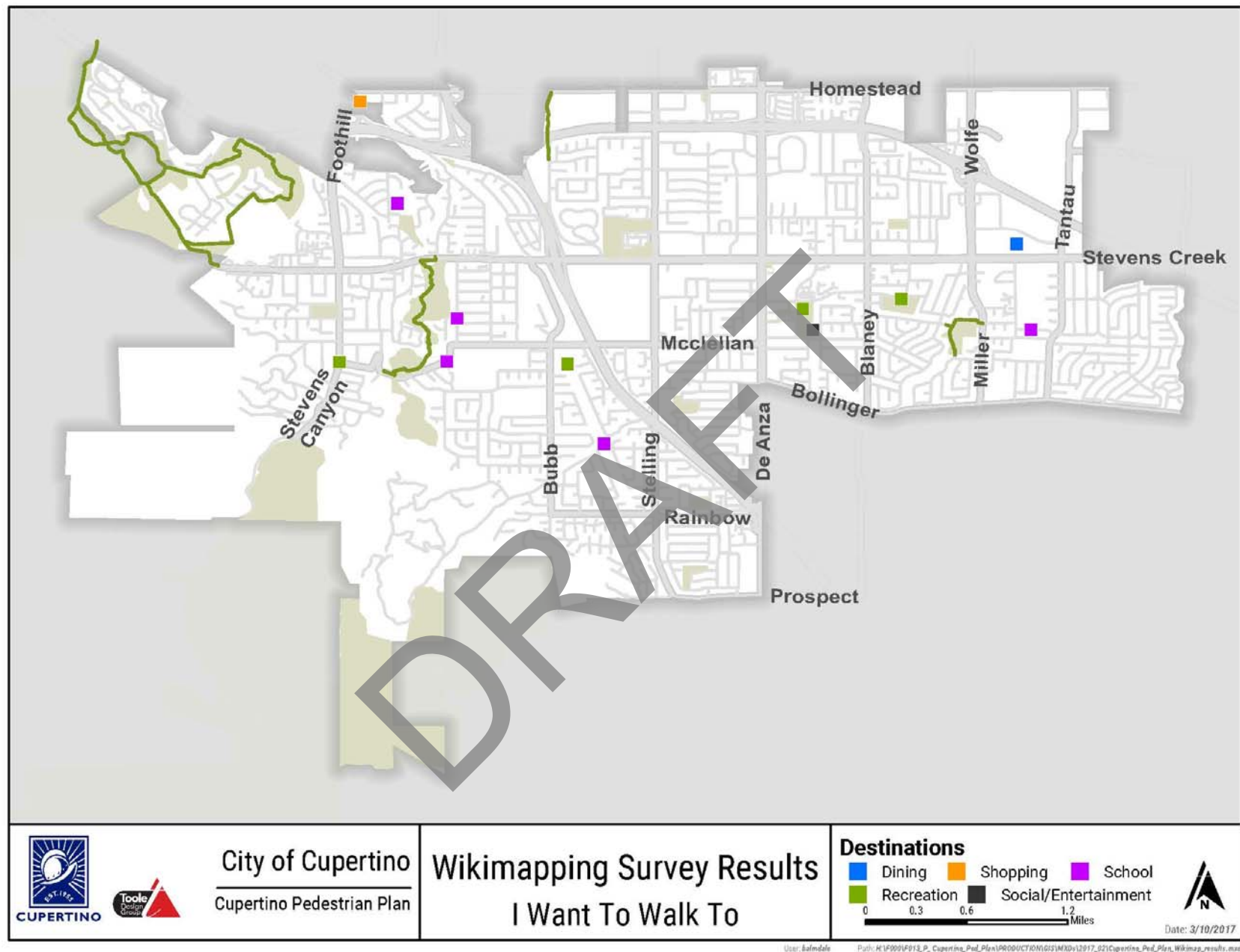


Figure 66. Places I Want to Walk to

Respondents were also asked to identify which of the following factors prevent them from walking to that destination today:

1. Lack of Sidewalk
2. No Convenient Pedestrian Entrance
3. Too Much Traffic
4. Streets Don't Connect
5. Difficult to Cross Street
6. Feels unsafe for Children

DRAFT

Table 13 lists the issues influencing why these individuals may not be choosing to walk to certain destinations. A lack of sidewalk and presence of too much traffic were chosen most frequently as the barriers preventing people from walking to these destinations today.

Barrier Type	Total	Share of Total
Lack of sidewalk	7	30%
No convenient pedestrian entrance	3	13%
Too much traffic	6	26%
Streets don't connect	1	4%
Difficult to cross street	2	9%
Feels unsafe for children	4	17%
<b>Total</b>	<b>23</b>	<b>100%</b>

**Table 13. Barriers Preventing Walking to Selected Destinations (8 total respondents)**

## Public Workshop Summary

At the first workshop for the Pedestrian Transportation Plan held on January 25, 2017 from 6:00-7:30pm in the Cupertino Room at the Quinlan Center, Toole Design Group (TDG) provided a high-level overview of the project and planning process, and gathered input from the community about their interests and priorities related to walking. Informational and interactive boards and an on-line survey station were used to gather feedback and introduce the project. TDG staff also solicited feedback from workshop participants through individual and small group conversations. While the input discussed below came from a relatively small group of residents, it is anticipated that the online input vehicles of the survey and WikiMap will provide additional input that can guide the plan development process.

## Public Input

Public input was recorded in the following formats:

1. A map exercise to find out where participants think there are current pedestrian-related issues and opportunities in Cupertino.
2. A dot access exercise to determine which types of pedestrian trips are most important to community members to improve.
3. Survey station with a laptop for participating in the online project survey.

## Map Exercise

Participants were invited to place color-coded dots on a large scale citywide map in four categories. Table 14 shows the total number of dots mapped for the four categories.

Type of Place	Number of Comments
Place I walk	24
Place I'd like to walk	6
Barrier to Walking	12
Crash/Near Miss	14

**Table 14. Map Exercise Comment Summary**



Dots were placed in the following locations:

- Places I like to walk
  - Parks
  - Elementary and middle schools
  - Businesses near Vallco Pkwy and next to the intersection of Stevens Creek Blvd and N Wolfe Rd
- Places I'd like to walk
  - North side of the intersection of West Valley and Stevens Creek Blvd
  - Canyon Oak Park
  - De Anza Baseball Field
  - Between Varian Park and Stockmeir Ranch if a pedestrian connection were added
- Barriers to walking
  - Stevens Creek needs pedestrian crossings, especially between Stockmeir Ranch and Varian Park and near Carmen Rd
  - Railroad tracks between Madera Dr. and Somerset Park
  - Lack of sidewalks
  - Lack of pedestrian connectivity between residential streets
  - Lack of crosswalks on Stevens Creek Blvd and N De Anza Blvd
- Crash/Near Miss: Responses clustered around the areas identified below.
  - Stevens Creek Blvd
  - N De Anza
  - Bubb Rd south of Stevens Creek Blvd
- Other Comments
  - Will the trail from Stevens Creek to Canyon Oak Park trail be opened up to bikes?

#### Dot Access Exercise

Table 15 summarizes the pedestrian trip types that workshop attendees felt were most important to developing a safe and connected pedestrian network in Cupertino. Of the eight trip types mentioned, safe crossings of major roadways, and access to schools and greenspaces were the most frequently cited trip types.

Trip Type	Number of Votes
Safe Crossings of Major Roadways	8
Access to Schools	7
Access to Greenspace	7
Access to Multi-Use Paths (i.e., trails)	6
Access to Transit	4
Access to Shopping	4
Access to Jobs	4
Directness (i.e., shortest distance between destinations)	3

**Table 15. Pedestrian Trip Types**

## General Comments

TDG staff discussions with workshop attendees revealed a few issues that were not otherwise brought up through the map or voting exercise.

- There are issues with street connectivity that make it too far, unappealing or not possible for some trips to be made by foot.
- The most direct pedestrian routes are sometimes limited due to lack of access through private property. Note: Although access is not legally required across a private property, the preponderance of large parcels for office or retail use in the City also contribute to the disconnected nature of the network.



Figure 67. Attendees at the Public Workshop

## Bikeway Design Project

TDG presented a set of workshop boards and corridor roll plots in order to provide the public with an overview of design development process and schedule, as well as the conceptual designs of the proposed bikeways, intersection treatments, buffer types, driveways and bus stop zones.

### Public Input

Attendees were invited to add their comments to the conceptual plans and informational boards to provide feedback on intersections, “hot spot” areas, concerns about safety, and how people might use the potential street designs.

### General Comments

The following feedback applies to both the Stevens Creek Boulevard and McClellan Road corridor plans.

- There was broad support and excitement for the installation of Class IV bike lanes.
- Participants had questions about how cyclists would be able to make left turns at controlled and uncontrolled intersections, and the mechanics of how to pass slower cyclists while riding in Class IV bike lanes.
- There was a desire to ensure that the push buttons for activated signals at intersections are placed in a way so that they are easily accessible to bicyclists.
- Specific suggestions:
  - Add bike boxes at controlled intersections.
  - At driveways, install signage to warn drivers about pedestrians and cyclists, in addition to conflict markings and raised crossings.
  - Several suggestions were provided on buffer treatment options, including:
    - Instead of using planter boxes as barriers, use a narrow curb-like barrier.
    - Instead of using concrete barriers, use visual barriers, like the low fences used in some Asian counties.
    - Use bollards instead of a curb.
    - The barriers between pedestrians and cyclists should be visible.
    - The buffer treatment should be more permeable, to allow exit/entrance mid-block and ahead of left-turns

## Stevens Creek Boulevard

The most frequent questions among participants were how to protect bicyclists from right-turning vehicles and how to safely allow bicyclists to turn left at intersections. Attendees advocated for increased separation between bike lanes and vehicle lanes.

### *Stevens Creek Boulevard Intersections of Concern for Cyclists Turning Left*

- Foothill Blvd
- Pharlap Dr.
- Saich Way
- Mary Ave
- Finch Ave

### *Intersections of Concern for Right-Turning Vehicles*

- Hwy-85 NB on-ramp interchange (West of Mary Ave)

### *Intersections in Need of Additional Crosswalks*

- Pharlap Dr.
- Saich Way
- Mary Ave
- Finch Ave

### *Other Comments*

- Consider a separated trail from Foothill Blvd to Orange Ave.
- Bike lane leading up to Mary Ave (from the East, South side) should be 8ft, not 7ft.
- Foothill Blvd is a popular bike route.
- How will cars be prevented from crossing through bike lane when cyclists are present (De Anza College)?
- Adjust signal timing to favor walking/biking students over driving parents (Intersection w/ Finch Ave).
- Consider long-term, secure bike parking at express bus stops.

### *McClellan Road*

Two design concepts were presented for McClellan Road: Class IV bikeways in both directions (Concept 1) and a two-way Class IV bikeway on the north side of McClellan Road (Concept 2). Based on feedback from community members, there was no clear preference between these options.

### *Concept 1: Class IV bikeways in both directions*

#### *McClellan Road Intersections of Concern*

- Bubbl Rd
  - The entire intersection is a conflict zone for vehicles and bikes in all directions.
- Rose Blossom Drive
  - Currently no stop on McClellan when turning into De Anza Entrance. Traffic then stays across the intersection causing a grid lock on De Anza inner road.
- S Stelling Rd
  - Conflict zone for buses and cars that want to make a right-turn and bikes that want to go straight to reach the school.
- S De Anza and Pacifica Drive



**Figure 68. Attendees discussing the bikeway designs**

#### Other Comments

- Beyond McClellan Rd and Byrne Ave: Very Challenging area, but please extend bikeway to McClellan Preserve
- How will sidewalks be added when there are obstructions at property lines?

#### Concept 2: Two-way Class IV separated bikeway on the north side of McClellan Road

##### General Comments

- In certain locations, such as near Bubb Rd, the two-way cycle track may be a better option.
- Overpass between Rose Blossom and September Drive: show crossings on both sides of street (kids need to cross from all side streets).
- How will bicyclists get in and out of the two-way cycle track on the north side of the street if they have origins/destinations on the south side?
- How will bicyclists respond to a two-way cycle track at intersections?
- Intersection of Bubb Rd, south side: show crossing to go south side at Bubb to access the middle school.

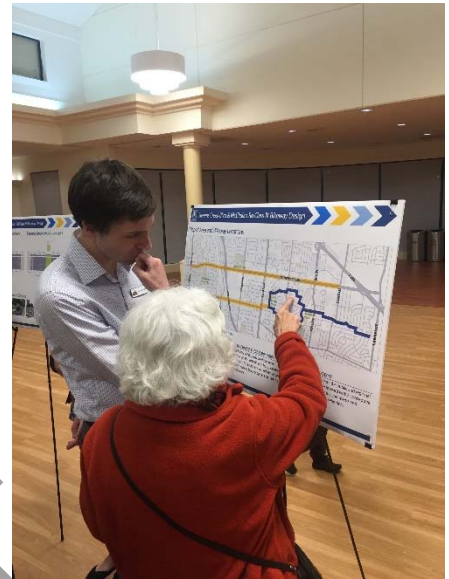


Figure 69. Participant at the Public Workshop

## Earth Day Outreach Event Summary

This summary provides an overview of the second outreach event for the PTP which was held at the Cupertino Earth Day & Arbor Day Festival at the Civic Center Plaza on Saturday, April 22, 2017 11am-3pm.

### Public Workshop

This earth day event provided an opportunity to share with the public and stakeholders *what we have learned so far, initial recommendations, different types of pedestrian improvements, and trade-offs and priorities*. The goal of this event was to engage the public about walking in Cupertino and build momentum for future pedestrian efforts.

### Information and Interactive Boards

There was a series of four boards designed to provide information and gather input. Board #1 displayed the project schedule and indicated where the project was up to the point of the Earth Day Event.

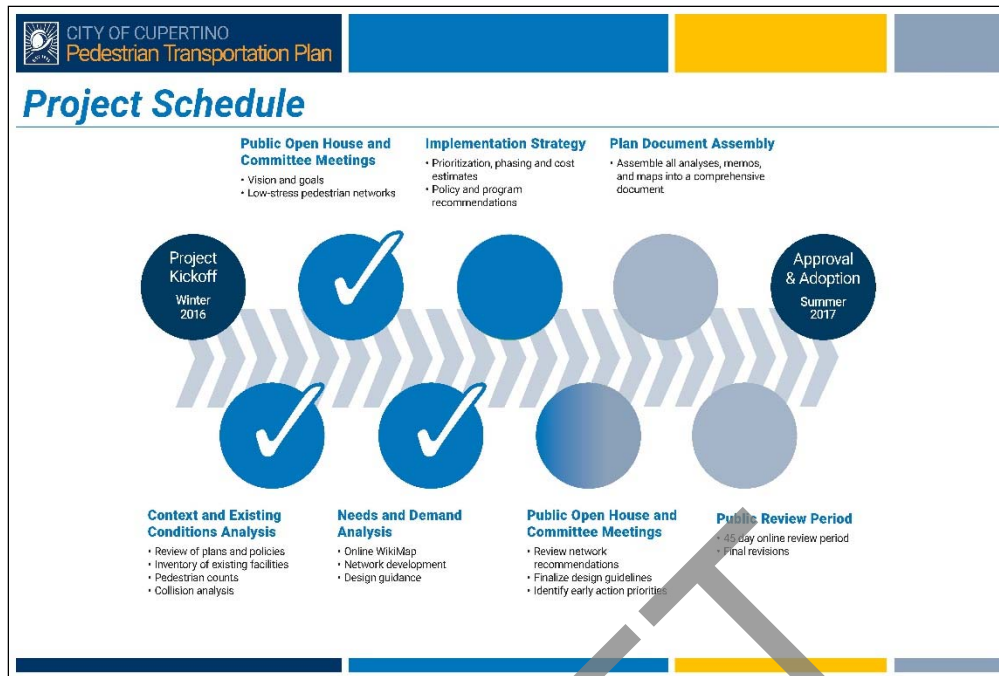


Figure 70. Board #1 - Project Schedule

Board #2 displayed a series of infographics and facts that framed the conversation about walking and existing conditions in Cupertino. The board included a word cloud, key facts on crash data, reasons people choose not to walk, and where improvements should be focused in Cupertino. This data was drawn from input received via the survey, online map and first public outreach event.

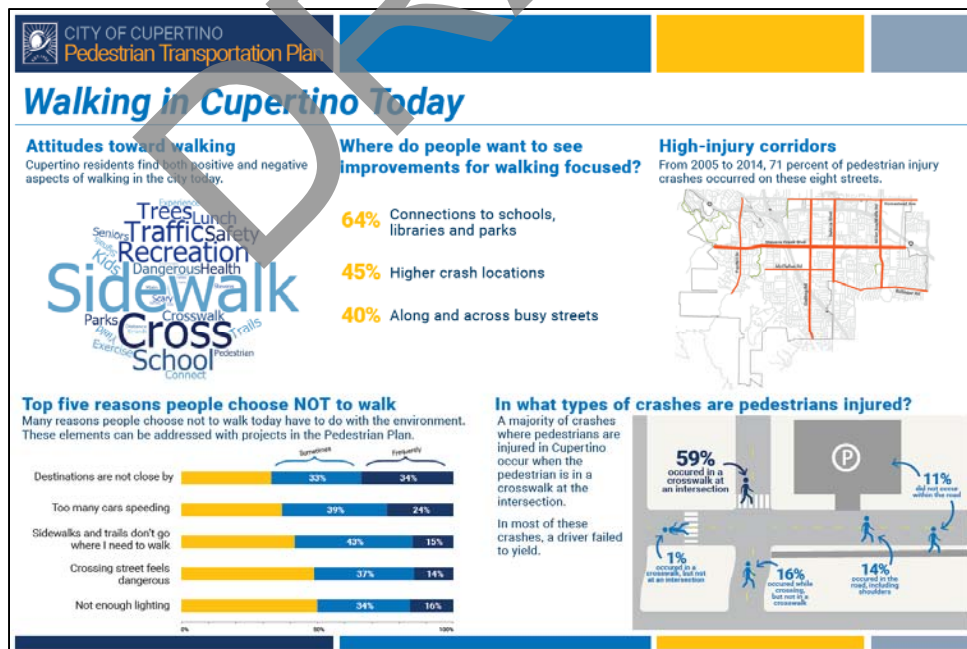


Figure 71. Board #2 - Walking in Cupertino Today











Board #3 provided an opportunity for people to vote on their preferred pedestrian facilities, including sidewalks, curb extensions, marked crosswalks, street lighting, traffic calming, and rapid flashing beacons, that will be found as recommendations in the BMP. Further, this board provided an opportunity for the public to share their opinion on priorities for facility types based on full trade-offs between cost and the level of comfort.

**CITY OF CUPERTINO**  
**Pedestrian Transportation Plan**

### What Do You Think

1. On a typical Cupertino street, which type of facility would you feel most comfortable and safe while walking? PICK TOP THREE!

Sidewalks	Curb Extensions	Marked Crosswalks	Street Lighting	Traffic Calming	Rapid Flashing Beacon
					
					

2. Improving walking safety and comfort requires changes to street designs and people's behavior. Which are you most likely to support?


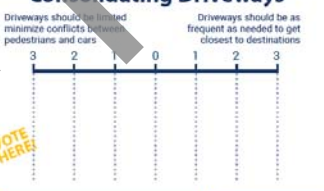
Calming Traffic	Enhancing Crossings	Consolidating Driveways
		

Figure 72. Board #3 - What do you think?

When asked on a typical Cupertino street, which type of facility would you feel most comfortable and safe while walking, over a third of responses were sidewalks, followed by marked crosswalks.

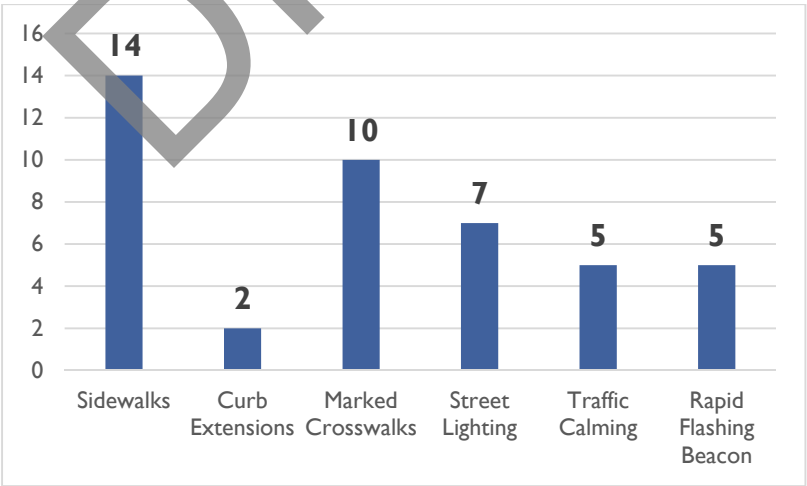


Table 16. Responses to Board #3  
What do you think? “Which facility would you feel most comfortable and safe” Results (n=43))

When asked, which facility are you most likely to support, respondents overwhelmingly preferred safe and visible crosswalks over delay and convenience. Further respondents preferred slow and safe neighborhood streets over access and efficiency six to one.

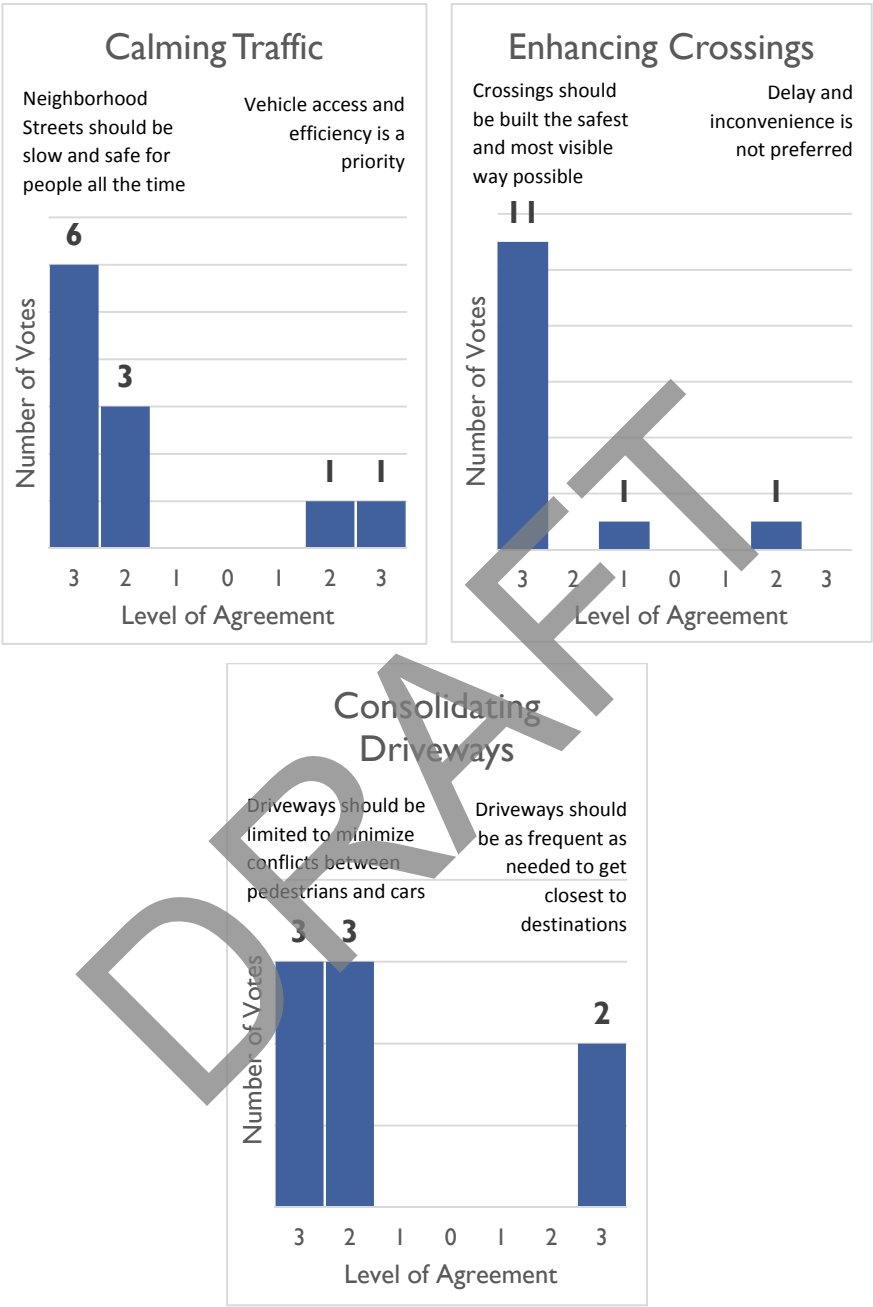


Table 17. Board #3 - What do you think? “Which are you most likely to support” Results (n=43)

Board #4 included a citywide map and “example” facility recommendations from the walk audits. Coupled with board three and facilitated conversations with staff, the public provided their input on what they thought of the proposed network and recommendations, if there was anything missing, and if they had any further ideas, questions or concerns.

### Example Pedestrian Improvements

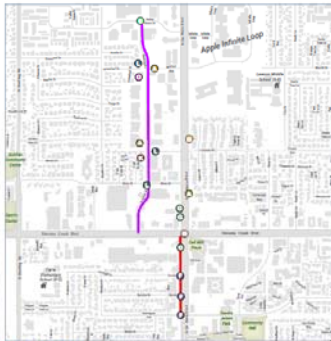
### Neighborhood Streets & School Access

This area of the city includes two unique features: narrower local streets in Monta Vista as a result of annexation, and semi-rural designation on Mann Drive and nearby streets. Enhancements to the pedestrian network are needed in both areas.



## Central Cupertino

The area near DeAnza and Stevens Creek Boulevards has some of the highest pedestrian activity in the city with workers walking between offices, and to lunch and shopping. Trips by foot will become easier with wider sidewalks and calmer traffic.



### Local Streets, Parks & Bus Access

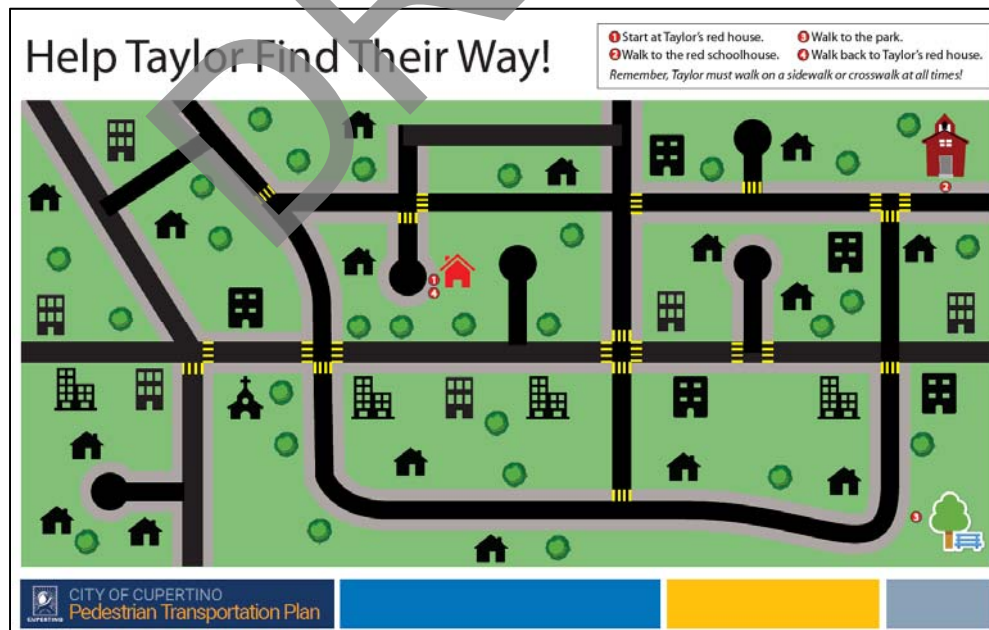
Wide local streets (40') can contribute to higher traffic speeds in neighborhoods. This is especially a concern where destinations like encourage walking trips. Bus stops on larger streets like Miller Avenue will benefit from enhancements for better access.



**Figure 73. Board #4 - Example Pedestrian Improvements**

## Children's Activity

Children were given a handout that asks them to “walk” from home, to school, to a park and back along the existing pedestrian infrastructure. This helped them understand how having crosswalks and sidewalks in place enables them to move around the city.



**Figure 74. Children's Handout: Help Taylor Find Their Way!**

## Appendix E. Crosswalk Installation Policy

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Pedestrian crossings are an essential part of a safe, connected pedestrian network. Well-designed crossings ensure pedestrians have a comfortable and convenient place to cross, which is particularly important for streets with higher volumes of traffic or high speeds. However, crossings should not be installed indiscriminately, as they can be expensive to install and maintain, and should be implemented based on predictable criteria. This Appendix provides guidance to the City of Cupertino for evaluating locations for the potential installation of crosswalks. In general, this guidance is not intended to be used to justify removal of crosswalks, which requires a public hearing under California state law.<sup>14</sup>

### Background

Pedestrian crossings are often requested where pedestrians have trouble crossing the road. In most cases, the desire is for new crosswalks to be installed at uncontrolled midblock locations or an uncontrolled leg of two-way stop intersections. At such locations, crossing the street without the benefit of crossing features can be more difficult and potentially more dangerous.

Pedestrian crossings have been studied extensively. An FHWA study completed in 2001 evaluated 1,000 marked crosswalks and 1,000 unmarked crossings in 30 U.S. cities to determine the impact of marked crosswalks on pedestrian safety.<sup>15</sup> The study reviewed pedestrian crash history, daily pedestrian volume estimates, average daily traffic (ADT) volumes, number of lanes, speed limit, area type, type of median, type and condition of crosswalk marking patterns, and other site characteristics. The results of the Zegeer study have since been used to inform national guidelines for use of marked crosswalks. Key findings include:

- Marked crosswalks alone are not recommended for the following situations:
  - Uncontrolled crossing locations on roads with four or more lanes where traffic volumes exceed approximately 12,000 vehicles per day (if no raised medians present) or approximately 15,000 vehicles per day (with raised medians that serve as refuge areas).
  - Two-lane roads if traffic volumes exceed 12,000 vehicles per day or on multi-lane roads with traffic volumes above 9,000 vehicles per day (with no raised median).
  - Roadways with speed limits above 40 mph. Enhanced crossing mechanisms, such as traffic and pedestrian signals, are recommended instead.
- Many types of pedestrian crossing problems cannot be addressed properly with only one treatment, such as a marked crosswalk. Installing crosswalks without other substantial treatments, such as traffic signals or traffic calming treatments, does not increase pedestrian safety.
- On two-lane roads and lower volume multi-lane roads, marked crosswalks were not found to have any positive or negative effect on pedestrian crash rates. The benefit of installing marked crosswalks at these sites is to indicate the desired location at which to cross the street and, in some situations, help consolidate multiple crossing points.

The guidance contained in the California MUTCD supports the need for implementation of additional measures at crosswalks on high-speed multilane roadways. However, it contains more permissive criteria for implementing

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<sup>14</sup> California Vehicle Code §21950.5

<sup>15</sup> Zegeer et al. *Safety Effects of Marked versus Unmarked Crosswalks at Uncontrolled Locations: Final Report and Recommended Guidelines*. Federal Highway Administration.  
<https://www.fhwa.dot.gov/publications/research/safety/04100/>

crosswalk markings alone across multilane streets, despite the recommendations in the Zegeer report.<sup>16</sup> Cities can go beyond MUTCD minimum requirements and follow more conservative recommendations that favor implementation of protective measures at crosswalks on a wider range of street types.

In delivering the recommendations against the use of unmarked crosswalks alone in many cases, the study authors noted that “the results of this study should not be misused as justification to do nothing to help pedestrians to safely cross the streets. Instead, pedestrian crossing problems and needs should be routinely identified, and appropriate solutions should be selected to improve pedestrian safety and access. Deciding where to mark or not mark crosswalks is only one consideration in meeting the objective.”

While the Zegeer report remains the most important guidance for whether a crosswalk should be installed, more recent research sheds light on the types of treatments that should be implemented under different circumstances. NCHRP Report 562 includes descriptions of pavement markings, pedestrian signals, flashing beacons, and roadway design elements that can be used to promote safer crossings. The study also notes that treatments are often implemented in combination to inform the actions of both pedestrians and motorists.<sup>17</sup> The findings reiterate the need for more complex treatments on multilane, high-speed roadways, where motorist yielding was observed to decrease with treatments such as crosswalks and signage alone.

Another NCHRP Report, *Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments*, published in 2017, quantifies the safety benefits associated with installation of refuge islands, advanced yield or stop markings and signs, rectangular rapid flashing beacons (RRFBs), and pedestrian hybrid beacons (PHBs).<sup>18</sup> Among these, PHBs and RRFBs were found to offer the most significant pedestrian crash reduction (55 percent and 47 percent, respectively). Refuge islands and advanced yield markings were also shown to reduce pedestrian crashes by 31 percent and 25 percent, respectively.

### Pedestrian Crossing Installation Guidelines

As noted above, crosswalks are often requested by members of the public. To respond to such requests in a consistent and predictable fashion, a clear process and decision-making criteria are needed. A process for determining whether to install a crosswalk and the appropriate treatment type is provided as part of this Appendix and is explained here. This process does not apply to crosswalk markings along school routes, which should consider the unique needs of school-aged children. Additionally, engineering judgment is always needed to account for site-specific factors.

### Crosswalk Decision Process

The decision-making process begins with the identification of a candidate crossing location. This location may be based on a request from residents or through proactive identification of potential crossing locations. Existing crossings may also be evaluated to determine whether additional enhancements are needed or whether, in extreme circumstances, the crossing should be considered for removal due to safety concerns.

Candidate locations at signalized intersections (unmarked legs of the intersection) should generally be marked as a crosswalk, unless engineering judgment determines the pedestrian crossing should be prohibited due to safety concerns. Guidance to this effect is provided in FHWA’s *PEDSAFE: Pedestrian Safety Guide and Countermeasure*

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<sup>16</sup> Caltrans. *California Manual on Uniform Traffic Control Devices, 2014 Edition, Revision 2*. Chapter 3B.18 Crosswalk Markings. 2017.

<sup>17</sup> Fitzpatrick, et al. *NCHRP Report 562: Improving Pedestrian Safety at Unsignalized Crossings*. 2006.

<sup>18</sup> Zegeer, et al. *NCHRP Research Report 841: Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments*. 2017.



*Selection System*, which states that “Pedestrians are sensitive to out-of-the-way travel, and reasonable accommodation should be made to make crossings both convenient and safe at locations with adequate visibility. At signalized intersections, this means that all four legs of the intersection should have crosswalks.”<sup>19</sup> The National Association of City Transportation Officials reiterated this recommendation in its Urban Street Design Guide.<sup>20</sup> If needed, curb ramps should be installed or improved in conjunction with new markings installed at signals. For stop-controlled locations, it is typically not necessary to install a marked crossing.

Uncontrolled intersection or midblock locations should be given further consideration for installation of a crosswalk. Locations with very low traffic volumes do not require a marked crosswalk, as pedestrians are easily able to find a gap in traffic. A minimum threshold of 1,500 vehicles per day is proposed for this purpose; however, the City could determine a higher threshold is appropriate, particularly after reviewing site conditions.

For uncontrolled locations that meet minimum vehicle volume thresholds, a crosswalk should be implemented if the location is a multi-use path crossing and sight distance is adequate. For other locations, it is necessary to determine whether pedestrian activity can be expected on a regular basis. This determination can be made based on the location’s proximity to pedestrian generators such as parks or commercial areas. Pedestrian volume estimates could also be used to determine use levels; however, existing use may be low relative to the number of people who would use a new crossing facility.

An additional consideration for new crosswalks is whether there is an existing controlled intersection or improved crossing within 300 feet of the proposed location. If so, pedestrians should typically be directed to use the existing crossing. As for multi-use path crossings, it is important to ensure that all pedestrian crossings meet minimum sight distance standards.

### Crossing Treatment Guidance

Once a location has been determined to require a crosswalk, a variety of treatment options should be considered. The factors to be considered include: number of lanes, presence of a median, traffic speed, and vehicle volume. The ‘Uncontrolled Crossing Treatment Selection Guidelines’ matrix identifies four possible treatment categories based on combinations of these features. These include:

- High-visibility marked crossing with crosswalk warning signs
- High-visibility marked crossing with geometric enhancements that reduce crossing distance and advanced yield markings<sup>21</sup>
- High-visibility marked crossing with active warning devices such as Rectangular Rapid Flashing Beacons (RRFBs)
- High-visibility marked crossing with Pedestrian Hybrid Beacons (HAWK signals) or full signals

Crossing treatments are further documented in the Facility Toolbox contained in the PTP. Additionally, the resources below document the recommended use of various treatments and their impacts on pedestrian safety.

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<sup>19</sup> Federal Highway Administration. *PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System*. [http://www.pedbikesafe.org/PEDSAFE/countermeasures\\_detail.cfm?CM\\_NUM=4](http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=4)

<sup>20</sup> National Association of City Transportation Officials: Urban Street Design Guide. <https://nacto.org/publication/urban-street-design-guide/intersection-design-elements/crosswalks-and-crossings/>

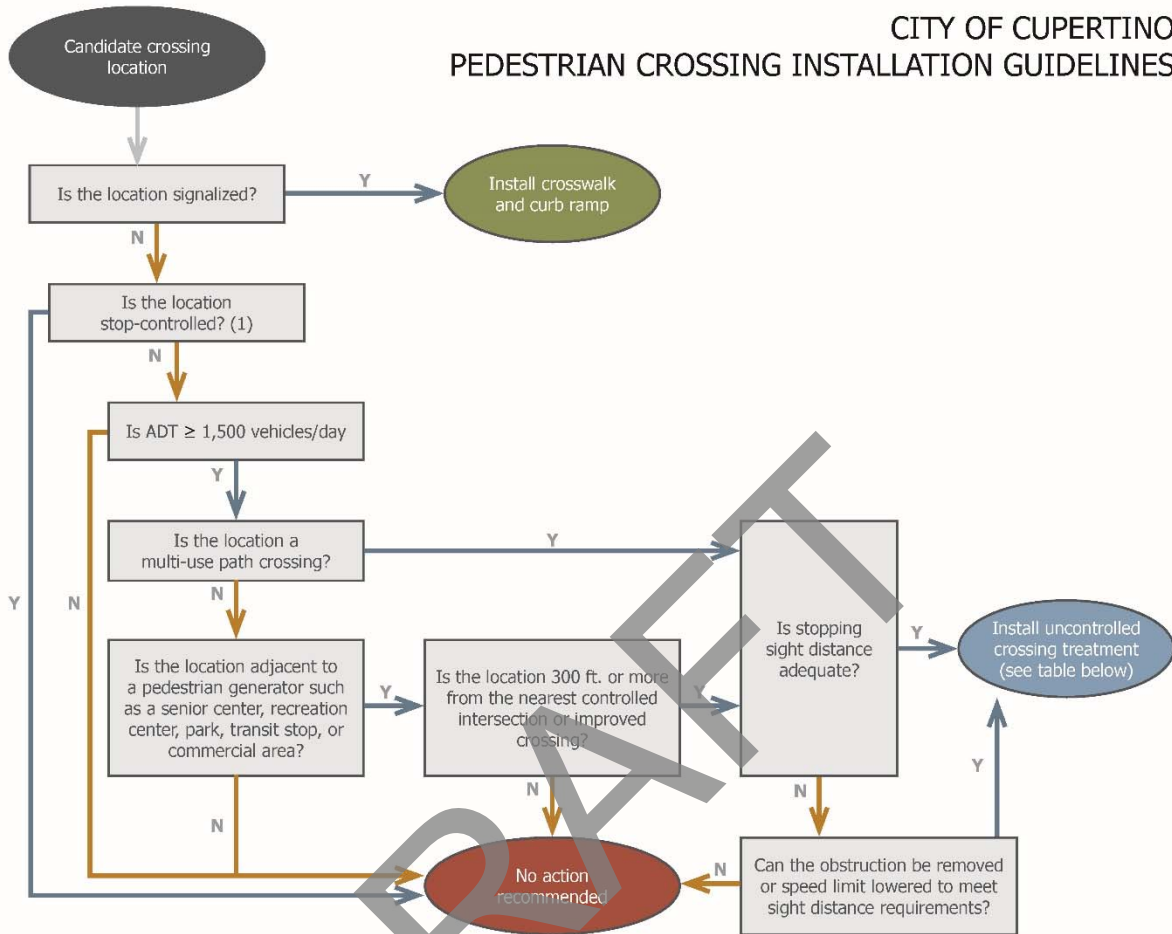
<sup>21</sup> Advanced yield markings are particularly important on multi-lane streets to reduce the risk of multiple-threat crashes.

## Resources

- Caltrans. *California Manual on Uniform Traffic Control Devices: 2014 Edition, Revision 2*. 2017.  
[http://www.dot.ca.gov/trafficops/camutcd/docs/2014r2/CAMUTCD2014\\_rev2.pdf](http://www.dot.ca.gov/trafficops/camutcd/docs/2014r2/CAMUTCD2014_rev2.pdf)
- Fitzpatrick, et al. *TCRP Report 112/NCHRP Report 562: Improving Pedestrian Safety at Unsignalized Crossings*. 2006.
- Zegeer, et al. *NCHRP Research Report 841: Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments*. 2017.
- Zegeer et al. *Safety Effects of Marked versus Unmarked Crosswalks at Uncontrolled Locations: Final Report and Recommended Guidelines*. 2005.

DRAFT

## CITY OF CUPERTINO PEDESTRIAN CROSSING INSTALLATION GUIDELINES



### Uncontrolled Crossing Treatment Selection Guidelines (2)

Average Daily Vehicle Traffic	2 Lanes or 3 Lanes with Median Refuge			3 Lanes without Median Refuge			4+ Lanes with Median Refuge			4+ Lanes without Median Refuge		
	≤ 30mph	35mph	≥ 40mph	≤ 30mph	35mph	≥ 40mph	≤ 30mph	35mph	≥ 40mph	≤ 30mph	35mph	≥ 40mph
≤ 9,000	a	a	c	a	b	d	b	b	d	c	c	d
9,000-12,000	a	a	c	b	c	d	b	c	d	c	c	d
12,000-15,000	b	b	c	c	c	d	c	c	d	c	c	d
≥ 15,000+ (3)	b	c	c	c	c	d	c	c	d	d	d	d
Treatment Categories												
a	High-visibility marked crossing with crosswalk warning signs											
b	High-visibility marked crossing with geometric enhancements that reduce crossing distance and advanced yield markings											
c	High-visibility marked crossing with active warning devices such as Rectangular Rapid Flashing Beacons (RRFBs)											
d	High-visibility marked crossing with Pedestrian Hybrid Beacon (PHB) or full signal											

#### Notes:

- (1) Stop-controlled intersections on school walking routes should be marked according to the City's current school zone crosswalk marking practices.
- (2) Appropriate treatments for school crossings should be evaluated separately and consider the limitations of young pedestrians such as slower walking speeds and limited peripheral vision.
- (3) At higher traffic or pedestrian volumes, MUTCD warrants for PHBs or full signals may be met and should be considered. Treatment categories shown represent minimum recommendations.

Figure 75. Pedestrian Crossing Installation Guideline

## Appendix F. Project Scoring

	Project	Location	Schools		Safety		Destination			Pedestrian Pathway	Total Score
			Schools/Public Library	School Connector Route	Street Classification	Traffic Speed	Parks, Quinlan Center	Transit Center	Retail/business Employment		
Tier 1	Sidewalk	McClellan Rd: Leandro Ave to Orange Ave construct sidewalk	30	10	15	0	10	0	0	15	80
	Sidewalk	McClellan Rd: south side, Bonny Dr to McClellan Pl construct sidewalk	30	10	15	0	0	10	0	15	80
	Grade Separated Crossing	Highway 85 Crossing: Grand Ave to Mary Ave	30	0	15	0	10	0	5	15	75
	Sidewalk	McClellan Rd: north side, SR 85 to Rose Blossom Dr construct sidewalk	30	10	15	0	0	0	5	15	75
	Sidewalk	Orange Ave: Granada Ave to Alcazar Ave construct sidewalk	30	10	5	0	10	5	0	15	75
	Shift crosswalk to N leg Install median island and RRFB	Stelling Rd at Alves Dr	30	10	15	0	10	10		0	75
	Shorten turn lane access	Stevens Creek Blvd at Oaks entrance (part of Class IV design)	30	0	15	5	10	10	5	0	75
	Add right-turn phase	Stevens Creek Blvd at SR 85 NB on ramp (from Class IV design)	30	0	15	5	10	10	5	0	75
	Shorten turn lane access	Stevens Creek Blvd at west entrance to De Anza College (part of Class IV design)	30	0	15	5	10	10	5	0	75
	Sidewalk	Byrne Ave: McClellan Rd to Granada Ave construct sidewalk	30	0	15	0	10	0	0	15	70
	Grade Separated Crossing	Carmen Rd Bridge at Stevens Creek Blvd Bike/Ped Bridge	20	10	15	0	10	0	0	15	70
	Sidewalk	Foothill Blvd: east side, btwn Stevens Creek Blvd and Rancho Ventura St construct sidewalk	20	0	15	0	10	10	0	15	70
	Sidewalk	Foothill Blvd: west side, Stevens Creek Blvd to Rancho Ventura St construct sidewalk	20	0	15	0	10	10	0	15	70
	Shared-Use Path	I-280 Canal Path Shared-Use Path	30	0	15	0	0	5	5	15	70

Table 18. Project Scoring

	Project	Location	Schools		Safety		Destination			Pedestrian Pathway	Total Score
			Schools/Public Library	School Connector Route	Street Classification	Traffic Speed	Parks, Quinlan Center	Transit Center	Retail/business Employment		
Tier 1	Class 1 Path	Mary Ave: Don Burnett Bridge to Stevens Creek Blvd.	30	10	5	0	10	0	0	15	70
	Sidewalk	Mary Ave: West side, Dog Park to Oaks Shopping Center	30	10	5	0	10	0	0	15	70
	Bike/Ped Bridge	McClellan Rd at McClellan Ranch crossing Stevens Creek	20	10	15	0	10	0	0	15	70
	Shared-Use Path	Regnart Creek, Shared-Use Path	30	10	0	0	10	0	5	15	70
	Sidewalk	Stelling Rd: west side, Catalano Ct to Orion Ct construct sidewalk	20	10	15	0	10	0	0	15	70
	Class 1 Path	The Oaks Development Shared-Use Path	30	0	0	0	10	10	5	15	70
Tier 2	Grade Separated Crossing	McClellan Ranch West Undercrossing at McClellan Rd - Bike/Pedestrian undercrossing	20	10	15	0	10	0	0	10	65
	Construct curb extensions	Phar Lap Dr at Stevens Creek Blvd	20	10	15	5	10	5	0	0	65
	Bike/Ped Bridge and Sidewalk	West Cupertino UPRR Crossing Bike/Ped Bridge and Stevens Creek Blvd, west of Foothill where missing, connect to proposed UPRR	15	10	10	0	10	5	0	15	65
	Sidewalk	Bubb Rd: east side, Edward Way to Krzich Pl construct sidewalk	30	10	5	0	0	0	0	15	60
	Reconfigure intersection	De Anza Blvd at McClellan Rd	20	10	15	0	0	10	5	0	60
	Construct curb extensions	Phil Ln at Finch Ave	30	10	5	5	10	0	0	0	60
	Reconfigure intersection	Torre Ave at Town Center Ln	30	10	0	5	10	0	5	0	60
	Shared-Use Path	Union Pacific ROW Shared-Use Path	30	0	0	0	10	5	0	15	60
	Shared-Use Path	Vallco West Pathway Shared-Use Path	30	0	0	0	10	0	5	15	60
	Sidewalk	Foothill Blvd: east side, btwn Rancho Ventura St and Walnut Cir construct sidewalk	15	0	15	0	10	0	0	15	55

Table 18. Project Scoring



	Project	Location	Schools		Safety		Destination			Pedestrian Pathway	Total Score
			Schools/Public Library	School Connector Route	Street Classification	Traffic Speed	Parks, Quinlan Center	Transit Center	Retail/business Employment		
Tier 2	Shared-Use Path	Ranch to Reservoir Trail extension (Includes: Deep Cliff Golf Course Shared-Use Path and McClellan to Sevens Creek County Park)	30	0	0	0	10	0	0	15	55
	Sidewalk	San Fernando/Black Berry Farms Entrance between Byrne Ave and Black Berry Farms	30	0	0	0	10	0	0	15	55
	Shared-Use Path	Wilson Park Shared-Use Path	20	10	0	0	10	0	0	15	55
Tier 3	Consider stop control for Alves Dr	Alves Dr at Saich Way, westbound	20	0	5	5	10	0	5	0	45
	Construct curb extension	Bandley Dr at Mariani Ave (southeast corner)	20	10	5	5	0	0	5	0	45
	Create ped/bike connection	Imperial Ave btwn Alcadar Ave and Almaden Ave	30	0	0	0	0	0	0	15	45
	Construct curb extensions and Mark high-visibility crosswalk	Rainbow Dr at Gardenside Ln	15	10	5	5	10	0	0	0	45
	Shared-Use Path	San Tomas Aquino Creek Trail Extension Shared-Use Path	15	0	0	0	10	0	0	15	40
	Consider stop control for Alves Dr	Alves Dr at Beardon Dr, eastbound	20	0	5	5	0	0	5	0	35
	Construct curb extensions	Bandley Dr at Alves Dr (south leg)	20	0	5	5	0	0	5	0	35
	Sidewalk	Beardon Rd: Alves Rd to Valley Green Dr construct sidewalk	20	0	0	0	0	0	0	15	35
	Sidewalk	Alcalde: Avenida Ln to Foothill blvd.	15	0	0	0	0	0	0	15	30
	Construct curb extensions Consider all-way stop control and Mark high visibility crosswalk	Bandley Dr at Lazaneo Dr	20	0	0	5	0	0	5	0	30
	Install RRFB	Valley Green Dr at Bandley Dr (west leg)	20	0	0	5	0	0	5	0	30

Table 18. Project Scoring