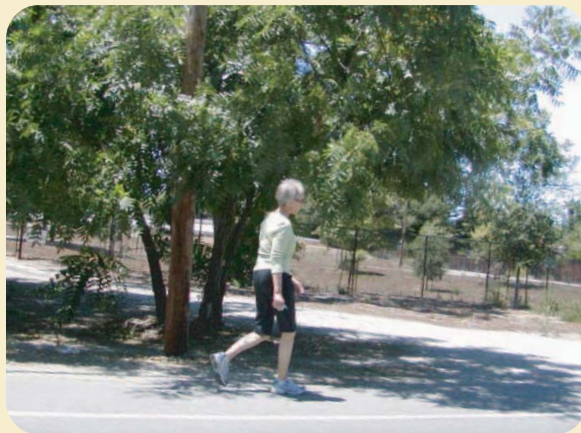




CITY OF LOS ALTOS

STEVENS CREEK TRAIL FEASIBILITY STUDY

Final
Plan



JULY 2008



Stevens Creek Trail Feasibility Study

July 2008

Final Plan



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EXECUTIVE SUMMARY

The Stevens Creek Trail (SCT) Feasibility Study in Los Altos focuses on how a link could be built from the Stevens Creek Trail in Mountain View to a connection in Cupertino that would provide both recreational and transportation benefits to south Los Altos residents. This Feasibility Study was included in the 2005 Los Altos Capital Improvement Program and funded by the Santa Clara Valley Transportation Authority, Friends of Stevens Creek Trail, and the City of Los Altos. This Study reviews the options for extending the trail through Los Altos from Mountain View to Cupertino and recommends a preferred alignment of the trail while identifying potential environmental, engineering, and safety issues.

Of five alternative alignments evaluated, **the Study's preferred alternative is Alternative 3 – Stevens Creek/Fremont Avenue Connector**. The estimated total cost of this alternative is **\$6.7 million**. The project could be developed over five phases and, as a regional facility, it would compete well for a wide variety of outside funding sources. A map of the preferred alternative is on page vi. The route of the preferred alternative connects Mountain View High School with Sunnyvale and Cupertino. The alignment includes a ten-foot wide Class I – multi-use path adjacent to Highway 85, continuing west along Fremont Avenue, and south and southeast on Grant Road.

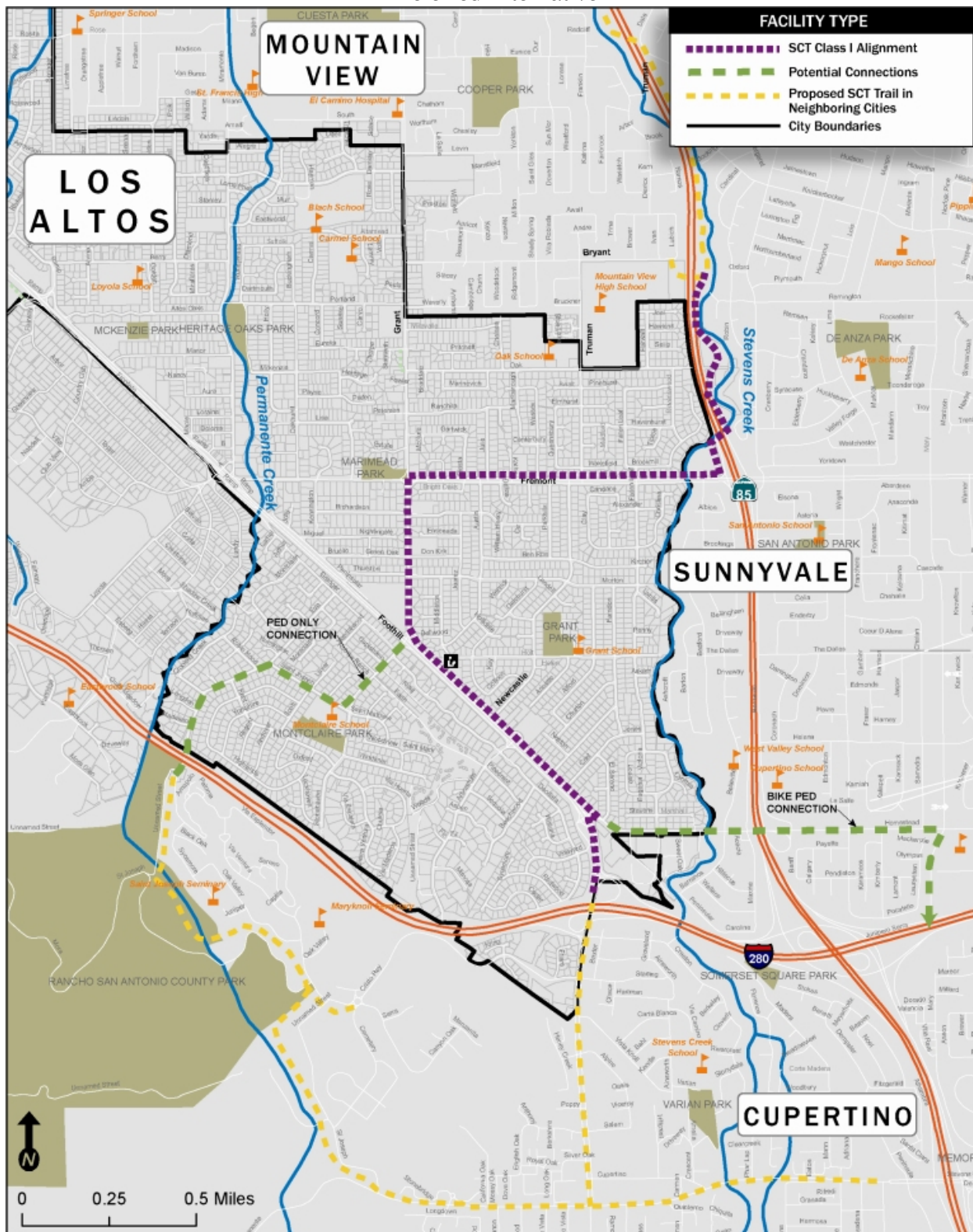
To develop the Study, the City of Los Altos' Bicycle and Pedestrian Advisory Committee (BPAC) proposed an ad hoc committee, the **Stevens Creek Trail Task Force**, to advise the City on the SCT Feasibility Study. The Task Force was granted ad hoc status by the Los Altos City Council in March 2007 and worked as an advisory committee with city staff and hired consultant, Alta Planning + Design, throughout the planning process.

The SCT planning process had **two public workshops**. Over seventy members of the public attended the first workshop and provided several potential route ideas for the SCT. The second workshop was equally well attended with approximately 65 people. Attendees were asked for their feedback on five SCT alternatives and then voted on their preferred alternative. Present at both workshops were the Mayor, members of the City's Traffic Commission and BPAC, City Staff, Friends of Stevens Creek Trail, residents of Los Altos (including property owners adjacent to the creek), and residents from neighboring cities. The SCT planning process also included meetings with the neighboring jurisdictions of Mountain View, Sunnyvale, and Cupertino to discuss trail development and the SCT alternatives in Los Altos.

The preferred alignment, **Alternative 3**, resulted from applying twelve evaluation criteria to the five alternative alignments considered in the Study. The criteria used in the evaluation are:

Criteria	
• Safety to the Trail User	• Neighborhood Impact
• Accessibility to Los Altos Residents	• Homeowner Security
• Environmental Impacts	• Opportunities for Multiple User Groups
• Connections to Key Destinations	• Directness of Route
• Traffic Impacts	• Public Support
• Trail Environment	• Timing

Preferred Alternative



1. EXISTING CONDITIONS

1.1. PROJECT OVERVIEW AND PURPOSE

The Stevens Creek Trail (SCT) Feasibility Study in Los Altos focuses on a link from the Stevens Creek Trail in Mountain View to a future connection in Cupertino. This Feasibility Study was included in the 2005 Los Altos Capital Improvement Program and funded by the Santa Clara Valley Transportation Authority, Friends of Stevens Creek Trail, and the City of Los Altos.

Mountain View envisions constructing a bike and pedestrian corridor along Stevens Creek from the San Francisco Bay Trail in the north to Mountain View High School in the south. The City has constructed 4.5 miles of the over 6.0 mile long trail that currently travels from the Bay Trail to the south side of El Camino Real. Construction of the next trail extension, between El Camino Real and Sleeper Open Space at Sleeper Avenue, will begin in fall 2008 with completion in fall 2009. Construction of the remainder of Stevens Creek Trail in Mountain View, between Sleeper Avenue and Mountain View High School, is currently unfunded.

The purpose of this Plan is to review the options for extending the trail through Los Altos from Mountain View to Cupertino and to develop preferred alignments of the trail while identifying environmental, engineering, and safety issues through Los Altos

1.2. PROJECT SETTING AND STUDY AREA

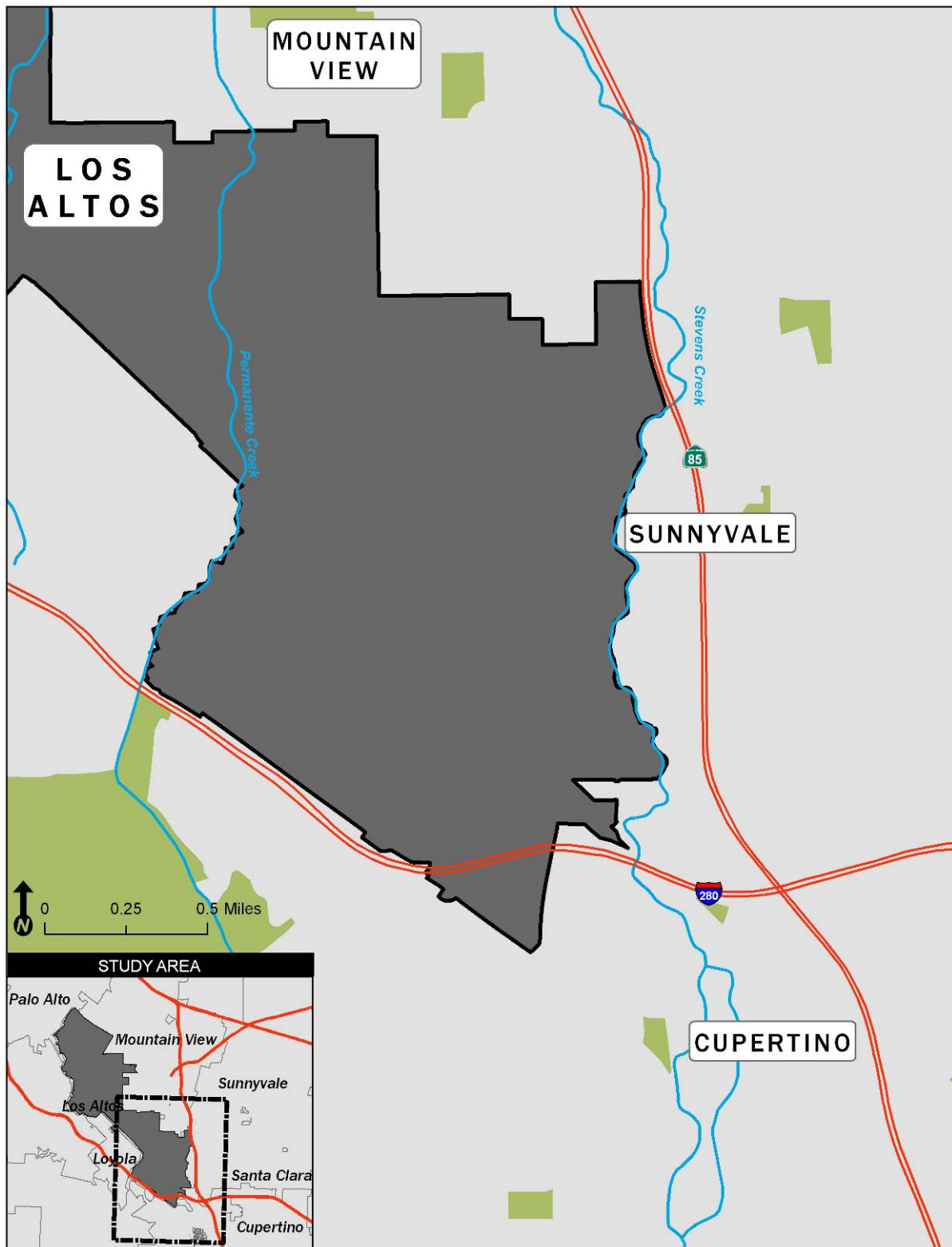
This chapter provides a description of existing conditions in the Study Area. Information is based on field visits, existing planning documents, aerial photographs, maps, and conversations with city, county and other agency staff. A review of the public meetings and meetings with neighboring city staff is reviewed in Chapter 2.

An overview of the area in Los Altos where the SCT connection was studied is shown in **Figure 1-1 Study Area**. The Study Area is in the southern section of Los Altos near the bordering cities of Mountain View, Sunnyvale, and Cupertino. Exact streets and neighborhoods in the study area depend on the chosen alignments to be determined.



A bicyclist in Los Altos

Figure 1-1
Study Area



1.3. GOALS AND OBJECTIVES

The overall goal of the Stevens Creek Feasibility Study is to propose a connecting alignment linking the Mountain View Stevens Creek Trail to Cupertino through Los Altos. This Feasibility Study was first introduced to the residents of Los Altos in the 2002 Los Altos Bicycle Transportation Plan. This Plan included a Stevens Creek Trail Feasibility Study within its Implementation Plan. The importance of this study has grown as the SCT in Mountain View has developed and as it expands in the future south to the Los Altos city boundary.

The City of Los Altos' Stevens Creek Trail Feasibility Study is included in the 2006-2007 Capital Improvement Project list. The Study is funded by \$80,000 from the Santa Clara Valley Transportation Authority (VTA), \$20,000 from the City of Los Altos, and \$5,000 from the Friends of Stevens Creek Trail. The Friends of Steven Creek Trail is a 501(c)3 nonprofit that was established in 1992 to raise community awareness and support for the completion of a trail in the Stevens Creek Corridor.

Specific goals for pedestrians and bicyclists are contained in the City of Los Altos' various planning documents, including the General Plan and Bicycle Transportation Plan. Drawing on these existing plans, the following goals and objectives have been developed to help guide the evaluation process in this feasibility study.

Goal 1: The project should improve north-south access for bicyclists and pedestrians in southern Los Altos, connecting with the Stevens Creek Trail in Mountain View and existing or proposed bicycle and pedestrian facilities in Cupertino.

Objective 1A: Connectivity. Provide links and improve access to destinations north, south, east and west of the proposed Stevens Creek Trail alignment in Los Altos.

Objective 1B: Recreation Amenity. Provide improved access to recreational amenities, especially the shoreline and public open spaces, such as the San Francisco Bay Trail.

Goal 2: Improve pedestrian and bicyclist safety in the Stevens Creek Trail corridor.

Objective 2A: Safety. Provide adequate facilities that allow all bicyclists and pedestrians to travel safely through the project area.

Goal 3: The project should provide maximum benefits to the public.

Objective 3A: Range of User Groups. Maximize the range of potential users of any new facilities, including users of all ages and abilities. Understand the needs, capabilities, and interests of each user group, and consider this in the design of any solution(s).

Objective 3B: Function. Maximize the functional aspects of any recommendation in terms of convenience, gradients, availability, directness, access, cost, and connectivity to major destinations.

Objective 3C: Cost Effectiveness. The project should offer the best combination of effectiveness with lowest capital and operating cost, and should be consistent with existing and future local and regional improvement projects wherever possible.

Goal 4: The project should minimize negative impacts on the environment and local communities.

Objective 4A: Environment. Design the project so it does not result in significant negative environmental impacts in terms of direct construction impacts (water quality, historical and archaeological resources, etc.) and indirect impacts (increased demand on local resources that are already over capacity, traffic capacity, financial resources, etc.).

Objective 4B: Property Impacts. Avoid or minimize impacts on private property and residential neighborhoods, including the need to acquire right-of-way or easements.

Objective 4C: Visual Impacts. Design the project so it does not result in significant impacts on the visual resources of the corridor.

Objective 4D: Safety. Design the project so it does not result in safety impacts to the neighbors of the facilities.

Objective 4E: Parking. Design the project so it does not result in increased on-street parking where spaces are not available.

Goal 5: The project should be consistent with adopted policies, standards, and goals.

Objective 5A: Consistency: Design the project to be consistent with the local, regional, and State adopted standards, policies, and goals.

1.4. SUMMARY OF RELEVANT PLANS & POLICIES

This section discusses the key public agencies involved in the Stevens Creek Trail project, and relevant planning and policy documents prepared by these agencies.

1.4.1. City of Los Altos

According to the 2000 US Census, the City of Los Altos has a population of 27,693. As Figure 1-1 shows, Los Altos is bordered to the north by the City of Palo Alto, to the west by Los Altos Hills, Loyola and unincorporated Santa Clara County, to the south by Cupertino, and to the east by Sunnyvale and to the north by Mountain View.

Los Altos General Plan - Circulation Element

The Los Altos General Plan was last updated in November 2002 with a vision through 2020. The Circulation Element includes a bikeways map with both existing and proposed Class I bike paths, Class II bike lanes, and Class III bike routes. The General Plan includes language in the Plan that relates to the trail.

The Circulation Element states that where feasible, paths and trails should be added to city right-of-way to help separate pedestrians and vehicles. Goal 4 of the Circulation Element states that the City should *Provide for the convenient and safe movement of bicyclists and pedestrians throughout the City to meet the commuter and recreation needs of the community*. Relevant policies to achieve this goal are:

- Developing a bikeway system for commuting and recreation
- Provide connections to neighboring jurisdictions
- Provide trails or separated pathways in areas where needed to provide safe bicycle and pedestrian access to schools
- Consider bicycle/pedestrian pathways along arterial and collector roadways
- Pursue potential rights-of-way (or joint use agreements), such as with Santa Clara Valley Water District and other utility easements for bicycle and pedestrian trail development.
- Work with residents to identify appropriate locations, especially adjacent to school sites, for the installation of pedestrian walkways that blend into the existing character of the community.

Implementation of the Circulation Element as it applies to bicycle and pedestrian facilities includes, implementing the 2002 Los Altos Bicycle Transportation Plan, developing community awareness and enforcement of the facilities (including paths), developing Safe Route to School Plans, improving pedestrian circulation and safety through the Capital Improvement Program, and continuing to fund bicycle facilities.

Los Altos Bicycle Transportation Plan

The City of Los Altos' Bicycle Transportation Plan was completed in February 2002 and is the City's first bicycle plan. This Bicycle Transportation Plan was developed by the City with input from the Bicycle Advisory Committee. The purpose of the Plan is to foster and support bicycle use for commuting, utility, and recreational purposes by citizens of all ages.

The Plan consists of existing conditions, a needs assessment, a recommended bikeway, bicycle facilities, and an implementation plan. As part of the Implementation Plan, the Stevens Creek Trail Feasibility Study is listed as a high priority project for \$100,000. **Figure 1-2 Existing Bicycle Routes** shows the existing bicycle network in Los Altos as documented in the Bicycle Transportation Plan. The most relevant existing and recommended segments to this study area are in **Table 1-1 Stevens Creek Trail Study Area Existing and Proposed Bicycle Facilities**.

Figure 1-2
Existing Bicycle Routes

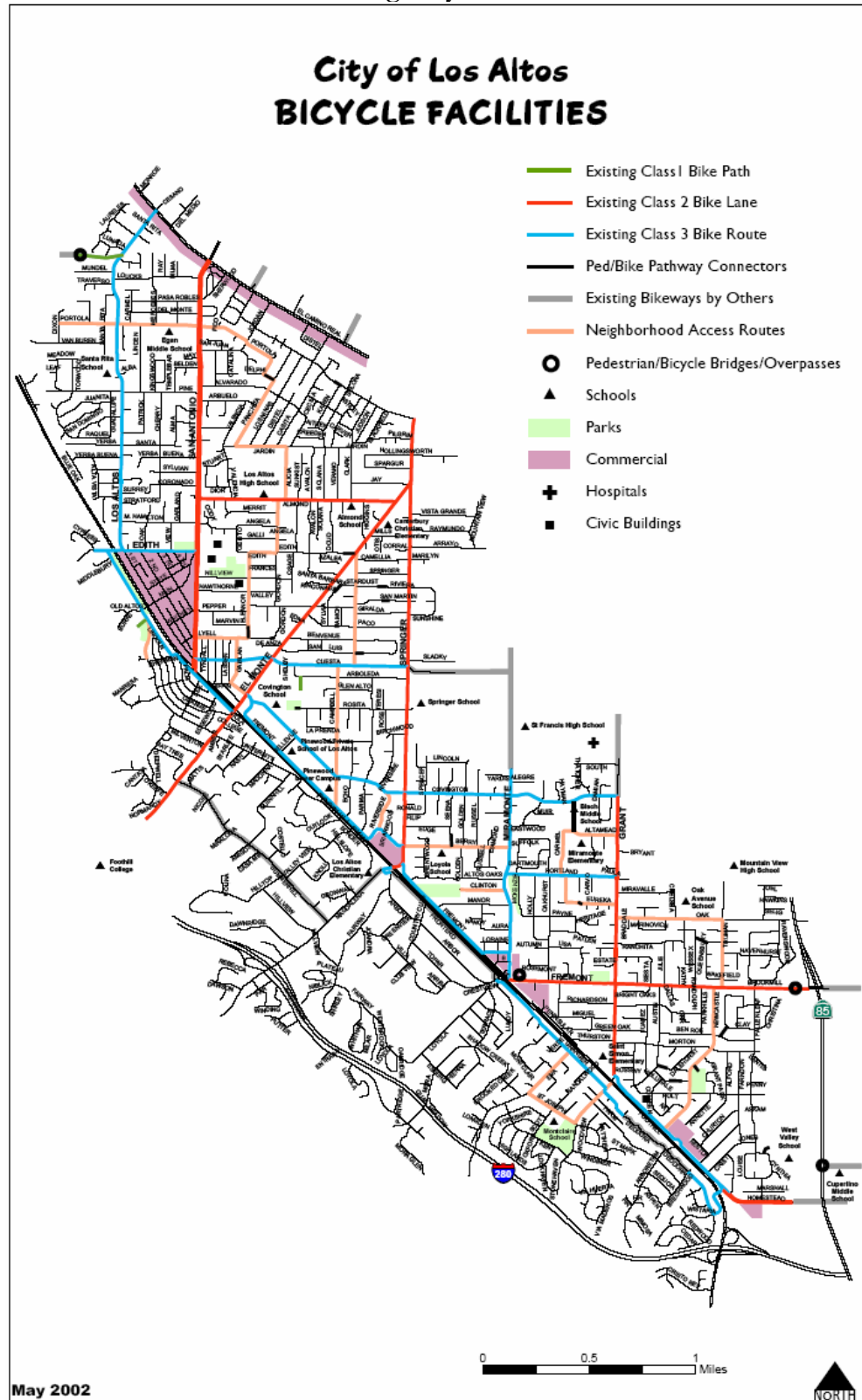


Table 1-1
Stevens Creek Trail Study Area Existing and Proposed Bicycle Facilities

Street	Begin	End	Existing (E) or Proposed (P)	Class
Eva Avenue	Granger Avenue	Cupertino City Limit	P	III
Fallen Leaf Lane	Ravenswood Drive	Homestead Road	P	III
Fremont Avenue	Foothill Expressway	Stevens Creek	E	II
Granger Road	Loyola Drive	St. Josephs Avenue	E	III
Grant Road	Mountain View City Limit	Foothill Expressway	E	II
Grant Road	Foothill Expressway	Homestead Road	P	II
Newcastle Drive	Fremont Avenue	Grant Road	P	III
Truman Drive	Mountain View High School	Fremont Avenue	P	III

1.4.2. Santa Clara County

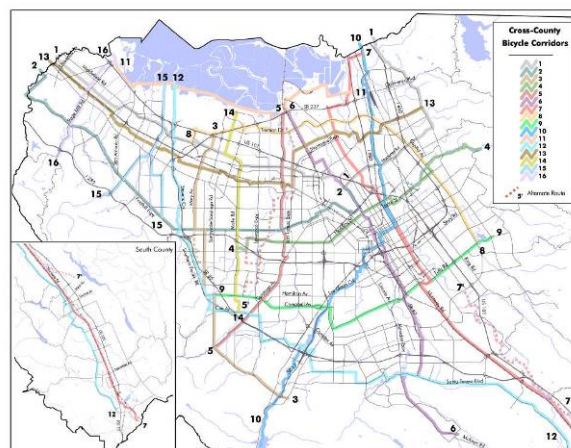
Los Altos is within Santa Clara County. Santa Clara County has a population of 1,682,585 persons, according to the 2000 U.S. Census. The County is approximately 1,304 square miles in size and borders San Benito County to the south, Santa Cruz County to the south and southwest, San Mateo County to the northwest, Alameda County to the north, Stanislaus County to the east, and Merced County to the southeast.

Santa Clara County Trails Master Plan Update

The 1995 Santa Clara County Parks' Trails Master Plan includes the Stevens Creek Trail. The Stevens Creek Trail route outlined in the Master Plan's map is through the jurisdictions of Mountain View, Sunnyvale, Los Altos, and Cupertino. The trail is considered a Sub-regional trail and a Sub-regional trail is defined as providing regional and recreational benefits, continuity between cities, and convenient, long-distance trail loop opportunities. In the trails Master Plan, the Stevens Creek Trail in Los Altos is considered a priority trail project. On the Plan Map, the trail parallels Stevens Creek.

Santa Clara Countywide Bicycle Plan

The Santa Clara Countywide Bicycle Plan was completed in October 2000 and is currently undergoing and update. The Plan includes countywide bicycle facilities as well as bicycle facilities in the unincorporated areas of the Santa Clara County. The Stevens Creek Trail is included as a facility that overlaps between the Countywide Trails Plan and the Countywide Bicycle Plan. The Countywide Bicycle Plan states that in Mountain View, the Stevens Creek Trail provides a parallel, low stress alternative to Shoreline Boulevard and



Grant Road. The Stevens Creek Trail in Sunnyvale is incorporated into the Document as a Tier 3 project.

1.4.3. City of Cupertino

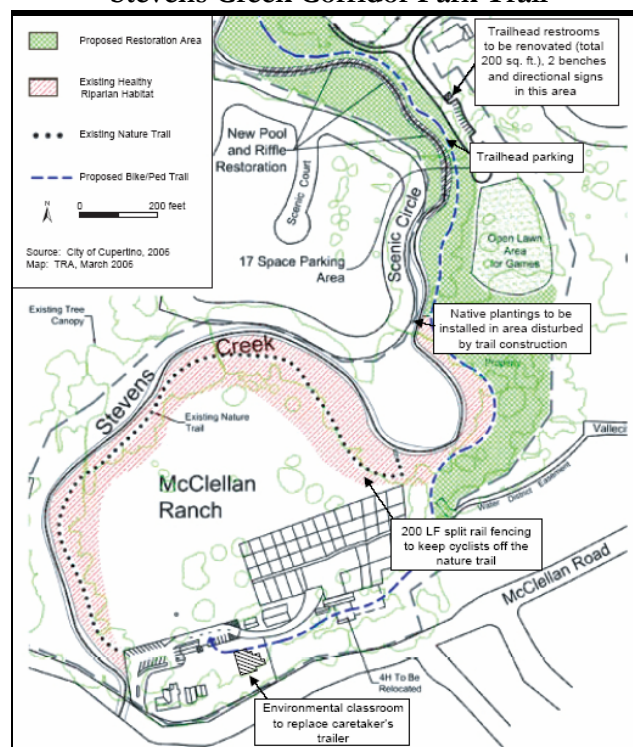
Stevens Creek Trail Feasibility Report

The City of Cupertino completed the Stevens Creek Trail Feasibility Report in September 2002. This Report evaluates the feasibility for a trail between Rancho San Antonio County Park and Stevens Creek Park. In the Report, the study area is divided into four parts, Study Area A is the area adjacent to Los Altos and includes the corridor segment between Rancho San Antonio County Park and Stevens Creek Boulevard. The proposed trail is a total of 3.90 miles with varying lengths of a multi-use path, a soft-surface trail for hiking and horseback riding, and on-street bike lanes. Of the proposed trail, the connection to Los Altos is a hard surface and is an existing facility that connects with St. Joseph Avenue.

Stevens Creek Corridor Park Master Plan and Restoration Plan

The City of Cupertino developed the Stevens Creek Corridor Park Master Plan and Restoration Plan for a 60-acre Corridor Park along the creek. The Plan includes converting Blackberry Farm into a community park and developing an environmental education center at McClellan Ranch. The Plan includes the construction of a 5,900-foot long, 8-foot wide pedestrian and bicycle trail extending from McClellan Road to Stevens Creek Boulevard. This portion of the Stevens Creek Trail is shown in **Figure 1-3 Stevens Creek Corridor Park Trail**. The Plan estimates 89,000 users per year on this segment of the Stevens Creek Trail.

Figure 1-3
Stevens Creek Corridor Park Trail



Cupertino Bicycle Transportation Plan

The Cupertino Bicycle Transportation Plan was completed in December 1998. Included in the Plan is the SCT as a proposed Class I facility. The proposed long-term improvement extends from Foothill Boulevard to Stevens Creek County Park and is an estimated three miles long. The proposed route includes the segment through Blackberry Farm and McClellan Ranch.

1.4.4. City of Mountain View

Stevens Creek Trail Environmental Impact Report Reach 4, Segment 2

Mountain View's Stevens Creek Trail, Reach 4, Segment 2 projects are divided into several phases: Phase I travels from Yuba Drive to the south side of El Camino Real and was opened to the public on April 12, 2008; Phase II travels from the south side of El Camino Real to Sleeper Open Space with construction in Fall 2008 and completion in Fall 2009. Phase III travels from Sleeper Open Space over SR 85 to Dale Avenue/Heatherstone Way. Design will be complete in summer 2009, but construction is unfunded. Phase IV travels from Dale Avenue/Heatherstone Way to Mountain View High School. No funding is currently budgeted for design or construction of Phase IV. **Figure 1-4 Mountain View Reach 4, Segment 2** shows the alignment of this segment through Mountain View.

1.4.5. Association of Bay Area Governments

Bay Trail Plan

The Association of Bay Area Governments (ABAG) is a governmental agency comprised by the cities and counties of the San Francisco Bay Area. It was established in 1961 to protect local control, plan for the future, and promote cooperation on area-wide issues. The Bay Trail Plan was adopted by ABAG in 1989 with the goal of developing a 400-mile loop trail around the Bay Area, encompassing spine trails, spur trails, and connector trails. The Plan was prepared pursuant to Senate Bill 100 which mandated that the Bay Trail (1) provide connections to existing parks and recreation facilities, (2) create links to existing and proposed transportation facilities, and (3) be planned in such a way as to avoid adverse effects on environmentally sensitive areas.



The Bay Trail is connected to the Stevens Creek Trail in Mountain View. Extending the trail to Los Altos would provide City residents direct access to the San Francisco Bay and the Bay Trail. Currently, the Bay Trail does not connect to the Sunnyvale segment adjacent to the Bay and Moffett Field, only to the Mountain View portion to East Palo Alto and the Dumbarton Bridge.

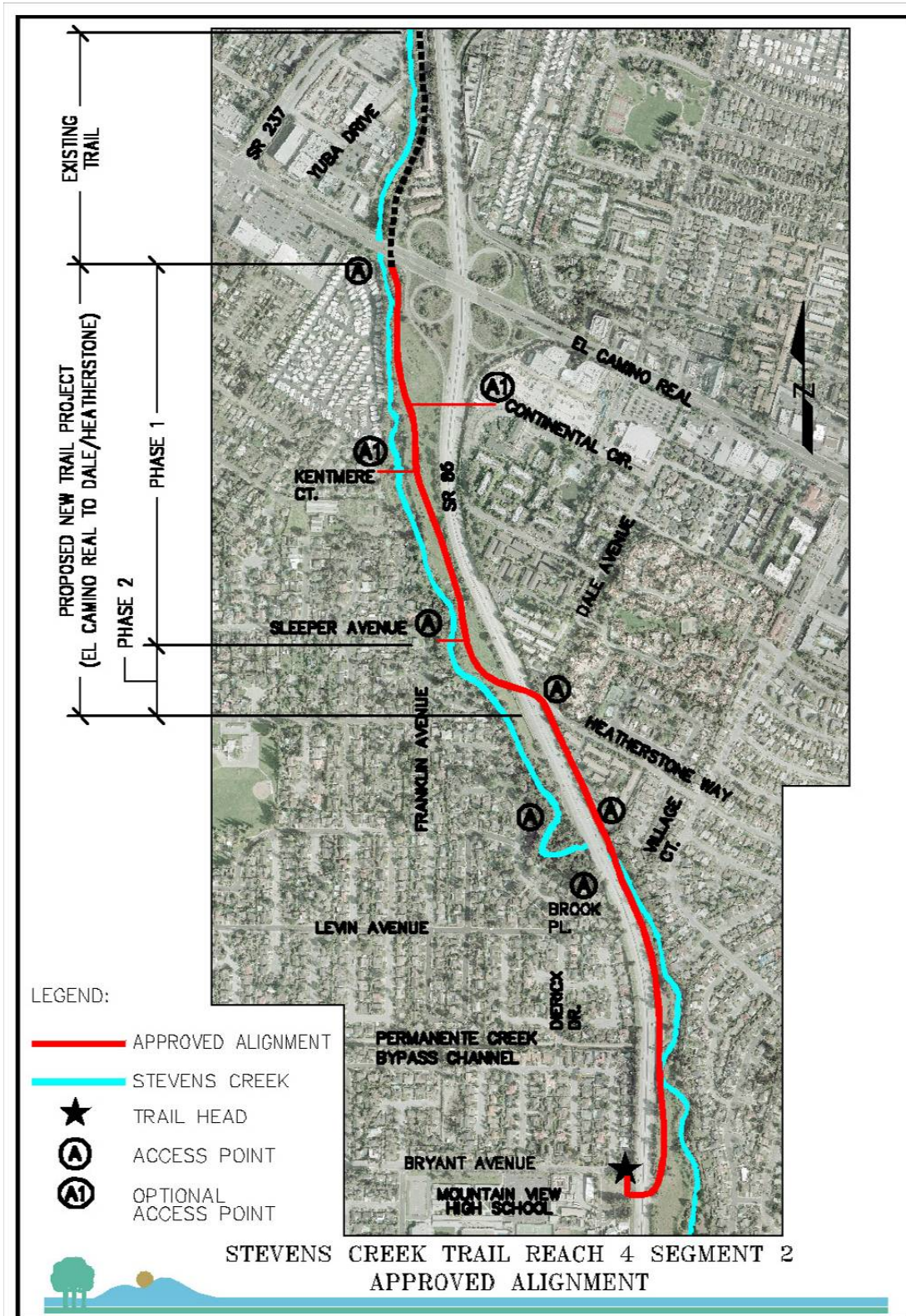
1.4.6. Other Relevant Agencies

Santa Clara Valley Transportation Authority (VTA)

The VTA is the congestion management for Santa Clara County. The VTA is also responsible for transit service operations in the County as well as county transportation planning projects. VTA is involved with transit, highways and roadways, bikeways, and pedestrian facilities. In Los Altos, VTA operates three routes: 40, 51, and 52.



Figure 1-4
Mountain View Reach 4, Segment 2



Source: City of Mountain View

Santa Clara Valley Water District

The Santa Clara Valley Water District is the water resources agency for Santa Clara County. It provides water to the County, flood protection, and it is the water steward for the County's streams and creeks, including Stevens Creek. The Water District restores wildlife habitat along the creeks and leads pollution prevention efforts. Coordination with the Santa Clara Valley Water District is necessary if the alignment is in or crosses the District's right-of-way.

California Department of Transportation

California Department of Transportation (Caltrans) manages the highways and freeways in California. In the Study Area this includes I-280, Foothill Expressway, and the SR 85 interchange at Fremont Avenue. Coordination with Caltrans is necessary if the SCT crosses or parallels any of these routes.

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2. INFORMATION GATHERING

2.1. PUBLIC PROCESS

2.1.1. Stevens Creek Trail Task Force

The City of Los Altos' Bicycle and Pedestrian Advisory Committee created an ad hoc committee, the Stevens Creek Trail Task Force, to advise the City on the SCT Feasibility Study. The Task Force was granted ad hoc status by the Los Altos City Council in March 2007. The Task Force worked as an advisory committee with city staff and its consultant throughout the planning process.

2.1.2. Public Workshop 1

The first of two public meeting was held on May 30th, 2007 at Grant Park in Los Altos. The Workshop was attended by over 70 members of the public, including the Mayor, members of the City's Traffic Commission, City Staff, Friends of the Stevens Creek Trail members, and neighbors of Stevens Creek.

The Workshop was a successful launching point for the Feasibility Study, focusing on possible SCT alignments on City rights-of-way. It was a productive meeting and successfully managed the concerns of many Los Altos residents, including those residents that neighbor the creek. The format of the meeting allowed residents to provide input to all attendees as well as with smaller break-out groups. The breakout groups allowed attendees to provide additional, detailed input for the planning process. The overall enthusiasm for the trail at the meeting jump-started the Los Altos SCT planning effort.

At the Workshop, break-out groups provided an assortment of information. This information included how Los Altos residents as well as residents of neighboring cities would use the trail; a summary of the information provided at the Public Meeting is below. First is a summary of the different modes area residents would use on the trail and where they would go on the trail.

Uses (besides walking and biking)

- Exercise
- Walk/Bike with kids
- Jog
- Commute
- Rollerblade
- Walk with Stroller
- Hike
- Walk dog
- Skateboard

To Access

- Church
- Safe Route to School
- Shopping
- Library
- Caltrain
- Neighbors' houses
- Parks
- Access to Stevens Creek

The break-out groups also provided concerns they had about the trail. Opinions were shared about affects to neighboring properties and concerns about safety on the trail. The following list includes the public's concerns as shared at the Public Workshop.

Property

- Crime
- Litter
- Loss of Privacy
- Use of Private Property for project
- Homelessness
- NIMBYism
- Public Land Access and the Location of this Land in relation to Private Property
- Property Value

Other

- Traffic Near (including new drivers) around Mountain View High School

On the Trail

- Intersection Visibility
- Concern Project Would not Happen (Delay)
- Busy Roads Need Physical Barrier To Separate from Trail
- Path/Trail interfering with neighborhood driveways
- Close Trail Route After Dark
- Sufficient To Allow 2-Way Bike/Pedestrian Traffic
- Access To Class I Opposite Side Of The Street
- Get Over Foothill With Overpass Or Underpass
- Parking
- Congestion & Traffic On Streets With No Sidewalks
- Horses
- Wider Thoroughfares
- Adequate Illumination
- Limited To South Los Altos
- Safety at the Homestead/Grant intersection
- Avoiding tunnels (safety issues)

Before tackling the aerial maps with the best routes for the SCT, members of the break-out groups suggested attributes that they would like to see on the trail. Examples are below.

- | | |
|---|---|
| • Fitting With Neighborhood Characteristics | • Good Signage On Trails |
| • Lighting (Safety) | • Good Delineation On Surface Streets |
| • Wide Enough For Multi-Use | • All Weather Surface |
| • Hard Surface Next To Soft Surface | • Accommodate All Users Peds, Bike, ADA |
| • Minimize Street Crossings | • No Night Time Lights |
| • Warning Signs For Vehicles | • Smooth Surface |
| • More Than Bike Route Signs | • Environmentally Sensitive |
| • Stencils Painted On Road/Path | • Pervious Pavement |
| • Wayfinding Signs | • Benches/Rest Areas |
| • Bathrooms | • Access To Restaurants & Water |
| • Bike/Ped Signals At Crossings | • Access To "Poop" Bags |
| • Meet With Schools To Get Their Input And Expectations | • Physical Barrier Between Trail And Autos (Curbs, Planter Strip, Etc.) |
| • Need Maps Indicating Street Capacity | • Visual Access to Creek |
| • Class I Pathway Along Major Streets | • Avoid Hills if Possible |
| | • Access to Coffee Shop |

- (Grant & Fremont)
- Route Along Freeways & Meadows
- Safe
- Maintained Trails
- Bike Detectors And Signals
- Rest Area with Water Fountain
- Parking at Access Points
- Connection to Grant Park
- Split alignment for bike and pedestrians
- Class I Pathways and Class II Bike Lanes

Possible Stevens Creek Trail Alignments

At the first Public Workshop, attendees in break-out groups were invited to mark up large aerial maps of the southern Los Altos area with pens, markers, and sticky notes. Members of the public were asked to mark the maps where they thought a good network connection between the proposed Stevens Creek Trail ending at Mountain View High School and the proposed Stevens Creek Trail ending at Rancho San Antonio Park as well as at Foothill Boulevard in Cupertino. Participants were not given any restrictions except that the trail could not be in or immediately adjacent to Stevens Creek. All of the information provided by members of the public was combined into one map, for this Plan. These routes are shown in **Figure 2-1 Summary of May 30th Public Workshop**.

2.1.3. Public Workshop 2

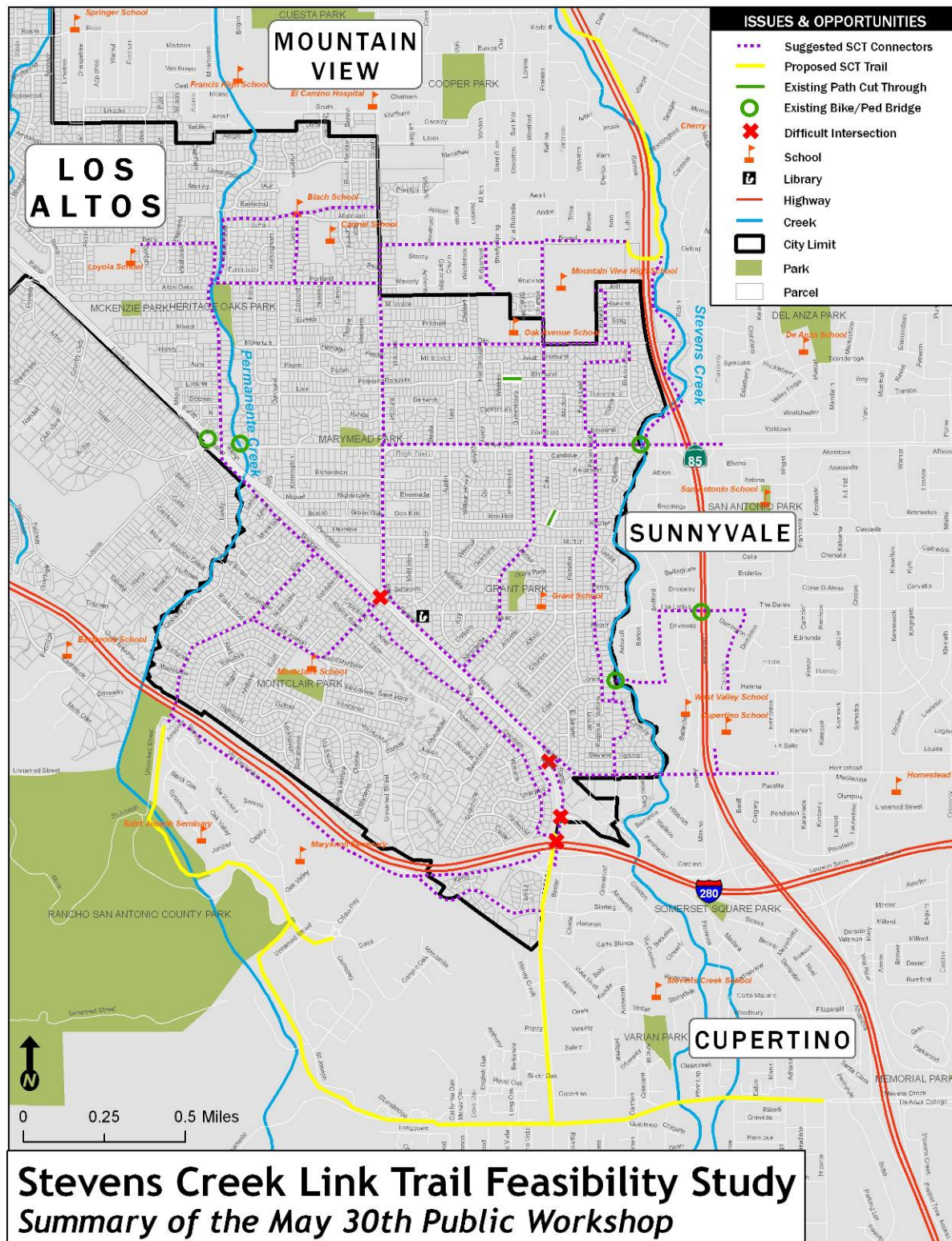
The second public workshop occurred on December 5th, 2007 from 6:30 to 8:30 pm at Grant Park. The Workshop had approximately 66 members of the public, including the Mayor, members of the City's Traffic Commission, City Staff, Friends of the Stevens Creek Trail, neighbors of Stevens Creek, and residents from adjacent cities.

The main objective of the Workshop was to provide members of the public an opportunity to review and share opinions about the five presented alignment alternatives. These alternatives were based on input provided from the first Public Workshop. As people entered the workshop space, five poster sized maps greeted them.

Alta Planning + Design presented the five alternatives, potential designs for the alternatives, and the criteria. The presentation reiterated that the Study only includes development of the alignments on City of Los Altos right-of-way. After the presentation, members of the public divided into eight small groups and brainstormed the pros and cons of each alternative, writing the notes on large notepads.

At the conclusion of the small group sessions, members of the public received two circular stickers, one blue and one red. Workshop attendees put the blue dot on the large alternative map that was their favorite and placed the red dot on the large alternative map that was their second favorite. For individuals that did not like any of the choices, or preferred another alternative that not presented on a map, a large notepad was available for additional alignment ideas. The results of the dot voting is included as a component of the evaluation in Chapter 4.

Figure 2-1
Summary of May 30th Public Workshop



2.2. CITY MEETINGS

Information about the SCT was gathered from cities that surround Los Altos. These cities include Mountain View, Sunnyvale, and Cupertino. Meetings occurred to discuss the purpose of the Los Altos Stevens Creek Link Trail Feasibility Study, the project process, the input received from the public at the first Public Meeting, to learn the status of the SCT in cities neighboring Los Altos, and to discuss potential trail link alignments. City staff and at least one member of the Los Altos SCT Task Force attended meetings. Subsequent to these meetings, each city had an opportunity to update the information discussed to reflect the current state of the SCT. Updates received are included in this section.

2.2.1. Mountain View

In Mountain View, the SCT parallels SR 85 and Stevens Creek. Reach 4, Segment 2, extending from Yuba Drive to Mountain View High School, is divided into four phases. Phase I travels from Yuba Drive to the south side of El Camino Real and is completed. Phase II travels from the south side of El Camino Real to Sleeper Open Space with construction planned in fall 2008 and completion in fall 2009. Phase III travels from Sleeper Open Space over SR 85 to Dale Avenue/Heatherstone Way with design expected to complete in summer 2009 and construction is currently unfunded. Phase IV travels from Dale Avenue/Heatherstone Way to Mountain View High School. There is no funding currently in the budget for design or construction of this phase. Until Phase III is completed, the connection from Sleeper Open Space to the high school is on surface streets. The high school is located north of the border with south Los Altos and is a logical connection point of the SCT to Los Altos.

At the meeting with Mountain View staff, two issues arose. Mountain View staff noted an on-street trail alignment on Bryant and Truman Avenues in front of Mountain View High School is not advised and another alignment should be considered. Bryant and Truman Avenues are not wide enough to provide for the trail as well as on-street parking. Mountain View is not open to restricting parking as it recently added parking on the high school sides of the streets. The other issue raised at the meeting was the possibility for a Class I multi-use path on Mountain View High School's property. City of Mountain View staff indicated that the high school and school district would have to be consulted before considering this as an alternative.



The landing location of Mountain View's SCT SR 85 Over Crossing

2.2.2. Sunnyvale

The City of Sunnyvale has considered plans to connect to Mountain View High School via Remington Drive. However, like in Los Altos, there has been some history of opposition to the trail from residents. As of now, there are no plans for the City to pursue the SCT.

2.2.3. Cupertino

The primary document for the City of Cupertino's SCT is the 2002 Stevens Creek Trail Feasibility Study. This Plan is a joint document approved by both Cupertino city council and the Santa Clara County Board of Supervisors (BOS). This Plan went to the BOS because it includes the trail alignment through

the County's Rancho San Antonio Park. During the meeting with the City of Cupertino regarding Los Altos' efforts, City of Cupertino staff provided the latest developments for the SCT.



Connection from St. Joseph Avenue, under I-280, to Rancho San Antonio Park



Foothill Boulevard under crossing of I-280

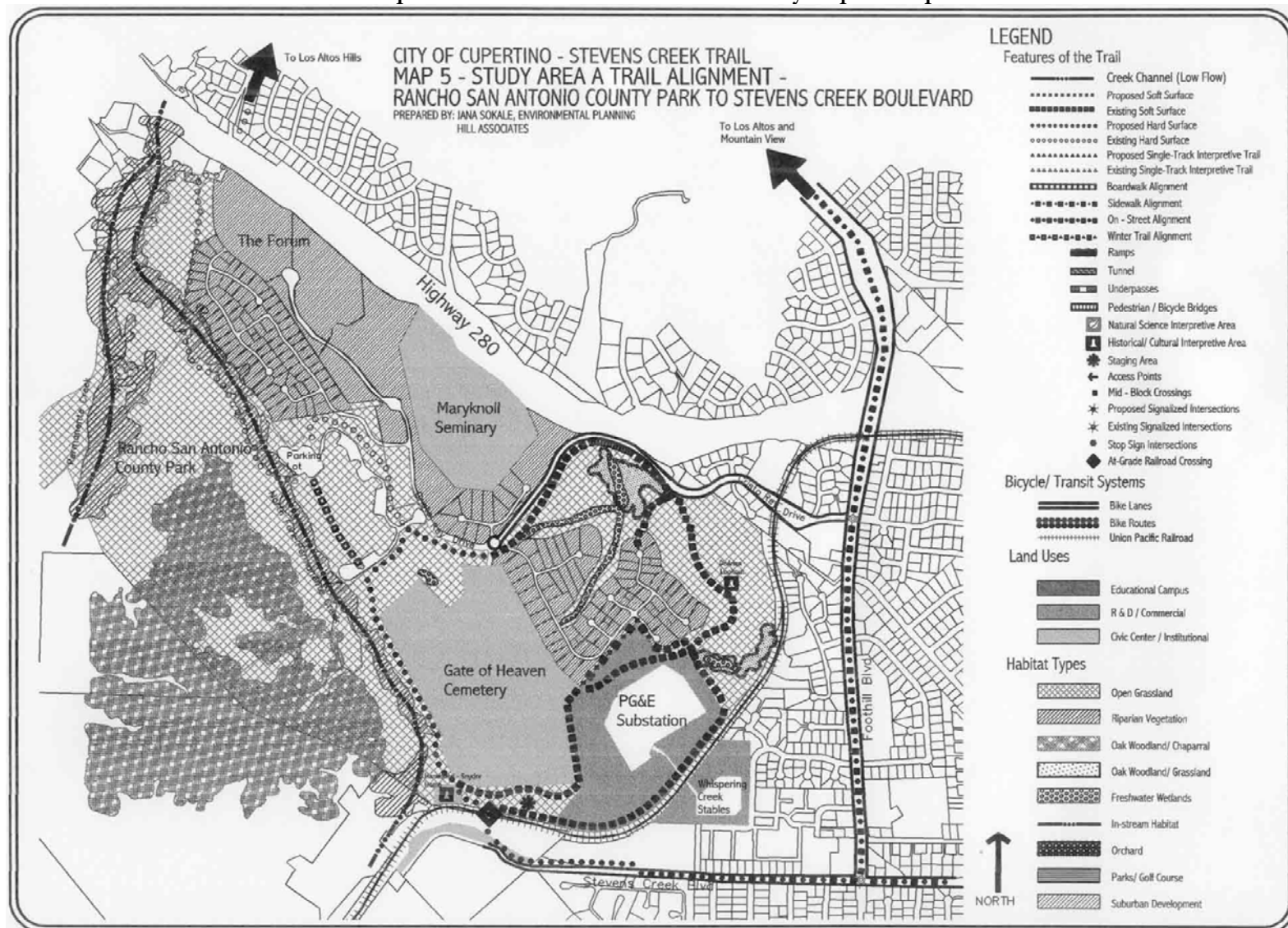
In Cupertino, the only location where the SCT connects with the City of Los Altos is north of Rancho San Antonio Park, under I-280 on St. Joseph Avenue. The September 2002 City of Cupertino Stevens Creek Trail Feasibility Report map shown in **Figure 2-2 Cupertino Stevens Creek Trail Feasibility Report Map** states that this segment is an “Existing Hard Surface.” One other SCT connection is also noted in the Report, this is along Foothill Boulevard. Foothill Boulevard connects to Los Altos, however as it stands now, this is a bicycle route and not a friendly environment for pedestrians. At the meeting with the City of Cupertino, staff reported that there are no plans to change this access. North of I-280, in Los Altos, Foothill Boulevard becomes Foothill Expressway and is a bike route but pedestrians are not permitted.

The other SCT route that extends north from Cupertino is at Mary Avenue. An over crossing connecting over I-280 is funded and under construction. It will connect with the City of Sunnyvale, north to West Homestead Road. Although this bridge does not connect directly to Los Altos, it provides an opportunity for further regional pedestrian-bicycle connectivity in the vicinity of the Stevens Creek corridor.

The City of Cupertino also stated in the meeting that Santa Clara County is planning to construct a 10-foot wide paved multi-use trail connecting Cristo Rey Drive to the Hammond Snyder House north of the Union Pacific Railroad (UPRR) line. This would connect to the existing SCT from St. Joseph Avenue. City of Cupertino staff noted that the Cupertino long range plan (20 years) is for the UPRR land to become open space and recreation land and would hopefully become a connection with Stevens Creek Boulevard and Blackberry Farm in the future.

At the meeting, City staff highlighted that the SCT project in Cupertino has always been envisioned as a recreation trail - not as a commuter trail. In many cases, the work has connected small segments of trails to form a larger network.

Figure 2-2
Cupertino Stevens Creek Trail Feasibility Report Map



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3. USER NEEDS

This chapter provides an overview of the user needs for the Stevens Creek Trail in Los Altos. The SCT is a potential improvement for bicyclists and pedestrians in the City and would enhance nonmotorized transportation in the region. The City of Los Altos, the Stevens Creek Trail Task Force, and members of the public at the first Public Workshop identified potential users of the Los Altos SCT as both recreational users and commuters.

3.1. USER GROUPS

The Los Altos SCT would be accessible for a range of users, from strollers to expert bicyclists. This section separates the range into two classes and explains characteristics that each of them like in bicycle and pedestrian facilities.

3.1.1. Commuter and Utility Trip Needs

Commuters and utility trip trail users consist of employed adults and students of all ages. These trips are between work and home as well as to other locations with specific purposes, such as a store or a park. Typically these types of trips account for about one-third of all weekday person trips. This represents a substantial opportunity for bicycle and pedestrian usage because of the links between commercial and residential areas, neighboring cities, and between homes and schools. Common commute characteristics include:

- Commuter trips usually range from several blocks to ten miles.
- Commuters typically seek the most direct and fastest route available.
- Commute periods typically coincide with peak traffic volumes and congestion, increasing the exposure to potential conflicts with vehicles.
- Places to safely store bicycles are of paramount importance to all bicycle commuters.
- Major commuter concerns include changes in weather (rain and heavy fog), riding in darkness, personal safety and security.
- In general, a primary concern to all bicycle commuters are intersections with no control signs (i.e., stop or yield signs) or signal controls.
- Commuters generally prefer routes where they are required to stop as few times as possible, thereby minimizing delay.

Commuters who currently drive to Mountain View Caltrain and light rail stations and to employment centers in Cupertino and Sunnyvale from Los Altos may face parking shortages and likely face traffic delays. Use of the SCT may encourage some commuters who currently drive to walk or bicycle, thereby offering commuters saved resources, less traffic congestion, and reducing the demand for parking.

3.1.2. Recreational needs

Recreational use generally falls into one of three categories: exercise, non-work destinations (such as shopping or libraries), and sightseeing. Recreational bicyclists can be a varied user group in and of themselves, since the term encompasses a broad range of skill and fitness levels, from a racer who rides 100-miles each weekend, to a family with young children who occasionally want to ride a couple miles down a quiet trail. Regardless of the skill level of the recreational user, directness of route is typically less important than being in scenic surroundings, having amenities like restrooms and water fountains, and being on routes with few traffic conflicts. Visual interest, shade, protection from wind, moderate gradients, and artistic or informational features also has a much higher value to recreational users. Also, a smooth surface is important.

All recreational corridor users require some basic amenities to have a comfortable experience and to want to return. They include dedicated facilities (such as sidewalks or bike lanes), clear destination and intersection signage, and even surfaces. The aesthetic component of a facility is very important to most recreational users. In other words, most people prefer to walk or bicycle in pleasing surroundings. For families and children, most often these are facilities separate from vehicle traffic.

While the Los Altos SCT may be on-street and provide minimal resources, it would provide dedicated facilities, signage, and even surfaces. The Los Altos SCT would provide connections to other trails with more amenities, including scenic surroundings and many land uses. A summary of these land uses is explained in the next section.

3.2. SURROUNDING LAND USES & DESTINATIONS

Surrounding land use directly impacts potential usage of any bicycle or pedestrian facility. The Los Altos SCT alignments extend through business, commercial centers and residential neighborhoods. The various land use, adjacent or proximal to the trail are summarized below.



*A bicyclist rides along the shoulder of
Fremont Avenue*

3.2.1. Residential Communities

Potential SCT alignments cut through residential communities in southeast Los Altos. This makes the SCT a potential route for local recreational users, or neighbors that want to walk or bicycle for exercise. In addition to these neighborhood users are students and parents who would use the trail to walk or bicycle to and from area schools. Some of the nearby schools include Mountain View High School, Oak Avenue School, Montclair School, St. Simon School, Montecito preschool, Cupertino Middle School, and West Valley School.

The study area in Los Altos is primarily detached single family residential buildings. The only residential units that are not single family are on the border with Sunnyvale at the I-280/Foothill Expressway interchange where there is one low density development.

3.2.2. Commercial Centers

In addition to recreational users, other land uses, specifically in the southern part of Los Altos and closer to Foothill Expressway, make the SCT a connection for utility trips. Near Foothill Expressway are several shopping centers, employment centers, and the Los Altos-Woodland Library. Residents that live north of Foothill could easily travel south on the SCT to access these uses. Other commercial uses in central Cupertino and near the SCT in Mountain View would also become more accessible for bicycling and walking access.

3.2.3. Parks & Open Space

The Los Altos SCT would provide easier bicycle and pedestrian access to various parks and open space in the project area. Locally, in Los Altos, users would gain better access to Grant Park and Marymead Park. Also, as previously mentioned, Rancho San Antonio Park would be a major recreational destination for pedestrians and bicyclists as well as Stevens Creek Park in Cupertino. Other Cupertino parks with potential trail connections are Deer Hollow Farm and Blackberry Farm. With the SCT connection to Mountain View, Los Altos residents would have a regional connection to Shoreline Park and the Bay Trail, located north of Mountain View.



Pedestrians enjoy trails in Rancho San Antonio Park

3.2.4. Other Transportation Modes

The Los Altos SCT would provide connections to other forms of transportation, thereby increasing the number of biking and walking linked trips. A linked trip is when a user takes one mode of transportation (walking or bicycling) to access another form of transportation (bus or light rail). Via the Los Altos SCT, bicyclists and pedestrians could connect to local VTA bus routes in Los Altos. Within the project area, local bus route stops are located along Truman Avenue, Fremont Avenue and Grant Road. Connections from the SCT will also increase to regional transportation modes in other cities, such as the express bus routes in Mountain View and Cupertino, and the Caltrain and light rail stations in Mountain View. Linking the Los Altos SCT to regional transit will allow area residents to make link trips to San Jose, San Francisco, and the surrounding Bay Area.

3.2.5. Traffic Volumes

Foothill Expressway is a Santa Clara County Road. There are existing wide shoulders on both sides that bicyclists use and two vehicle travel lanes in both directions. Foothill Expressway connects Cupertino, Los Altos, and Palo Alto. This roadway has the highest traffic volumes in the Study Area, **Table 3-1 Study Area Traffic Volumes** shows peak hour volumes for Foothill Expressway during the AM and PM commute hours. Foothill Expressway has a 45 mph speed limit. The bike lanes on Foothill Expressway are not comfortable for bicycling for less experienced users and pedestrians are prohibited.

Fremont Avenue is an east-west arterial between Miramonte Avenue in Los Altos to El Camino Real in Sunnyvale. In Los Altos, the roadway has a 25 mph speed limit west of Grant Road, 30 mph limit east of Grant Road, two lanes and a planted median. As Table 3-1 shows, during the peak morning commute

peak, traffic volumes are approximately 1,500 vehicles and greater than the PM commute peak. Bicyclists use the existing bicycle lanes on Fremont Avenue and pedestrians walk on the shoulder or in the bicycle lanes. There are no sidewalks on Fremont Avenue in the Study Area.

Table 3-1
Study Area Traffic Volumes

Location	AM - Peak Hour	Traffic Volume	PM - Peak Hour	Traffic Volume
Foothill Expressway - Miramonte Avenue to Southern City Limits	8:15-9:15	1,698	5:00-6:00	1,955
Fremont Avenue - Grant Road to Eastern City Limits	8:00-9:00	1,648	5:15-6:15	1,493
Fremont Avenue - Miramonte Avenue to Grant Road	8:15-9:15	784	4:00-5:00	642
Grant Road - Fremont Avenue to Northern City Limits	7:30-8:30	1,973	2:45-3:45	1,821
Grant Road - Foothill Expressway to Fremont Avenue	8:45-9:45	798	5:30-6:30	1,022
Grant Road - Homestead Road to Grant Road	11:00-12:00	166	4:15-5:15	242

Source: Los Altos Public Works Department, 2007 data

Grant Road is a two and four-lane arterial roadway that starts in Mountain View and continues south to the Frontage Road of Foothill Expressway. In the Study Area, Grant Road has two lanes with bike lanes and an intermittent sidewalk. As Table 3-1 shows, most of Grant Road's traffic occurs north of Fremont Avenue and the least amount of traffic occurs on the Frontage Road.

3.3. COLLISION DATA

Statewide Integrated Traffic Records System collision data was collected for the study area in Los Altos. **Figure 3-1 SCT Study Area Bicycle and Pedestrian Collisions** shows bicycle and pedestrian collision locations in the study area between the years 2002 and 2007. Since 2002, 41 bicycle collisions occurred in the study area and in the same time period six pedestrian collisions took place. Fortunately, of these reported collisions, none have been fatal.



A pedestrian walks along the shoulder on Fremont Avenue

3.4. PROJECTED USAGE

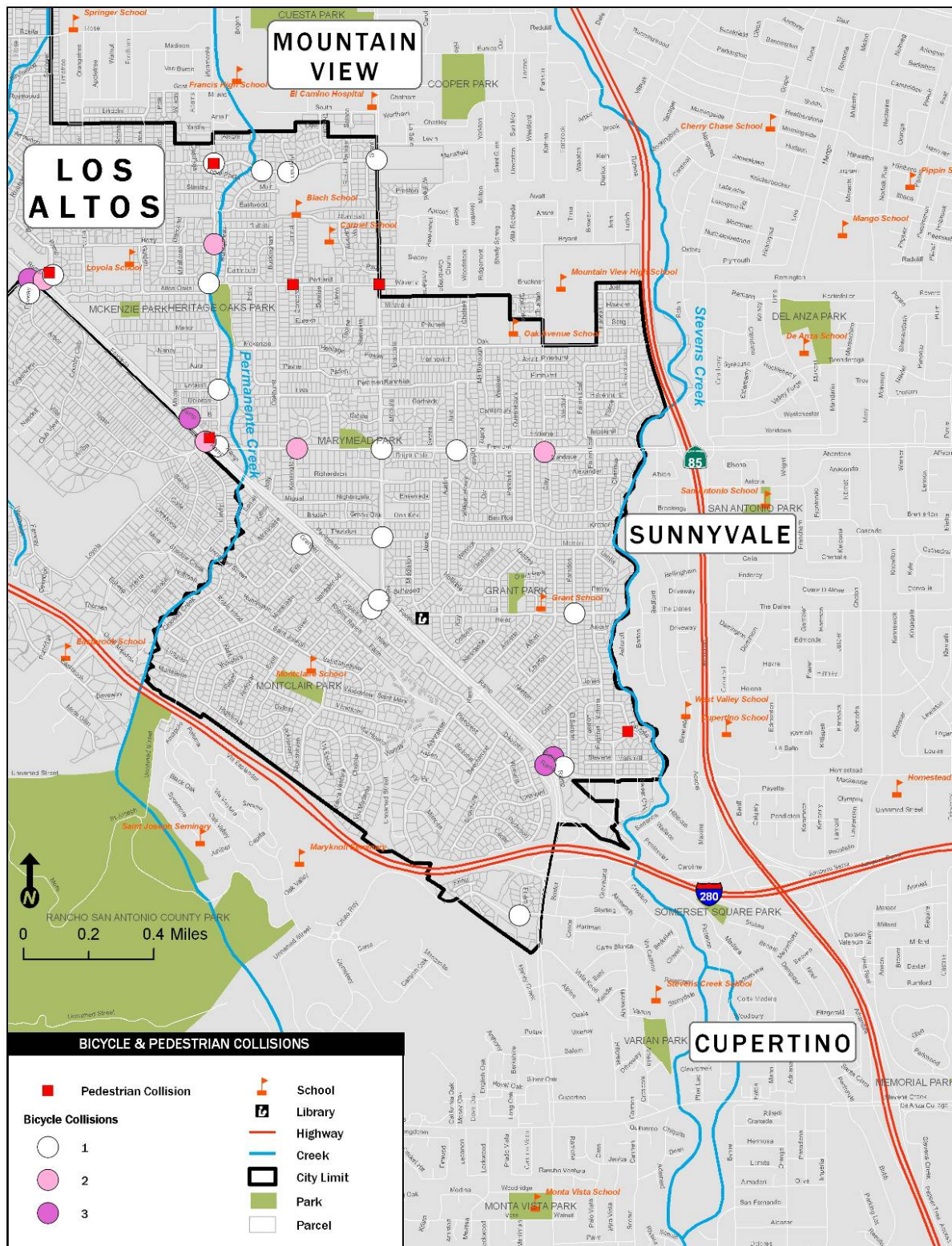
One of the goals of the Los Altos SCT project is to maximize the number and variety of user groups who will benefit from it, including recreational and commuting user groups. The selection of the preferred alignment(s) will impact the number and diversity of users who will be attracted to the trail.

The 2000 Census found that approximately 0.9% of work trips were made by bicycle in the City of Los Altos and 1.4% of work trips were made walking. Nationally these percentages were 1.2% and 2.9% respectively; statewide for California they were 1.9% and 2.9% respectively. This data shows that in

comparison to the rest of the state and country, Los Altos has low percentages of bicycling and walking to work. This implies there is a demand in the population that would use these modes more often if it was an option.

In addition, bicycling is one of the most popular forms of recreational activity in the United States. The Bureau of Transportation Statistics' October 2000 survey found that of the 41 million people riding bicycles, almost 15% of the 281,421,906 national population (Census 2000), 54 percent are bicycling for recreation and 35 percent are bicycling for exercise. The 2001 *American Sports Data Study* by the Sporting Goods Manufacturer's Association tallied 84,182,000 national recreational walkers (almost 30% of the national population). This indicates a latent demand for connected trails and user facilities.

Figure 3-1
SCT Study Area Bicycle and Pedestrian Collisions



4. ANALYSIS OF TRAIL ALTERNATIVES

Alternative alignments are developed and evaluated in this chapter using 12 specific evaluation criteria. With the evaluation results, a preferred alternative is identified. This chapter describes the evaluation criteria, five SCT alignment alternatives, and the evaluation process. Also included is a preferred option for connecting the SCT to Cupertino. Five alternative alignment figures and two SCT connections to Cupertino are included at the end of the chapter.

4.1. EVALUATION CRITERIA

A decision matrix with clearly described criteria and scoring is used to evaluate each project alternative. These evaluation criteria are based on the overall project goals, input from the first community meeting, as well as from the SCT Task Force. These criteria are used to evaluate each of the five alternative alignments and to help determine a preferred alternative.

The criteria used for the Los Altos SCT alternatives are as follows:

4.1.1. Safety to the Trail User

Safety issues are a potential concern to SCT users and could influence the number of trail users. This evaluation criterion includes potential conflicts between trail users and motor vehicles. Potential conflicts can be a major impediment to use of bicycle and pedestrian facilities by less experienced and capable users, especially recreational users, children, and the elderly. Alternatives that avoid or minimize conflicts at driveways and intersections rate higher than those that do not avoid these locations and expose users to more traffic elements. For personal safety rationale, users of the facility should also be visible to vehicles and others transportation users nearby. Routes that are less visible to vehicles, businesses, and other properties score lower than those routes that are more visible to non-trail users.

4.1.2. Accessibility to Los Altos Residents

At Public Workshop 1, many individuals voiced that the SCT should be accessible to Los Altos residents. Therefore, this criterion measures how accessible an alternative is to city residents. Alternatives that are within City limits carry a higher score than those that travel outside of Los Altos and into the neighboring cities of Sunnyvale and Mountain View.

4.1.3. Environmental Impacts

This criterion addresses the goal of identifying whether the proposed project may have significant environmental complexity and permitting. Environmental impacts can lengthen the project schedule and increase permitting and development costs. Possible environmental complexities of the SCT alternatives include Stevens Creek and protected trees in the Study Area.

4.1.4. Connections to Key Destinations

Los Altos residents will not use the SCT for transportation purposes if the facility does not provide direct connections to destinations such as shopping centers, schools, parks, and the library. With these connections, vehicle trips in Los Altos will likely decrease and users of the SCT will increase. SCT alternatives that provide more connections to key destinations score higher than those without key destination connections.

4.1.5. Traffic Impacts

Maintaining traffic flow on Los Altos streets is a criterion for the alternative analysis. The Study Area has varying traffic volumes depending on the street. Most of the alternatives include arterials that carry relatively high volumes of traffic and some include neighborhood streets with lower traffic volumes. Potential traffic impacts on all streets include the need to decrease travel lane widths and the removal of on-street parking. Alternatives with less traffic and parking impacts score higher in the evaluation. All of the alternatives could have potential minor impacts at the Grant Road/Homestead Road/Foothill Expressway intersection as well as on the Grant Frontage Road.

4.1.6. Trail Environment

Some of the alternatives would have a better environment to users than others. Trail environment considers potential views and environmental aesthetics while on the trail. Bicyclists and pedestrians prefer areas with natural beauty, for example areas with older trees and natural areas. An alternative alignment along a major arterial would receive a lower score than an off-street route parallel to large Oak trees.

4.1.7. Neighborhood Impact

Potential impacts to neighbors of the trail include some loss of landscaping, moving of mailboxes and utility poles, and noise from trail users. This criterion scores the alternatives based on the magnitude of these impacts. Those alternatives that pass through residential areas have greater neighborhood impacts and score lower than the alternatives that stay on arterial streets.

4.1.8. Homeowner Security

Perceptions of potential security concerns for area homeowners include crime, vandalism, and an increase in homeless populations. Trail alternatives with greater traffic volumes, land use densities, and passer-bys provide more “eyes on the street” and therefore provide better security. These alternatives receive better scores under this criterion than those alternatives with secluded areas that are more susceptible to security concerns.

4.1.9. Opportunities for Multiple User Groups

As stated in the goals of the SCT, the project should provide maximum benefit to the public by providing a facility for the widest range of users. Class I – multi-use paths generally provide for the greatest number of users and for the largest range of skill level -from children to the elderly and from recreational bicyclists to bicycle commuters. Alternatives that provide opportunities for multiple skill

levels and ages of users score higher in the evaluation criteria than those alternatives that provide facilities for limited skill levels and ages of users.

4.1.10. Directness of Route

A trail is a functional transportation route when it provides a direct and easy way for users to get from place to place. Directness of route is from the trail user's perspective and pertains to the simplicity and directness of the SCT connection between Mountain View and Cupertino. Alternatives receive better scores if they require little out of direction travel and they are navigable. Alternatives that require more out of direction travel and may be difficult to navigate receive lower scores.

4.1.11. Public Support

The second Public Workshop occurred in December 2007. At the Public Workshop, attendees were asked to score their favorite and second favorite alternatives. A dot voting method was used where individuals put circular stickers on maps of their first and second favorite alternatives. This criterion is directly drawn from these results.

4.1.12. Timing

Timing refers to the implementation timing or coordination of linking the SCT in Los Altos with Trail segments in neighboring communities. If an alternative is beneficial to Los Altos, even when segments in other communities are not built, then it scores more favorably. Lower scores are given to alternatives that rely on the development of Trail segments in neighboring cities.

4.2. STEVENS CREEK TRAIL ALTERNATIVES

Five alternatives for the SCT between Mountain View and Cupertino were identified through input from the City, Public Workshop 1, and extensive field work. The trail alternatives vary in type of bicycle and pedestrian facilities. For example, some alternatives include a Class I multi-use path while others only include bicycle route signage. The five alternatives also vary in location. They all connect Mountain View's Stevens Creek Trail and Foothill Boulevard at the Los Altos/Cupertino city border but they vary in the routes through the Study Area connecting these two points. Some use Los Altos' arterials, others use neighborhood streets, and one uses the creek corridor outside of Los Altos' city boundary in Mountain View. This section identifies the five alternatives and describes the different types of bicycle and pedestrian facilities that make the connection between two of Los Altos' neighboring cities. Five different figures at the conclusion of this chapter show the locations and descriptions of these alternatives.

All five alternatives connect through the Grant Road/Homestead Road/Foothill Express Way intersection and use the existing Class II –bicycle lanes and sidewalks on Foothill Boulevard to connect south to Cupertino. At Public Workshop 1, this intersection was identified as a difficult intersection for bicyclists and pedestrians. At the end of this Chapter, two SCT improvement options are presented. Both of these options will help bicyclists and pedestrians make the connection between Los Altos and Cupertino.



The existing sidewalk in front of Mountain View High School on Bryant Avenue

4.2.1. Alternative 1 - Bryant Avenue Connector

As shown in **Figure 4-1**, Alternative 1 would connect Mountain View High School and Foothill Boulevard by utilizing existing Class II - bicycle lanes and sidewalks on Bryant Avenue. These facilities would connect to a new Class I – multi-use path on the east side of Grant Road that would begin at the Bryant Avenue/Grant Road intersection. The Class I pathway would continue on the north side of Grant Road as it turns southeast and extends as the Foothill Expressway frontage road. The Class I would continue on the north side of the frontage road, connecting to the Grant Road/Homestead Road/Foothill Expressway intersection.

4.2.2. Alternative 2 - Truman Avenue/Oak Avenue Connector



A pedestrian on the sidewalk in front of Oak School

Figure 4-2 shows Alternative 2. This alignment would connect Mountain View High School and Foothill Boulevard with a continuous Class I – multi-use path. The path would begin on the south side of Bryant Avenue adjacent to Mountain View High School and turn left on the east side of Truman Avenue and remaining adjacent to the High School. The pathway would then continue west on the north side of Oak Avenue past Oak School. When the Class I path connects with Grant Road, it would continue south on the east side of Grant Road and continue on the north side of Grant Road as it turns southeast and extends as the Foothill Expressway frontage road. The Class I would continue on the north side of the frontage road, adjacent to the library and connect to the Grant Road/Homestead Road/Foothill Expressway intersection.

4.2.3. Alternative 3 - Stevens Creek/Fremont Avenue Connector



A segment along Alternative 3 crosses through this existing field

Figure 4-3 Alternative 3, would also connect Mountain View High School and Foothill Boulevard with a continuous Class I – multi-use path. The path would begin on the east side SR 85 at Mountain View's planned SCT over crossing to Mountain View High School. The path would extend along the east side of the Highway and west side of Stevens Creek on Mountain View's property. Alternative 3 would then cross the creek and then continue under SR 85 where there is an existing vehicle over crossing of Stevens Creek. The trail would connect with Fremont Avenue east of the existing office building and west of the SR 85 southbound off-ramp. At Fremont Avenue, the Class I path would continue on the north side of Fremont Avenue to Grant Road and extend along the east side of Grant Road and continue south. The Class I pathway would continue

on the north side of Grant Road as it turns southeast and extends as the Foothill Expressway frontage road. The Class I would continue on the north side of the frontage road, connecting to the Grant Road/Homestead Road/Foothill Expressway intersection.

4.2.4. Alternative 4 - Split Bicycle/Pedestrian Option

Figure 4-4 Alternative 4 consists of separate bicycle and bicycle/pedestrian facilities through Los Altos and connecting Mountain View High School with Foothill Boulevard. The bicycle only alignment would utilize existing Class II – bicycle lanes on Bryant Avenue and continue to Grant Road where the existing Class II – bicycle lanes continue south. The bicycle alignment would continue on Foothill Expressway, southeast, where there are existing bicycle lanes.



An existing dirt path where Alternative 3 is proposed

The bicycle/pedestrian alignment would use the existing sidewalks on Bryant Avenue, adjacent to Mountain View High School and continue south on Truman Avenue. Where the sidewalk ends, a Class I – multi-use path would continue south to Fremont Avenue. The pathway would continue west on Fremont Avenue and cross the street with high-visibility crosswalks. The connection would continue on Newcastle Drive as existing with Class III – bicycle route signage.

4.2.5. Alternative 5 - Fallen Leaf Connector

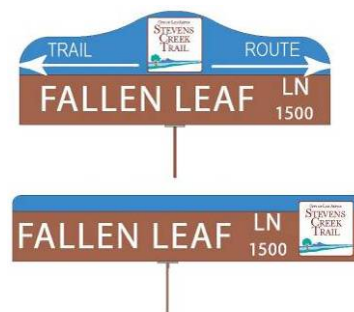
Alternative 5 in **Figure 4-5** would consist entirely of Class III – bicycle routes and utilize the existing sidewalks where available. The route would start at Bryant Avenue and border Mountain View High School along Truman Avenue and Oak Avenue and onto a short segment south on Ravenswood Drive. The remaining SCT alignment would continue south on Fallen Leaf Lane, past Fremont Avenue to Homestead Road. At Homestead Road, existing Class II – bicycle lanes and sidewalks would connect west to the Grant Road/Homestead Road/Foothill Expressway intersection and east along Homestead Road to Sunnyvale. For bicyclists, the route would be signed as Class III – bicycle route.



Fallen Leaf Lane near Ravenswood Drive

4.3. EVALUATION OF ALTERNATIVES

This section presents an evaluation for each of the five alternative alignments using the evaluation criteria previously described. Scores for the criteria range from 1 when there is low benefit or a negative impact to 10 when there is a high benefit or low negative impact. Each Alternative is scored 1 to 10 for each of the criteria. At the conclusion of this section, **Table 4-2** shows how each alternative's raw score according to the evaluation criteria.



Example Class III – bicycle route signage for the Stevens Creek Trail

4.3.1. Safety to the Trail User - *Evaluation*

All of the alternative alignments cross roadways and driveways, impacting the potential safety to users. For this Study, Class I paths are considered better for all types of users and the alternatives with only these alignments, parallel to existing roadways, score the highest (Alternatives 1 and 2). While Alternative 3 is a Class I facility, it is considered potentially less safe for the trail user because it is secluded along Stevens Creek and must utilize an underpass. The underpass would not be visible to traffic or surrounding land uses. Alternatives 4 and 5 have on-street alignments on low-volume traffic streets. Therefore, their scores are between the others because of roadway and driveway issues and being completely visible to neighbors.

4.3.2. Accessibility to Los Altos Residents - *Evaluation*

Alternative 4 receives the highest score for accessibility because it has the most coverage through the Study Area, including residential and arterial streets. The lowest score, Alternative 5, provides the least amount of access for Los Altos residents because it is near the Sunnyvale border and not close to many Los Altos residences. Alternatives 1, 2, and 3 provide some accessibility to Los Altos residents.

4.3.3. Environmental Impacts - *Evaluation*

The only alternative that has many potential environmental impacts is Alternative 3. Portions of Alternative 3 are adjacent to Stevens Creek and environmental impacts could include removal of native species and change in water quality due to run-off. There may also be native species along Fremont Avenue, another section of Alternative 3. Alternative 5 has no environmental impacts because it uses the existing roadway.

4.3.4. Connections to Key Destinations - *Evaluation*

All of the Alternatives provide some access to key destinations. For example, four of the five alignments travel adjacent to Los Altos-Woodland Library on the Grant Frontage Road. Alternatives 2 and 4 receive the best score because they provide access to multiple parks and schools, whereas the other Alternatives only provide some access to key destinations.

4.3.5. Traffic Impacts - *Evaluation*

The Alternatives with the least amount of traffic impacts are Alternatives 1 and 3. Alternative 3 is a Class I – multi-use path that is completely separate from roadways and does not require any reductions in travel lanes or removal of on-street parking. Alternative 1 is mostly a Class I – multi-use path where there is existing right of way. Alternative 5 uses existing roadways, not modifying any road widths or parking. The remaining Alternatives could have minor traffic impacts, primarily with decreasing lane widths on Grant Road.

4.3.6. Trail Environment - *Evaluation*

Since Alternative 3 is parallel to Stevens Creek and continues parallel to Fremont Avenue where there are abundant trees and enough right-of-way to provide a buffer for a Class I – multi-use path, it scores the highest for Visual Appeal. Alternative 1 receives the lowest score because the majority of the alignment is along Grant Road, an arterial road.

4.3.7. Neighborhood Impact - Evaluation

The Alternatives that may require the removal of mailboxes and landscaping from private residences score the lowest Neighborhood Impact score. Alternative 2 and 4 have the greatest potential to cause these impacts. The remaining three Alternatives may have some, less significant neighborhood impacts.

4.3.8. Homeowner Security - Evaluation

The trail alternatives that do not have neighboring land uses and traffic to keep an “eye” for potential security issues score lower than the other alternatives. Alternative 1 and 3 are separate from residences on busier streets so they receive the highest score in this criterion. More vehicle traffic provides for better security. Alternatives 2 and 4 travel through neighborhoods, where there is less traffic and less potential risks to neighboring homes and as a result they have the lowest scores.

4.3.9. Opportunities for Multiple User Groups - Evaluation

Non-secluded Class I- multi-use paths provide the greatest opportunity for multiple user groups because they are completely separated from traffic. When they are out in the open, decreasing security concerns multiple user groups can use them. For example, Class I – multi-use paths provide excellent opportunities for children, however, if they are secluded then children are less likely to use them due to potential safety problems. Therefore, the non-secluded Class I pathways, Alternatives 1 and 2, score the best in the evaluation. Even though it is a Class I – multi-use trail, Alternative 3 has a secluded section that may prevent some from using the trail so it scores lower. Class II – bike lanes (Alternative 4) provide some comfort for less experienced users and Class III – bicycle routes (Alternative 5) provide the least amount of opportunities for all user groups so they are scored appropriately.

4.3.10. Directness of Route - Evaluation

The routes that connect the proposed Mountain View SCT endpoint with the Cupertino SCT score the best in this criterion. Alternatives 4 and 5 cut directly through the Los Altos neighborhoods, connecting the two SCT endpoints and score the best. The other routes vary in their routes but extend west of the more direct alternatives and as a result, earn lower scores.

4.3.11. Public Support - Evaluation

The results are shown in **Table 4-1 Public Workshop 2 Dot Voting Results**. These results are translated to the evaluation. Alternative 4 received the least dot votes at the Public Workshop Alternative 3 received the most. In the evaluation, Alternative 3 received a score of 10 since it received the most votes and the other alternatives received a score based on the proportion of votes.

4.3.12. Timing - Evaluation

Timing refers to the implementation timing or coordination of linking the SCT in Los Altos with Trail segments in neighboring communities. If an alternative is beneficial to Los Altos, even when segments in other communities are not built, then it scores more favorably. Lower scores are given to alternatives that rely on the development of Trail segments in neighboring cities.

Table 4-1
Public Workshop 2 Dot Voting Results

<u>Alternatives</u>	1st Choice	2nd Choice
1. Bryant Avenue Connector	2	4
2. Truman Avenue / Oak Avenue Connector	6	17
3. Stevens Creek / Fremont Ave Connector	27	12
4. Split Bicycle / Pedestrian Option	0	5
5. Fallen Leaf Connector	10	7
6. Prefer Another Alignment	1	1
7. No Project in Los Altos	3	1
Total	<i>49</i>	<i>47</i>

Table 4-2
Stevens Creek Trail Criteria Evaluation – Raw Scores

Criteria	Bryant Avenue Connector	Truman Avenue/Oak Avenue Connector	Stevens Creek/Fremont Avenue Connector	Split Bicycle/ Pedestrian Option	Fallen Leaf Connector
1 Safety to the Trail User	8	8	6	3	2
2 Accessibility to Los Altos Residents	6	5	7	8	2
3 Environmental Impacts	6	4	1	8	10
4 Connections to Key Destinations	6	8	5	7	3
5 Traffic Impacts	8	6	7	6	8
6 Trail Environment	3	5	10	5	4
7 Neighborhood Impact	5	3	5	3	6
8 Homeowner Security	9	5	5	4	2
9 Opportunities for Multiple User Groups	8	8	6	4	3
10 Directness of Route	5	5	4	7	8
11 Public Support	2	6	10	1	4
12 Timing	8	7	7	4	3

4.4. ALTERNATIVE ANALYSIS

The Stevens Creek Task Force, with city staff input, weighted the criteria. To develop the weights, each Task Force member weighted the criterion individually based on the public's opinion from the second public workshop. Once individual members scored the criterion, they reported back to the larger group. The Task Force then agreed upon the proper assigned weighting factors. The criterion viewed as more important or valuable to the SCT received a higher weight. Criteria viewed as less important received less weight. Weights are shown in **Table 4-3**. Public Support is the most weighted and Directness of Route is the least weighted criteria. **Table 4-4 Stevens Creek Trail Alternative Evaluation – Weighted Scores** shows the weights applied to the raw scores.

Table 4-3
Stevens Creek Trail Alternative Analysis Weights

Criteria	Weighting Factors
1 Safety to the Trail User	0.12
2 Accessibility to Los Altos Residents	0.07
3 Environmental Impacts	0.08
4 Connections to Key Destinations	0.08
5 Traffic Impacts	0.05
6 Trail Environment	0.12
7 Neighborhood Impact	0.08
8 Homeowner Security	0.07
9 Opportunities for Multiple User Groups	0.10
10 Directness of Route	0.03
11 Public Support	0.13
12 Timing	0.07
Total	1.00

Table 4-5 shows the results of the evaluation. Similar criteria are combined together to make three categories. These are Best Trail Experience, Ease of Implementation, and Accessibility. Based on these results, the Stevens Creek/ Fremont Avenue Connector scores the highest and as a result, it is the considered the preferred alternative.

Table 4-4
Stevens Creek Trail Alternative Evaluation – Weighted Scores

	Criteria	Weighting Factors	Bryant Avenue Connector	Truman Avenue/Oak Avenue Connector	Stevens Creek/Fremont Avenue Connector	Split Bicycle/Pedestrian Option	Fallen Leaf Connector
1	Safety to the Trail User	0.12	0.96	0.96	0.72	0.36	0.24
2	Accessibility to Los Altos Residents	0.07	0.42	0.35	0.49	0.56	0.14
3	Environmental Impacts	0.08	0.48	0.32	0.08	0.64	0.80
4	Connections to Key Destinations	0.08	0.48	0.64	0.40	0.56	0.24
5	Traffic Impacts	0.05	0.40	0.30	0.35	0.30	0.40
6	Trail Environment	0.12	0.36	0.60	1.20	0.60	0.48
7	Neighborhood Impact	0.08	0.40	0.24	0.40	0.24	0.48
8	Homeowner Security	0.07	0.63	0.35	0.35	0.28	0.14
9	Opportunities for Multiple User Groups	0.1	0.80	0.80	0.60	0.40	0.30
10	Directness of Route	0.03	0.15	0.15	0.12	0.21	0.24
11	Public Support	0.13	0.26	0.78	1.30	0.13	0.52
12	Timing	0.07	0.56	0.49	0.49	0.28	0.21

Table 4-5
Stevens Creek Trail Alternative Evaluation – Results

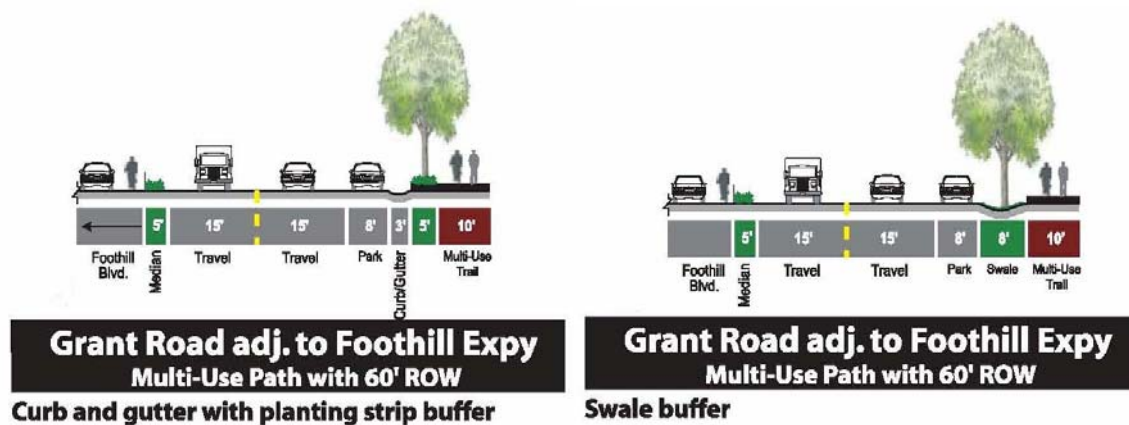
	Bryant Avenue Connector	Truman Avenue/Oak Avenue Connector	Stevens Creek/Fremont Avenue Connector	Split Bicycle/Pedestrian Option	Fallen Leaf Connector
Best Trail Experience (Criteria 1, 6, 9)	2.12	2.36	2.52	1.36	1.02
Ease of Implementation (Criteria 3, 5, 7, 8, 11, 12)	2.73	2.48	2.97	1.87	2.55
Accessibility (Criteria 2, 4, 10)	1.05	1.14	1.01	1.33	0.62
Total	5.90	5.98	6.50	4.56	4.19

4.5. TREATMENT OPTIONS WITHIN THE ALTERNATIVES

Within the five alternatives presented there are two segments for which a closer analysis was conducted and options identified for consideration. Alternatives 1-4 travel along Grant Road adjacent to Foothill Expressway. Two treatment options are considered for this segment. All five alternatives travel through the Grant Road/Foothill Expressway/Homestead Road intersection. Two treatment options are considered for this area as well.

4.5.1. Grant Road Adjacent to Foothill Expressway

All Alternatives except Alternative 5 utilize a Class I – multi-use path on Grant Road adjacent to Foothill Expressway. Two options are presented for this segment of the SCT. Both feature a class I – multi-use path but differ in the buffer between the travel lanes and path. Two options are presented in the diagrams below.



One option is with a curb, gutter, and planting strip. The other option is with a swale buffer. Swales are shallow, wide depressions adjacent to roadways and trails that collect storm-water runoff over vegetation to slowly settle sediments and particulate matter. The pollutants are filtered out, settled, or removed by plants, causing fewer pollutants to enter ecologically sensitive water bodies.

4.5.2. Grant Road Connection at Foothill Expressway

All Alternatives travel through the Grant Road/Foothill Expressway/Homestead Road intersection. Alternatives 1-4 approach the intersection from the west and Alternative 5 approaches the intersection from the east. All of the proposed Alternatives travel through the intersection, accessing Foothill Road towards Cupertino. This is a complicated intersection with relatively high traffic volumes, many turning movements, and it is a difficult location for bicyclists and pedestrians to navigate.

Two options are presented for the SCT to pass through this intersection from the west as presented in **Figure 4-6** and **Figure 4-7**. In Figure 4-6, the SCT continues along the east side of Grant Road and crosses south of El Sereno Avenue. The connection across Grant Road is an existing transverse crosswalk; the SCT option recommends a high-visibility crosswalk or a ladder type crosswalk that alerts motorists of the presence of trail users (Chapter 6 has a more detailed description). The second option, shown in Figure 4-7, crosses Grant Road on the north side of the intersection at Homestead Road. The SCT uses a series of six high-visibility crosswalks to access the Foothill Boulevard frontage road. Two of these crosswalks do not exist and would need installation for the SCT.

4.6. RECOMMENDATION

4.6.1. Preferred Alternative

Based on the alternative evaluation results, Alternative 3 Stevens Creek/Fremont Avenue Connector is the preferred alternative. This route scored exceptionally well on public support and trail environment and scored second best in seven of the remaining ten attributes. It scored lowest in the potential for environmental impacts and directness of route (Table 4-4).

As with any such project, public support is desired. In the second public meeting, 27 of 49 “first choice votes” were cast for Alternative 3, scoring it the highest. The aesthetic nature of this alignment has it scoring as the top in trail environment as well. Being parallel to Stevens Creek in the open space north of Fremont Avenue offers a seamless trail use experience. Paralleling Fremont Avenue is appealing due to the abundance of trees and ample right-of-way to provide a buffer for a Class I multi-use path. Alternative 3 scored well in other heavily weighted criteria – Safety to the trail user, opportunities for multiple user groups, neighborhood impact, homeowner security, and accessibility to Los Altos residents.

The primary challenge with Alternative 3 and where it scored the poorest is in the area of potential environmental impacts. While many of the challenges cannot be assessed until a more detailed evaluation and impact study has been conducted, a number of potential impacts have been identified. Some considerations are the fill necessary for its development and the location relative to the creek’s flood plain and riparian zone. For successful development of Alternative 3, it requires working with Santa Clara Valley Water District as a partner since a portion of the trail alignment is along the creek and

within the District fee title right of way (the other alternatives do not have this requirement). Alternative 3 also requires working with Mountain View and Sunnyvale since portions north of Fremont Avenue are in their jurisdictions.

4.6.2. Grant Road Adjacent to Foothill Expressway Preferred Treatment Option

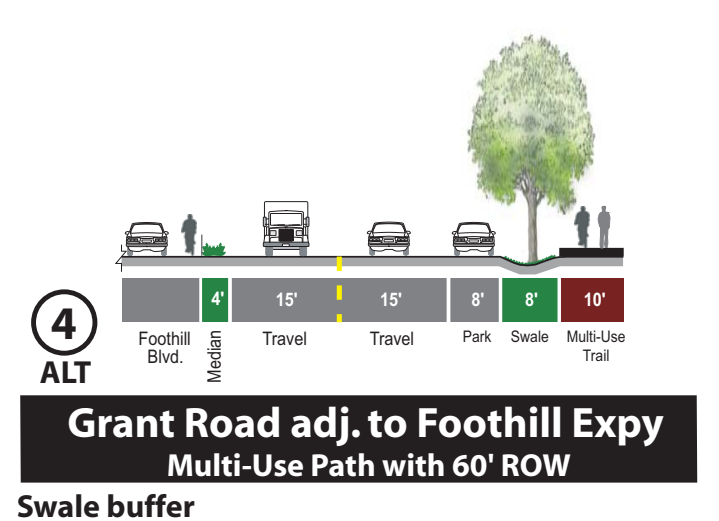
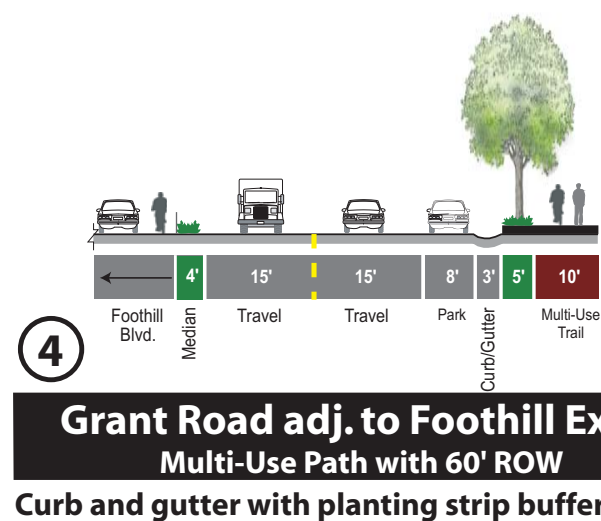
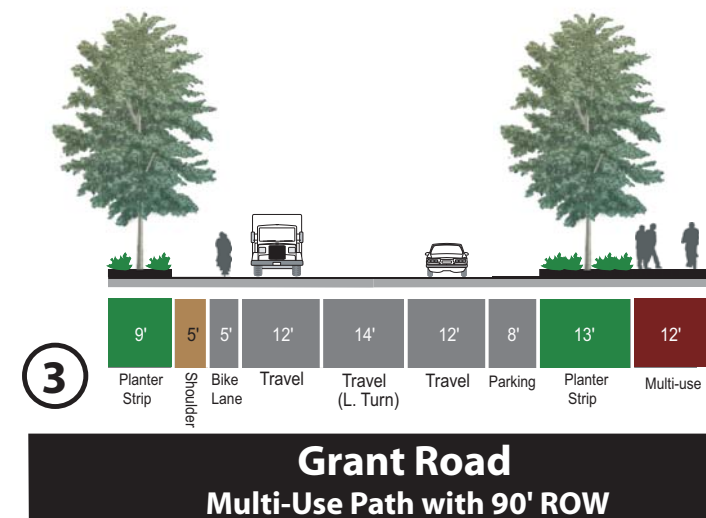
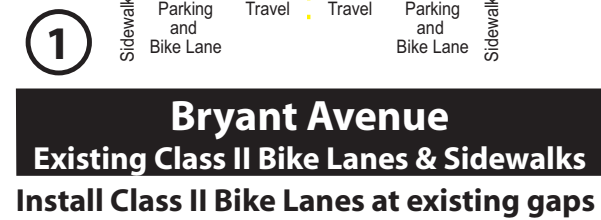
The multi-use path with the swale, rather than the curb and gutter is recommended for Grant Road adjacent to Foothill Expressway. This is a relatively new design feature that cities are using more frequently. A swale would fit into the existing roadway nature of Los Altos' streets. Los Altos prefers not to use curbs and gutters for its streets and a swale provides a compromise between the City's existing street design guidelines and the development of the SCT through the City.

4.6.3. Grant Road Connection at Foothill Expressway Treatment Option

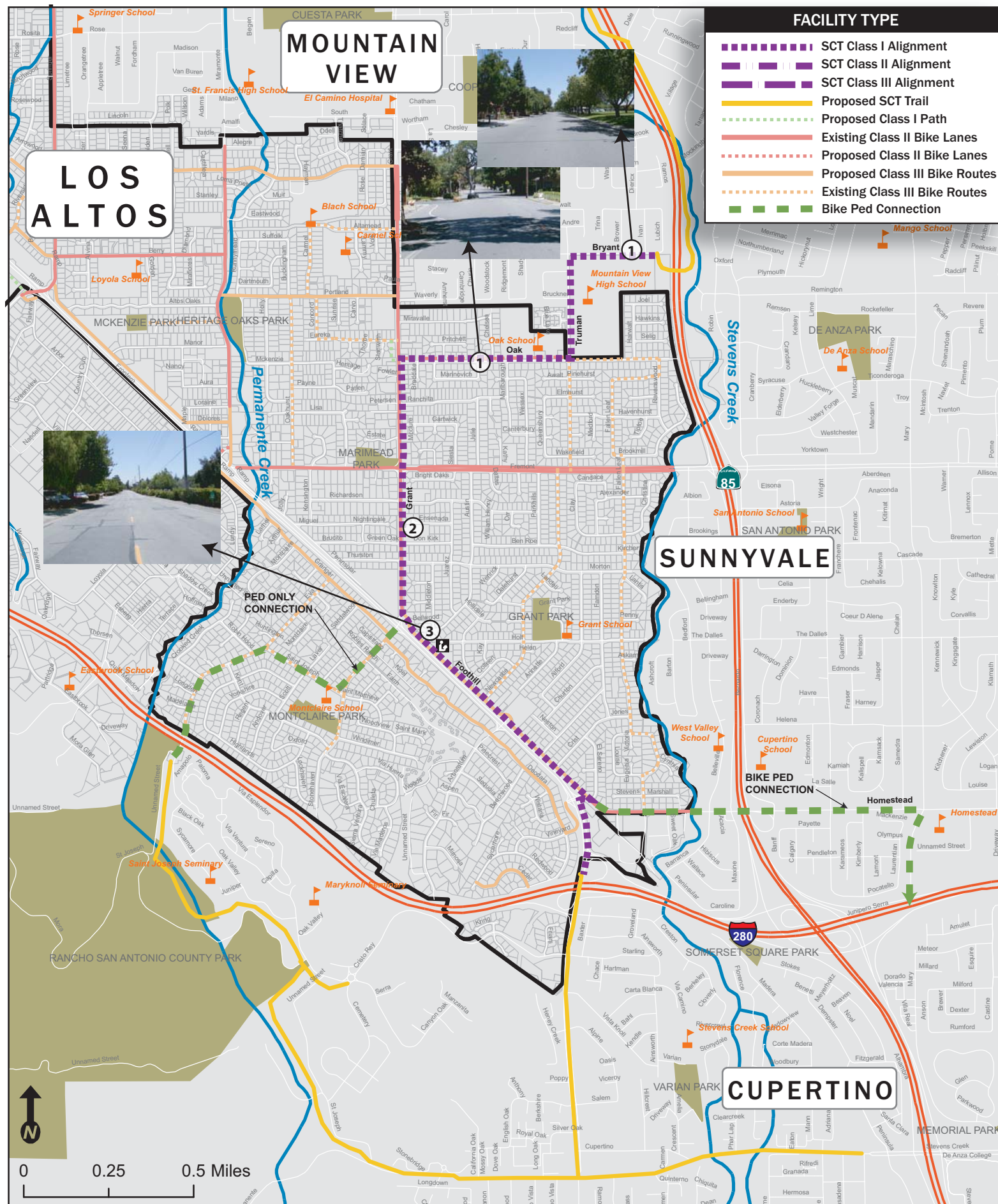
For the Grant Road to Foothill Expressway connection Option 1 (Figure 4-6) is recommended. Although this option is slightly longer, it has the advantage of crossing four lanes of traffic instead of seven lanes of traffic to make the connection. Of the four lanes of traffic two are El Sereno Avenue, a neighborhood street. At this complicated intersection, the SCT should minimize potential conflicts between motorists traveling on high volume streets and trail users.



Figure 4-1
Alternative 1- Bryant Avenue Connector



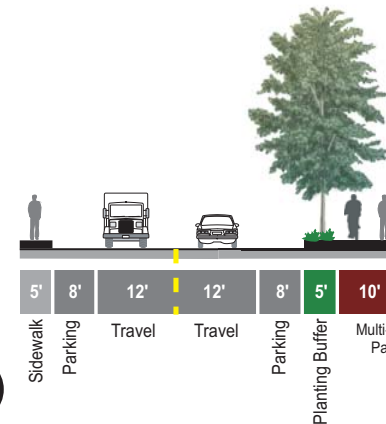
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①

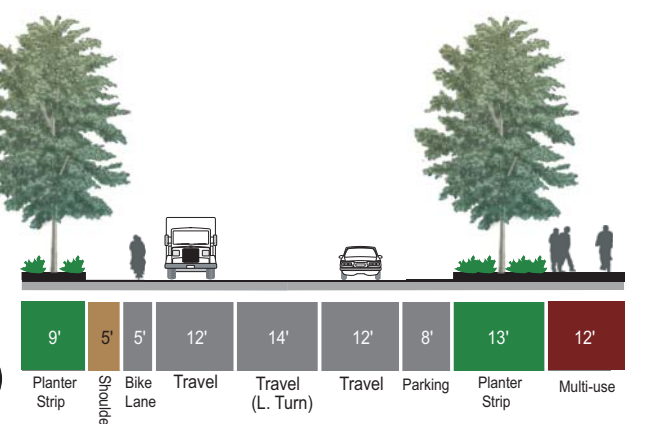
Bryant, Truman, Oak Avenues Multi-Use Path with 60' ROW

Path on south side of Bryant Avenue, east side of Truman Avenue, and north side of Oak Avenue



②

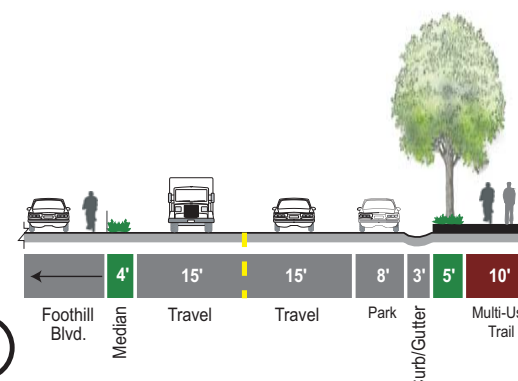
Grant Road Multi-Use Path with 90' ROW



③

Grant Road adj. to Foothill Expy Multi-Use Path with 60' ROW

Curb and gutter with planting strip buffer



③
ALT

Grant Road adj. to Foothill Expy Multi-Use Path with 60' ROW

Swale buffer

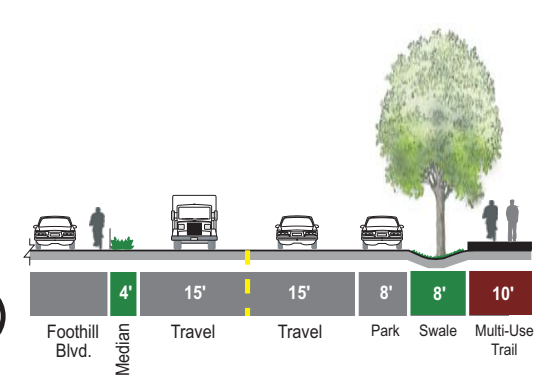


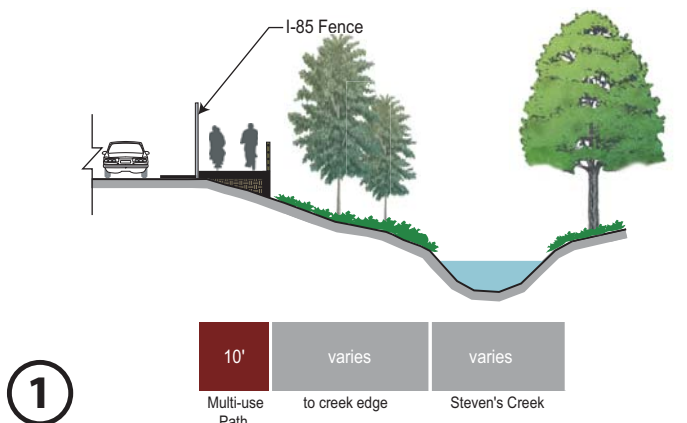
Figure 4-2
Alternative 2- Truman Ave. / Oak Ave. Connector

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FACILITY TYPE

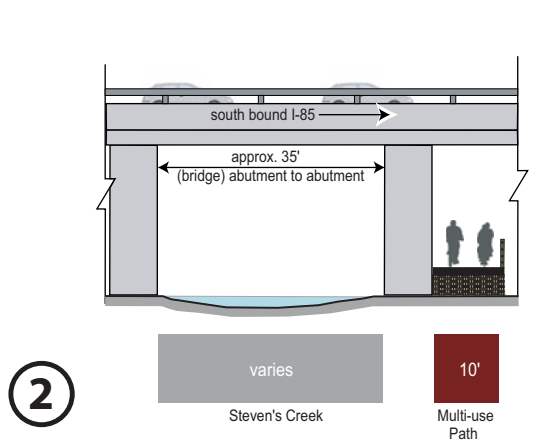
- SCT Class I Alignment
- SCT Class II Alignment
- SCT Class III Alignment
- Proposed SCT Trail
- Proposed Class I Path
- Existing Class II Bike Lanes
- Proposed Class II Bike Lanes
- Proposed Class III Bike Routes
- Existing Class III Bike Routes
- Bike Ped Connection



1

Steven's Creek Multi-Use Path

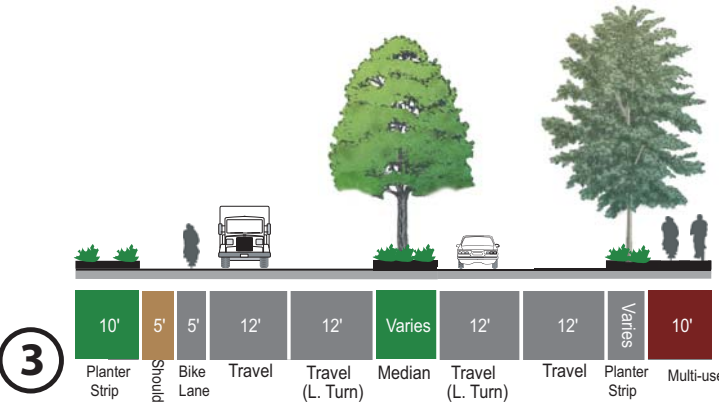
Path begins on east side of SR 85 at Mountain View High School Over Crossing and continues along the west side of the Creek



2

I-85 Freeway Crossing Multi-Use Path

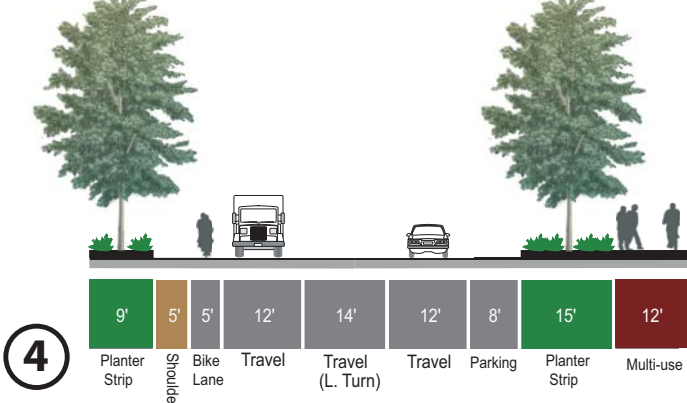
Alignment adjacent to south abutment on graded fill



3

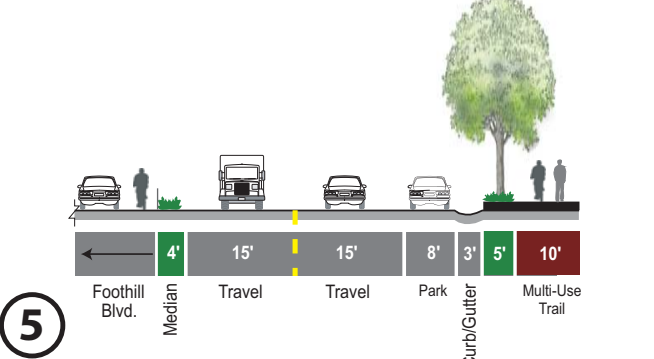
Fremont Avenue Multi-Use Path with 120' ROW

Path on north side



4

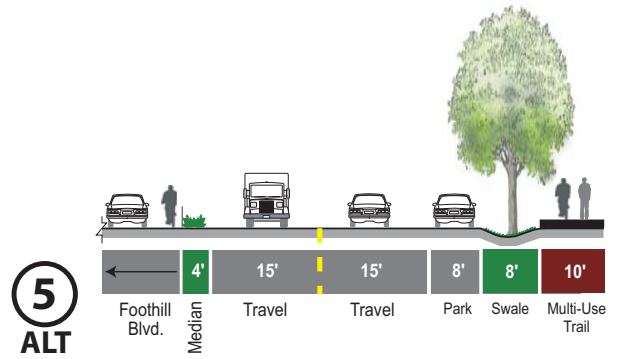
Grant Road Multi-Use Path with 90' ROW



5

Grant Road adj. to Foothill Expy. Multi-Use Path with 60' ROW

Curb and gutter with planting strip buffer



5 ALT

Grant Road adj. to Foothill Expy. Multi-Use Path with 60' ROW

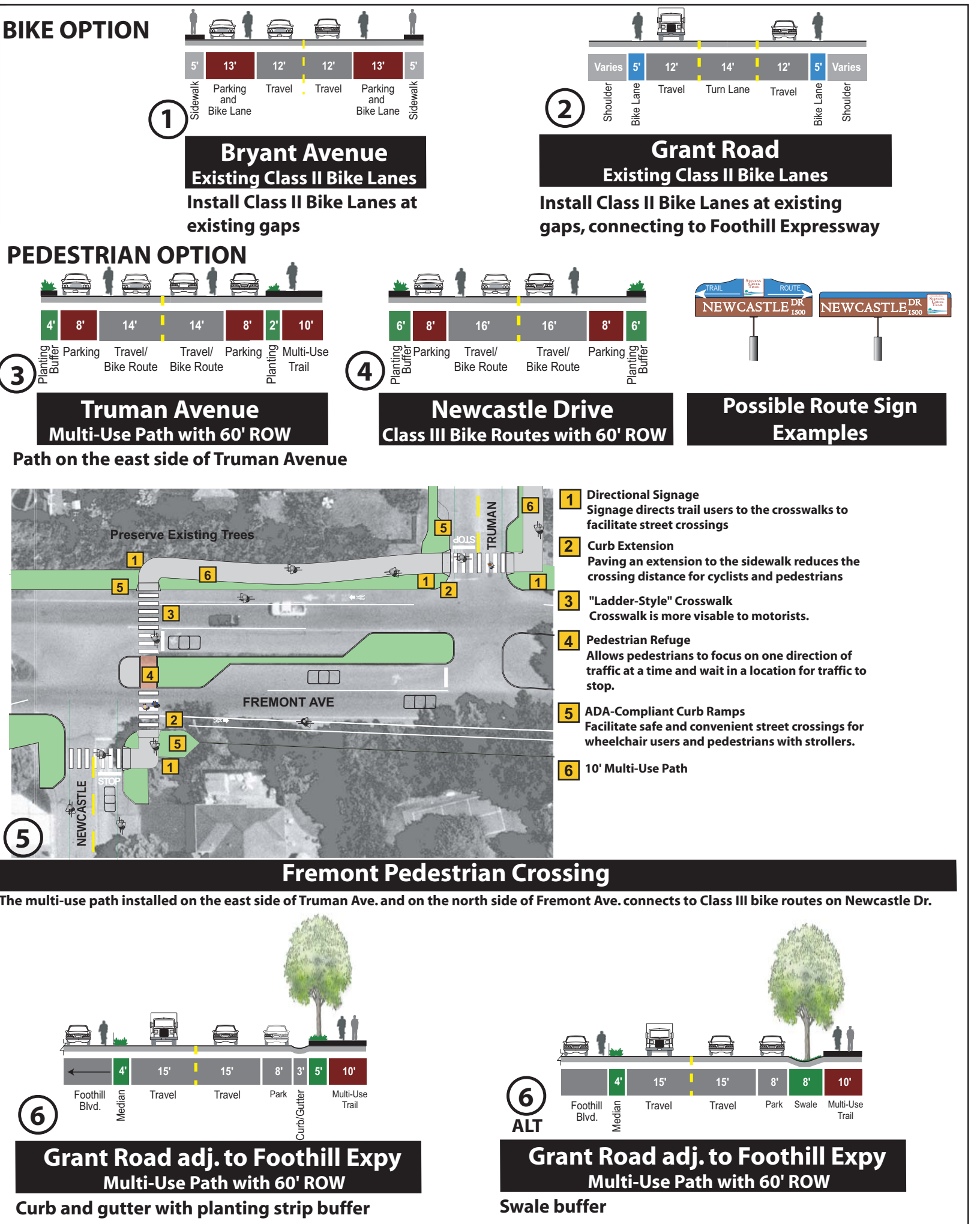
Swale buffer

Figure 4-3

Alternative 3- Stevens Creek/ Fremont Ave. Connector

alta
PLANNING + DESIGN

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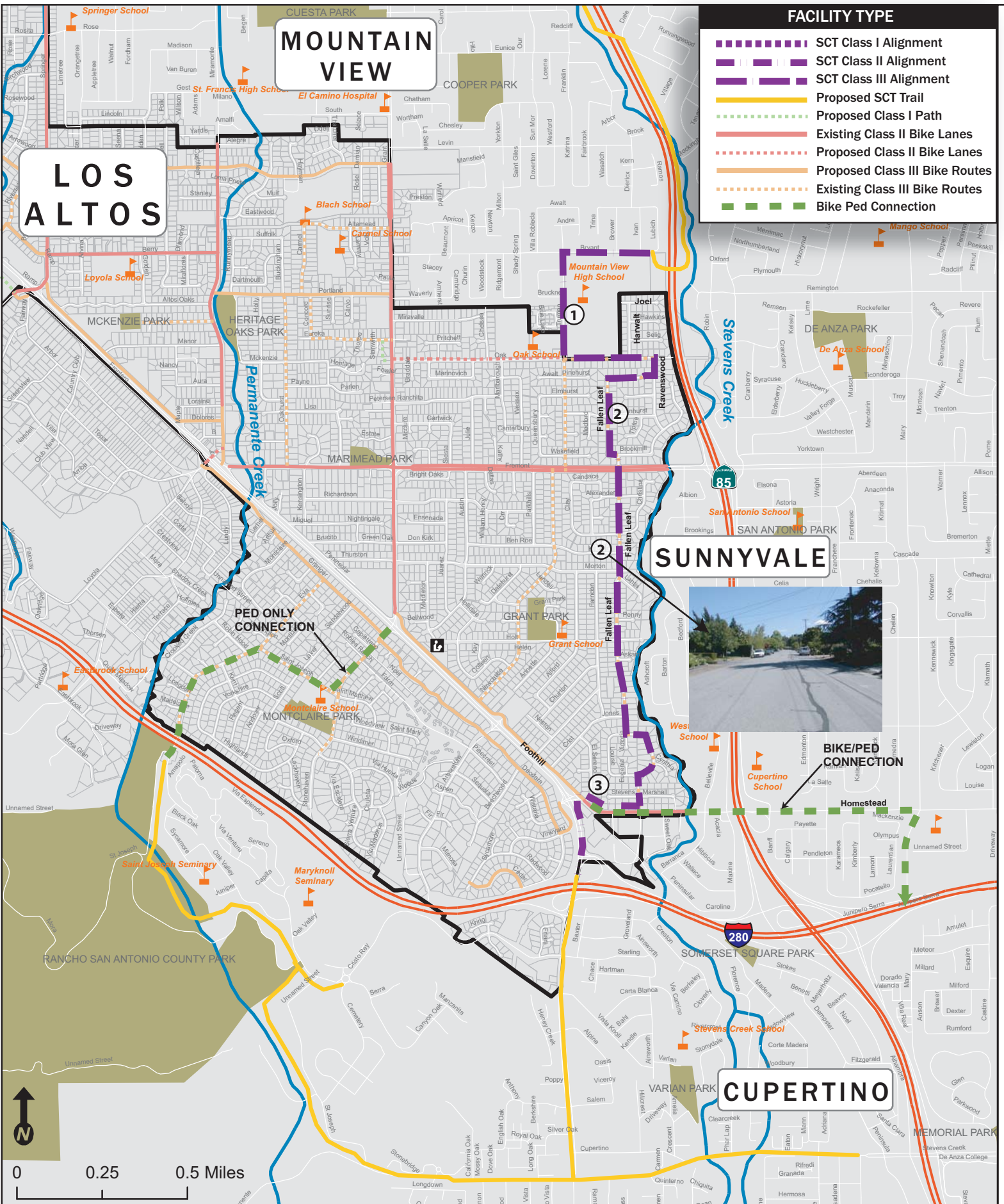
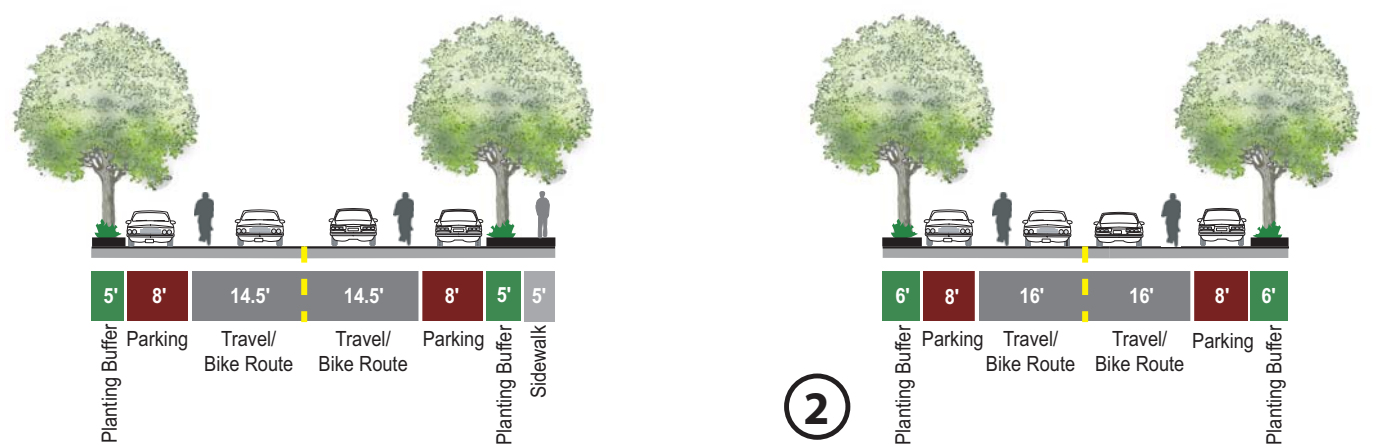


Figure 4-5
Alternative 5 - Fallen Leaf Connector



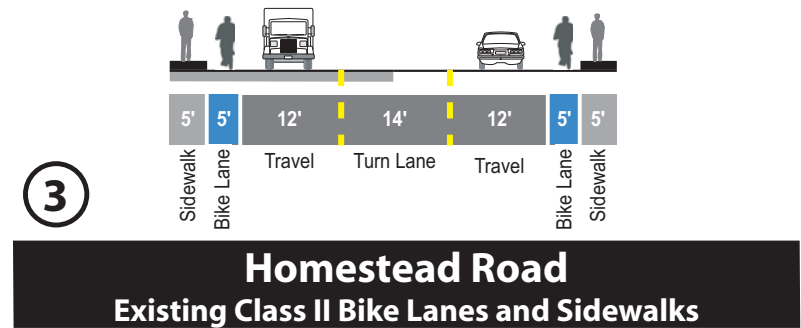
Route Sign Examples



1
Bryant Avenue to Oak Avenue
Class III Bike Route with 60' ROW

2
Ravenswood Drive to Fallen Leaf Lane
Class III Bike Route with 60' ROW

Existing sidewalk adjacent to Mountain View High School



3
Homestead Road
Existing Class II Bike Lanes and Sidewalks

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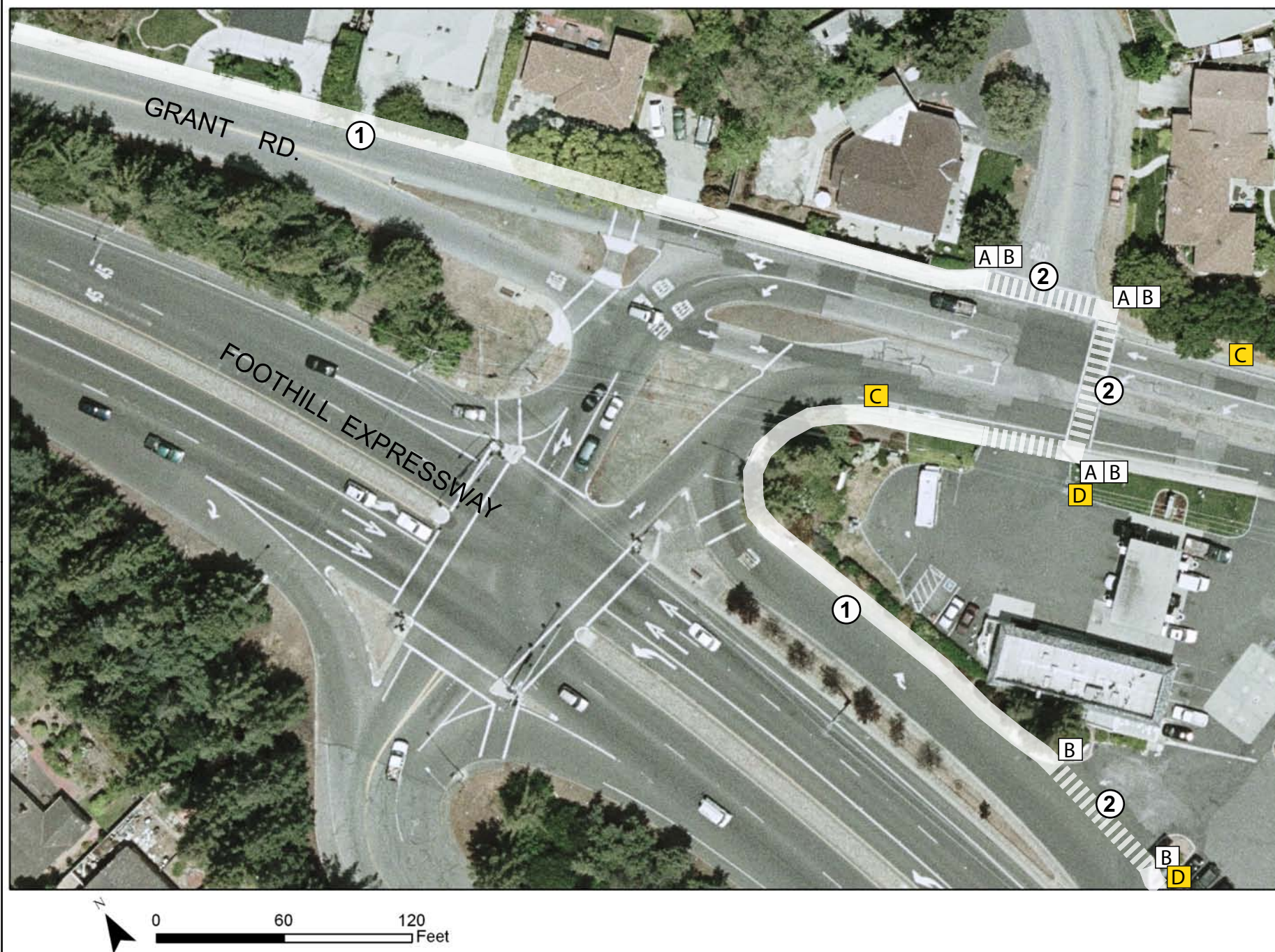


Figure 4-6
Grant Road at Foothill Expressway Treatment: Option 1



Advantages

-Only one arterial road crossing

Disadvantages

-Less Direct route

Enhancements

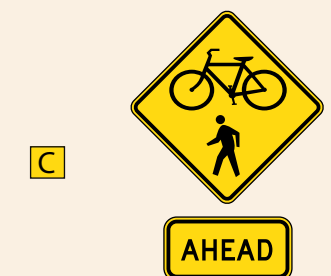
- ① Multi-Use Trail
- ② Ladder Crosswalk

Recommended Signage:

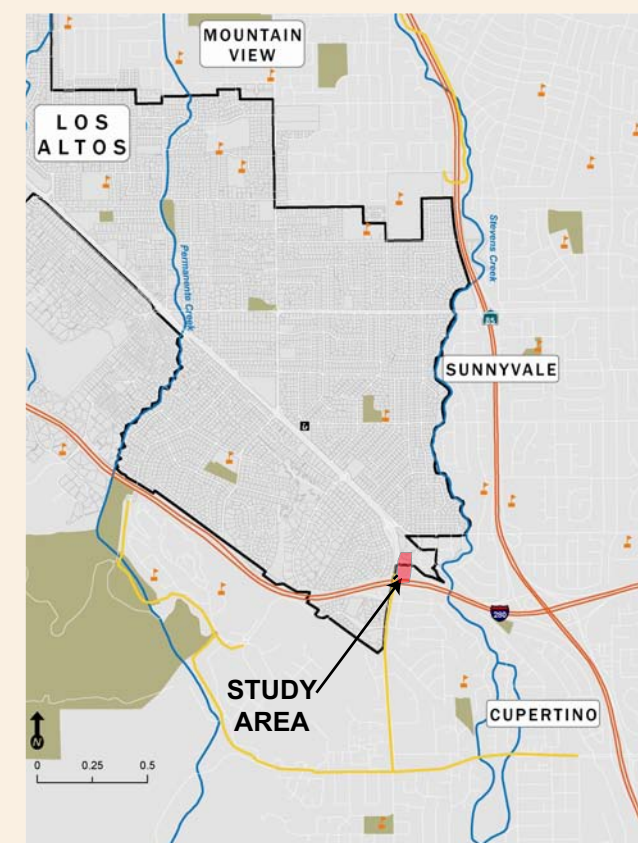
A Wayfinding Signage



For Motorists:



Context Map



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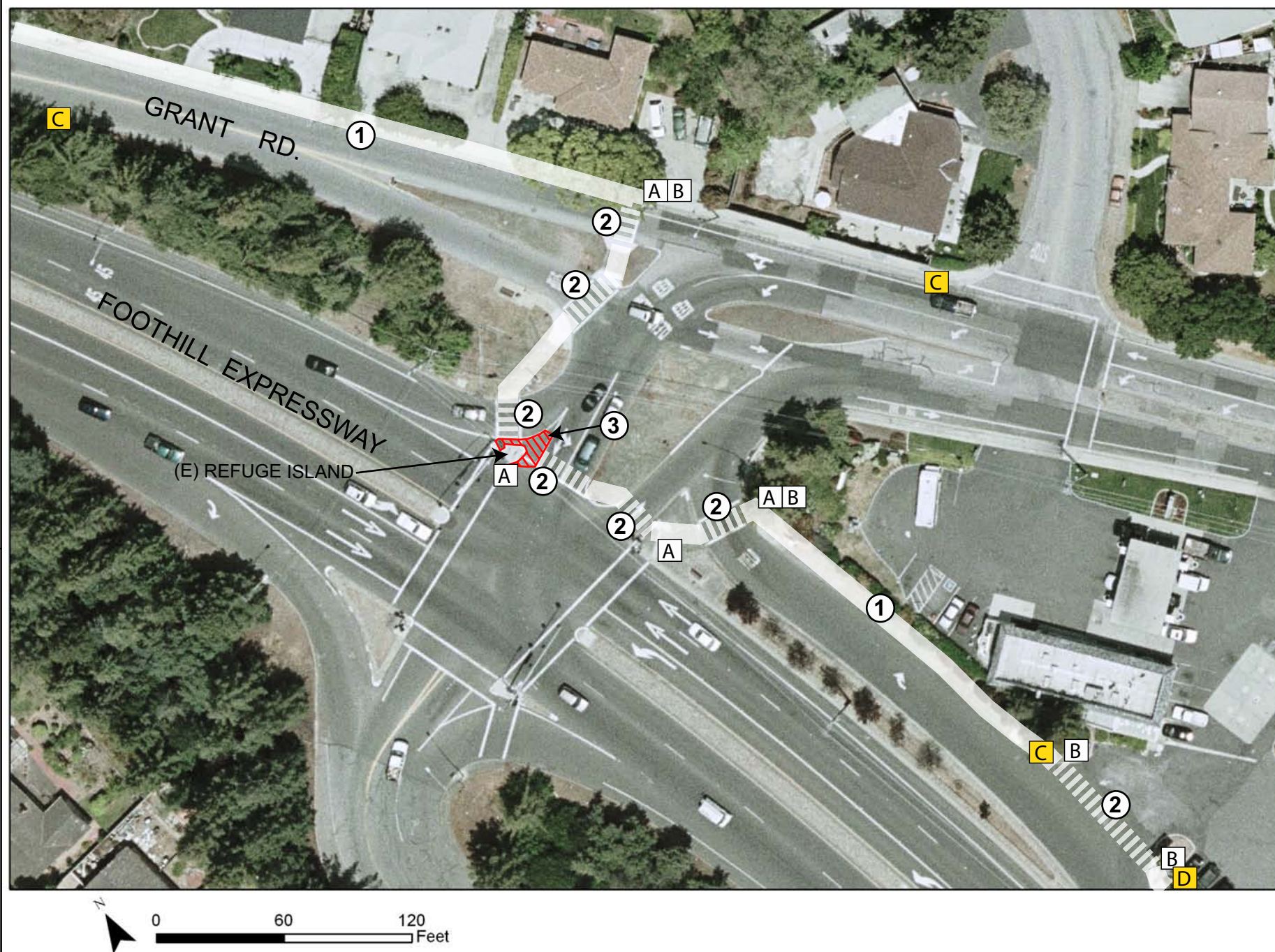


Figure 4-7

Grant Road at Foothill Expressway Treatment: Option 2



Advantages

-More direct and shorter route

Disadvantages

-Crosses more roads and uses more crosswalks
- Have to reconfigure existing median to accommodate route

Enhancements

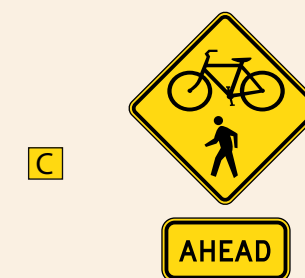
- ① Multi-Use Trail
- ② Ladder Crosswalk
- ③ Expanded Refuge Island
-to accomodate cyclists
safe crossing

Recommended Signage:

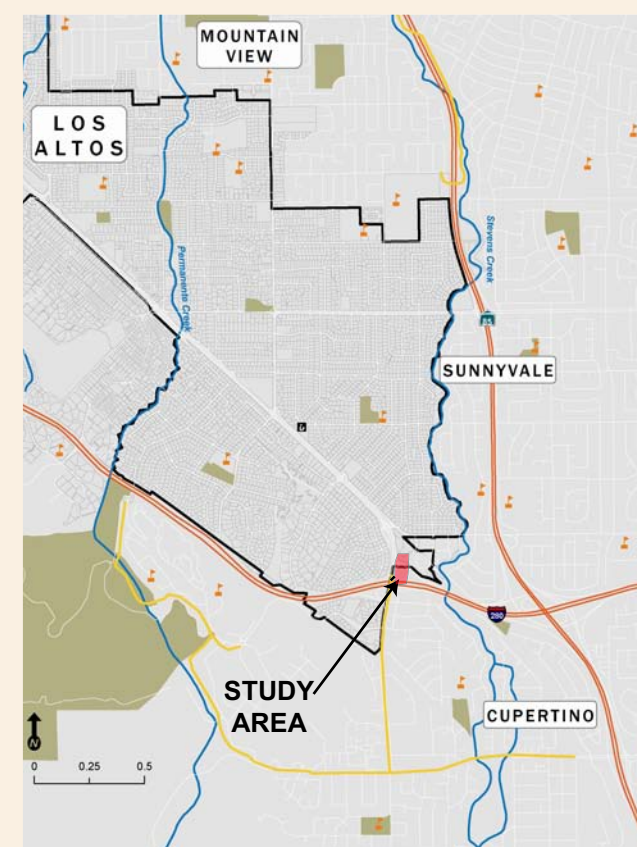
A Wayfinding Signage



For Motorists:



Context Map



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5. PREFERRED ALTERNATIVE

Alternative 3 is the preferred alternative and it is described in this Chapter. This Chapter includes more details about the alignment as well as roadway improvements to make the trail accessible to all users.

5.1. ROUTE ALIGNMENT AND IMPROVEMENTS

5.1.1. Description

As described in the Alternative Analysis Chapter, the preferred alignment is Alternative 3 – Stevens Creek/Fremont Avenue Connector. **Figure 5-1 Preferred SCT Alignment** shows this route connecting Mountain View High School with Sunnyvale and Cupertino east of Highway 85 and west of Stevens Creek. The alignment includes a Class I – multi-use path adjacent to the creek, continuing west along Fremont Avenue, and south and southeast on Grant Road.

5.1.2. Recommended Roadway Improvements

Bicycle and pedestrian improvements are necessary to make a successful SCT connection through Los Altos. Recommended improvements are suggested to the existing bike lanes and the Class I –multi-use path needs development and improvements to warn motorists of bicyclists and pedestrians. Improvements are also made to key intersections along the alignment to facilitate bicycle and pedestrian movements. This section of the Study describes each portion of the preferred alternative in more detail, including improvements needed for the route. Chapter 6 has specific design guidelines for the proposed improvements.

5.1.3. East of Highway 85

As shown in Figure 4-3, the existing conditions east of Highway 85 and west of the creek present opportunities and challenges. This segment connects the proposed Mountain View SCT continuation east of Highway 85 where the proposed over crossing to Mountain View High School is planned. The SCT connects south to Fremont Avenue. In some areas along this stretch there are open fields where the SCT is not close to the creek or highway. However, in other areas, as shown in the picture on Figure 4-3, there are narrow sections with steep inclines where retaining walls are necessary.



An open section where the preferred alternative would be developed

Figure 5-1
Preferred SCT Alignment



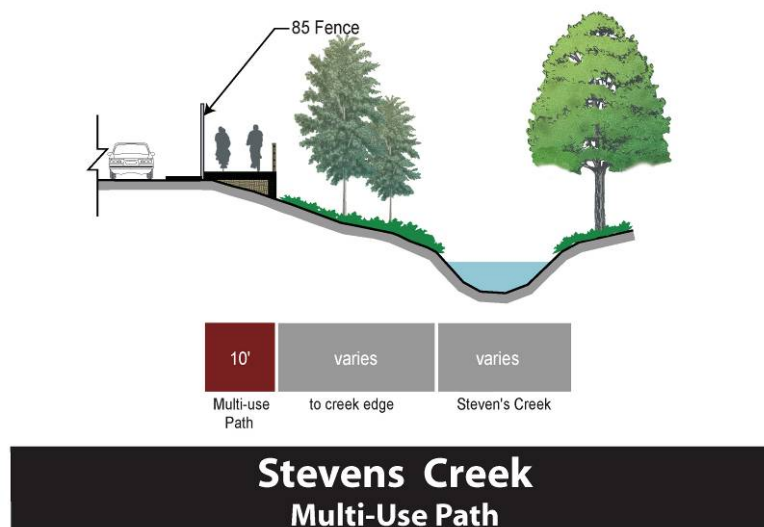
For successful implementation of the trail in this area, the City of Los Altos must work in cooperation with the City of Mountain View, the City of Sunnyvale, and the Santa Clara Valley Water District. The parcels of land between the proposed Mountain View High School over crossing and Fremont Avenue are owned by Mountain View and there is an easement owned by the Santa Clara Valley Water District along the creek. On the southern end of this section, at the proposed bridge crossing of Stevens Creek, the touchdown is within Sunnyvale's jurisdiction. During the planning process for the Los Altos SCT, the cities of Los Altos and Mountain View met to discuss this alignment. The City of Mountain View stated that the approved Environmental Impact Report for the Stevens Creek Trail in Mountain View shows the trail crossing Highway 85 at Mountain View High School and therefore the City has not considered an extension of the trail south to Fremont Avenue. Mountain View representatives stated that if Los Altos wanted to pursue this route that it could potentially negotiate with the City of Los Altos for the necessary parcels.



The bank between Highway 85 and Stevens Creek

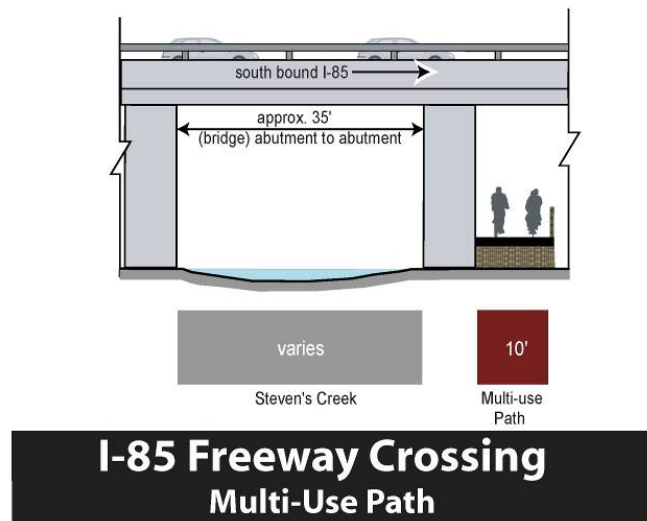
In the area south of the proposed Mountain View High School over crossing, there is an existing informal path. The SCT alignment extends through this area. Where feasible, there would be a buffer between the trail and Highway 85 and where not feasible, the trail would be located adjacent to the fence of Highway 85 as shown in **Figure 5-2 Stevens Creek Cross-Section**. A larger buffer between the trail and the highway is preferred because the highway presents unfavorable conditions including wind and noise. In some areas, a buffer is not possible due to the close proximity between Highway 85 and the creek. Design and construction of the SCT must meet the needs of the Water District and details on the fill relative to the flood plain and riparian corridor require further evaluation. The SCT cannot impact these functions of Stevens Creek.

**Figure 5-2
Stevens Creek Cross-Section**



As the SCT continues south along this stretch, it crosses the creek before connecting with Fremont Avenue. The proposed alignment crosses the creek on the east-side of Highway 85 and continues under the existing Highway 85 crossing of Steven's Creek. There are three sections under vehicle crossing of the creek. The SCT would cross in the southern section elevated off of the ground, limiting any disruption to the creek's floodplain. The City of Los Altos discussed this option with the Santa Clara Valley Water District and their response was that the alignment is acceptable as long as it does not interfere with the 100 year floodplain of Stevens Creek. Further hydrological and engineering study is needed to determine this exact location. **Figure 5-3 I-85 Crossing** shows this cross section. The SCT will link with Fremont Avenue parallel to the Highway 85 southbound off-ramp.

**Figure 5-3
I-85 Crossing Cross-Section**



5.1.4. Fremont Avenue



Existing conditions on Fremont Avenue

trees in this area. The cross section of this segment is shown in **Figure 5-4 Fremont Avenue Cross Section**.

There are numerous side streets that connect with the north side of Fremont Avenue. These streets will have designated crosswalk markings and signs alerting motorists of potential trail users. At larger side streets, including Fallen Leaf Lane, Truman Avenue, Wessex Avenue, Julie Lane, and Siesta Drive, high-visibility crosswalks are recommended. An example of this is shown in Figure 5-5 Fremont

Avenue/Truman Avenue Improvements. At the smaller side-street intersections, where the streets do not go through but have dead-ends or cul-de-sacs, standard transverse crosswalks are recommended. Truman Avenue connects with Mountain View High School and is a potential future spur for the SCT.

Figure 5-4
Fremont Avenue Cross Section

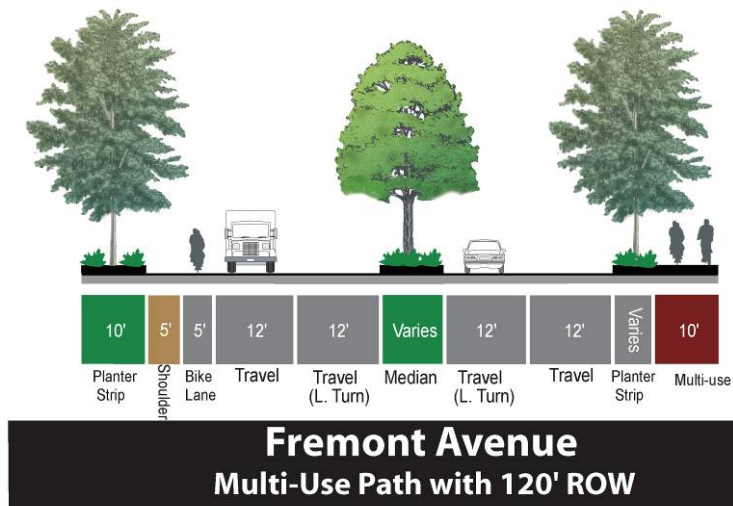


Figure 5-5
Fremont Avenue/Truman Avenue Improvements



5.1.5. Grant Road

The SCT continues south on Grant Road from Fremont Avenue. The trail crosses on the east side of the Fremont Avenue and Grant Road intersection through two right turn slip lanes and three travel lanes. As **Figure 5-6 Fremont Avenue/Grant Road Improvements** shows, to increase visibility of bicyclists and pedestrians, three separate high visibility crosswalks are recommended on the east side of the intersection. In addition to these crosswalks, two additional pedestrian signals are recommended at the slip lanes. These would be pedestrian activated -when a bicyclist or pedestrian crossed at the slip lanes, they push the signal button and it triggers a red-light for turning traffic. The new signals could be pedestrian countdown signals. These show the amount of time remaining to cross the street on the signal head. A more detailed explanation is in Chapter 6.

**Figure 5-6
Fremont Avenue/Grant Road Improvements**

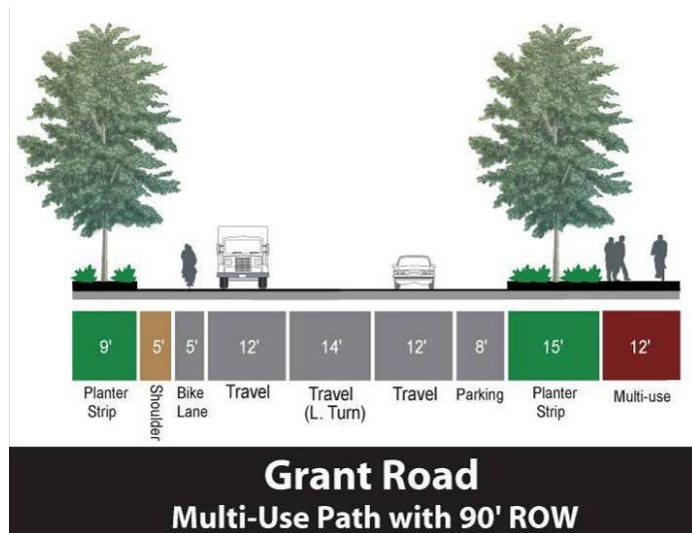


*Existing conditions on Grant Road
looking northbound*

The preferred alternative continues south on the east side of Grant Road. Given the public right-of-way in this section, there is room for a 12-foot pathway and a planter strip buffer. There are existing Class II - bicycle lanes on both sides of Grant Road. The bicycle lane on the east side of Grant Road is removed for the benefit of the path. Bicyclists traveling northbound who prefer not to use the SCT can ride in the travel lane, adjacent to the parking lane on the east side of the road.

The west side of Grant Road keeps the existing bicycle lane. Along portions of Grant Road, a left-turn lane is present. Eventually, this could become a center planted median with left turn lanes where appropriate. **Figure 5-7 Grant Road Cross Section** shows the proposed lane sizes and designations.

**Figure 5-7
Grant Road Cross Section**



Connecting with the east side of Grant Road are side-streets: Richardson Avenue, Ensenada Way, Don Kirk Street, and Morton Avenue. To increase visibility of bicyclists and pedestrians using the SCT, high-visibility crosswalks are recommended at these locations. **Figure 5-8 Grant Road Improvements** shows an example at Don Kirk Street. Also where necessary, curb extensions are recommended for the side streets to decrease the crossing distance and help make bicyclists and pedestrians using the SCT more visible to motorists.

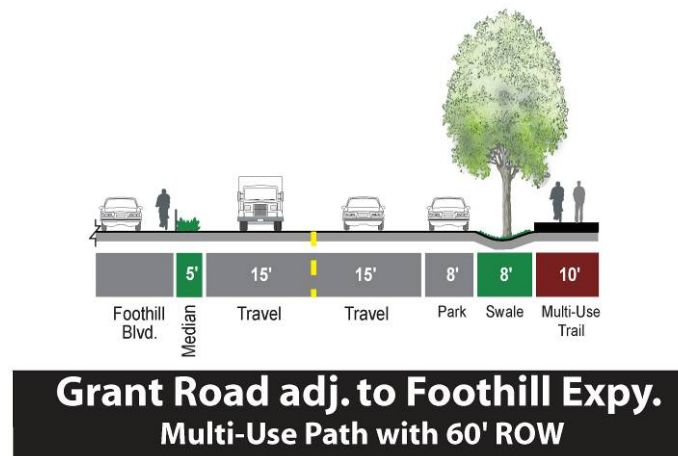
**Figure 5-8
Grant Road Improvements**



5.1.6. Grant Road adjacent to Foothill Expressway

Grant Road adjacent to Foothill Expressway is the connection from Grant Road to the Grant Road/Homestead Road intersection and Foothill Expressway. **Figure 5-9 Grant Road adjacent to Foothill Expressway Cross Section** shows the cross section of this segment. It includes two travel lanes, a swale, and a Class I – multi-use path on the north side of the street.

Figure 5-9
Grant Road adjacent to Foothill Expressway Cross Section



Existing conditions on Grant Road adjacent to Foothill Expressway

On Grant Road adjacent to Foothill Expressway a Class I – multi-use path is recommended with a swale buffer. There is an existing sidewalk that would be widened to accommodate bicycle and pedestrian traffic. The path parallels the Los Altos-Woodland Library. At this location, there is an existing transverse crosswalk to access the bus stop on the south side of Grant Road. To better accommodate bicyclists and pedestrians accessing the bus stop and to increase their visibility to motorists, a high-visibility crosswalk is recommended at this location as shown in **Figure 5-10 Grant Road Library Improvements**.

Figure 5-11 Grant Road/Farndon Avenue Improvements shows the recommendations for the Farndon Avenue/Grant Road intersection. This intersection will feature curb extensions and a high-visibility crosswalk. The same improvements are recommended for the Newcastle Drive/Grant Road and Crist Drive/Grant Road intersections.

5.1.7. Grant Road Connections

The alignment of the preferred alternative crosses the Grant Road/Homestead Road/Foothill Expressway intersection. This is the preferred connection to the Foothill Expressway frontage road and to Foothill Boulevard in Cupertino. Improvements include high visibility crosswalks across El Sereno Avenue and Homestead Road. New signage is also recommended. Chapter 6 provides more information about SCT wayfinding signage.

Figure 5-10
Grant Road Library Improvements

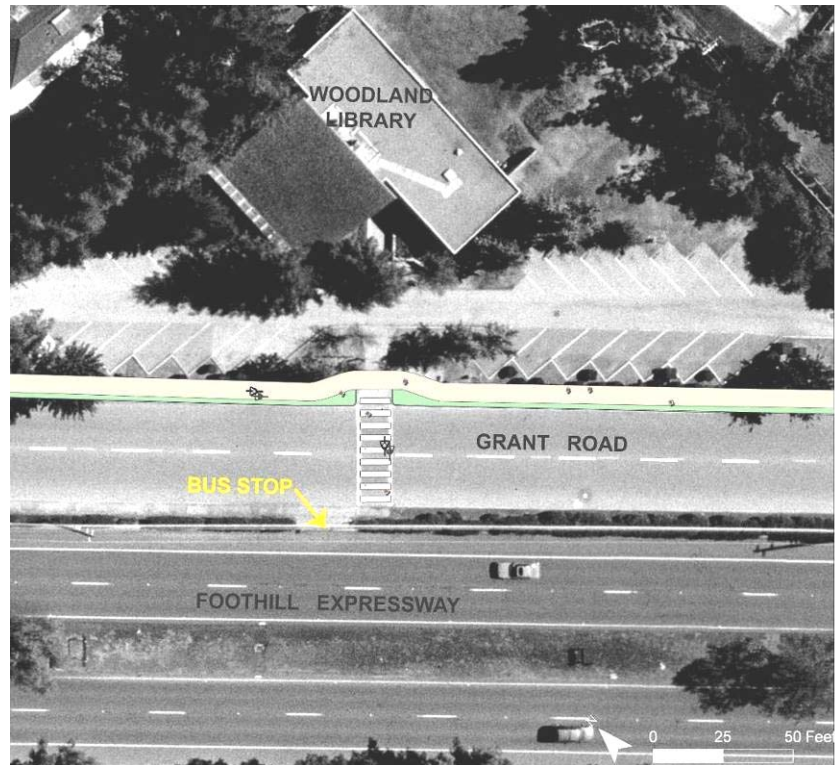
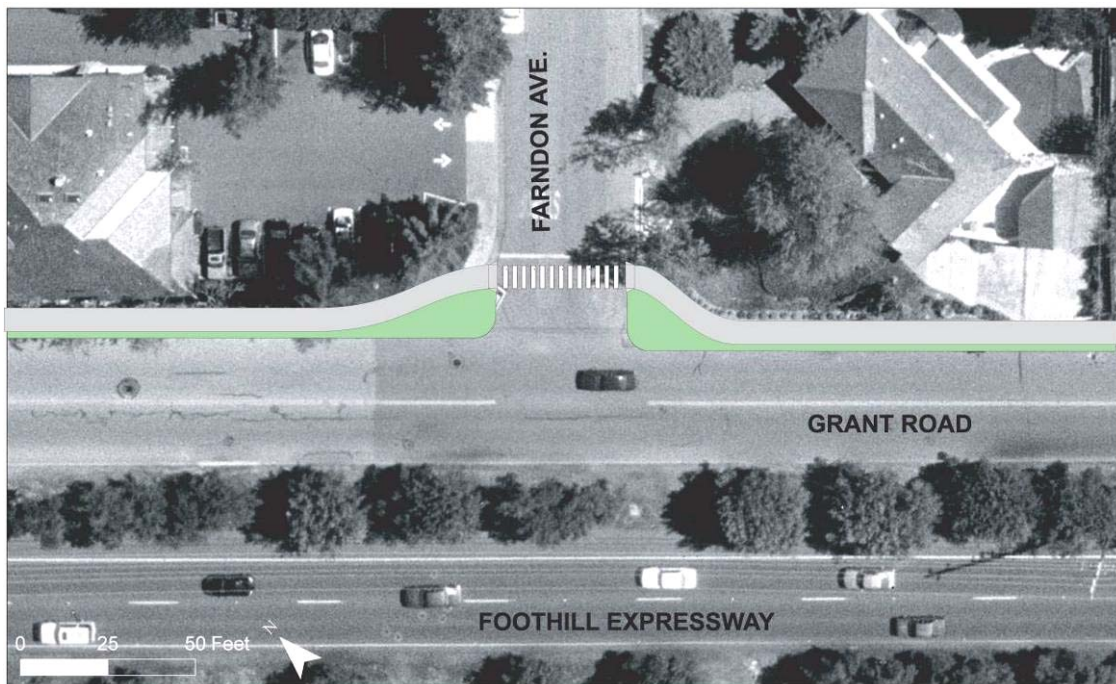
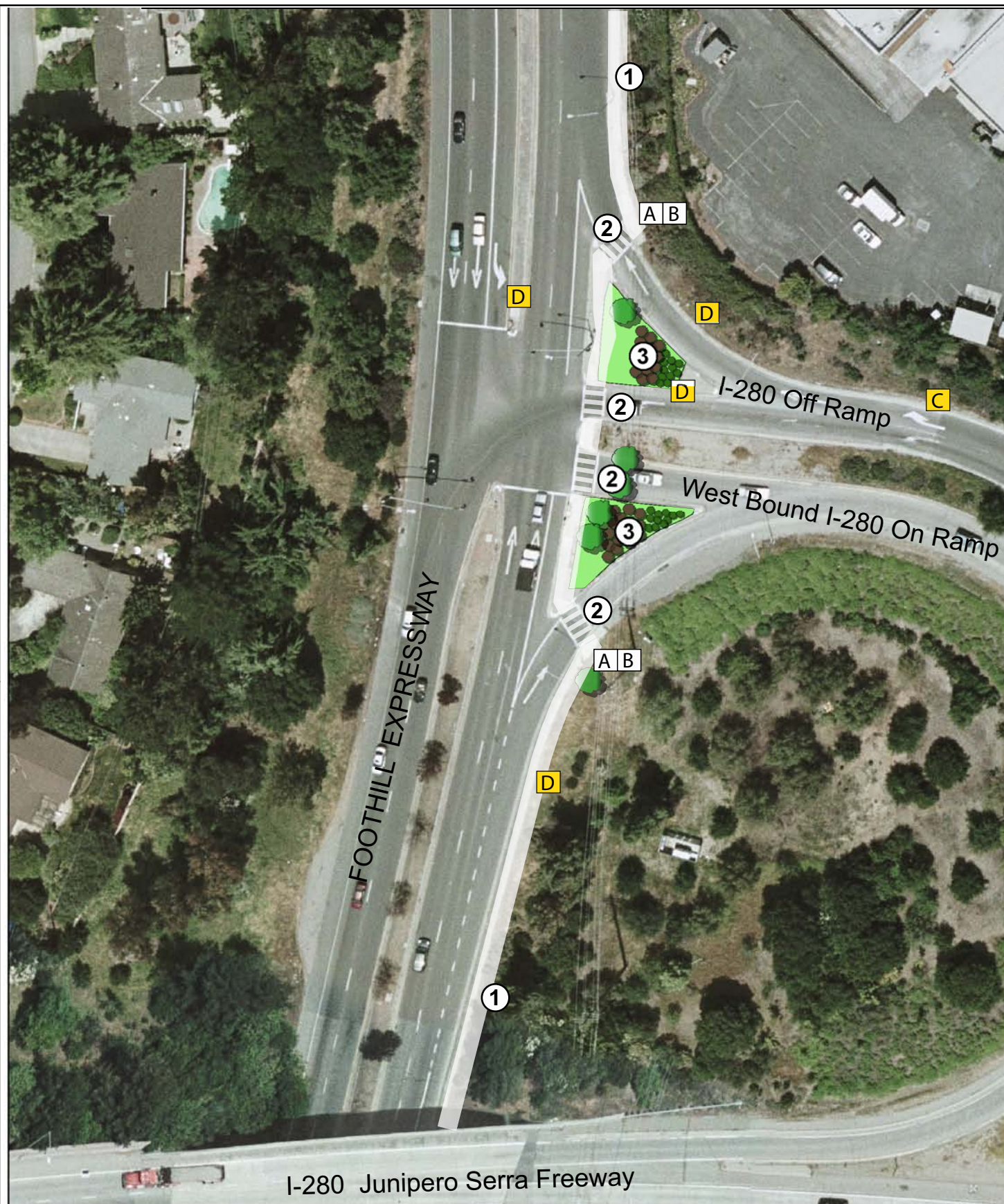


Figure 5-11
Grant Road/Newcastle Drive Improvements



The SCT continues on the Foothill Expressway frontage road before connecting with Foothill Expressway at the I-280 interchange. There is an existing sidewalk that will be widened to accommodate the multi-use path. Freeway on- and off-ramp crossings present a potential conflict zone for bicyclists and motorists, so improvements alerting trail users of motorists and vice-versa are especially important. The I-280 northbound on and off-ramps intersect the SCT with free rights and with a signal. There are existing transverse crosswalks at the ramps and at the intersection. As **Figure 5-12 Foothill Expressway at Interstate-280 Ramp Treatment** shows, these crosswalks should become high-visibility crosswalks with the installation of the SCT. If necessary the free-right turns should be signalized, triggered with bicycle and pedestrian push-buttons present on the pathway. The crosswalks and the signals will alert motorists of trail users. Enhancing the medians with more landscaping will provide visual queues to motorists exiting the freeway to slow down and will also provide an enhanced experience for trail users. The City of Cupertino is willing to collaborate with Los Altos on the interchange improvements.

In addition to the connection with Foothill Expressway, a future path could link the SCT with Homestead Road and the Mary Avenue bicycle/pedestrian bridge in Cupertino.



Advantages

-Direct route and uses existing crosswalks

Disadvantages

-Busy on/off ramp with high speed vehicles. May need signalized crosswalks

Enhancements

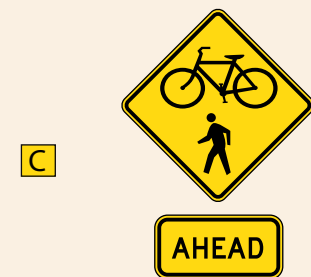
- ① Multi-Use Trail
- ② Ladder Crosswalk
- ③ Enhanced Landscape Median Island

Recommended Signage:

A Wayfinding Signage



For Motorists:



Context Map

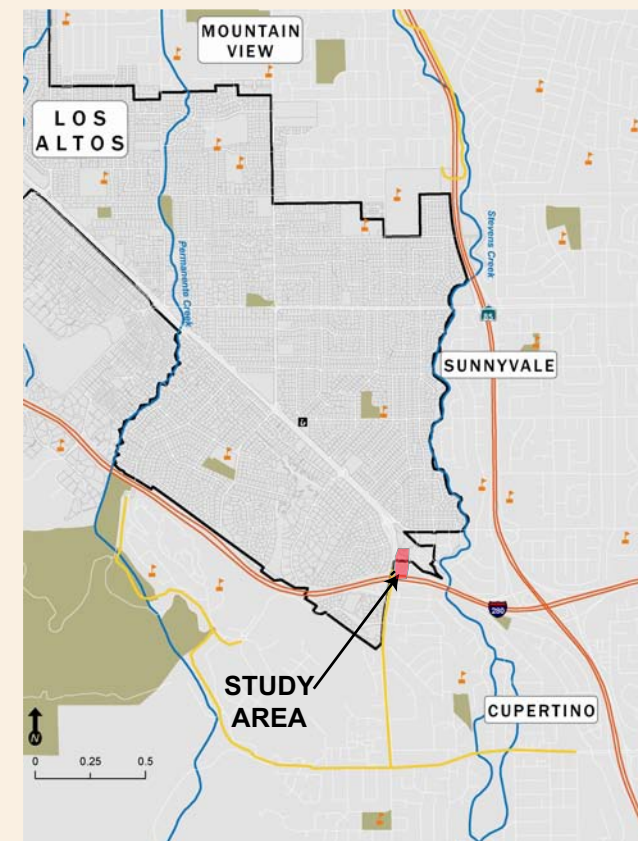


Figure 5-12

Foothill Expressway at Interstate-280 Ramp Treatment

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6. TRAIL DESIGN

This Chapter provides specific design and implementation guidelines and standards to ensure that the preferred SCT alternative is constructed to a consistent set of the highest and best standards that are currently available in the United States. The trail design should meet the safety needs of all trail users.

6.1. STANDARD DESIGN

The preferred alignment requires the installation of Class I – multi-use path. The recommended pathway is a paved ten-foot wide trail with room to accommodate bicyclists and pedestrians. Caltrans Highway Design Manual’s recommended minimum width for paved multi-use paths, is eight feet, with two feet of lateral clearance on each side. Therefore, at pinch-points where necessary, an eight-foot wide path is recommended. Additionally, as Caltrans recommends, the trail has eight-feet of clearance from obstructions such as signs and trees. The existing trail in Mountain View is asphalt so this surface is also the recommended surface for the SCT in Los Altos.

6.1.1. Definition of Bikeways

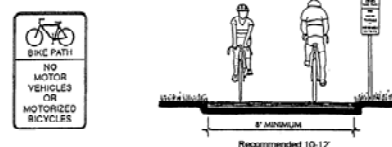
The three types of bikeways identified by Caltrans in Chapter 1000 of the Highway Design Manual are as follows.

Class I Bikeway. Typically called a “bike path,” a Class I bikeway provides bicycle travel on a paved right-of-way completely separated from any street or highway.

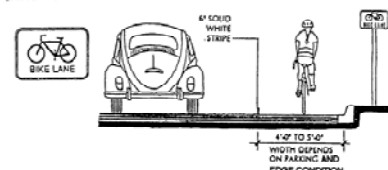
Class II Bikeway. Often referred to as a “bike lane,” a Class II bikeway provides a striped and stenciled lane for one-way travel on a street or highway.

Class III Bikeway. Generally referred to as a “bike route,” a Class III bikeway provides for shared use with motor vehicle traffic and is identified only by signing. Optional Shared Roadway Bicycle Marking pavement stencils are also available for use on Class III bikeways.

Class I Bike Path



Class II Bike Lane



Class III Bike Route



Bikeway Classifications

It is important to note that bicycles are permitted on *all* roads in the State of California (with the exception of access-controlled freeways). The designation of certain roads as Class II or III bicycle facilities is not intended to imply that these are the only roadways intended for bicycle use. Rather, the designation of a network of Class II and III on-street bikeways recognizes that certain roadways are optimal bicycle routes, for reasons such as directness or access to significant destinations

6.1.2. Grades

Like all state and local governments, Los Altos must comply with the Federal ADA Accessibility Guidelines (ADAAG) when developing the SCT. ADAAG states that any part of an accessible route with a slope greater than 1:20 (5%) shall be considered a ramp. The maximum grade is 1:12 (8.33%) and is acceptable for a rise of no more than 0.75 m (2.5 ft) if a level landing at least 1.5 m (5 ft) long is provided at each end. Acceptable cross slope of an accessible route is up to 1:20 (5%) but recommended grades for all routes is 1:50 (2%) or less. The Study Area is relatively flat so there should not be any major grading issues.

6.1.3. Trail Crossings

Creek Crossings

The preferred alignment requires one creek crossing in the segment north of Fremont Avenue. The creek crossing can be made most efficiently and inexpensively with the use of a pre-fabricated bicycle/pedestrian bridge. Pre-fabricated steel bridges are typically less expensive than cast-in-place or pre-cast concrete bridges. The width of the creek is approximately 100 feet between the top of the creek banks and would not require extensive approach ramps since the creek is sunken below the grade of the trail. The deck of the bridge could be concrete, wood, or metal.



Baytrail.ca.gov

An Existing Stevens Creek crossing in Mountain View

Under Crossing

The SCT under crossing recommended for Highway 85 parallel to the creek should be designed so that it does not decrease the flood capacity of the 100 year floodplain. It is recommended that at least a 10 foot vertical clearance be provided in the under crossing. Since this area is dark during the day and at night, the crossing should have vandal resistant lights to illuminate the area. Also, the under crossing design should allow a trail user a line of sight to the other side. When entering the under crossing, users should be able to see light from the opposite end.

Street Crossings

At-grade crossings create potential conflicts between trail users and motorists. However, well-designed crossings have not historically posed a safety problem, as evidenced by the thousands of successful trails around the United States with at-grade crossings. Designing safe at-grade crossings is a key to safe implementation of the SCT. Roadway crossings should comply with the California Manual on Uniform Traffic Control Devices (CAMUTCD). ADAAD acceptable curb ramps are also recommended at all crossings.

The SCT has roadway and driveway crossings. These crossings require two critical considerations: (1) path users will be enjoying an auto-free experience and may enter into an intersection unexpectedly, and (2) motorists will not expect to see bicycles or pedestrians from an unmarked location entering the roadway. Recommended for many of the trail's intersection crossings are high-visibility crosswalks. Also known as ladder crosswalks, these are two solid white lines, 12 to 24 inches wide, spaced at least 6 feet apart (refer to CA MUTCD Sec. 3B.17) with "rungs." Width of ladder lines or rungs should be 1 foot, with minimum spacing of ladder lines 1-5 feet. For crossings with low turning movements, transverse crosswalks are recommended.



A Ladder Crosswalk

Evaluation of trail crossings involve analysis of vehicular and trail user traffic patterns, including speeds, street width, traffic volumes (average daily traffic, peak hour traffic), and line of sight. This plan identifies the most appropriate crossing options given available information. This must be verified and/or refined through the engineering and construction document stage.



A Transverse Crosswalk

Driveways

The SCT crosses numerous driveways, especially along Grant Road adjacent to Foothill Expressway. To improve connectivity and decrease the number of trail conflict points with driveways, driveways that access individual parking lots or land uses should be consolidated. At the driveways that remain and cross the trail, proper signage and crosswalk markings are recommended. At most locations this consists of stop signs and stop bars for vehicles exiting parking lots, before crossing the trail. On the trail, users should be warned with signage, alerting them of these crossings and to be aware of exiting vehicles. Depending on entering and exiting volumes, yield or stop signs are recommended for the SCT at driveway locations.

6.1.4. Striping, Signage & Signals

Class I Signage

Crossing features for all roadways include warning signs for both vehicles and trail users. The type, location, and other criteria are identified in the CAMUTCD. Adequate warning distance is based on vehicle speeds and line of sight. Signage should be highly visible; catching the attention of motorists accustomed to roadway signs may require additional alerting devices such as a flashing light, roadway striping, or changes in pavement texture. Signing for trail users must include a standard stop sign and pavement marking, sometimes combined with other features such as bollards or a change in trail geometry to slow bicyclists. Care must be taken not to place too many signs at crossings lest they overwhelm the user and lose their impact. According to the CAMUTCD, the bottom of the sign must be at least 5 feet off of the ground.

Directional signing may be useful for trail users and motorists alike. For motorists, a sign reading “Bicycle Trail Xing” along with a SCT emblem or logo helps both warn and promote use of the trail. For trail users, directional signs and street names at crossings help direct people to their destinations.

The directional signing should impart a unique theme so trail users know which trail they are following and where it goes. The theme can be conveyed in a variety of ways: engraved stone, medallions, bollards, and mile markers (shown in **Figure 6-1**). At major crossroads and access points signage helps users find their way and acknowledge the rules of the trail. They are also useful for interpretive education about local culture and history.

Figure 6-1
Class I Markers



Wooden bollard with directional information



Inlaid medallions



Stone mileage marker

Trail signs should be placed every ¼ mile and at all trail-roadway intersections on the SCT. Trail signs should measure 12 x 18 inches and be printed on standard .080 engineering-grade aluminum. Sample designs for directional and regulatory signs are shown in **Figure 6-2**.

Figure 6-2
Sample SCT Directional Signage



Pedestrian Pushbutton Detectors

Pedestrian pushbutton detectors allow for actuation of pedestrian signals, and should be located at all intersection corners where pedestrian actuation is used. These are recommended at the Fremont Avenue/Grant Road intersection and the Foothill Expressway/I-280 interchange. As required by the California MUTCD, pedestrian pushbutton detectors must be accompanied by signs explaining their use. Pedestrian pushbutton detectors should be easily accessible for those in wheelchairs and for the sight-impaired, located approximately 3.5 ft. off the ground on a level surface. Pedestrian pushbuttons should not be used in locations where the pedestrian phase is set on a fixed cycle and cannot be actuated. One exception to this is the use of pushbuttons to activate audible pedestrian signals at non-actuated locations.

Pedestrian Signal Actuation



There are several simple design considerations that greatly enhance the safety and comfort of pedestrians at signalized intersections:

- In areas with high pedestrian use (over 100 persons per hour), incorporate a pedestrian phase into the signal sequence instead of an on-demand signal phase,
- Place pedestrian push-buttons in locations that are easy to reach and ADA compliant, facing the sidewalk and clearly inline with the direction of travel (this will improve operations, as many pedestrians push all buttons to ensure that they hit the right one);
- Adjust the signal timing to accommodate the average walking speeds of anticipated intersection users (longer crossing times for intersections near schools and community centers, etc.) and to limit the time a pedestrian has to wait

Accessible Pedestrian Signals - Verbal/Vibrotactile Tone



- When verbal messages are used to communicate the pedestrian interval, they shall provide a clear message that the walk interval is in effect, as well as to which crossing it applies.
- The verbal message that is provided at regular intervals throughout the timing of the walk interval shall be the term "walk sign," which may be followed by the name of the street to be crossed.
- A verbal message is not required at times when the walk interval is not timing, but, if provided:
 1. It shall be the term "wait."
 2. It need not be repeated for the entire time that the walk interval is not timing.
- Accessible pedestrian signals that provide verbal messages may provide similar messages in languages other than English, if needed, except for the terms "walk sign" and "wait." A vibrotactile pedestrian device communicates information about pedestrian timing through a vibrating surface by touch.
- Vibrotactile pedestrian devices, where used, shall indicate that the walk interval is in effect, and for which direction it applies, through the use of a vibrating directional arrow or some other means.

6.1.5. Countdown Pedestrian Signals

Countdown pedestrian signals provide information on the amount of time remaining in the pedestrian change interval, which can assist pedestrians in making safe crossing judgments. Guidance on the use of these devices is now included in the California MUTCD. Countdown pedestrian signals should be considered at existing intersections with trail crossings, specifically at the Fremont Avenue/Grant Road intersection.



A Countdown Pedestrian Signal

6.2. TRAIL SAFETY & SECURITY

6.2.1. Operations

Operation activities on the SCT will consist primarily of monitoring and security. Monitoring accidents including identifying the primary cause and rectifying any physical deficiencies must be accomplished by the City. The local police department typically has the responsibility for collecting accident information identifying fault, while the City has the responsibility for identifying and improving physical or operational conditions that may contribute to any accident. The City typically also has the responsibility for making the determination to warn path users of problems, and to close the path when conditions warrant. A more in-depth review of maintenance and safety recommendations are included in the Appendix.

6.2.2. Safety

Trail safety is a major concern of both trail users and those whose property is adjacent to the trail. Most multi-use paths in the United States do not have a dedicated police patrol of the facility. The City should provide routine police patrols on all of its multi-use paths. Motorized vehicles will be prohibited on the trail with the exception of emergency, maintenance, and police vehicles on the segment north of Fremont Avenue. This is ensured with the use of removable bollards, explained in section 6.3.3. On the other segments of the trail, vehicles will have access from the adjacent roadways.

Creating a safe trail environment goes beyond design and law enforcement and should involve the entire community. The most effective and most visible deterrent to illegal activity on the SCT will be the presence of legitimate trail users. Getting as many “eyes on the corridor” as possible is a key deterrent to undesirable activity in the Stevens Creek corridor. Hours of the trail depend on the funding source. However, if Los Altos is to be consistent with Mountain View’s hours of operation of the SCT, it will close from dusk until dawn.

Crime Prevention

In addition to police presence in the trail corridor, other methods can help crime prevention. These include:

- Managing vegetation so that corridor can be visually surveyed from adjacent streets and residences.
- Selecting shrubs that grow below three feet in height and trees that branch out greater than six feet in height.
- Place lights strategically and as necessary.
- Place benches and other trail amenities at locations with good visual surveillance and high activity.
- Provide mileage markers at quarter-mile increments and clear directional signage for orientation.
- Create a “Trail Watch Program” involving local residents.

6.2.3. Private Property Protection

The SCT will be located directly adjacent to private properties along some of the proposed alignment. Neighbor concerns regarding path location near their properties typically includes a loss of visual privacy, and concerns about increased crime, vandalism, noise, and fire. Wherever possible, the right-of-way should be located as far away as possible to protect the privacy of adjacent property owners. The public trail right-of-way should be clearly distinguished from private property through the use of vegetative buffers and good fencing and trail rules that encourage respect for private property should be posted at major trail entrances and intersections. Criminal activity is not likely to occur along an over crossing, under crossing, or path that is well planned, designed, operated, maintained, and used.

6.3. OTHER AMENITIES

6.3.1. Lighting

Lighting considerations are divided into the segment north of Fremont Avenue, where the trail aligns with the creek, and the remaining segments aligned with streets. For the creek aligned segment, lighting is recommended for only the under crossing. This is consistent with the trail in Mountain View. Hours of use are from dawn to dusk and the trail closes after sunset, thereby not requiring lighting. Additionally, lighting on a creek alignment is not considered possible due to significant impacts to the riparian environment.

For street aligned segments, lighting is proposed for the SCT where feasible and where there are not existing street lights. Lighting will be designed to have a minimal impact onto adjacent properties by the lighting fixture type, focus of the lighting, and proximity of nearby uses. In no case will the new lighting on the preferred alignment exceed the lighting impact of existing street lights on nearby residential uses. **Figure 6-3** shows three light fixture type examples.

Figure 6-3
Trail Lighting Examples



6.3.2. Fencing and Barriers

Where appropriate, fencing and other barriers are typically used to separate a path from adjacent private property and land uses. The SCT contains some segments in areas where no fencing is needed and some segments in areas where it is needed to protect private property and prevent people from walking in sensitive areas along Stevens Creek. A variety of fencing materials are available, as shown in **Figure 6-4 Fencing Types**. A minimum recommended height of installed fencing is 54 inches. The following are important considerations when selecting fencing or barriers:

Aesthetics: Fencing type and height can affect the overall attractiveness of the facility. Depending on the type and height of the barrier, the aesthetics of a path could be impacted by eliminating or reducing views and visibility, or creating a “bowling alley” effect for users. Materials should have transparency, allowing users to see through it. Fencing materials should contribute—rather than detract—to the overall community aesthetics. The first four examples in Figure 6-4 would provide the SCT with transparency.

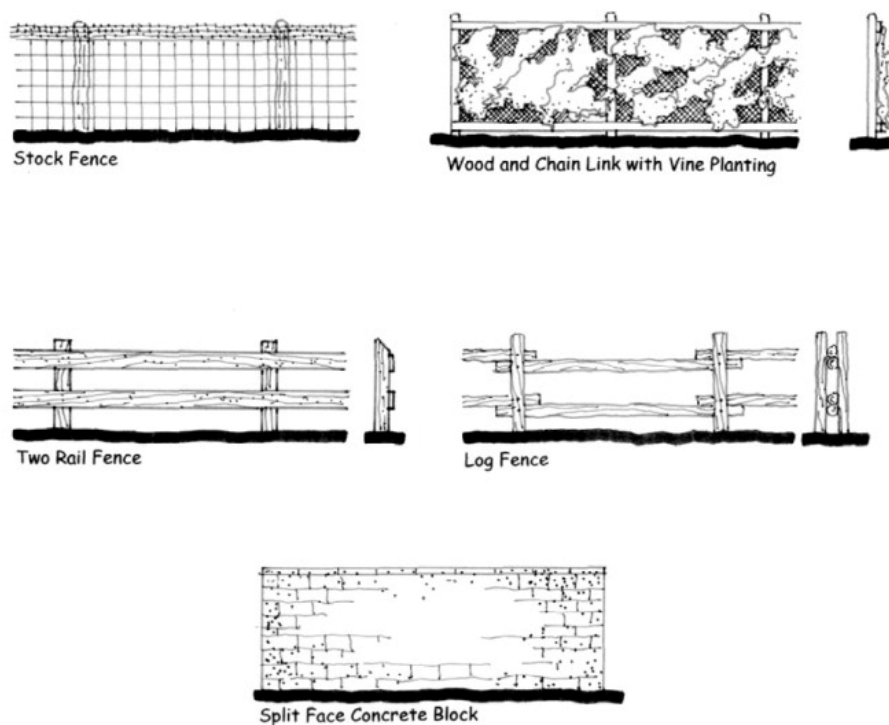
Security: Fencing between the path and adjacent land uses can protect the privacy and security of the property owners. While crime or vandalism have *not* proven to be a common problem along most multi-use paths, fencing is still considered a prudent feature, especially in residential areas. The type, height, and maintenance responsibility of the fencing is dependent on local policies.

Highway: The section of the Scenic Trail next to Highway 85, where it is closer than 5 feet from the edge of pavement, will require a barrier to protect trail users. Caltrans typically requires installation of a standard concrete K-rail to meet this need. Another option is the Split Face Concrete Block fence shown in Figure 6-4.

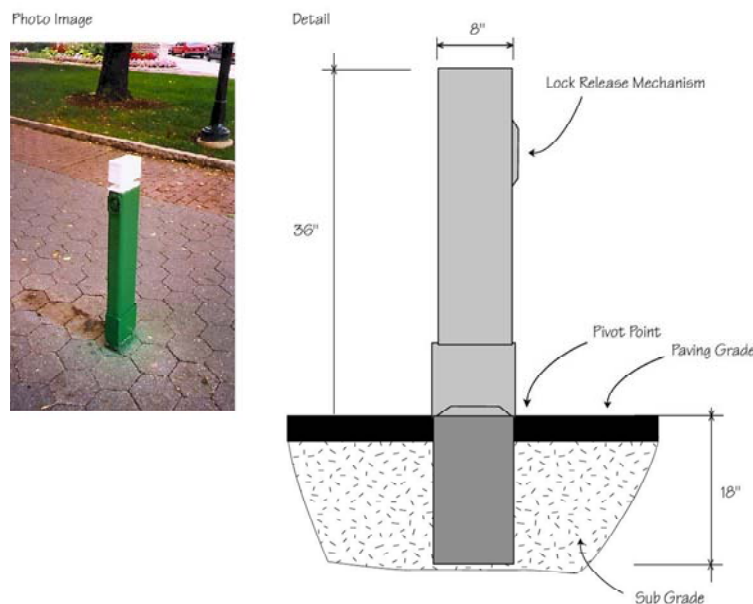
6.3.3. Barrier Posts

Posts at path intersections and entrances may be necessary to keep vehicles from entering. Posts should be designed to be visible to bicyclists and others, especially at night, with reflective materials, appropriate striping and lighting if appropriate. Posts should be designed to be easily moveable by emergency vehicles, such as bollards or a half gate and bollard, see **Figure 6-5 Bollard Specifications** for more detail.

Figure 6-4
Fencing Types



**Figure 6-5
Bollard Specifications**



6.3.4. Landscaping

Landscaping is planned for locations on the SCT where there planting strip buffers between trail and the roadway. In addition to the existing landscaping in these areas, native plants may be planted to replace items lost during construction. Landscaping can also be used to help stabilize slopes along the north portion of the SCT and to help protect the privacy of adjacent parcels along the entire alignment.

6.3.5. Other Trail Features

There are a number of amenities that make a trail inviting to the user. Below are some common items that would make the SCT stand out.



Water Fountains and Bicycle Parking

Water fountains provide water for people (and pets, in some cases) and bicycle racks allow trail users to safely park their bikes if they wish to stop along the way, particularly at parks and other desirable destinations.



*A bench near Stevens Creek in
Cupertino*

Pedestrian-Scale Lighting and Furniture

Pedestrian-scale lighting improves safety and enables the trail to be used year-round. It also enhances the aesthetic of the trail. Pedestrian-scale lighting provides high-quality lighting without the glare that is usually produced by typical cobra-type street fixtures.

Providing benches at key rest areas and viewpoints encourages people of all ages to use the trail by ensuring that they have a place to rest along the way. Benches can be simple (e.g., wood slats) or more ornate (e.g., stone, wrought iron, concrete).



*A map of the SCT in Mountain
View*

Maps and Signage

A comprehensive signing system makes a trail system stand out. Informational kiosks with maps at trailheads and other pedestrian generators can provide enough information for someone to use the trail system with little introduction.

6.4. DEVELOPING TRAIL THEMES

A design theme is significant for any trail system. A theme can create a unique and enriching experience for the trail user, and help strengthen the community's identity around the Stevens Creek Trail. The theme for the trail segment that aligns with the creek north of Fremont Avenue should be consistent with the theme already established by Mountain View. This will give the users a seamless experience while traveling the creek portions of the trail. The street aligned segments of the trail should be designed around a theme that blends with the existing cultural and geologic history present in the area and is also coordinated with the theme established on the creek aligned portion of the trail. Materials should be used in simple and elegant ways, but should shy away from being too rustic in character. Key elements of this theme could include:

- Incorporation of the creek in the trail logo.
- Interpretation of the southern Los Altos area and its early development.
- References to Stevens Creek.

Equally important, the creation of a trail presents an opportunity for environmental enhancement and stewardship. As the trail is developed, opportunities should be captured to enhance wildlife habitat at nearby parks, improving water quality and groundwater infiltration to the creek, and improve the native plant community.

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7. COST, IMPLEMENTATION STRATEGY, & FUNDING

Based on the cost of the SCT preferred alternative, the implementation of the project will be phased. Funding for the five phases can come from a variety of different sources. This Chapter reviews the cost of the project, an implementation strategy, and the various funding opportunities available for the trail.

7.1. COST

Preliminary cost estimates for constructing the SCT are based on unit capital costs and estimates needed for developing the preferred alternative treatments. Also included in this cost are most of the recommended trail amenities such as signage and planting. The preferred alternative would likely need an Environmental Impact Report, this cost estimate does not include this dollar amount. The total estimated cost for the preferred alignment of the SCT is just over \$6.7 million.

Table 7- 1 Costs for SCT summarizes planning level unit cost estimates for the various items and activities necessary to complete the trail. Land easement purchases may be necessary in Phase 3 and are not considered in the estimate. The largest costs are installing the northern section of the trail, including the bridge and retaining walls. Contingency and design and engineering costs are included for the total.

**Table 7-1
Costs for SCT**

	Unit Cost	Unit	Quantity	Total
STEVENS CREEK TRAIL				
Phase 1: Fremont Avenue				
Sawcut Existing Asphalt	\$15.00	LF	4400	\$66,000
Asphalt trail (10 ft wide)	\$38.00	LF	4400	\$167,200
Crusher Fines (2' wide shoulders)	\$2.60	LF	4400	\$11,440
Aggregate base (12 ft wide)	\$7.50	LF	4400	\$33,000
Centerline Striping	\$2.00	LF	4400	\$8,800
Clearing & Grubbing	\$2.00	LF	4400	\$8,800
Excavation	\$10.00	CY	760	\$7,600
Trail Wayfinding Signs	\$750.00	EA	8	\$6,000
Planting	\$2.50	SF	12000	\$30,000
Irrigation	\$1.50	SF	12000	\$18,000
2" Water Meter	\$30,000.00	EA	1	\$30,000
Bench	\$1,500.00	EA	1	\$1,500
Trash Receptacle	\$800.00	EA	1	\$800

		Unit Cost	Unit	Quantity	Total
Fallen Leaf Lane	Bulb Outs	\$20,000.00	EA	2	\$40,000
	High Visibility Crosswalks	\$1,200.00	EA	1	\$1,200
	Stop Pavement Markings	\$400.00	EA	1	\$400
	Stop Bars	\$200.00	EA	1	\$200
	Trail Crossing Sign	\$750.00	EA	1	\$750
	Removable Bollard	\$900.00	EA	2	\$1,800
Truman Avenue	Bulb Outs	\$20,000.00	EA	2	\$40,000
	High Visibility Crosswalks	\$1,200.00	EA	1	\$1,200
	Stop Pavement Markings	\$400.00	EA	1	\$400
	Stop Bars	\$200.00	EA	1	\$200
	Trail Crossing Sign	\$750.00	EA	1	\$750
	Removable Bollard	\$900.00	EA	2	\$1,800
Wessex Avenue	Bulb Outs	\$20,000.00	EA	2	\$40,000
	High Visibility Crosswalks	\$1,200.00	EA	1	\$1,200
	Stop Pavement Markings	\$400.00	EA	1	\$400
	Stop Bars	\$200.00	EA	1	\$200
	Trail Crossing Sign	\$750.00	EA	1	\$750
	Removable Bollard	\$900.00	EA	2	\$1,800
Kathy Lane	Bulb Outs	\$20,000.00	EA	2	\$40,000
	Transverse Crosswalks	\$500.00	EA	1	\$500
	Stop Pavement Markings	\$400.00	EA	1	\$400
	Stop Bars	\$200.00	EA	1	\$200
	Trail Crossing Sign	\$750.00	EA	1	\$750
	Removable Bollard	\$900.00	EA	2	\$1,800
Julie Lane	Bulb Outs	\$20,000.00	EA	2	\$40,000
	Transverse Crosswalks	\$500.00	EA	1	\$500
	Stop Pavement Markings	\$400.00	EA	1	\$400
	Stop Bars	\$200.00	EA	1	\$200
	Trail Crossing Sign	\$750.00	EA	1	\$750
	Removable Bollard	\$900.00	EA	2	\$1,800
Siesta Drive	Bulb Outs	\$20,000.00	EA	2	\$40,000
	High Visibility Crosswalks	\$1,200.00	EA	1	\$1,200
	Stop Pavement Markings	\$400.00	EA	1	\$400
	Stop Bars	\$200.00	EA	1	\$200
	Trail Crossing Sign	\$750.00	EA	1	\$750
	Removable Bollard	\$900.00	EA	2	\$1,800

	Unit Cost	Unit	Quantity	Total
Montebello Oaks Court				
Bulb Outs	\$20,000.00	EA	2	\$40,000
Transverse Crosswalks	\$500.00	EA	1	\$500
Stop Pavement Markings	\$400.00	EA	1	\$400
Stop Bars	\$200.00	EA	1	\$200
Trail Crossing Sign	\$750.00	EA	1	\$750
Removable Bollard	\$900.00	EA	2	\$1,800
Grant Road				
High Visibility Crosswalks	\$1,200.00	EA	3	\$3,600
Stop Bars	\$200.00	EA	3	\$600
Trail Crossing Sign	\$750.00	EA	2	\$1,500
Removable Bollard	\$900.00	EA	2	\$1,800
Pedestrian Signals	\$1,600.00	EA	8	\$12,800
TOTAL: Phase 1				\$717,790
Phase 2: Grant Road: Fremont Avenue to South Bound Terminus (Foothill Expwy)				
Sawcut Existing Asphalt	\$15.00	LF	2050	\$30,750
Asphalt trail (10 ft wide)	\$38.00	LF	2050	\$77,900
Crusher Fines (2' wide shoulders)	\$2.60	LF	2050	\$5,330
Aggregate base (12 ft wide)	\$7.50	LF	2050	\$15,375
Centerline Striping	\$2.00	LF	2050	\$4,100
Excavation	\$10.00	CY	354	\$3,540
Clearing & Grubbing	\$2.00	LF	2050	\$4,100
Trail Wayfinding Signs	\$750.00	EA	8	\$6,000
Planting	\$2.50	SF	4000	\$10,000
Irrigation	\$1.50	SF	4000	\$6,000
2" Water Meter	\$30,000.00	EA	1	\$30,000
Bench	\$1,500.00	EA	1	\$1,500
Trash Receptacle	\$800.00	EA	1	\$800
Drinking Fountain	\$15,000.00	EA	1	\$15,000
Kiosk	\$8,000.00	EA	1	\$8,000
Richardson Avenue				
Bulb Outs	\$20,000.00	EA	2	\$40,000
High Visibility Crosswalks	\$1,200.00	EA	1	\$1,200
Stop Pavement Markings	\$400.00	EA	1	\$400
Stop Bars	\$200.00	EA	1	\$200
Trail Crossing Sign	\$750.00	EA	1	\$750
Removable Bollard	\$900.00	EA	2	\$1,800
Driveway (@ Ensenada Way)				
Transverse Crosswalks	\$500.00	EA	1	\$500
Don Kirk Street				
Bulb Outs	\$20,000.00	EA	2	\$40,000
High Visibility Crosswalks	\$1,200.00	EA	1	\$1,200
Stop Pavement Markings	\$400.00	EA	1	\$400
Stop Bars	\$200.00	EA	1	\$200
Trail Crossing Sign	\$750.00	EA	1	\$750
Removable Bollard	\$900.00	EA	2	\$1,800

	Unit Cost	Unit	Quantity	Total
Morton Avenue				
Bulb Outs	\$20,000.00	EA	2	\$40,000
High Visibility Crosswalks	\$1,200.00	EA	1	\$1,200
Stop Pavement Markings	\$400.00	EA	1	\$400
Stop Bars	\$200.00	EA	1	\$200
Trail Crossing Sign	\$750.00	EA	1	\$750
Removable Bollard	\$900.00	EA	2	\$1,800
TOTAL: Phase 2				\$351,945

Phase 3: Multi-Use Path along Stevens Creek

Asphalt trail (10' wide)	\$38.00	LF	3550	\$134,900
add 4' cut	\$20.71	LF	3550	\$73,521
add for distance parallel to stream	\$100.00	LF	700	\$70,000
Crusher Fines (2' wide shoulders)	\$2.60	LF	3550	\$9,230
Aggregate base (12 ft wide)	\$7.50	LF	3550	\$26,625
10' wide bridge	\$6,000	LF	100	\$600,000
Excavation	\$10.00	CY	614	\$6,140
Clearing & Grubbing	\$2.00	LF	3550	\$7,100
Removable Bollard	\$900.00	EA	1	\$900
Trail Wayfinding Signs	\$750.00	EA	4	\$3,000
Centerline Striping	\$2.00	LF	3650	\$7,300
Retaining Wall	\$300.00	LF	1200	\$360,000
Jersey Barrier (along I-85 off ramp)	\$50.00	LF	325	\$16,250
Sound Wall (along I-85)	\$150.00	LF	1200	\$180,000
Lighting under I-85 bridge	\$2,500.00	EA	4	\$10,000
Lighting along trail (20' high spaced 50' apart)	\$4,000.00	EA	65	\$260,000
Benches	\$1,500.00	EA	2	\$3,000
Trash Receptacle	\$800.00	EA	2	\$1,600
Kiosk	\$8,000.00	EA	1	\$8,000
Drinking Fountain	\$15,000.00	EA	1	\$15,000
TOTAL: Phase 3				\$1,792,566

Phase 4: Grant Road paralleling Foothill Expressway

Sawcut Existing Asphalt	\$15.00	LF	4000	\$60,000
Asphalt trail (10 ft wide)	\$35.00	LF	4000	\$140,000
Crusher Fines (2' wide shoulders)	\$2.60	LF	4000	\$10,400
Aggregate base (12 ft wide)	\$7.50	LF	4000	\$30,000
Centerline Striping	\$2.00	LF	4000	\$8,000
Excavation	\$10.00	CY	690	\$6,900
Clearing & Grubbing	\$2.00	LF	2050	\$4,100
Trail Wayfinding Signs	\$750.00	EA	10	\$7,500
Planting	\$2.50	SF	8000	\$20,000
Irrigation	\$1.50	SF	8000	\$12,000
2" Water Meter	\$30,000.00	EA	1	\$30,000
Bench	\$1,500.00	EA	1	\$1,500
Trash Receptacle	\$800.00	EA	1	\$800

		Unit Cost	Unit	Quantity	Total
Grant Library					
	High Visibility Crosswalks	\$1,200.00	EA	1	\$1,200
Newcastle Drive					
	Bulb Outs	\$20,000.00	EA	2	\$40,000
	High Visibility Crosswalks	\$1,200.00	EA	1	\$1,200
	Stop Pavement Markings	\$400.00	EA	1	\$400
	Trail Crossing Sign	\$750.00	EA	1	\$750
	Removable Bollard	\$900.00	EA	2	\$1,800
Farndon Avenue					
	Bulb Outs	\$20,000.00	EA	2	\$40,000
	High Visibility Crosswalks	\$1,200.00	EA	1	\$1,200
	Stop Pavement Markings	\$400.00	EA	1	\$400
	Trail Crossing Sign	\$750.00	EA	1	\$750
	Removable Bollard	\$900.00	EA	2	\$1,800
Crist Drive					
	Bulb Outs	\$20,000.00	EA	2	\$40,000
	High Visibility Crosswalks	\$1,200.00	EA	1	\$1,200
	Stop Pavement Markings	\$400.00	EA	1	\$400
	Trail Crossing Sign	\$750.00	EA	1	\$750
	Removable Bollard	\$900.00	EA	2	\$1,800
Driveways					
	Trail Stop/Yield Signs	\$500.00	EA	8	\$4,000
	Trail Crossing Sign	\$750.00	EA	8	\$6,000
TOTAL: Phase 4					\$474,850

Phase 5: Grant Road at El Sereno Avenue to Foothill Expressway through I-280 NB Ramps

	Sawcut Existing Asphalt	\$15.00	LF	1500	\$22,500
	Asphalt trail (10 ft wide)	\$38.00	LF	1500	\$57,000
	Crusher Fines (2' wide shoulders)	\$2.60	LF	1500	\$3,900
	Aggregate base (12 ft wide)	\$7.50	LF	1500	\$11,250
	Centerline Striping	\$2.00	LF	1500	\$3,000
	Excavation	\$10.00	CY	260	\$2,600
	Clearing & Grubbing	\$2.00	LF	2050	\$4,100
	High Visibility Crosswalks	\$1,200.00	EA	7	\$8,400
	Stop Bars	\$200.00	EA	5	\$1,000
	Trail Crossing Sign	\$750.00	EA	9	\$6,750
	Removable Bollard	\$900.00	EA	4	\$3,600
	Trail Wayfinding Signs	\$750.00	EA	10	\$7,500
	Planting	\$2.50	SF	9000	\$22,500
	Irrigation	\$1.50	SF	9000	\$13,500
	2" Water Meter	\$30,000.00	EA	1	\$30,000
	Bench	\$1,500.00	EA	1	\$1,500
	Trash Receptacle	\$800.00	EA	1	\$800
	Kiosk	\$8,000.00	EA	1	\$8,000
	Drinking Fountain	\$15,000.00	EA	1	\$15,000
TOTAL: Phase 5					\$222,900

TOTAL CAPITAL COSTS:	\$3,560,051
TRAFFIC CONTROL (10%):	\$356,005
PERMITTING (8%):	\$284,804
MOBILIZATION (10%):	\$356,005
DESIGN & ENGINEERING (20%):	\$712,010
CONTINGENCY (40%):	\$1,424,020
TOTAL COST:	\$6,692,895

7.2. IMPLEMENTATION STRATEGY

The primary purpose for an implementation plan that includes phasing is to ensure a logical sequence of implementation that provides a high degree of success as each phase is built. These phases are flexible but this Plan recommends the following approach for the best success. As each phase is built momentum builds through public and political support for the next phase or section of the trail. The project is broken into five phases.

The first phase is the Fremont Avenue section of the SCT. In comparison to the other segments, this section is considered easy to implement. There is existing right-of-way along Fremont Avenue to work with for the SCT. This connection also provides an east-west corridor for bicycling and walking in southern Los Altos to Sunnyvale. For Phase 2, along Grant Road there is also right-of-way that would not have considerable impact to the surrounding area. This is a logical connection to the business land uses near Foothill Expressway. Phase 3: Multi-Use Path along Stevens Creek is the most expensive section of the trail. For this phase to be successful, Mountain View must connect the existing SCT south to the proposed over crossing at Mountain View High School. Delaying this segment of the trail to third allows Mountain View time to complete the northern segment. Also, it is likely that once the first two phases are complete the project will have more momentum and residents of Los Altos will see the benefits for the trail connection. Phase 4 and 5 are connections to Sunnyvale and Cupertino and will complete the SCT in Los Altos.

7.2.1. Phases

The first phase is for the development of the SCT along the north side of Fremont Avenue. This will be located where there is an existing wide and unpaved shoulder. The SCT will cross residential streets where bulb outs are recommended to decrease traffic speeds and decrease street crossing lengths. These improvements will connect the Path with Sunnyvale and the intersection with Grant Road. Signal improvements are recommended for the Grant Road/Fremont Avenue intersection.

Phase 1: Fremont Avenue

Primary Improvements: Bicycle/Pedestrian Path and Bulb Outs

Capital Cost: \$717,790

The second phase is the SCT connection on Grant Road. These improvements include a Class I path and will connection the Fremont Avenue path and Grant Road adjacent to Foothill Expressway. Trail crossings occur at the side-streets.

Phase 2: Grant Road: Fremont Avenue to South Bound Terminus

Primary Improvements: Bicycle/Pedestrian Path

Capital Cost: \$351,945

The third phase is for the development of the Class I – multi-use trail north of Fremont Avenue. This is most expensive section and includes a bridge and under crossing of Highway 85. Lighting is recommended because there is currently none in the area. Retaining walls are also necessary to support the trail, both along Highway 85 where there is a narrow section and in the Highway 85 under crossing.

Phase 3: Multi-Use Path along Stevens Creek

Primary Improvements: Bicycle/Pedestrian Path, Bridge, Retaining Walls

Capital Cost: \$1,792,566

The fourth phase is the SCT connection on Grant Road adjacent to Foothill Expressway or the frontage road. This segment is part sidepath where there is no sidewalk on the opposite side of the street. This route is an existing sidewalk and will be widened to accommodate bicyclists and pedestrians with the addition of bulb outs. Improvements include the Class I – multi-use path and connections across driveways.

Phase 4: Grant Road adjacent to Foothill Expressway

Primary Improvements: Bicycle/Pedestrian Path

Capital Cost: \$474,850

Phase five is the Los Altos SCT connections to Sunnyvale and Cupertino. The trail connections and crossings to Foothill Boulevard and I-280 are in this phase.

Phase 5: Grant Road adjacent to Foothill Expressway

Primary Improvements: Bicycle/Pedestrian Path

Capital Cost: \$222,900

7.3. FUNDING

Funding for design and construction of the SCT can come from a variety of local, state, and federal funding sources and with this Plan, the SCT qualifies for funding as it becomes available. Most funding programs are competitive and involve the completion of extensive applications with clear documentation of the project need, costs, and benefits. Local funding for projects typically comes from local capital improvement programs (CIPs) and can potentially come from Measure B funds. Regional support for projects make for stronger funding applications and where the trail directly borders other jurisdictions, the support of these agencies is required. Therefore, a collaborative regional approach, especially for the segments of the trail with shared borders, is recommended. A review of different funding sources is below.

7.3.1. Federal Funding

The primary federal source of surface transportation funding—including bicycle and pedestrian facilities—is SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. SAFETEA-LU is the fourth in a series of Federal transportation funding bills. The \$286.5 billion SAFETEA-LU bill, passed in 2005, authorizes federal surface transportation programs for the five-year period between 2005 and 2009.

SAFETEA-LU funding is administered through the State (Caltrans and Resources Agency) and regional planning agencies. Most, but not all, of these funding programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. Specific funding programs under SAFETEA-LU include:

Congestion Mitigation and Air Quality (CMAQ) — Funds projects that are likely to contribute to the attainment of national ambient air quality standards. Funds are available for projects and programs in areas that have been designated in non-attainment or maintenance for ozone, carbon monoxide or particulate matter. Since the Bay Area is in attainment of national air quality standards for all pollutants except ozone, future Bay Area eligibility for CMAQ allocations is currently being determined.

Recreational Trails Program — \$370 million nationally through 2009 for non-motorized trail projects.

Safe Routes to School Program — A new program with \$612 million nationally through 2009.

Transportation, Community and System Preservation Program — \$270 million nationally over five years (2006-2011) reserved for transit oriented development, traffic calming and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services and trade centers.

The State of California uses both federal sources (such as the Recreational Trails Program) and its own budget to fund pedestrian projects and programs. In some cases, such as Safe Routes to School, Office of Traffic Safety, and Environmental Justice grants, project sponsors apply directly to the State for funding. In others, such as Bay Trail grants, sponsors apply to a regional agency.

7.3.2. State Funding

Bicycle Transportation Account — The State Bicycle Transportation Account (BTA) is an annual statewide discretionary program that is available through the Caltrans Bicycle Facilities Unit for funding bicycle projects. Available as grants to local jurisdictions, the emphasis is on projects that benefit bicycling for commuting purposes. Due to the passage of AB1772 in the year 2000, the BTA had \$7.2 million available between 2000 and 2005. Following the year 2005, the fund dropped to \$5 million per year. In funding cycle 2007/2008, there are \$5 million in statewide BTA funds available. The local match must be a minimum of 10% of the total project cost.

Bicycle Transportation Account

<http://www.dot.ca.gov/hq/LocalPrograms/bta/btaweb%20page.htm>

Safe Routes to School (SR2S) — In September 2004, with the passage of SB 1087 (Soto), the State extended Safe Routes to School legislation for three additional years. The current bill is scheduled to sunset on January 1, 2008. AB 57 (Soto) was signed by the Governor in 2007, continuing the program and allowing the remaining \$52 million of SR2S funds to be spent.

This program is meant to improve the safety of walking and cycling to school and encourage students to walk and bicycle to school through identification of existing and new routes to school and construction of pedestrian and bicycle safety and traffic calming projects. Caltrans is currently evaluating California's SR2S funding, in light of the new federal SR2S Program. Recent SAFETEA-LU legislation, which requires each state's Department of Transportation to designate a SR2S Coordinator, also contains a SR2S program. As of this printing, whether or not these programs will be combined in California or will remain autonomous has not been determined.

Caltrans, SR2S Program
www.dot.ca.gov/hq/LocalPrograms/saferoute2.htm

7.3.3. REGIONAL FUNDING SOURCES

Safe Routes to Transit (SR2T) - Regional Measure 2 (RM2), approved in March 2004, raised the toll on seven state-owned Bay Area bridges by one dollar for 20 years. This fee increase funds various operational improvements and capital projects, which reduce congestion or improve travel in the toll bridge corridors.

Twenty million dollars of RM2 funding is allocated to the Safe Routes to Transit Program, which provides competitive grant funding for capital and planning projects that improve bicycle and pedestrian access to transit facilities. Eligible projects must be shown to reduce congestion on one or more of the Bay Area's toll bridges. The competitive grant process is administered by the Transportation and Land Use Coalition and the East Bay Bicycle Coalition. Competitive funding is awarded in five \$4 million grant cycles. Future funding cycles will be in 2009, 2011 and 2013.

Transportation and Land Use Coalition, SR2T Program
www.transcoalition.org/c/bikeped/bikeped_saferoutes.html

Regional Bicycle and Pedestrian Program (RBPP) - The RBPP was created in 2003 as part of the long range Transportation 2030 Plan developed by the Bay Area Metropolitan Transportation Commission. The program—currently funded with Congestion Mitigation and Air Quality funds—funds regionally significant bicycle and pedestrian projects, and bicycle and pedestrian projects serving schools or transit. \$200 million dollars are committed to this program over the 25-year period. Seventy five percent of the total funds are allocated to the county congestion management agencies based on population. The remaining 25 percent of funds are regionally competitive, with the county CMAs recommending the projects to be submitted to MTC for funding consideration.

Metropolitan Transportation Commission, RBPP Program
www.mtc.ca.gov/planning/bicyclespedestrians/regional.htm#bikepedprog

7.3.4. LOCAL FUNDING SOURCES

TDA Article 3

Transportation Development Act (TDA) Article 3 funds are available for transit, bicycle and pedestrian projects in California. According to the Act, pedestrian and bicycle projects are allocated two percent of the revenue from a ¼ cent of the general state sales tax, which is dedicated to local transportation. These funds are collected by the State, returned to each county based on sales tax revenues, and typically apportioned to areas within the county based on population. Eligible pedestrian and bicycle projects include construction and engineering for capital projects; maintenance of bikeways; bicycle safety education programs; and development of comprehensive bicycle or pedestrian facilities plans. A city or county is allowed to apply for funding for bicycle or pedestrian plans not more than once every five years. These funds may be used to meet local match requirements for federal funding sources.

Metropolitan Transportation Commission, TDA Funding Program
www.mtc.ca.gov/funding/STA-TDA/index.htm

Santa Clara Valley Transportation Authority (VTA) Bicycle Expenditure Program

The 2000 Santa Clara Countywide Bicycle Plan established the VTA Bicycle Expenditure Plan (BEP) to fund countywide bicycle projects. The BEP list was updated in 2004 and includes the SCT Feasibility Study -this Study was primarily funded from this source. The Program includes funds from the 1996 Measure B Sales Tax, Transportation Development Act Article 3 funds, Transportation Funds for Clean Air, and TEA 21 funds. There is some remaining funds in the BEP and will be programmed to other bicycle projects. A minimum 20 percent match from non-BEP sources is required for these projects.

VTA Bicycle Expenditure Program
<http://www.vta.org/projects/bikeprogram.html>

APPENDIX A

MAINTENANCE & SAFETY RECOMMENDATIONS

A high standard of management and maintenance are key ingredients to the long-term success of the SCT. The effects of good maintenance can be a highly effective deterrent to vandalism and littering. For success of the trail maintenance and safety, Los Altos should work with the neighboring jurisdictions and the Friends of Stevens Creek Trail.

Though statistics show that trails are generally safe places for people, the City of Los Altos cannot take a complacent stance; the SCT should be proactively managed and maintained.

A.1. KEY MANAGEMENT RESPONSIBILITIES

As the long-term manager of the SCT, Los Altos should identify a key senior staff person that will be designated to serve as the “trail manager.” The following list represents the major tasks of the designated Trail Manager at the city:

- Coordinate future development of trail
- Organize, coordinate and implement trail operations plan
- Develop and implement maintenance plan and ensure adequate funding
- Obtain bids and manage contracts for maintenance and improvements
- Monitor security/safety of the trail through routine inspections
- Oversee maintenance and rehabilitation efforts
- Acquire trail easement and other agreements where applicable;
- Establish consistency in the trail user regulations with other agencies
- Manage and respond to issues and incidents along the trail
- Coordinate Routine Law Enforcement needs
- Assist in coordination of art along the trail
- Act as the local trail spokesperson with the public and elected officials, and respond to the issues and concerns raised by trail users.
- Develop and manage an emergency response system in coordination with local fire and police departments



An existing sculpture at the Fremont Avenue and Grant Road intersection

A.2. DEVELOPING TRAIL REGULATIONS

The purpose of trail regulations is to promote user safety and enhance the enjoyment of the trail by all users. It is imperative that before the SCT is opened, it must include posted trail use regulations at access points. This includes at the proposed over crossing to Mountain View High School, where the trail connects with Fremont Avenue near Highway 85, at the intersection of Fremont Avenue and Grant Road, and near the Grant Road/Homestead Road/Foothill Expressway intersection. Trail maps and informational materials should include these regulations as well. Establishing that the trail is a regulated traffic environment like other public rights-of-way is critical for compliance and often results in a facility that requires minimal enforcement. Los Altos, in conjunction with the police department, may also desire to post penalties for violators. The trail manager should review proposed trail regulations with the city's legal council for consistency with existing ordinances and enforceability. It may be desirable to pass additional ordinances to implement trail regulations.

In general, the initial set of rules proposed for the SCT should stress courtesy and cooperation with others rather than a restrictive set of edicts. Example rules are outlined below:

- Motorized vehicles are prohibited except emergency and maintenance vehicles
- Keep pets on a leash and scoop up after them
- Stay to the right except when passing
- Give a clear, audible warning signal before passing
- As a courtesy to other trail users and neighbors, refrain from loitering
- Bicyclists yield to pedestrians.
- When entering or crossing the trail, yield to those on the trail.
- Help keep the trail clean.
- Exercise caution and obey all traffic laws at all intersections

At this time, it is not proposed to adopt a speed limit or a set of hours for the trail to be opened. Trailheads, however, should be designed with the ability to close them, typically with a sunset to sunrise closure policy. This would apply to the northern section of the proposed alternative. These rules should be posted conspicuously at the major access points for this section of the trail. Development of a trail brochure with a map and trail rules should be pursued. This could be in conjunction with Mountain View.

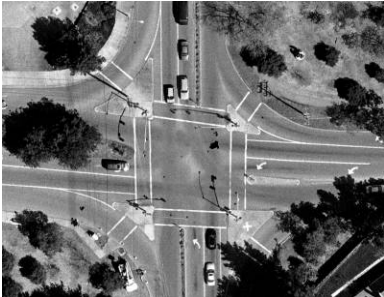
A.3. PUBLIC SAFETY AUDIT

As part of the planning effort of the feasibility study, the consultant team performed a Safety Audit of the SCT right-of-way. The intent of this audit was to review field conditions from law enforcement's prospective and apply recommended crime prevention methods through environmental design. The corridor was walked the majority of its length, with conditions noted and photographed in the following table.

The Table summarizes the key issues raised through the safety audit, the recommended response, and the location along the trail where the concern was raised.

Table A-1
Study Area Safety Audit and Recommendations

Safety Issue	Recommended Response	Location on Trail
Unwanted Vehicle Access on the Trail The use of the right-of-way for vehicles was noted at the Fremont Avenue/Highway 85 access point.  <i>A bollard on the existing Fremont Avenue bridge over Stevens Creek</i>	1. Utilize landscaping to define the corridor edge and trail.	All, special noted emphasis north of Fremont Avenue
	2. Use bollards at intersections.	All
	3. Create a Trail Watch program and encourage citizens to photograph report illegal vehicle use of the corridor.	All
Privacy of adjacent property owners This was one of the biggest concerns expressed by neighbors in the public workshops. Concern is that the trail will bring people into areas that have for decades been mostly inaccessible. Trail users will be closer to backyards and homes.	1. Encourage the use of neighborhood friendly fencing and also planting of landscape buffers.	All
	2. Clearly mark trail access points.	All
	3. Post trail rules that encourage respect for private property.	All
Litter and Dumping Some dumping was noted north of Fremont Avenue, some from Highway 85.  <i>Litter along a proposed segment of the SCT</i>	1. Post trail rules encouraging no littering	All, post rules at access points
	2. Place garbage receptacles at access points.	All
	3. Provide good visual access to the trail.	All
	4. Light the trail, utilizing light shields to minimize unwanted light in adjacent homes.	North of Fremont Avenue
	5. Manage vegetation within the right-of-way to allow good visual surveillance of the trail from adjacent properties and from roadway/trail intersections.	All
	6. Encourage local residents to report incidents as soon as they occur.	All
	7. Encourage an adopt-a-highway program on the adjacent section of Highway 85	North of Fremont Avenue
Trespassing Trespassing through people's backyards is a concern expressed by some members of the public. Based on the existing graffiti on the Highway 85 under crossing, there is evidence of existing trespassing activity	1. Clearly distinguish public trail right-of-way from private property through the use of vegetative buffers and the use of good neighbor type fencing.	All
	2. Post trail rules that encourage respect for private property.	All

Safety Issue	Recommended Response	Location on Trail
Crime Loitering, Attacks, Burglary, was expressed by neighbors at the public workshops. Addressing undesirable existing transient activity should be handled following these recommendations as well.  <i>The Highway 85 under crossing needs lights and activity to become a pleasant trail experience</i>	1. Manage vegetation so that corridor can be visually surveyed from adjacent streets and residences.	All, special noted emphasis north of Fremont Avenue
	2. Select shrubs that grow below 3' in height and trees that branch out greater than 6' in height for buffer areas.	All
	3. Light the trail at the under crossing and where the trail parallels the street or where most susceptible to crime activity.	At the Highway 85 under crossing and along the street segments of the trail.
	4. Place benches and other trail amenities at locations with good visual surveillance and high activity	All
	5. Provide mileage markers at quarter-mile increments and clear directional signage for orientation.	All
	6. Create a "Trail Watch Program" involving local residents. This could be in conjunction with the Friends of Stevens Creek Trail.	All
	7. Proactive law enforcement. Utilize the corridor for mounted patrol training.	All
Intersection Safety Roadway and trail crossings present a potential safety concern between trail users and cars.  <i>Bicyclists wait to cross Fremont Avenue</i>  <i>Fremont Avenue and Grant Road intersection</i>	1. Require all trail users to stop at public roadway intersections through posting of stop signs.	All
	2. Provide high-visibility crosswalk striping and trail crossing warning signs for vehicle drivers at side-streets and driveways.	All
	3. Install signal push buttons at the Fremont Avenue and Grant Road intersection	Fremont Avenue
	4. Manage vegetation at intersections to allow visual access at crossings.	All

Safety Issue	Recommended Response	Location on Trail
Local on-St. Parking  Potential parking restriction location at Fallen Leaf Lane and Fremont Avenue	1. Post local residential streets as parking for local residents only to discourage trail user parking.	All
	2. Clearly identify trailhead access areas.	Access points
Vandalism  Existing graffiti at the under crossing	1. Select benches, bollards, signage and other site amenities that are durable, low maintenance and vandal resistant.	All
	2. Respond through removal or replacement in rapid manner.	All
	3. Keep a photo record of all vandalism and turn over to local law enforcement.	All
	4. Encourage local residents to report vandalism.	All
	5. Create a trail watch program and work with the Friends of Stevens Creek Trail to maintain good surveillance of the corridor.	All
	6. Involve neighbors in trail projects to build a sense of ownership.	All
	7. Place amenities (benches, drinking fountains, etc.) in well used and highly visible areas.	All
Noise  The northern section of the SCT will parallel Highway 85	1. Work with Caltrans to install sound walls along the northern section of the alignment where adjacent to Highway 85.	North of Fremont Avenue

A.4. COMMUNITY INVOLVEMENT WITH TRAIL SAFETY

Creating a safe trail environment goes beyond law enforcement officers and should involve the entire community. The most effective and most visible deterrent to illegal activity on the SCT is the presence of legitimate trail users. As a general pattern, introducing legitimate use on the SCT right-of-way will

drive out illegitimate use. Getting as many “eyes on the corridor” is a key deterrent to undesirable activity on the SCT. There are several components to accomplishing this as outlined in this section.

Provide Access to the Trail

Wherever feasible, public access to the trail has been provided. Access points should be inviting and signed so as to welcome the public onto the trail. This includes on the northern section of the trail as well as where there are adjacent roadways.

Good visibility from adjacent neighbors

Neighbors adjacent to the trail potentially provide 24-hour surveillance of the trail and can become the city’s ally. Though some screening and setback of the trail is needed for privacy of adjacent neighbors, complete blocking out of the trail from neighborhood view should be discouraged. This eliminates the potential of neighbor’s “eyes on the trail,” and could result in a “tunnel effect” on the trail.

High level of maintenance

A well maintained trail sends a message to the public that the community really cares about this place. This message discourages undesirable activity along the trail.

Programmed events

Events along the trail will help increase public awareness of the SCT and thereby bring more people to the trail. The Friends of Stevens Creek Trail can help initiate numerous public events along the trail in an effort to raise public awareness and increase support for the trail. Events might include a daylong trail clean up or a series of short walks led by long time residents or local politicians. The Friends of Stevens Creek Trail can also assist the city with public support for future funding applications.

Community projects

The support generated through the Friends of Stevens Creek Trail could be further capitalized by involving neighbors and friends of the trail in a community project. Ideas for community projects include volunteer planting events and art projects. These community projects are the strongest means of creating a sense of ownership along the trail that is perhaps the strongest single deterrent to undesirable activity along the trail.

Infrastructure for public safety

This might include physical improvements along the trail such as emergency call boxes. Infrastructure for public safety is expensive and no conclusive proof exists that these devices are effective at reducing crime or improving police response time. In the few instances where they have been installed, vandalism has often been a problem. As a general rule, infrastructure should be considered as a final line of defense against safety issues on a trail.

Adopt-a-Trail Program:

Businesses and residential communities abut the SCT. As neighbors to the trail, they often see the benefit of their involvement in the trail development and maintenance. Businesses and developers may view the trail as an integral piece of site planning and be willing to take on some level of responsibility for the trail. Creation of an adopt-a-trail program should be explored to capitalize on this opportunity and build civic pride. The adopt-a-trail program could include an adopt-a-creek component that works with the Friends of Stevens Creek Trail to keep the Creek clean from garbage as well as natural materials such as tree limbs and leaves.

A.5. TRAIL WATCH PROGRAM

A.5.1. Safety Inspections

Regular inspection of the trail and associated amenities is a key factor to trail safety. Daily visual inspections should be conducted by Los Altos or the Police Department and can help identify and correct problems before they become an issue. For example, a fallen tree limb can be readily removed from the trail or coned off to divert trail users away from the hazard until such time as maintenance crews address the problem. The City of Mountain View has a trail closure hotline and Los Altos should work with its neighboring jurisdiction on sharing the hotline or establish its own.

A written record of inspections is recommended and will help create a database of information that can assist Los Altos in several ways. Written records can reveal safety trends and use patterns that can assist the city with prioritizing of maintenance dollars. Written records also can help protect the city from potential liability, providing documentation of diligent maintenance practices targeted towards protection of the public. A typical inspection record should include:

- Daily inspection reports noting any hazards that have been found along the trail along with remedial action. This should note basic items such as debris found on the trail or other trail obstructions
- Monthly inspections should be conducted of the entire trail. These inspections should document the condition of the trail and notes should be made of any potential hazards on the trail (cracks, erosion, overhead vegetation, etc.). Corrective actions should be integrated into the next 30-day work plan.
- Quarterly visual and operational inspections should be made of all of the park amenities such as benches, signage, drinking fountains, bike racks, and signals. Recommended corrective actions should be made and be integrated into a 3-month maintenance work plan.

A.5.2. Trail Closure

The SCT should be closed if any heavy equipment is expected to use the trail, or when any maintenance or construction activities are occurring that could be injurious to the general public. Los Altos should take appropriate measures to notify the public of closure of the segment of trail and arrange detours where appropriate.

A.6. CORRIDOR MAINTENANCE

A high level of trail maintenance is critical to the overall success and safety of the SCT. It includes such activities as pavement stabilization, landscape maintenance, facility upkeep, sign replacement, fencing, mowing, litter removal, painting, and pest control. The effects of a good maintenance program are not limited to the physical and biological features of the trail:

- A high standard of maintenance is an effective way of helping advertise and promote the trail as a local and regional recreational resource;
- The psychological effects of good maintenance can be an effective deterrent to vandalism, litter, and encroachments;

- Good maintenance is necessary to preserve positive public relations between the adjacent land owners and public agencies;
- Good maintenance can help make enforcement of regulations on the trail more efficient. Local clubs and interest groups will take pride in “their” trail and will be more apt to assist in its protection.
- A proactive maintenance policy will help improve safety along the trail.

A successful maintenance program requires continuity and often times a high level of citizen involvement. Regular, routine maintenance on a year-round basis will not only improve trail safety, but will also prolong the life of the trail. Maintenance activities required for safe trail operations should always receive top priority.

APPENDIX B PUBLIC AGENCY COMMENTS