

Fall 2017

# Pedestrian Access To Transit Plan

Final Plan  
Santa Clara Valley Transportation Authority



*Solutions that move you*



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# Executive Summary

## Introduction

The *Pedestrian Access to Transit Plan* (the Plan) is the first-ever look at pedestrian conditions for VTA's customers in Santa Clara County. The safety and quality of the walk to the transit stop is as important as the ride itself, and VTA has found that for many transit customers, that walk could be significantly improved.

The Pedestrian Access to Transit Plan has a simple mission and vision:

**Mission:** To improve the safety, comfort, and convenience of the walking environment for VTA's customers.

**Vision:** A safe, comfortable, and convenient walk to transit for all customers.

The Plan supports the mission and vision by identifying twelve Focus Areas in Santa Clara County—areas with high VTA bus ridership and high need for pedestrian infrastructure improvements—and by identifying 165 capital projects that can improve pedestrian access to transit in these Focus Areas. The Plan also prioritizes those projects and describes implementation goals and objectives that will guide VTA staff actions over the next several years. While the responsibility for implementing most projects lies with local agencies, the Plan identifies a handful of projects for VTA to take a more proactive role in advancing. Lastly, this plan provides the foundation for a continual effort to improve access to transit through VTA's service area.

## Complementing Local Plans

In recent years, VTA's Member Agencies—Santa Clara County, and the cities and towns within the county—have expanded their efforts to plan for safe pedestrian conditions, including adopting pedestrian master plans, developing pedestrian-supportive specific plans for corridors or neighborhoods, and supporting pedestrian safety efforts such as Safe Routes to School or Vision Zero programs. Additionally, most Caltrain and future BART stations are covered by local plans that support improved pedestrian access.



***For many transit customers in Santa Clara County, the walk to the transit stop can be significantly improved.***

This Plan complements local plans by 1) integrating local recommendations and design guidelines into Focus Area recommendations, and 2) filling a gap in planning efforts for pedestrian access to bus stops. Additionally, the Plan includes data and analysis that Member Agencies can use in the future—particularly when identifying and prioritizing pedestrian access improvements to transit in their communities.

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## Outreach

To develop the *Pedestrian Access to Transit Plan*, VTA worked closely with local jurisdictions and community representatives, and sought input from transit riders. Efforts included:

**Task Force:** VTA convened a Task Force whose members represented different stakeholder groups, including transportation advocacy groups, transit riders, seniors, people with disabilities, and academics. The Task Force also included staff from the City of San Jose and the Santa Clara County Roads and Airports Department. The Task Force provided input into the overall plan approach, outreach strategies, criteria used to identify Focus Areas, and proposed projects.



***In addition to structured outreach, VTA staff spoke with various community groups about the Pedestrian Access to Transit Plan. Shown here, a presentation at the Gilroy Senior Center.***

**Transit Customer Outreach:** To better understand transit customer concerns and needs, VTA distributed a customer survey on bus lines serving the twelve Focus Areas. The survey was available in English, Spanish, and Vietnamese. During ten weeks of collecting responses, from August to October 2015, VTA received 475 responses.

**Presentations to VTA Committees and Board of Directors:** As plan sections were developed, VTA staff presented them to VTA's Advisory Committees and Board of Directors to receive input. Committees that received regular presentations included VTA's Bicycle and Pedestrian Advisory Committee (representing local pedestrian and bicycle advocates), Technical Advisory Committee (representing local public works or transportation departments), and Policy Advisory Committee (representing local elected officials). Every Member Agency is represented on these committees. Additionally, VTA provided presentations to the Committee for Transportation Mobility and Accessibility, which includes seniors, persons with disabilities, and representatives of human service organizations within the county, including VTA's paratransit provider.

**Coordination with City and County Staff and Other Stakeholders:** VTA met with city and county staff of the jurisdictions in which Focus Areas were located to refine the Focus Area boundaries, and to discuss known issues and proposed infrastructure improvements. VTA met with Cupertino, Gilroy, Los Altos, Mountain View, San Jose, Santa Clara County, and Sunnyvale. The Caltrans District 4 Bicycle and Pedestrian Coordinator was given the opportunity to review and comment on projects that impact state right-of-way.

In addition to the structured outreach described above, VTA staff were available to speak to various community groups about the Plan, and accepted eight invitations.

## Existing Conditions

In preparing the *Pedestrian Access to Transit Plan*, VTA conducted a countywide review of walkability in Santa Clara County. Walking is strongly



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related to the form of the built environment: areas with diverse land uses, higher intersection density, and a higher number of destinations within walking distance have higher rates of walking.

Walkability varies throughout the county, with older downtowns along the Caltrain corridor and adjacent to the western foothills having a more walkable environment than the newer residential and office park developments located in much of the rest of the county.

Most land uses in the county are segregated by use, not only making it difficult to serve Santa Clara County by transit, but also making the walk to transit longer. The segregation between jobs and housing is striking, with jobs concentrated in the “golden triangle” in the north, bounded by Highways 101 and 237 and the Bay, and residences concentrated in south and east areas.

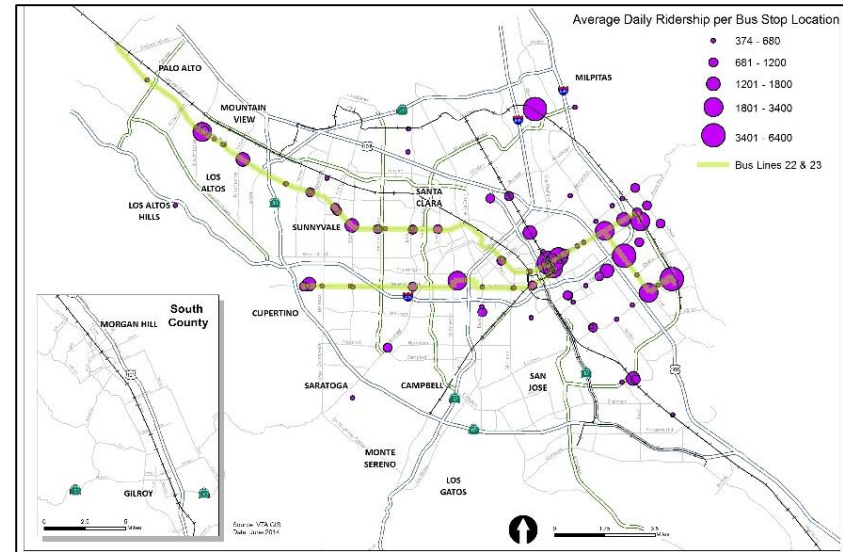
## Walking and Transit Activity

Pedestrian and transit activity also varies across the county. Pedestrian activity is high in Santa Clara County’s downtowns and near major transit stops that serve Caltrain, Light Rail, and VTA’s high ridership bus lines. As shown in **Figure 1**, VTA’s highest volume bus stops are located along El Camino Real, in downtown San Jose, East San Jose, and at major destinations such as De Anza College and Great Mall Transit Center.

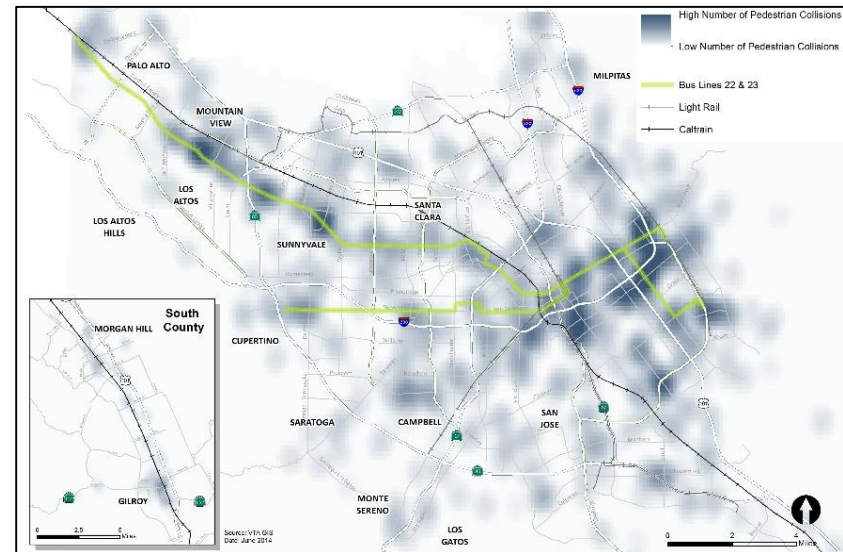
## Walking and Safety

VTA reviewed a decade of pedestrian-related traffic collisions spanning from 2003 to 2012. Approximately 430 pedestrians are hit by a vehicle in Santa Clara County each year. While total traffic collisions have declined over the last decade, the number of pedestrian collisions has remained stable. As shown in **Figure 2**, pedestrian collisions are concentrated in East San Jose, along El Camino Real, and south of downtown San Jose. This may be explained in part by the higher pedestrian volumes at these locations.

Transit activity and collision history are two of several variables used to identify Focus Areas for the Plan.



**Figure 1: Highest volume bus stops in VTA system**



**Figure 2: Pedestrian collisions in Santa Clara County**

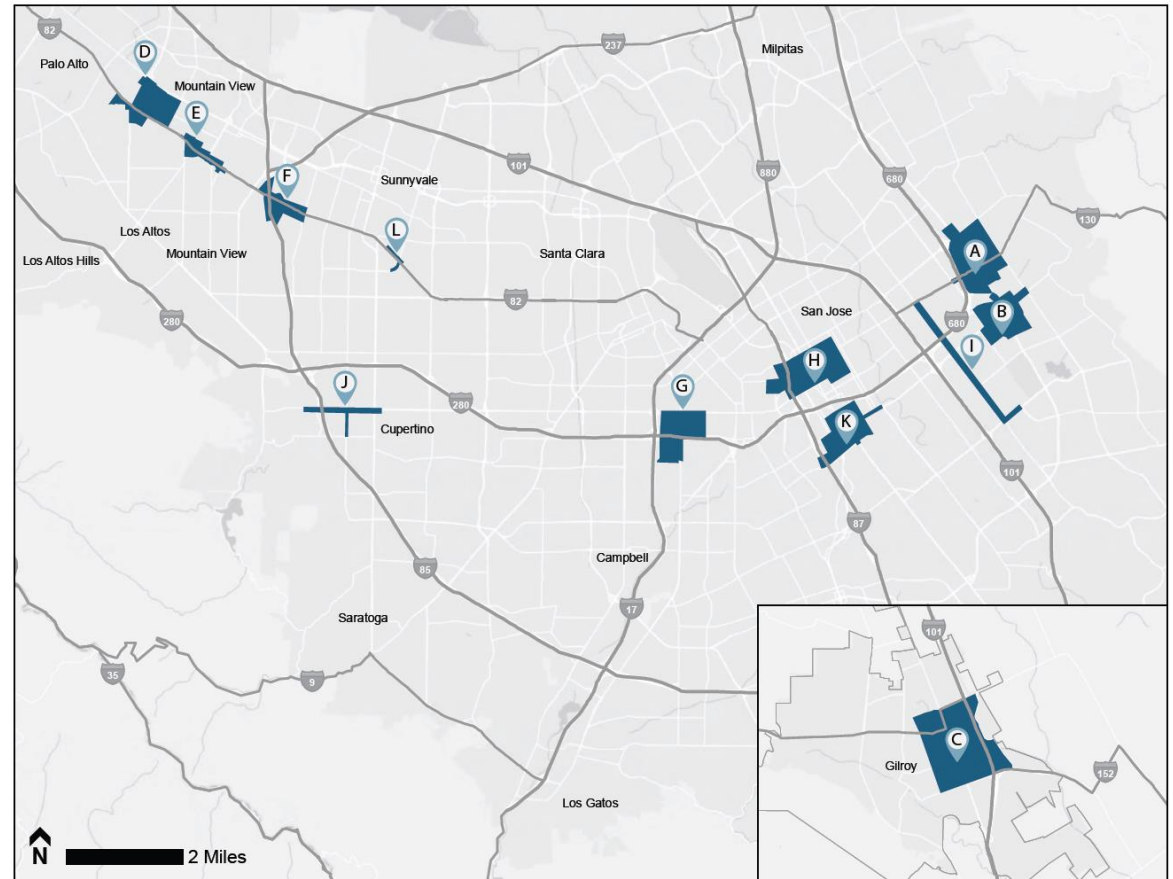
# Executive Summary

## Focus Areas

VTA serves 3,805 bus stops across a 346-square mile area in Santa Clara County. Given the large geographic area, and the fact that 50% of VTA's ridership is concentrated at 5% of its bus stops, the Plan limits pedestrian infrastructure recommendations to twelve Focus Areas—areas where both transit ridership and the need for pedestrian improvements are high. Focus Areas were selected based on a geographic analysis of pedestrian collisions, transit ridership, socio-economic characteristics, and land use factors. Focus Area locations, names, and the jurisdictions they cover are shown in **Table 1** and **Figure 3**.

**Table 1: Focus Area Locations**

ID	Focus Area Name/ Location	Jurisdiction(s)
A	Alum Rock	San Jose, County
B	East San Jose	San Jose, County
C	Central Gilroy	Gilroy
D	San Antonio/ San Antonio Rd @ El Camino Real	Mountain View, Los Altos, Caltrans
E	Mountain View El Camino Real Corridor	Mountain View, Caltrans
F	El Camino Real at State Route 85	Mountain View, Caltrans
G	Bascom Corridor	San Jose, County
H	Downtown San Jose (Including Diridon Station)	San Jose
I	King Road Corridor-Tully Rd to Alum Rock Ave	San Jose
J	Stevens Creek Blvd and Stelling Rd	Cupertino
K	Central San Jose	San Jose
L	El Camino Real and S. Fair Oaks Ave – Remington Dr	Sunnyvale, Caltrans



**Figure 3: Twelve Focus Areas—areas with high transit use and a high need for pedestrian improvements—were selected through a geographic analysis of pedestrian collisions, transit ridership, socio-economic characteristics, and land use factors.**

# Executive Summary

## Field Review

To identify deficiencies and potential projects for the twelve Focus Areas, VTA conducted field reviews to evaluate the following conditions:

- Connectivity – continuous sidewalk, presence of marked crosswalk, distance between crossings, crossing restrictions
- Safety – collision history, traffic speed, conflict points, traffic volumes, street lighting
- Quality – sidewalk width, pedestrian scale lighting, buffer from traffic, street trees, trash, graffiti, adjacent land uses
- Accessibility – missing curb ramps, adequate clear space on sidewalk for wheelchairs, accessible pedestrian signals, intersection complexity
- Activity – pedestrian volume, types of pedestrians,<sup>1</sup> transit use, land uses

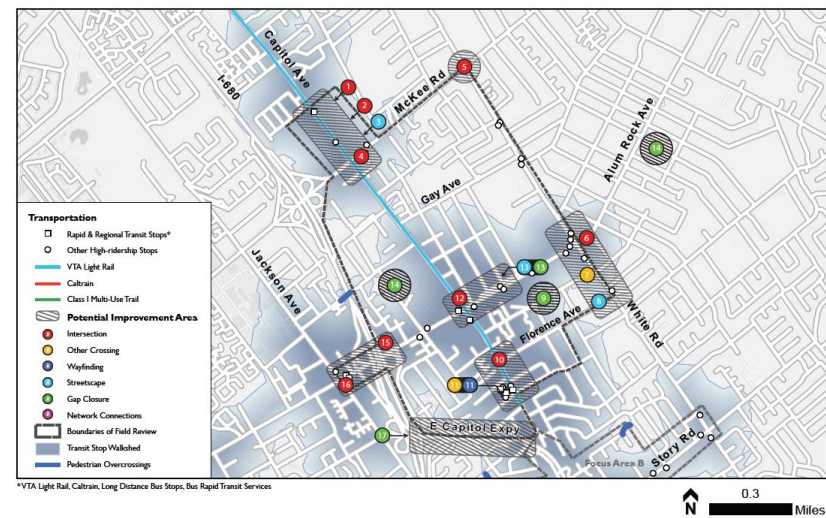
Results from field reviews and needs analysis show that while pedestrian activity is high in all Focus Areas, each area has pedestrian deficiencies.

Common challenges include:

- High vehicle volumes and speeds
- Long pedestrian street crossing distances
- Uncontrolled conflict points (e.g. free right turns)
- Lack of shade, street trees, or a buffer between moving vehicles and the sidewalk
- Lack of pedestrian scale lighting
- Adjacent land uses do not support pedestrian access (e.g. big-box retail with large parking lots)
- Presence of garbage or graffiti

## Recommended Pedestrian Improvements

The Plan identifies 165 capital improvement projects in twelve Focus Areas, and provides order-of-magnitude costs for each project. Project costs vary, with 83 projects under \$500,000, 43 projects between \$500,000 and \$5 million, and 39 projects over \$5 million. The most expensive projects typically involve major infrastructure changes, such as reconstructing freeway ramps or improving the streetscape of an entire corridor. Projects were developed using information from the field review and customer survey, with input from VTA Bicycle and Pedestrian Program staff, Task Force and VTA Committees. City and county staff reviewed the draft recommendations to ensure the recommendations are supported by local plans. Analysis for each Focus Area includes a map of deficiencies, a map of recommended projects and an associated table that describes each project.



**Figure 4: Example Focus Area map, showing proposed improvements for Focus Area A, Alum Rock.**

<sup>1</sup> When observing types of pedestrians, staff looked for youth, seniors, people with visible mobility impairments, parents with small children, transit riders, and others.



# Executive Summary

## Implementation

While VTA has led the planning to identify recommended capital projects, the vast majority of projects are located within Member Agency or Caltrans jurisdictions. Therefore, the responsibility for implementing projects will typically be with the cities, towns, County, or Caltrans.

To assist with scheduling projects for implementation, the Plan assesses the 165 recommended projects in two areas: 1) benefits to the community, and 2) ease of implementation. Several criteria were used to score each area and projects are categorized into the following four groups according to their score:

- **High Priority, Short Term** – easily implemented projects that provide immediate benefits to the community and address major challenges;
- **High Priority, Long Term** – difficult-to-implement projects that provide high benefit to the community and address major challenges;
- **Medium Term Projects** – easily implemented projects that enhance the quality of the pedestrian environment;
- **Long Term Projects** – difficult-to-implement projects that enhance the quality of the pedestrian environment.

The Plan presents projects by Focus Area. Each Focus Area includes a chart that plots projects into these four groups, and an accompanying table that includes order-of-magnitude cost estimates.

In addition to this high-level assessment of benefit and ease of implementation, the Plan identifies several projects that VTA has an interest in proactively advancing, because they are large-scale, involve multiple jurisdictions, involve VTA property, or improve connections to high volume transit stops. These are listed in **Table 2**.

**Table 2: Projects VTA has an interest in proactively advancing**

Project ID	Project Name or Description	Jurisdiction
A11	Alum Rock Transit Center pedestrian path improvements	San Jose, VTA
A17	Capitol Expressway/I-680/Jackson intersection improvements	San Jose, County, Caltrans
B2, B4	Story Road corridor signalized intersection improvements; Capitol Expressway/Story Road intersection improvements	San Jose, County
C4, C5, C8	At-grade railway crossing improvements along Caltrain line in Gilroy	Gilroy, VTA, Union Pacific Railroad
C12	1st Street/SR152 complete streets improvements; streetscape and crossing improvements	Gilroy, Caltrans
F3	El Camino Real/SR 85 interchange pedestrian accommodation and improvements	Mountain View, Caltrans
G5	Bascom corridor streetscape improvements, north of I-280	San Jose, County
H4	San Fernando/Delmas VTA LRT station improvements	San Jose, VTA
I6, I8, I9	King Road corridor intersection & streetscape improvements; King Road/I-280/I-680 ramp improvements	San Jose, Caltrans
K9, K10	Keyes Street crossings and streetscape improvements	San Jose
X1	Pedestrian education program for transit customers	VTA

## Next Steps

VTA has completed the initial planning, outreach, and field work to identify pedestrian improvements that will make the walk to transit safer, more comfortable, and more convenient.

Responsibilities now shift to VTA's Member Agencies to implement these projects. Member Agencies can support the *Pedestrian Access to Transit Plan* by incorporating it into local plans, referencing the Plan when reviewing new development projects, adding recommended projects into Capital Improvement Programs, and applying for grants to deliver projects. For a few large, multi-jurisdictional projects, VTA may lead project development, in partnership with Member Agencies.

VTA has identified four strategies necessary to advance the Plan.

### **Strategy 1: Continue to better understand existing conditions for walking in Santa Clara County by:**

- Publishing a report that analyzes the most recent five years of reported pedestrian collisions to identify hotspots proximate to VTA's transit stops.
- Developing a digital countywide inventory of sidewalks and trails.

### **Strategy 2: Continue to better understand the needs of customers who walk to/from transit by:**

- Including questions related to pedestrian conditions and motorist behavior in VTA's On Board Customer Survey.
- Developing a method for customer complaints received by VTA Customer Service regarding pedestrian infrastructure and motorist behavior to be relayed to the appropriate Member Agency staff.

### **Strategy 3: Work with Member Agencies and other stakeholders to implement improvements identified in the *Pedestrian Access to Transit Plan* by:**

- Developing an online map of projects recommended by the Plan.
- Providing an overview of the Plan to the governing bodies of the agencies in which Focus Areas are located (Gilroy, Mountain View, Los Altos, Sunnyvale, San Jose, and the County of Santa Clara), and request that they adopt or endorse the Plan.
- Requesting that Member Agencies incorporate projects identified in the Plan into relevant planning documents as the documents are updated, and add projects to their Capital Improvement Program.
- Providing an overview of the Plan to California Walks, SPUR, TransForm, the Silicon Valley Bicycle Coalition, Traffic Safe Communities Network, and other interested advocacy groups and community organizations.
- Seeking grant funding opportunities for advancement of VTA-led recommended projects.

### **Strategy 4: Monitor progress and proactively seek new areas for improvement by:**

- Providing cities and the County with the methodology and data used to identify Focus Areas, in order to assist agencies in identifying their own Focus Areas.
- Reporting the progress Member Agencies and VTA have made in implementing pedestrian improvements recommended in the Plan.
- Reporting the progress made on the goals and objectives of the implementation plan.
- Updating the Plan Focus Area analysis to identify new Focus Areas, and as needed, conduct associated field work and project identification.

# 1 Introduction

## 1.1 Introduction

The purpose of the *Pedestrian Access to Transit Plan* (the Plan) is to identify locations in Santa Clara County which are in close proximity of transit stops and would benefit from improvements to pedestrian safety, comfort and convenience. It is the first countywide plan to consider pedestrian access to transit and complements local pedestrian planning documents, and supports state and regional goals.

The *Pedestrian Access to Transit Plan's* mission and vision are:

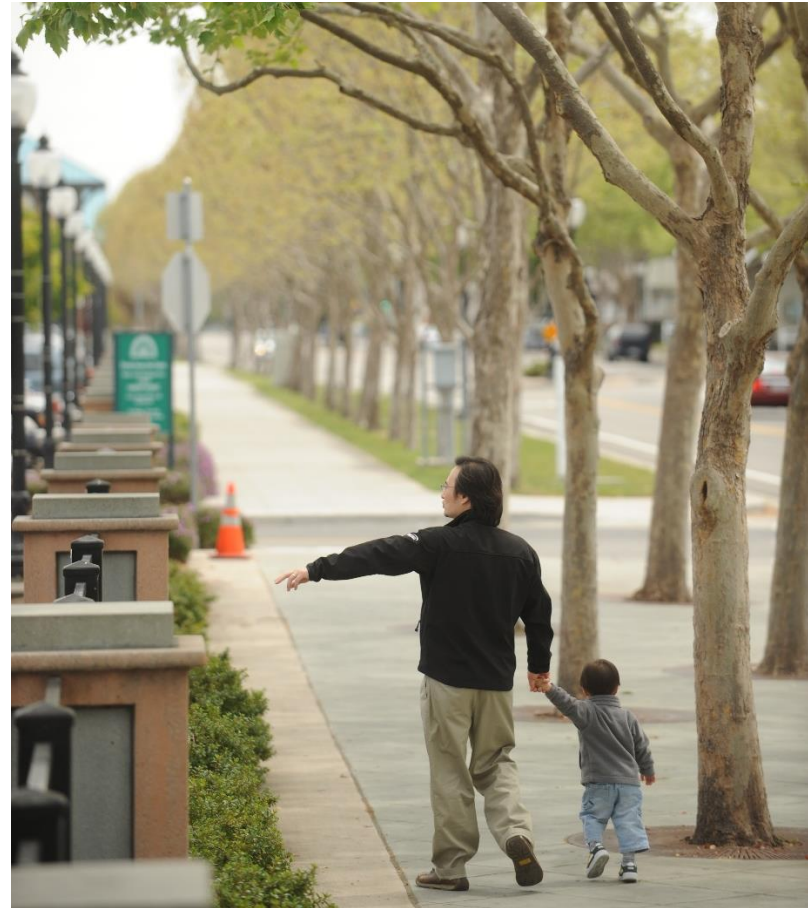
Mission: To improve the safety, comfort, and convenience of the walking environment that serves VTA's customers.

Vision: A safe, comfortable, and convenient walk to transit for all customers.

The Plan supports VTA's overall mission to "provide solutions that move you," and vision, "to innovate the way Silicon Valley moves." It also uses input from current transit riders and community stakeholders to understand and address the challenges people have when walking to or from their transit stop.

VTA identifies twelve Focus Areas in the Plan—areas with high transit ridership and high need for pedestrian infrastructure improvements –and proposes pedestrian infrastructure improvements in these Focus Areas.

VTA has a vested interest in focusing on transit access improvements; the quality of the transit trip doesn't start and stop at the vehicle door. The majority of VTA customers walk to or from their stop or station. People feel comfortable walking to transit facilities when the access is continuous, safe, and comfortable. Working with the cities and the County to improve the quality, safety, and convenience of the walking environment near transit stops improves the entire transit experience, benefits the surrounding community, and encourages more people to walk or ride transit.



***Great pedestrian environments benefit the entire community***



# 1 Introduction

## 1.2 Benefits of Walking and Walkable Environments

Walking is the most basic way of traveling from place to place, and is a mode of travel open to most—regardless of age, ability, or income.<sup>2</sup> Walkable communities—those where one can safely, comfortably, and conveniently walk to meet most daily needs—are livable, sustainable, and dynamic places, with vibrant street life and cohesive communities. Walkable communities and transit support and complement each other. Sidewalks, trails, and other pedestrian infrastructure are many times less costly to build and maintain than infrastructure for other types of transportation. The benefits of walkable communities are wide-ranging, and much research has been conducted to understand and quantify them. Key benefits include:

**Health:** The health benefits of walking are not just limited to weight management, but include prevention of a variety of diseases, including cardiovascular disease, high blood pressure, diabetes, depression, osteoporosis, and some cancers.<sup>3</sup> According to a Health Economic Assessment Tool developed by the World Health Organization, if all adults in Santa Clara County between ages 18 and 65 were to get 30 minutes of walking a day, mortality risk would be reduced by 23 percent, resulting in 347 fewer deaths annually.<sup>4</sup>

**Economic and environmental benefits:** In walkable communities, people are more likely to leave the car at home and walk or bike to get somewhere. Driving

fewer miles results in immediate fuel and maintenance cost savings. The American Automobile Association (AAA) estimates it costs \$61 for every 100 miles of commuting, and an average of 78.3 cents per mile to operate a car.<sup>5</sup> Motor vehicles are a major source of air pollution in the Bay Area, contributing up to 28 percent of the greenhouse gas emissions and fine particulate matter (PM 2.5).<sup>6, 7</sup> By reducing vehicle miles traveled, walkable communities contribute to reductions in air pollutants.

**Safety benefits:** Transportation infrastructure in walkable communities tends to promote safe and respectful driving behavior. Drivers are primed by environmental cues—sidewalks, narrow streets, crosswalks, street trees, pedestrian-scale streetscapes—to drive slower and expect pedestrians, and as a result, are more likely to yield for pedestrians.

**Property values:** People are willing to pay more for property in walkable communities. Two studies looking at Walk Score<sup>8</sup> and property values found that both commercial and residential properties increased in value with an increase in Walk Score.<sup>9, 10</sup>

**Accessibility and equity benefits:** Walking, both by itself and in conjunction with transit, provides a means to access important goods, services, and activities. This accessibility is particularly important for those who may have

<sup>2</sup> In this report, “walking” and “pedestrian” are inclusive terms that include people who use mobility assistive devices, including, but not limited to motorized scooters and wheelchairs.

<sup>3</sup> Mayo Clinic, “Healthy Lifestyle Fitness,” <http://www.mayoclinic.org/healthy-living/fitness/in-depth/walking/art-20046261?pg=1> (accessed May 2014).

<sup>4</sup> Heat Health Economic Assessment Tool, “WHO Health Economic Assessment Tool,” <http://www.heatwalkingcycling.org/index.php> (accessed May 2014).

<sup>5</sup> American Automobile Association, *Your Driving Costs, 2013 Edition*, (Heathrow, Florida: AAA, 2013).

<sup>6</sup> Bay Area Air Quality Management District, *Source Inventory of Bay Area Greenhouse Gas Emissions* (San Francisco: Bay Area Air Quality Management District, 2010).

<sup>7</sup> Center on Urban Environmental Law, *Air Pollution and Environmental Inequity in the San Francisco Bay Area* (San Francisco: Golden Gate University School of Law, 2011).

<sup>8</sup> Walk Score ([www.walkscore.com](http://www.walkscore.com)) is an online tool that calculates the walkability of a neighborhood based on how close amenities are to an address. Walk Scores range from 0 to 100, with higher Walk Scores more walkable. Walk Scores over 70 indicate locations where it is possible to meet daily needs without a car.

<sup>9</sup> CEO’s for Cities, “Walking the Walk,” <http://www.ceosforcities.org/research/walking-the-walk/> (accessed May 2014).

<sup>10</sup> Gary Pivo, and Jeffery D. Fisher, “The Walkability Premium in Commercial Real Estate Investments,” *Real Estate Economic* 39, no. 2 (2011): 185-219.

# 1 Introduction

limited transportation options: youth, the elderly, people with disabilities, and people with low incomes.

**Social capital:** Social capital refers to relationships, networks, and involvement in the community. Societies or groups with high social capital function efficiently and work for the greater good of the group. In walkable communities, public space becomes a stage for informal interactions between neighbors, workers, and visitors. These interactions support social capital.<sup>11, 12</sup>

## 1.3 Getting to Walkable Communities

Improving walkability and increasing walking rates in Santa Clara County requires a multi-jurisdictional, multi-disciplinary approach to address land use, transportation infrastructure, and urban design elements. Stakeholders include public agencies, private developers, elected officials, community members, landowners, transit agencies, and county, regional, and state agencies. To date, the cities, the County, and VTA have conducted numerous planning and policy efforts that support walkable communities. However, the challenges of implementing these plans, and of working with different stakeholders, with differing and sometimes competing priorities, remain.

Generally, land uses in Santa Clara County are dispersed and separated. Most housing is not within walking distance of retail, jobs, and services, making it difficult to attend to daily life without a car. Low residential densities and separated land uses make it difficult to serve many areas with transit. However, there are locations within the county that do support walking and transit, including historic downtowns, and areas along major corridors like El Camino Real, Alum Rock, and Stevens Creek. Many cities are looking to improve the

pedestrian environment, and support good pedestrian access, improved transit service, and higher density, mixed use development.

Targeted infrastructure improvements at the local level can make a big difference in shifting short trips to walking. It takes an able-bodied adult about 15 minutes to walk a mile. Yet, in the Bay Area, more than half of all trips a mile or less are made by car.<sup>13</sup> By filling in gaps in the pedestrian network, making new connections, and improving the urban design of neighborhoods, people can be enticed to walk that 15 minutes. By improving access to transit, the reach of the pedestrian increases dramatically, enticing more people to leave their cars at home.

The Plan takes a targeted approach to identifying improvements, with a focus on capital projects that improve the convenience, safety, and comfort of the walking environment, and access to transit. The methodology used in the Plan focuses on the existing parameters of the built environment, and safety and social equity criteria.

## 1.4 How to Use This Plan

The Pedestrian Access to Transit Plan is intended to be a resource for city, town, County, and VTA staff who wish to advance pedestrian improvements, as well as policymakers, members of the public and advocates that seek better walking conditions in their community. The Plan includes the following chapters:

**Chapter 1: Introduction** This chapter introduces the *Pedestrian Access to Transit Plan*, describes the benefits of walkable communities, and the importance of improving walkability for all. It includes a summary of the Plan

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<sup>11</sup> Kevin M. Leyden, "Social Capital and the Built Environment: The Importance of Walkable Neighborhoods," *American Journal of Public Health* 93, no.9 (2003): 1546-1551.

<sup>12</sup> Lisa Wood, Tya Shannon, Max Bulsara, Terri Pikora, Gavin McCormack, and Billie Giles-Corti, "The anatomy of the safe and social suburb: An exploratory study of the built environment, social capital and residents' perceptions of safety," *Health & Place* 14, no.1 (2008): 15-31.

<sup>13</sup> Nancy Mc.Gurkin, *Walking and Bicycling in California: Analysis of CA-NHTS* (Davis, California: University of California, Institute of Transportation Studies, 2012).

# 1 Introduction

chapters. It is useful for people seeking to understand the importance of improving the walking environment, and those who want an outline of the Plan.

**Chapter 2: Existing Conditions** This chapter summarizes existing conditions, and describes how well Santa Clara County's built environment and land uses support walking. It includes countywide pedestrian count data, and a high-level summary of pedestrian-related collisions. It is useful for people seeking to understand current walking conditions, and how and where they can be improved.

**Chapter 3: Focus Areas** This chapter describes the criteria VTA used to identify twelve Focus Areas: locations with high transit use and high need for pedestrian improvements. It is useful for those wishing to replicate a similar analysis at the local level and provides important background for grant applications.

**Chapter 4: Outreach** This chapter summarizes the outreach conducted to provide input into the Plan. It is useful for individuals wishing to understand transit customers' concerns about their walking environment, and provides important background for grant applications.

**Chapter 5: Recommended Projects** This chapter provides maps and descriptions of recommended improvements for the twelve Focus Areas, which include sections of Mountain View, Los Altos, Sunnyvale, Cupertino, San Jose, Gilroy, and the County of Santa Clara. It also lists Community Benefit and Ease of Implementation scores for each project, and provides order-of-magnitude cost estimates. This chapter is intended for Member Agency staff and community members wishing to implement or advance specific projects, and provides important background for grant applications.

**Chapter 6: Implementation** This chapter is useful for people wishing to understand VTA's role in implementing the Plan, as well as the role of the cities, towns, and County. It identifies projects that VTA has an interest in proactively

advancing, and provides planning-level cost estimates for those projects. The chapter concludes with strategies VTA will use to advance the recommendations in the Plan.

The Plan also includes the following Appendices, for those who seek additional detail and information:

**Appendix A: Survey Instruments:** This appendix describes the survey methodology VTA used to solicit comments from transit customers, and includes copies of the customer survey instrument. It also includes a map of locations identified by respondents as needing pedestrian improvements.

**Appendix B: Pedestrian Improvement Measures Toolkit:** This appendix describes infrastructure treatments that create high-quality pedestrian environments. It also provides photos for some treatments.

**Appendix C: Funding Opportunities:** This appendix summarizes funding opportunities for pedestrian infrastructure. It is intended for Member Agency staff who would like to understand options for funding projects in the Plan.

# 2 Existing Conditions

## 2.1 Introduction

This chapter summarizes walking conditions in Santa Clara County and sets the background for the *Pedestrian Access to Transit Plan*. This chapter includes:

- A summary of built environment factors that affect walking in Santa Clara County
- A summary of transit services in the county
- A summary of historic pedestrian count and collision data

This chapter casts a wide net—looking at the entire county. Information is condensed from the *Pedestrian Access to Transit Plan Existing Conditions Report*—a longer, more in-depth summary published by VTA in summer 2014. Many of the topics reviewed in this chapter were used to select criteria to identify Focus Areas for the Plan, as described in Chapter 3.

## 2.2 Santa Clara County’s Walkability

Most people know a good walking environment when they experience it, and can easily identify streets and intersections that are uncomfortable or inconvenient. Successful walkable places are typically a combination of several positive components that converge in a location, such as land use density and diversity, safety, street design, access to transit and other urban amenities, and willingness of real estate developers and city governments to invest in that location. Academic research has shown that land use density, land use diversity, street design, and proximity to destinations and to transit have a modest to moderate and cumulative effect on how much people walk.<sup>1</sup>

<sup>1</sup> Reid Ewing, and Robert Cervero, “Travel and the Built Environment: A Meta-Analysis,” *Journal of*

VTA’s *Community Design and Transportation Manual* presents four land use and street design principles that should be addressed to create walkable communities:

**Place Making** – planning and designing buildings and spaces at a human scale, so that people want to be there

**Access by Proximity**- clustering complementary land uses together with careful consideration of access by foot, bicycle, transit, and automobile

**Interconnection** – designing land uses so that they connect to adjacent uses, and do not preclude future connections

**Choice** – broadening the range of choices for residents, including well-designed denser residences coupled with quality public spaces and local amenities

Given the importance of the built environment on walkability, how walkable is Santa Clara County? A simple answer: it varies, and is improving. More specifically:

- The most walkable locations in Santa Clara County are the compact, mixed use downtowns along the Caltrain line, and older town centers such as Los Gatos and Los Altos. These areas have narrow roads, low traffic speeds, short blocks, a grid network, a mix of destinations, interesting and engaging frontages, seamless integration into neighboring residential areas, and high quality sidewalks, landscaping, and supportive amenities for pedestrians.
- Much of the land of Santa Clara County is devoted to single-family residential and office park developments. Many of these developments, especially those built in the 60’s, 70’s and 80’s, have unfavorable walking environments. Destinations are generally far and may require crossing major arterials or expressways. Curvilinear street networks

*the American Planning Association* 76, no. 3 (2010): 1-30.



## 2 Existing Conditions

increase walking distance. Sidewalks may be absent, and roads may be wide. Traffic speeds can be fast.

- Commercial corridors, including El Camino Real and Stevens Creek Boulevard, have potential for providing good pedestrian environments. These commercial corridors provide goods and services within walking distance of adjacent residences and are part of Santa Clara County's transit backbone. However, in many locations, the design of the corridors is not pedestrian-friendly. Member Agency plans support pedestrian improvements, mixed use, and higher density along these corridors. Many developments built in recent years demonstrate this commitment and incorporate wide sidewalks, street trees or landscape buffers, smaller setbacks, and other pedestrian-friendly designs.
- In recent years, new developments built adjacent to transit, such as the Riverview mixed use development in North San Jose and the Tasman and Fair Oaks neighborhood in Sunnyvale, have transformed neighborhoods into more walkable places, with high-quality sidewalks and landscaping, a finer grain street network, and a mix of retail, housing, and public amenities.

The following sections describe specific characteristics of the built environment that affect the walkability of Santa Clara County.

### 2.2.1 Street Networks

One of the main factors that keeps people from walking more is distance between their destinations. The design of a street network directly affects how far one must walk to reach a destination. Grid-like street networks, with short block lengths and few dead-ends—like those found in historic downtowns throughout the County—are ideal for walking trips. A highly connected street network translates to shorter distances between destinations. High connectivity also means there is a greater variety of routes to choose from, so a pedestrian may be able to choose a route that avoids a high-traffic street or difficult intersection.



***In recent years, new developments in Santa Clara County have transformed neighborhoods into more walkable places.***

Photo: Santana Row in City of San Jose, by Noah Berger

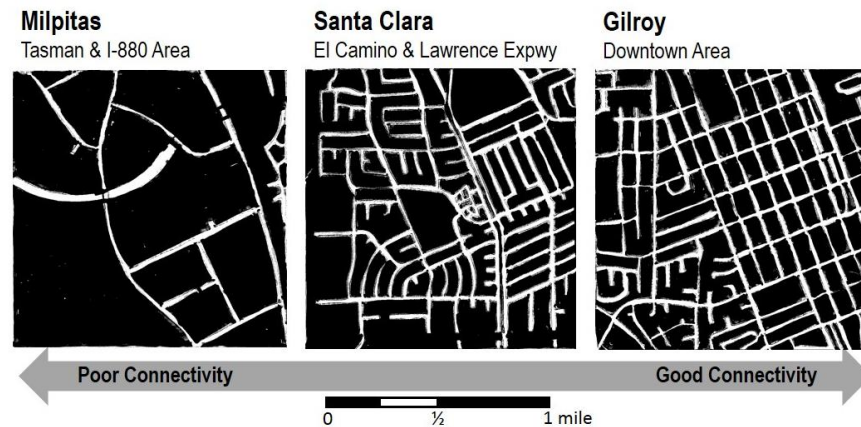
In contrast, curvilinear streets with looping roads and culs-de-sac are much less connected. Street networks with low connectivity have large blocks, dead-ends, and few connections. These include many of the business parks and industrial centers located along the US 101 and I-280 corridors, and residential neighborhoods on the edges of the urbanized portion of Santa Clara County.

At a countywide scale, street connectivity can be approximated by looking at intersection density. Several research studies have shown that higher intersection densities are correlated with increases in walking and transit use,

## 2 Existing Conditions

and reductions in vehicle miles traveled. The impact of street connectivity seems to be even stronger than the impact of land use mix and density.<sup>4</sup>

Street network connectivity varies throughout Santa Clara County. **Figure 2.1**, below, illustrates connectivity in three different Santa Clara County neighborhoods at the same scale, showing the degree of variation found throughout the county. Areas with higher connectivity are generally more walkable than areas with lower connectivity.



**Figure 2.1: Street networks of three neighborhoods at the same scale**

### 2.2.2 Land Use Mix/Diversity

In Santa Clara County, most land uses are segregated from each other—a pattern that generally does not support walking or transit. Most of the county land area is dedicated to residential uses, with commercial uses located along major roadways, and job centers located in the north along Highways 101, 880, and

237, and to a lesser extent, along Highway 280. The areas with the highest mix of land uses include downtowns and areas along major corridors.

Locating many different uses within one neighborhood reduces how much people drive, and increases walking and transit trips.<sup>5</sup> By mixing uses, destinations are closer together, reducing the distance and time traveled and enticing people to walk, bike, or take transit in lieu of driving. This is particularly true for neighborhoods where there are similar numbers of jobs and workers, and where residential areas are located close to stores.

Land use mix can also be measured by job-worker balance. **Figure 2.2**, on the next page, illustrates the job-worker balance in Santa Clara County, by census tract. Job-worker balance is calculated by dividing the total number of jobs in a census tract by the total number of workers who live in that tract. When a census tract has similar numbers of jobs and resident workers, it is balanced. Areas with a job-worker balance between 0.8 and 1.2 are considered balanced.<sup>6</sup>

In areas where jobs and resident workers are imbalanced, people drive more. If there are more jobs than resident workers, the area is jobs-rich, and workers will generally commute in to that area. If there are more resident workers than jobs, the area is housing rich, and most people will commute out of that area to work.

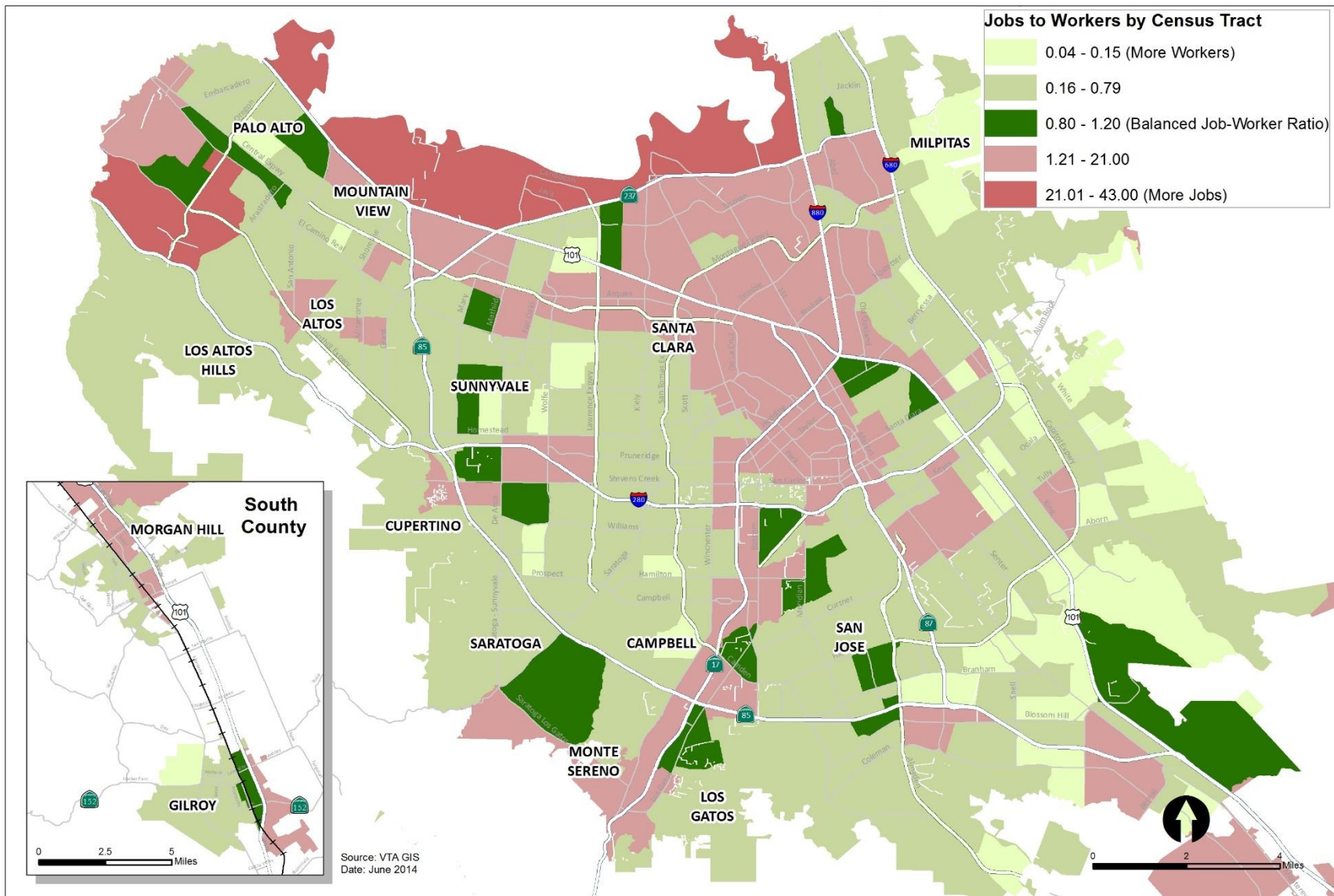
As can be seen in **Figure 2.2**, though the job-worker ratio may be balanced at the city or county level, at a smaller geographic scale—a walkable scale—one finds that jobs and housing are not distributed equally within cities. Job-rich census tracts are located in the north Santa Clara County and along the 101, 237, 87, and 17 highway corridors. Most of the rest of the county is housing-rich. As a result, even within cities with good jobs-housing balance, people may not be able to walk to work, since the land uses are segregated.

<sup>4</sup> Reid Ewing, and Robert Cervero, "Travel and the Built Environment: A Meta-Analysis," *Journal of the American Planning Association* 76, no. 3 (2010): 1-30.

<sup>5</sup> Reid Ewing, and Robert Cervero, "Travel and the Built Environment: A Meta-Analysis," *Journal of the American Planning Association* 76, no. 3 (2010): 1-30.

<sup>6</sup> Gary Pivo, and Lawrence D. Frank, *Relationships between Land Use and Travel Behavior in the Puget Sound Region* (Seattle, Washington: Washington DOT, US DOT, Federal Highway Administration, 1994).

# 2 Existing Conditions



**Figure 2.2: Number of jobs compared to the number of resident workers by census tract;** Areas with a jobs-worker balance between 0.8 and 1.2 are considered balanced. Dark green areas are balanced, lighter green areas have more resident workers than jobs, while pink areas have more jobs than resident workers.



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### 2.2.3 Density

People are more likely to walk in denser neighborhoods.<sup>9</sup> By locating residential, commercial, and jobs close together, higher density communities encourage people to walk, bike, or take transit. Doubling population density may reduce vehicle miles traveled by 4%, increase walking rates by 7%, and increase transit use by 7%.<sup>10</sup> Doubling job density has lower effects, and may increase walking rates by 4%, and increase transit use by 1%.<sup>11</sup>

On the following two pages, **Figure 2.3** shows residential density and **Figure 2.4** shows job density for Santa Clara County, using American Community Survey data. As expected, given the land use mix and job-worker maps discussed above, the residential density and job density maps are negative images of each other. Jobs are heavily concentrated in the north along U.S. Route 101, State Route 237, Central Expressway, and in North San Jose. Areas of higher-density housing are located along Caltrain, El Camino Real, and in Downtown San Jose. Outside of these areas, residential density is low. Residential density of most census tracts is 5 to 6 dwelling units per acre, and not supportive of walking as a transportation mode due to the low density.

### 2.2.4 Urban Design

Urban design is important for creating an interesting, comfortable walking environment. There are numerous urban design qualities that affect the perception of walkability. VTA's *Community Design and Transportation Manual* provides excellent overall guidance and best practices on urban design to support walking.

Additionally, SPUR's 2013 report, *Getting to Great Places* identifies seven components for creating walkable urban areas:

- Fine-grained pedestrian circulation
- Buildings that are oriented to streets and open spaces
- Land uses that support public activity
- Locating parking behind or below buildings
- Addressing human scale components in building designs
- Clear, continuous pedestrian access
- Complete streets<sup>13</sup>

In general, one finds pedestrian-friendly urban design in historic downtowns—including along the Caltrain corridor, and the downtowns of Campbell, Los Altos, Saratoga, and Los Gatos—in downtown San Jose and surrounding neighborhoods, and in many newer mixed use or transit-oriented development being built throughout the county.

It is difficult to quantitatively assess the quality of urban design at a County scale. However, VTA evaluated the urban design elements during field review of each Focus Area, and made recommendations for improvements. Recommendations were limited to transportation-related design elements that affect the pedestrian environment – for example, street trees, and sidewalk widths. The characteristics that make good urban design go beyond the road right-of-way, and are the responsibility of many different entities, ranging from landowners, private developers, and local decision-makers.

<sup>9</sup> Reid Ewing, and Robert Cervero, "Travel and the Built Environment: A Meta-Analysis," *Journal of the American Planning Association* 76, no. 3 (2010): 1-30.

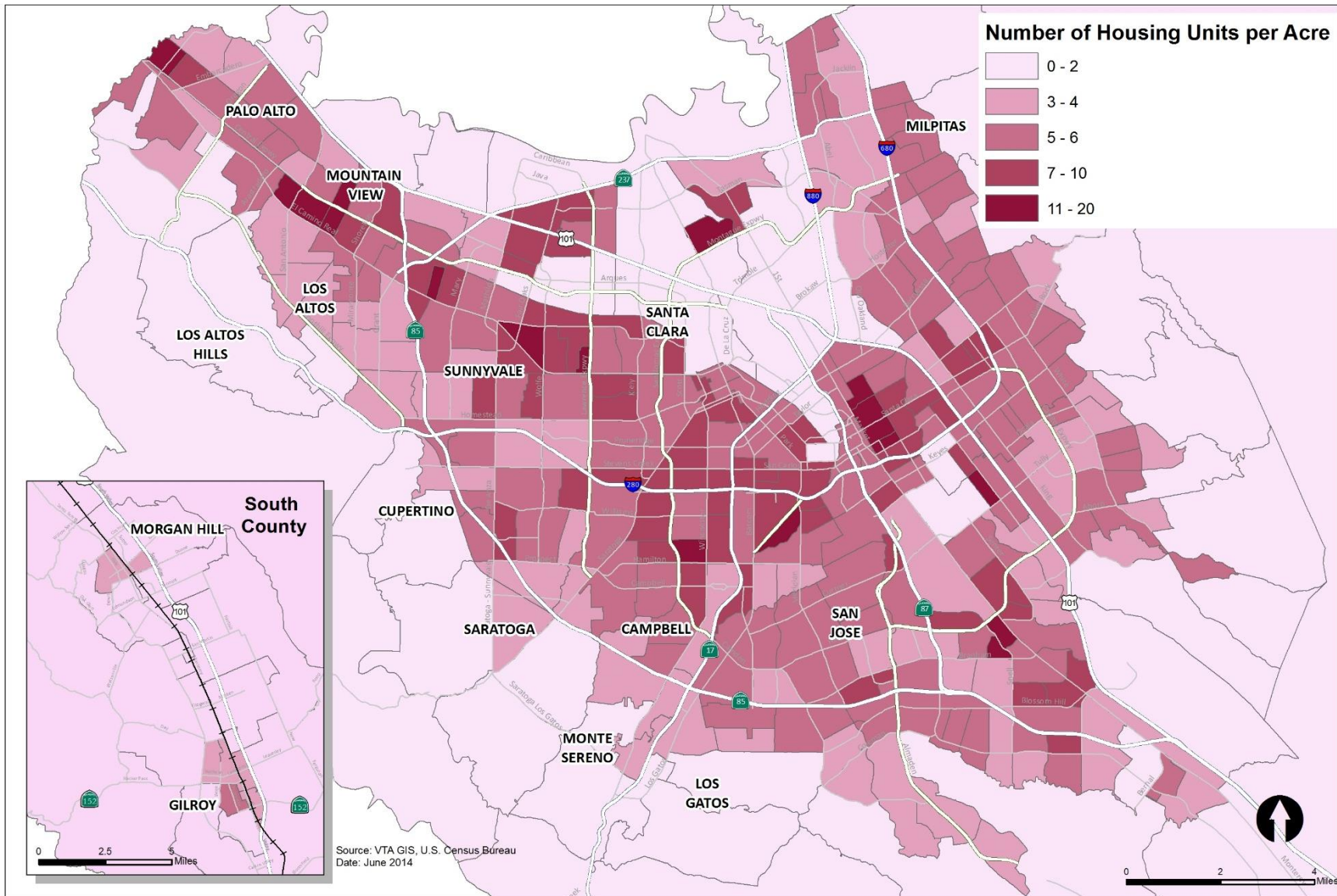
<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>13</sup> SPUR, *Getting to Great Places, How Better Urban Design Can Strengthen San Jose's Future* (San Jose: SPUR, 2013).



## 2 Existing Conditions



**Figure 2.3: Residential density in census tracts;** Residential density is low throughout Santa Clara County—most census tracts are 5 to 6 dwelling units per acre and are not supportive of walking as a transportation mode.

## 2 Existing Conditions

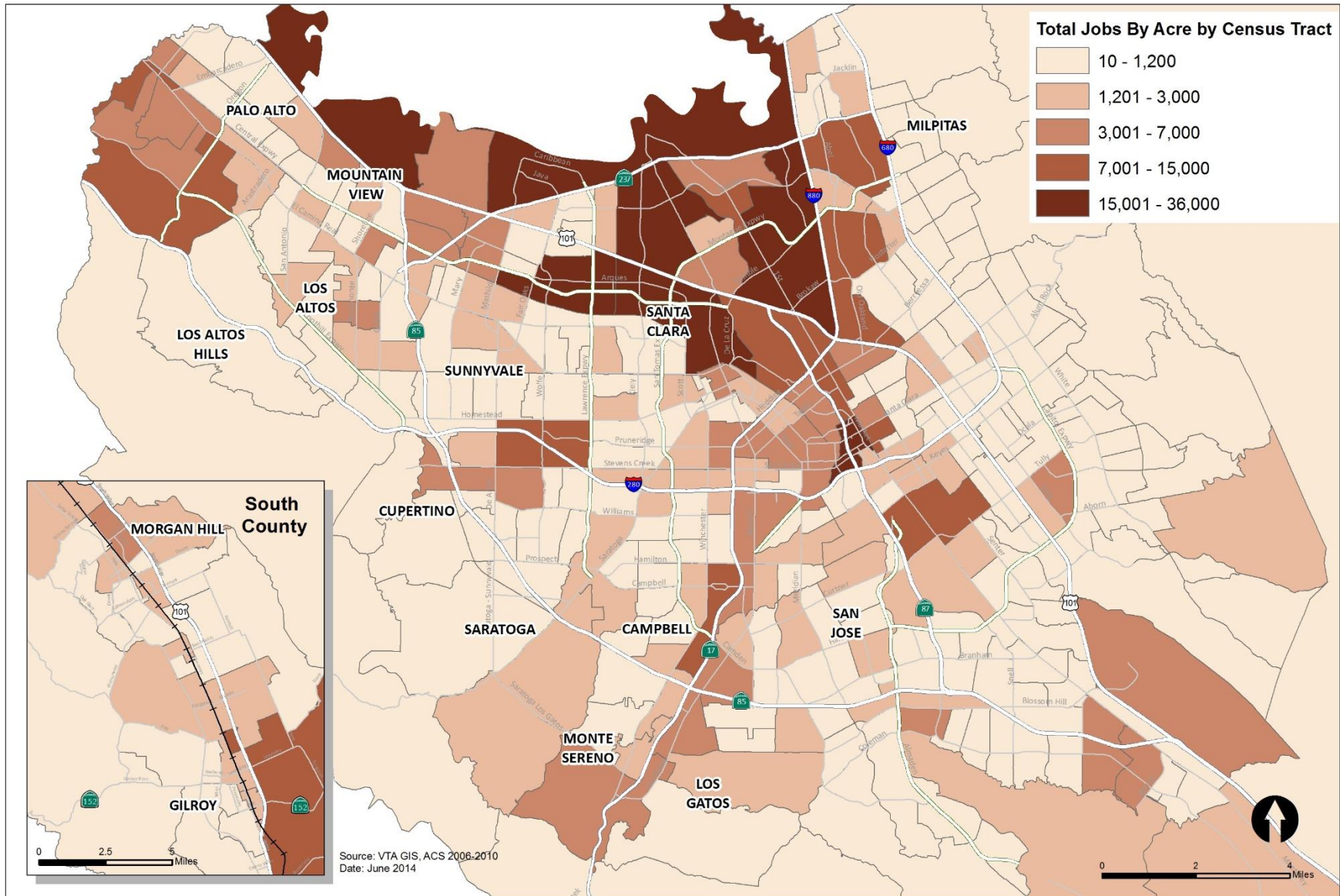


Figure 2.4: Job density in census tracts; Jobs are concentrated in the north and along the area bounded by Highway 237, US 101 and Interstate 880.



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### 2.2.5 Quality of the Pedestrian Environment

Elements of the built environment can affect a person's sense of safety and comfort when walking. In recent years, transportation planners and traffic engineers have developed a variety of tools to measure the quality of a pedestrian environment. These tools are called Quality of Service measures, and use specific measurable characteristics of a street, sidewalk, or intersection to come up with a score that generally measures the pedestrian comfort of a street segment or intersection. The calculations underlying Quality of Service measurements are typically backed up by research that supports how important each characteristic is to providing a comfortable walking environment. Many Quality of Service tools measure similar characteristics, some of which are listed below.

In general, pedestrians feel safer from traffic and more comfortable walking along a street if there are:

- Sidewalks, paths, or other dedicated pedestrian facilities
- Wider sidewalks
- Continuous buffer from adjacent travel lanes (e.g. landscaping strips, trees, parked cars)
- Low speed traffic
- Low traffic volumes, particularly low truck volumes

Pedestrians feel safer crossing a street if there are:

- Short crossing distances
- Fewer travel lanes to cross
- Marked crosswalks
- Lower traffic speeds
- Stop or signal-controlled crossings
- Short wait times to cross

While Quality of Service measures have been used in Santa Clara County to evaluate pedestrian conditions, it is at a very local scale – corridor or individual

development project. It is too data intensive to evaluate these factors at a countywide level. There is inconsistent countywide data documenting pedestrian infrastructure—including basic infrastructure such as sidewalks. VTA is working with local jurisdictions to create a countywide inventory of sidewalks and sidewalk quality of service measures.

### 2.3 Pedestrian Counts and Surveys

The chapter so far describes elements of the built environment in Santa Clara County that affect walking. This section summarizes results of counts and surveys to describe actual walking behavior in the County.

Understanding walking rates, locations, and purposes is important for several reasons, including, but not limited to:

- Allows agencies to direct limited resources to locations that have the highest level of pedestrian use
- Allows agencies and organizations to tailor programs and infrastructure to pedestrian needs
- Allows agencies to calculate vehicle exposure rate, thus identifying the riskiest locations for pedestrian collisions
- Informs before-after studies to determine the success of a project intended to increase walking

#### 2.3.1 Pedestrian Counts

Field counts are necessary to understand actual pedestrian volumes at specific locations. Pedestrian counts are often collected by local agencies as part of infrastructure projects or regular traffic count programs. Local data are not currently collated at the countywide level.

Every two years, VTA collects pedestrian counts at 252 intersections along the Congestion Management Program's (CMP) roadway network. In accordance with state statute, VTA monitors the CMP roadway network regularly to ensure that it



## 2 Existing Conditions

conforms to the CMP traffic level of service (LOS) standard. LOS is a measure used by transportation professionals to grade performance of transportation facilities, and is essentially a measure of automobile delay.

The intersections included in VTA's CMP monitoring program tend to be large, with high auto volumes, and as a result, pedestrian counts at these locations may not represent the true pedestrian activity in any given area. **Figure 2.6**, on the next page, shows pedestrian counts collected at CMP intersections in 2014. Counts vary, with approximately 50 locations recording more than 100 pedestrians in a two-hour period during the evening commute. Counts are highest in downtown San Jose, downtown Mountain View, and along the high-ridership transit corridors of El Camino Real and Santa Clara/Alum Rock.

### 2.3.2 How Much are People Walking?

There are a variety of surveys that provide useful information on how frequently people walk, how far they walk, and the purpose of their walking trip. According to the 2009 National Household Travel Survey and the 2010-2012 California Household Travel Survey:

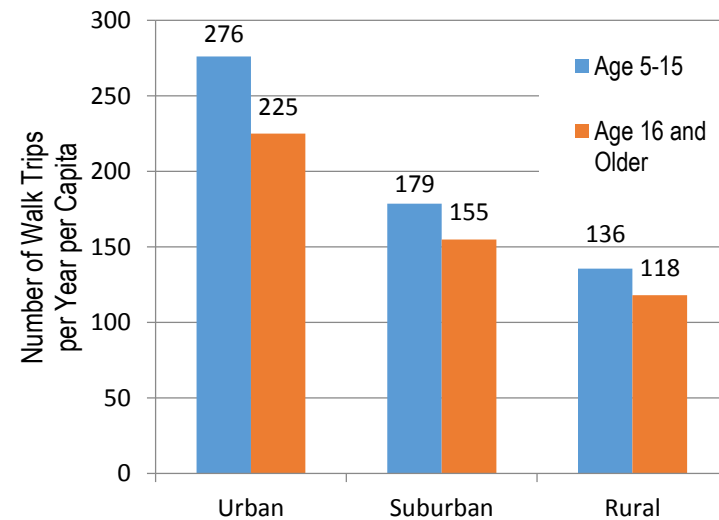
- Approximately 12.5% of all trips in California are made on foot
- The average length of a walk in the Bay Area is 0.71 miles
- The hypothetical average California resident (age 5 and up) takes a walk every other day
- The majority of people walk at least once a week, with nearly 70% reporting walking 4 or more times in the past week

There is significant opportunity for more walking trips to be made. It takes an able-bodied adult 20 to 25 minutes to walk a mile.<sup>15</sup> However, in the Bay Area, nearly 55% of all trips of a mile or less are made by car. Only 38% of these are

<sup>15</sup> Federal Highway Administration notes that studies have shown walking speeds ranging from 2.0 to 4.3 feet per second. The California Manual of Uniform Traffic Control Devices for Streets and Highways (CAMUTCD) recommends a walking speed of 3.5 feet per second when calculating clearance for traffic signals, which works out to 25 minutes per mile.

made on foot. These trips—short trips that originate and end at the same destination—are candidates for shifting modes.<sup>16</sup>

Walking rates vary by land use. This is particularly true for the walking behavior of children. In California, children ages 5 to 15 living in urban areas walk 35% more than children living in suburban areas. **Figure 2.5** compares the average annual walking trips made by children and adults in urban, suburban and rural areas.



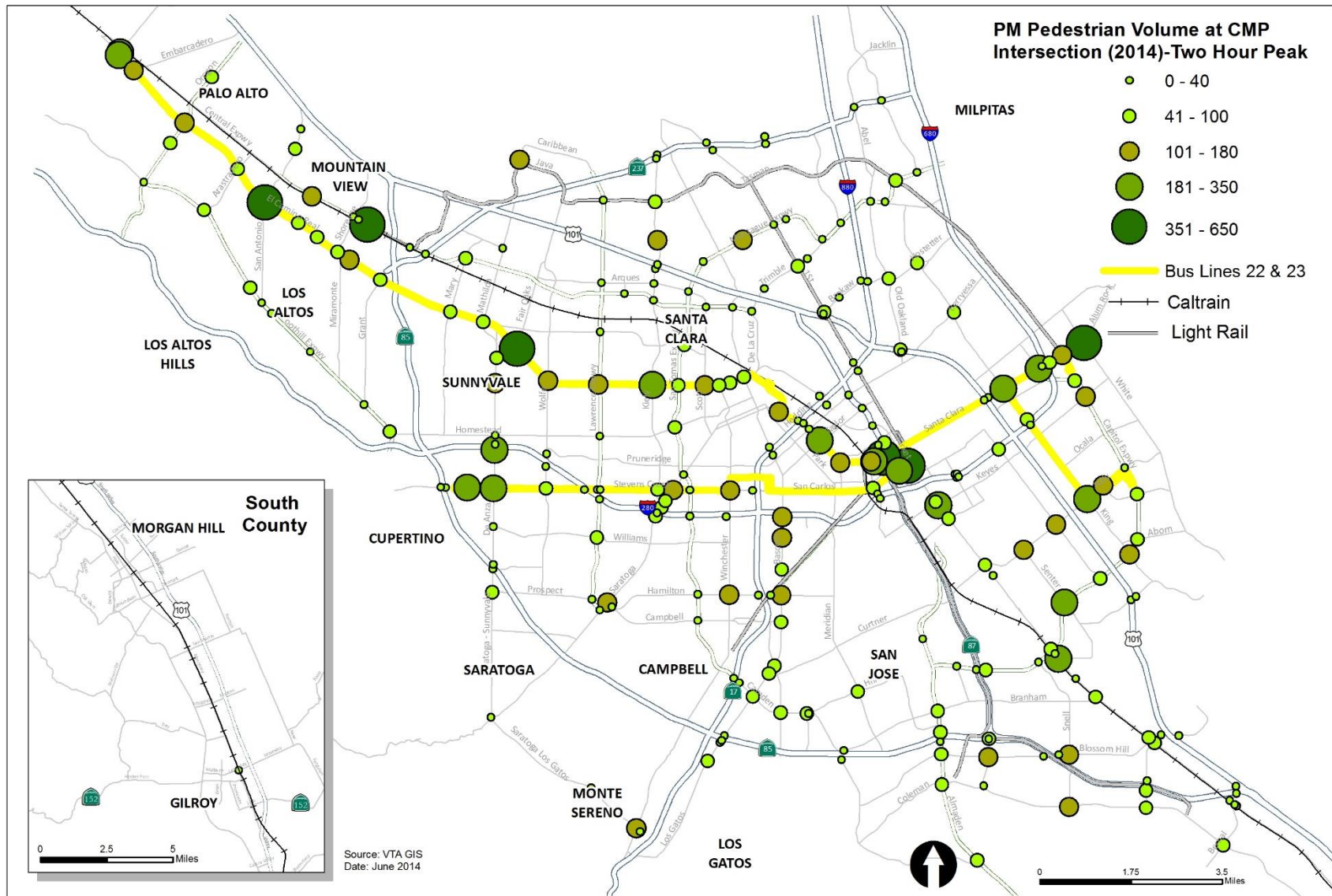
Source: National Household Travel Survey California Add-On 2009

**Figure 2.5: Annual walking trips per year for children and adults in California, by land use**

<https://www.fhwa.dot.gov/publications/research/safety/pedbike/05085/chapt8.cfm>

<sup>16</sup> Nancy Mc.Gurkin, *Walking and Bicycling in California: Analysis of CA-NHTS* (Davis, California: University of California, Institute of Transportation Studies, 2012).

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**Figure 2.6: Pedestrian counts during evening weekday commute;** Counts are highest in downtown San Jose, downtown Mountain View, and along the high-ridership transit corridor of El Camino Real/Santa Clara Street.

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### 2.3.3 Commuting to Work

People who usually walk to work are very loyal to their travel mode. On any given day, 80% of Bay Area commuters who usually walk to work will walk. The only other travel mode that has that high loyalty is driving alone, where on any given day, 93% of commuters who usually drive will drive. For commuters who typically take transit, 68% will take transit on any given day.<sup>17</sup>

As illustrated in **Figure 2.7**, Santa Clara County has the second lowest walk commute rate in the Bay Area: between 1.7% and 2.1% of residents typically walk to work. In comparison, San Mateo County's commute walking rate for the same time period is between 2.2% and 3%, and Alameda County's is between 3.5% and 3.9%.

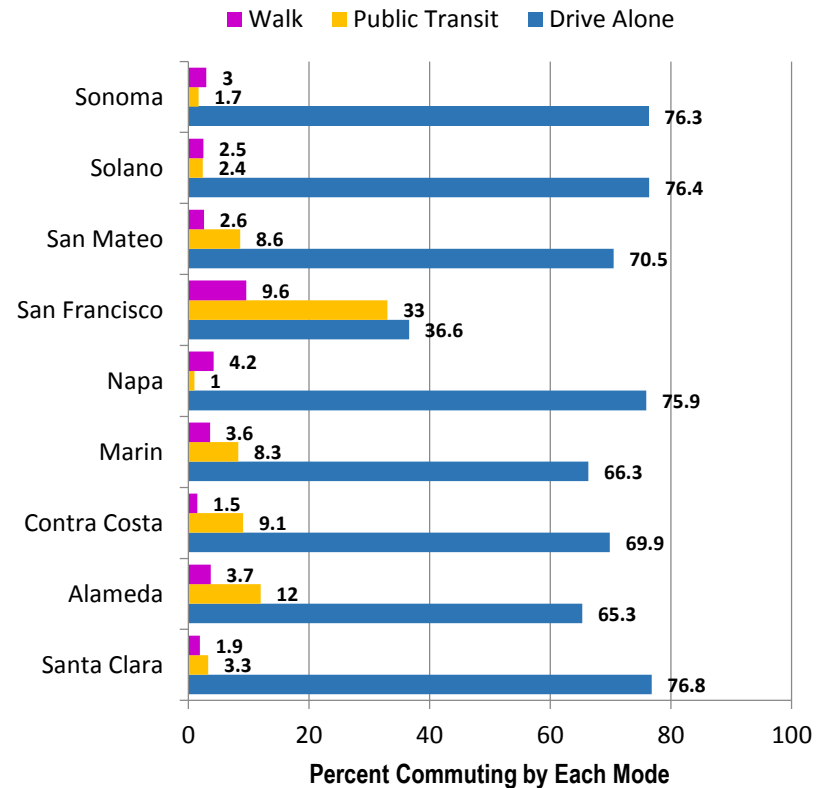
The percentage of residents who walk to work in Santa Clara County has not significantly changed over the last decade. In 2000, 1.8% of Santa Clara County residents walked to work.<sup>18</sup>

**Figure 2.8**, on the next page, shows where concentrations of people who walk to work live. Darker census tracts have higher percentages of walk commuters. Areas with higher percentages include downtown Palo Alto and Stanford, pockets in Santa Clara just east of Lawrence Expressway and near Santa Clara University, the Rose Garden neighborhood in San Jose, and downtown San Jose (particularly near San Jose State University), and downtown Morgan Hill. The higher percentages are likely a result of a variety of factors, including: university students who live near campus and walk to work, downtown areas with houses close to businesses and a connected street grid. Of note, the agricultural area north of Morgan Hill has a high walk mode share (11.5%), but a very low population; less than 700 workers live in the area.

<sup>17</sup> Ibid

<sup>18</sup> U.S. Census Bureau, "2000 Decennial Census and 2008-2012 American Community Survey," <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t> and <http://www.census.gov/main/www/cen2000.html> (May 2014).

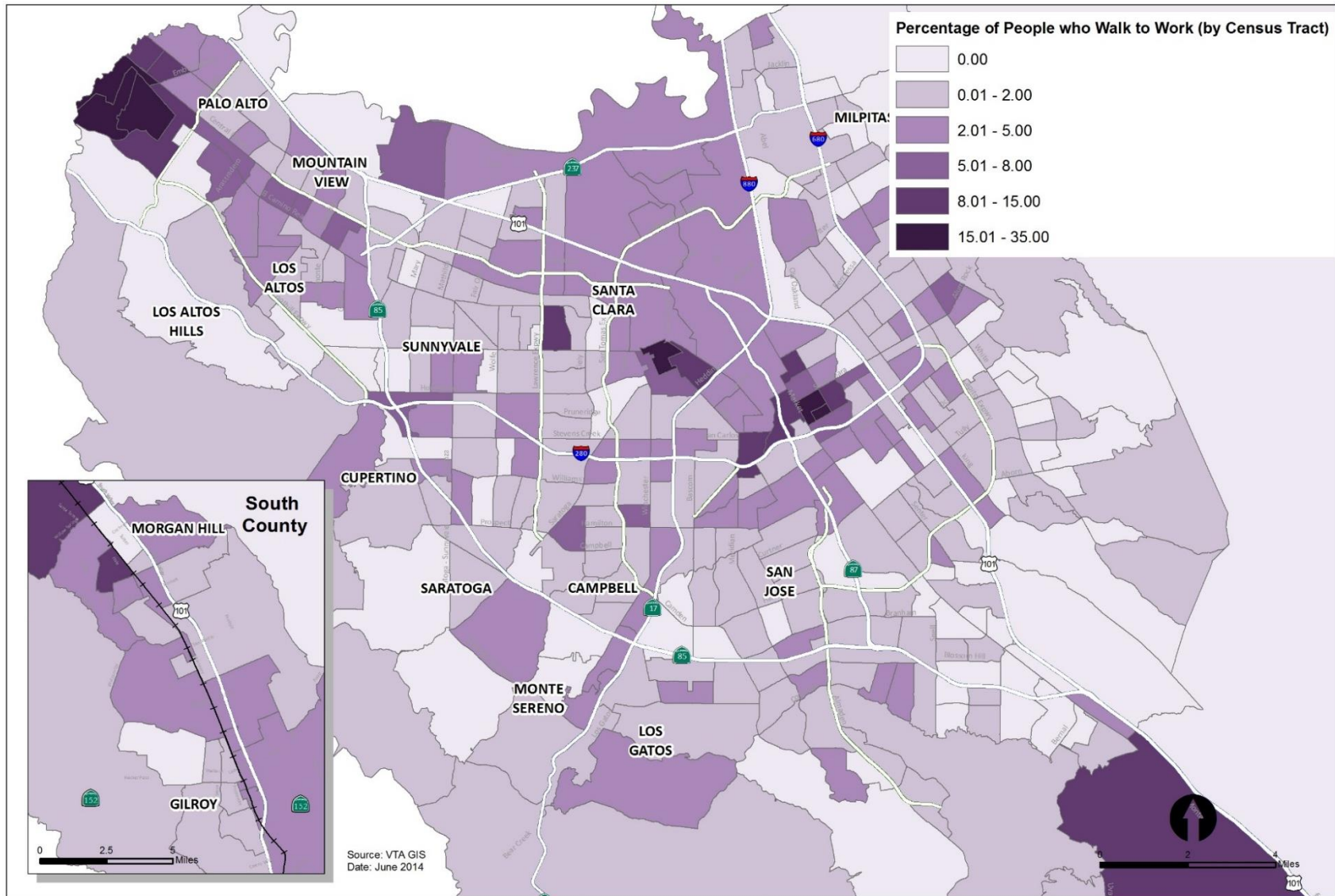
<sup>19</sup> Ibid.



**Figure 2.7: Commute mode comparison by county<sup>19</sup>**

Commute modes of an area—specifically walking and transit mode split—were used to help identify Focus Areas, as described in Chapter 3.

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**Figure 2.8: Concentration of people who walk to work;** Darker census tracts have higher percentages of commuters who walk to work. Note that the dark area between South San Jose and Morgan Hill has very low number of workers (less than 700 people). However, a high percentage of them (11.5%) walk to work.



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## 2.4 Transit Services

Transit and walking are complementary. A comfortable pedestrian environment is the foundation for good access to transit, and is critical to attracting new riders, increasing ridership, and improving the overall travel experience. A good transit system increases the distance a pedestrian can travel, and makes it possible to live everyday life without a car.

### 2.4.1 Transit Service in Santa Clara County

**Table 2.1** summarizes public transit service in Santa Clara County. Not included in this table are the numerous private services, such as employer shuttle buses.

### 2.4.2 Transit Ridership

VTA currently has 3,805 bus stops, 62 light rail stations, and 23 transit centers over a total service area of 346 square miles, illustrated in **Figure 2.9**, on the next page. The average daily ridership in 2013 was 34,242 for light rail, and 106,161 for bus.

The *Pedestrian Access to Transit Plan* focuses on access to VTA’s bus service. However, the methodology presented could be applied to other types of transit services.

Though bus lines serve the majority of the county, transit ridership is not distributed evenly. Despite the large coverage area, approximately 25% of the average daily ridership occurs on five bus lines. **Figure 2.10**, on the next page, maps average daily transit ridership at VTA’s top 100 bus stop locations.<sup>20</sup> The highest transit ridership is found in downtown San Jose, East San Jose, along El Camino Real and Stevens Creek Boulevard. Transit ridership was used to help identify Focus Areas, described in Chapter 3.

<sup>20</sup> VTA’s ridership data is collected by stop and by line. Since multiple bus stops may be present at an intersection and a bus stop may serve multiple lines, looking at bus stop data in disaggregate may not provide a clear picture of the pedestrian activity at a location. To address this, VTA

**Table 2.1: Public transit operators in Santa Clara County**

Operator	Type	Service within the County
VTA	Light Rail, Bus	All Cities
VTA	Paratransit	All Cities
Caltrain	Rail	Palo Alto to Gilroy
Amtrak	Rail	City of Santa Clara, San Jose
ACE/Capitol Corridor	Rail	City of Santa Clara, San Jose
BART (future)	Rail	(2017): Milpitas, San Jose (2026): City of Santa Clara
Highway 17 Express	Bus	San Jose
Dumbarton Express	Bus	Palo Alto
Marguerite*	Bus	Palo Alto, Stanford (unincorporated county area)

\* The Marguerite shuttle is operated by Stanford University, but open to the public.

combines all bus stops at an intersection into a “bus stop location,” and sums the ridership data for all stops at that intersection.

## 2 Existing Conditions

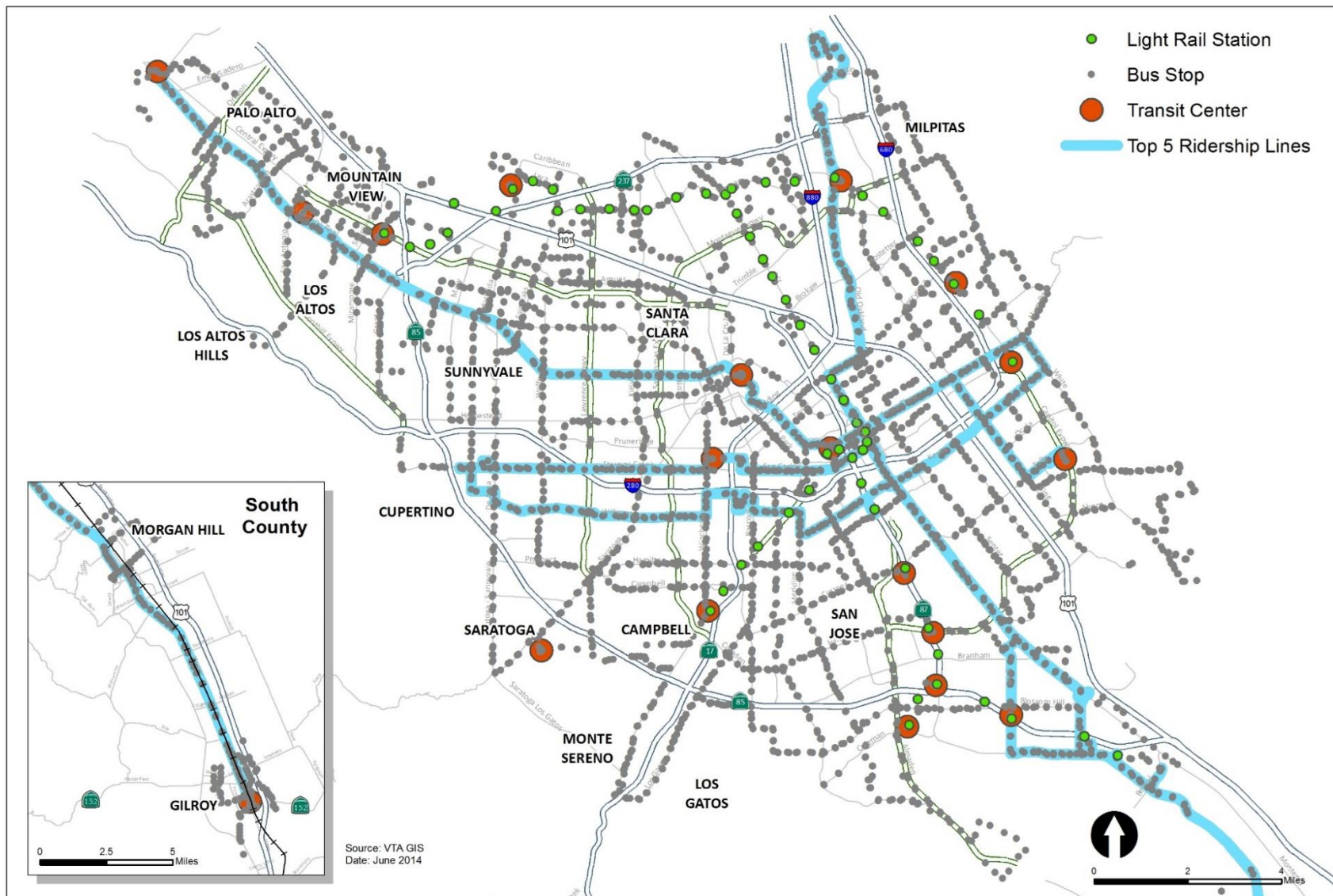
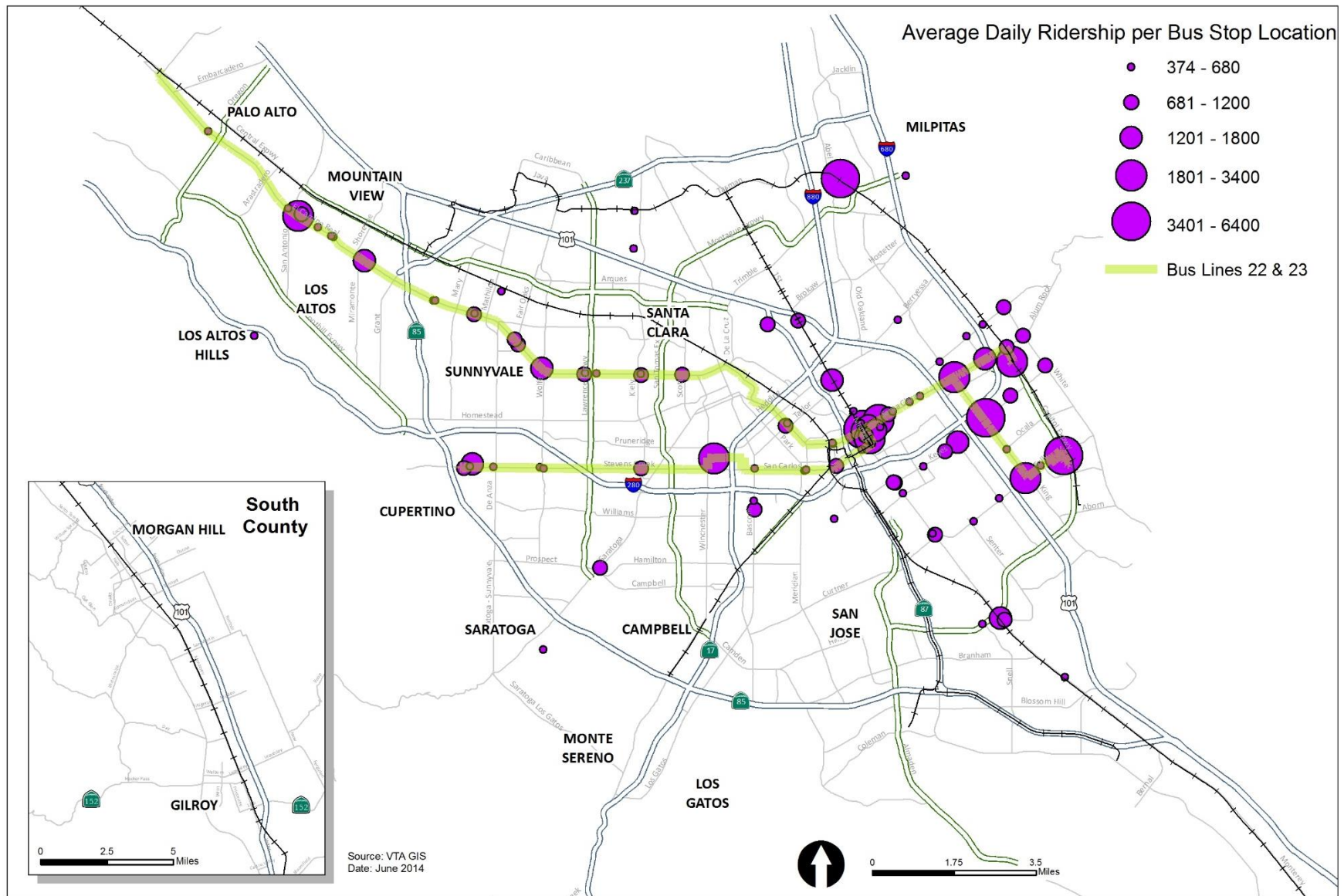


Figure 2.9: Transit stations and stops in Santa Clara County; Approximately 25% of ridership occurs on the five bus lines highlighted in blue.

# 2 Existing Conditions



**Figure 2.10: Average daily ridership at VTA's top 100 bus stop locations (2013);** The highest bus ridership is found in downtown San Jose, East San Jose, along El Camino Real and Stevens Creek Boulevard. Fifty percent of VTA ridership occurs at 5% of the stops.

## 2 Existing Conditions

### 2.4.3 Traveling to Transit

The majority of VTA customers travel to transit by foot. The 2006 VTA On-Board Customer Survey provides the most recent available data on how customers access VTA transit.<sup>21</sup> The 2006 survey found that VTA customers use the following modes to access transit:

- 71% of riders access their first stop/station on foot
- 19% transferred from VTA bus, light rail, or Caltrain
- 4% drove
- 3% biked
- 3% were dropped off or picked up
- 0.5% used a mobility device

According to the 2006 On-Board Survey, 78% of passengers took less than 10 minutes to walk to their first transit stop, while 85% of passengers using mobility devices took less than 10 minutes to access their first stop. At the end of their trip, 80% of passengers spent less than 10 minutes walking to their final destination, while only 62% of passengers using mobility devices anticipated spending less than 10 minutes to access their final destination.

### 2.4.4 Rider Demographics

The *Pedestrian Access to Transit Plan* has been developed with consideration for VTA's diverse customer base. According to VTA's 2013 On-Board Survey, VTA passengers are younger than the County population as a whole, with the majority of VTA bus passengers (59%) being under the age of 35. The largest percentage (38%) of bus passengers is Hispanic/Latino, followed by Asian (29%), White (24%), and African American (10%).

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<sup>21</sup> VTA conducted an On-Board Customer Survey in 2013, but did not include questions that permit an analysis of the percentage of people who walk to transit. As of 2017, VTA

Fifty-eight percent of VTA bus customers have an annual household income of less than \$25,000 per year, with 41% earning less than \$10,000 per year. In addition, 61% of bus customers reported that they do not have access to a vehicle. This indicates that many of VTA's customers are dependent on transit service, and further underscores the need for a safe and comfortable walk to the transit stop.

Socio-economic factors, including race, ethnicity, age, and income were used to help identify Focus Areas, as described in Chapter 3.

### 2.4.5 Transit Accommodations for Persons with Disabilities

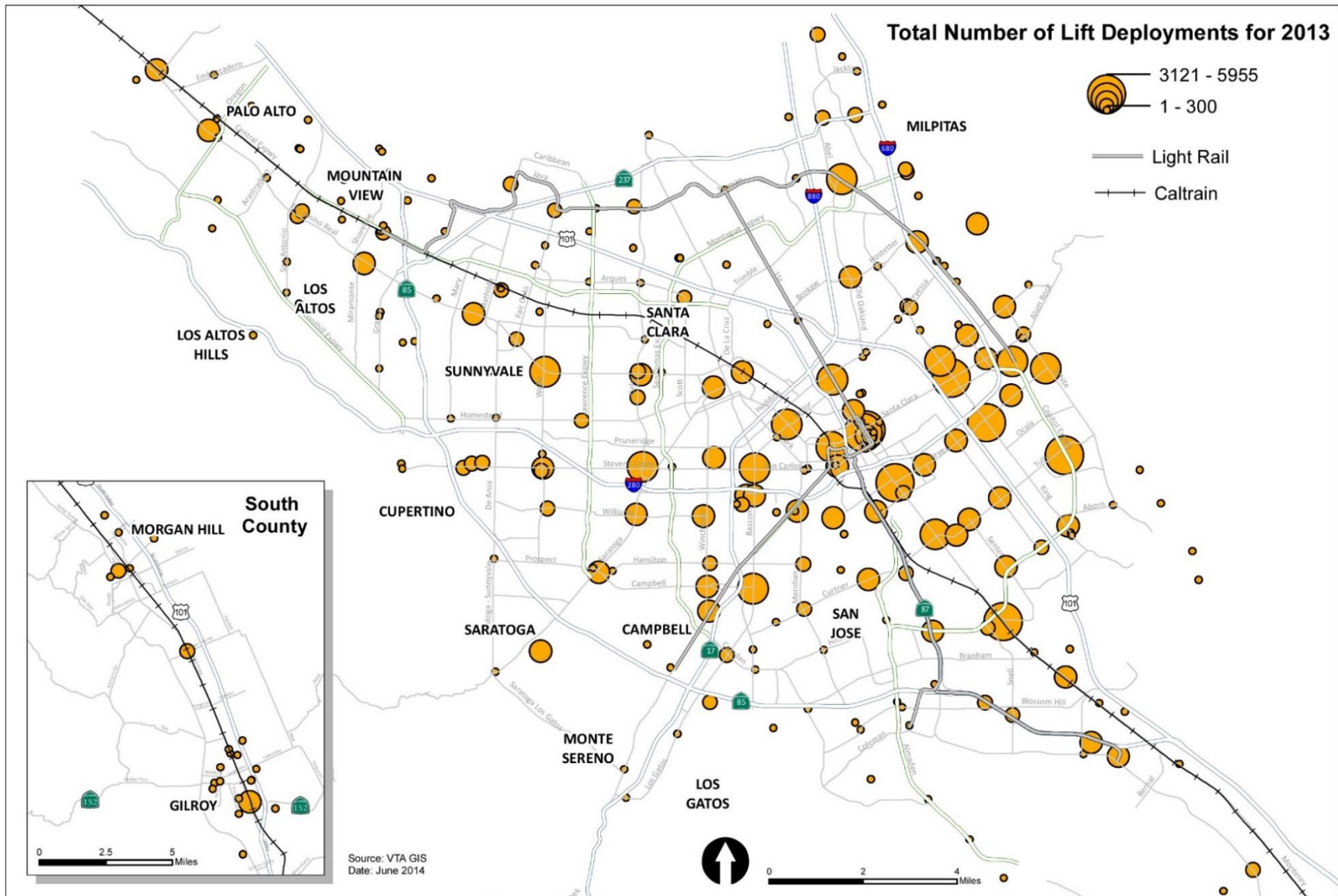
VTA's facilities, buses and light rail vehicles are ADA accessible, as required by law. In 2013, wheelchair lifts were deployed an average of 415 times per day. The geographic distribution of lift usage can be seen in **Figure 2.11**. The distribution of wheelchair lift deployments is less concentrated than overall VTA bus ridership, with deployments located throughout the county, including areas with relatively low transit ridership, such as residential neighborhoods south of I-280.

Lift deployment and geographic concentrations of people with disabilities were used to help identify Focus Areas, as described in Chapter 3.

is in the process of conducting another On-Board Customer Survey. The 2017 survey includes questions that permit this analysis.



## 2 Existing Conditions



**Figure 2.11: Annual number of wheelchair lift deployments at VTA bus stops (2013);** The distribution of wheelchair lift deployments is less concentrated than overall VTA bus ridership, with deployments located throughout the county.

# 2 Existing Conditions

## 2.5 Collisions

Motor vehicle collisions are the leading cause of unintentional death in the United States.<sup>22,23</sup> Similarly, in Santa Clara County, in 2012 motor vehicle collisions were one of the leading causes of injury among all age groups, ranking first among ages 5-14 and 25-34, and second among all other age cohorts.<sup>24</sup>

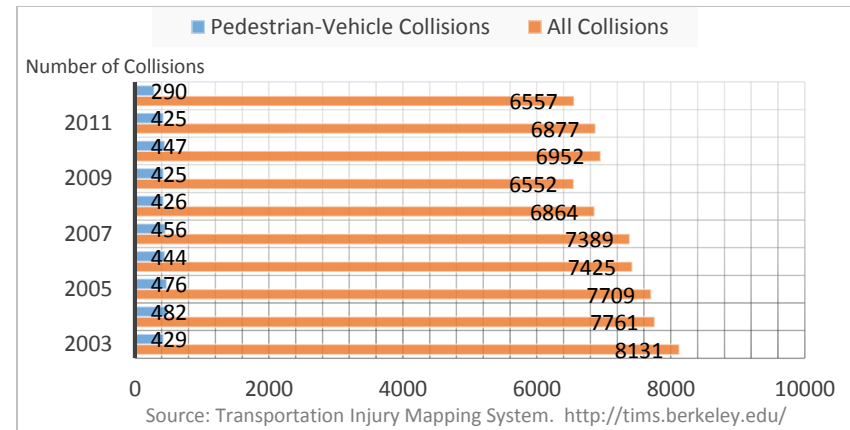
Between 2003 and 2012, approximately 4,300 pedestrian-vehicle collisions occurred in Santa Clara County, which represents 7% of all motor vehicle collisions in the county. Of the 4,300 pedestrian-vehicle collisions, 237 (6%) were fatal and 521 (12%) resulted in severe injury. As shown in **Figure 2.12**, despite an overall decline in motor vehicle collisions in the county between 2003 and 2012, pedestrian-involved collisions remained stable at approximately 430 collisions per year.<sup>25</sup>

Though motor vehicle collisions are a major public health concern with great impact on people’s lives, the Centers for Disease Control and Prevention (CDC) notes that injuries resulting from motor vehicle accidents are a “winnable battle” because the risk can be reduced relatively easily through behavior modification and roadway design.<sup>26</sup>

### 2.5.1 Geographic Distribution of Collisions

Pedestrian collisions are not evenly distributed across Santa Clara County.

**Figure 2.13**, on the next page, illustrates the geographic distribution of



**Figure 2.12: Pedestrian involved collisions versus vehicle collisions in Santa Clara County (from 2003 to 2012)**

pedestrian-vehicle collisions for 2003-2012, weighted by the severity of the collision, with higher collision densities in darker shades and lower collision densities in lighter shades.

Although data shows that San Jose, Palo Alto, Santa Clara, Sunnyvale, and Milpitas experience higher numbers of pedestrian-vehicle collisions than other cities in the county, the most severe injuries occur primarily along major corridors in Mountain View, Sunnyvale, and San Jose. The collision map is similar to the map of VTA’s highest transit ridership bus stop locations (Figure 2.10, on page 2-15)—with highest densities along El Camino Real, in downtown San Jose, and East San Jose.

<sup>22</sup> Centers for Disease Control and Prevention, “Motor Vehicle Traffic-Related Pedestrian Deaths, United States, 2001–2010,” cdc.gov, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6215a1.htm> (accessed June 2014).

<sup>23</sup> U.S. Department of Transportation, National Highway Traffic Safety Administration, “Traffic Safety Facts, 2012, Pedestrians,” April 2014, <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/811888> (accessed June 2014)

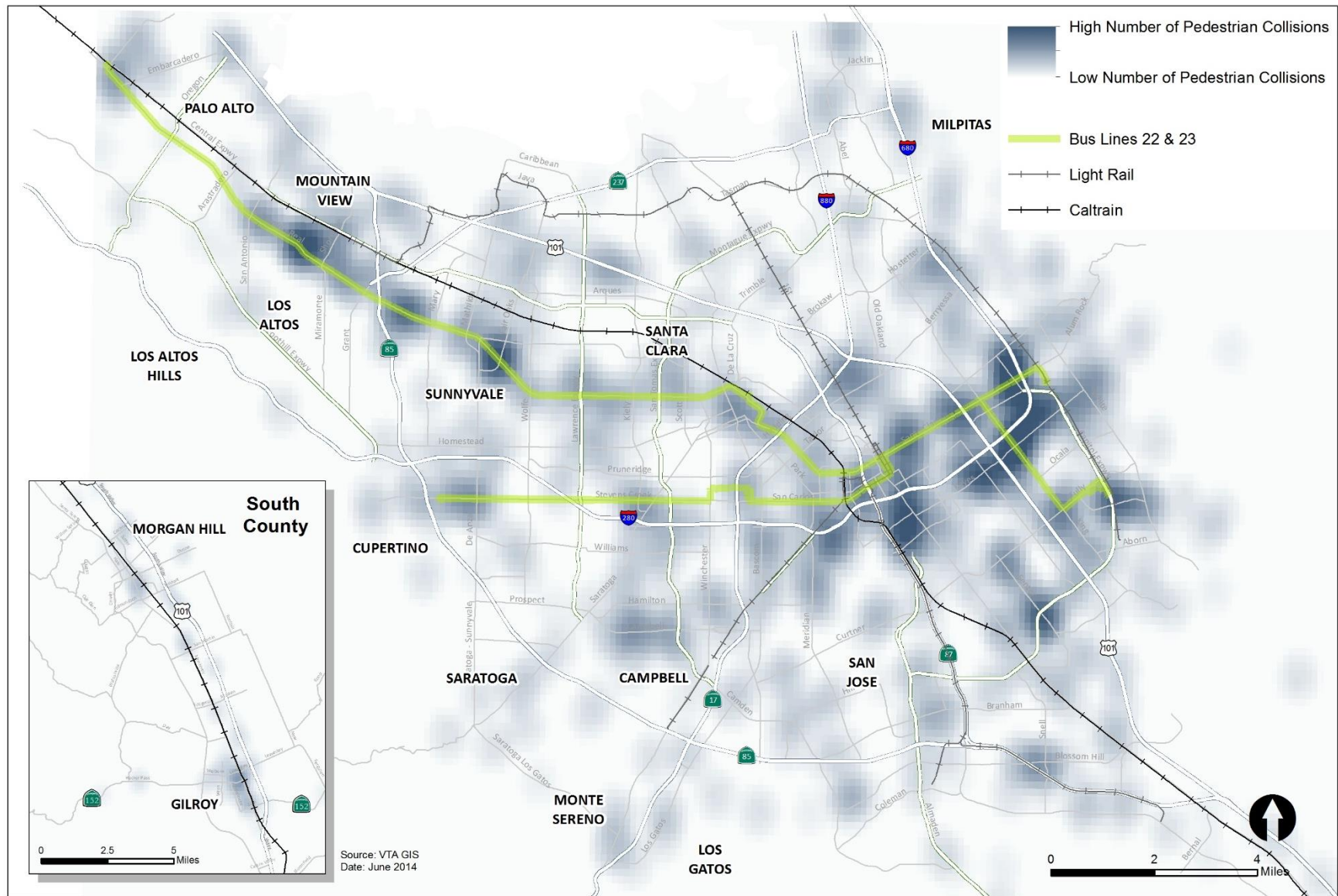
<sup>24</sup> California Highway Patrol, Statewide Integrated Traffic Records Systems (SWITRS), “Santa

Clara County Collision Report 2003-2012,” <http://iswitrs.chp.ca.gov/Reports/jsp/userLogin.jsp> (accessed May 2014).

<sup>25</sup> California Highway Patrol, Statewide Integrated Traffic Records Systems (SWITRS), “Santa Clara County Collision Report 2003-2012,” <http://iswitrs.chp.ca.gov/Reports/jsp/userLogin.jsp> (accessed May 2014).

<sup>26</sup> Centers for Disease Control and Prevention, “Winnable battles,” cdc.gov, <http://www.cdc.gov/winnablebattles/index.html> (last updated May 2013, accessed July 2014).

# 2 Existing Conditions



**Figure 2.13: Pedestrian-vehicle collision distribution, weighted by collision severity;** Collisions are concentrated along El Camino Real, in downtown San Jose, and in East San Jose. Distribution of collisions does not necessarily equate to risk of collision because the distribution does not account for pedestrian volumes.



## 2 Existing Conditions

It is important to note that the distribution of collisions across the county does not necessarily equate to risk of collision because the distribution does not account for pedestrian volumes. Areas with higher volumes of pedestrians may see greater numbers of collisions simply because there are more pedestrians, not because the locations are riskier. To assess risk at individual locations, one must review additional data and conduct field observations.

Pedestrian collision history is one factor that was used to identify Focus Areas, as described in Chapter 3.

### 2.5.2 Causes of Pedestrian Collisions

Between 2002 and 2013, eighty-one (81) percent of pedestrian-vehicle collisions in Santa Clara County were due to driver behavior or other factors. Pedestrian behavior accounted for 19% of the pedestrian-involved vehicle collisions.<sup>27</sup>

While not all vehicle-pedestrian collision reports include a specific vehicle code violation, the most commonly reported violations in Santa Clara County between 2002 and 2013 were:

- Driver did not yield to pedestrian within crosswalk (37%)
- Pedestrian did not yield to driver while outside crosswalk (18%)
- Speeding (10%)
- Red light running (4%)
- Unsafe turning (4%) or unsafe backing up (3%)

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<sup>27</sup> California Highway Patrol, Statewide Integrated Traffic Records Systems (SWITRS), "Santa Clara County Collision Report 2002-2012," <http://iswitrs.chp.ca.gov/Reports/jsp/userLogin.jsp> (accessed May 2014).

### 2.5.3 Special Groups to Consider in Pedestrian Planning

The pedestrian experience is not the same for all people—it varies by a person's age, ability, and even race. Any analysis of the pedestrian environment and recommended improvements to that environment should understand and address this variation in experience.

Demographic information, including those described below, was one of the factors used when selecting Focus Areas, as described in Chapter 3.

#### Age

The age of a person affects the likelihood that they will be involved in a pedestrian-vehicle collision, as well as the outcome of a collision.

Youth and seniors are more likely to walk than people of other ages, and have the highest per capita rates of pedestrian-motor vehicle collisions of all age groups. Of these two age groups, the risk of an older pedestrian dying in a motor vehicle collision is much higher.<sup>28</sup>

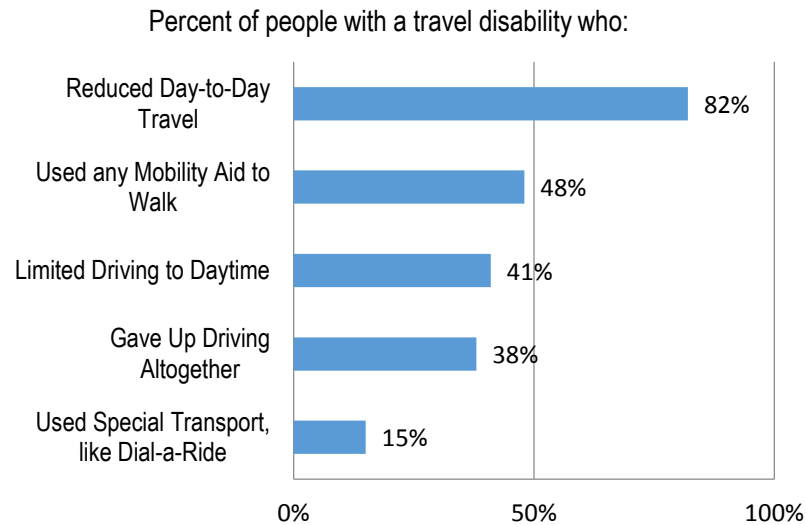
The act of crossing a street requires learned motor skills, decision-making, and cognitive skills. Children must learn and practice these skills in order to safely cross the street. Young children's skills are developing, and they cannot be expected to predictably follow "rules of the road."

As people age, physical and sensory abilities can change. In comparison to younger pedestrians, older pedestrians may have reduced flexibility, agility, and strength, as well as reduced visual acuity, contrast sensitivity, and visual field. As a result, older pedestrians may have difficulty scanning for traffic and avoiding potential collisions with motor vehicles.

<sup>28</sup> San Diego State University, *Older Pedestrian Safety in California: A Fact Sheet* (San Diego, California: SDSU, Center for Injury Prevention Policy and Practice, 2004).



## 2 Existing Conditions



Source: National Household Travel Survey California Add-On 2009

**Figure 2.14: Accommodations of people who report a travel disability (California)**

### Ability

In Santa Clara County, there are approximately 73,000 people with an ambulatory (travel) disability.<sup>29</sup> People who have a travel disability make a variety of adjustments to accommodate their disability. **Figure 2.14** shows the types of accommodations used by people with travel disabilities for all of California.

### Race

Racial and ethnic minorities are disproportionately represented in traffic-related pedestrian fatalities. Nationally, pedestrian fatality rates for Black and Hispanic men are twice the rate for White men, according to the Center for Disease Control: 3.93 and 3.73 per 100,000 population vs. 1.78. Minority pedestrians are

<sup>29</sup> U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates, Table B18105.

more likely to be killed in a motor vehicle crash, even after controlling for traffic volumes, socioeconomic status, and alcohol use. There is research that suggests these disparate outcomes are in part due to drivers' subtle racial attitudes and biases. A Portland, Oregon study found that drivers were two times less likely to yield to black pedestrians than to white pedestrians, all other things being equal.<sup>30</sup>

## 2.6 Implications for Santa Clara County

Walking rates in Santa Clara County are lower than walking rates in comparable counties in the Bay Area, and the percentage of people walking to work has not changed since 2001. At the same time, there is opportunity for increasing how much people walk, given that more than half of trips a mile or less are driven. If key barriers are addressed, and the unique needs of different demographic groups are met, it may be possible to significantly shift people out of their cars, onto their feet, and onto transit.

Walking behavior, land use and street network patterns, areas of higher risk and pedestrian collision locations, and transit services and amenities are factors that impact quality and quantity of walking trips taken to transit stops.

As described in the next chapter, VTA used much of the information and data presented in the Existing Conditions chapter to identify twelve Focus Areas within Santa Clara County. These are areas where transit ridership is high, but demographics, built environment, and collision history suggest a need for improved walking conditions.

<sup>30</sup> Kimberly Barsamian Kahn et al., *Racial Bias in Driver Yielding Behavior at Crosswalks* (Portland: Oregon Transportation Research and Education Consortium, 2014).

# 3 Focus Areas

## 3.1 Defining the Focus Areas

In developing the *Pedestrian Access to Transit Plan*, VTA sought to identify potential projects that are a high priority for bus transit access. VTA's service area covers 346 square miles and has 3,805 bus stops, many of which would benefit from improved pedestrian access. In order to concentrate efforts, VTA decided to identify "Focus Areas" within the county, and prioritize our efforts where transit ridership is high, and demographics, built environment, and collision history suggest a need for improved walking conditions.

This chapter describes the process used to identify the twelve Focus Areas in which VTA conducted field work to evaluate pedestrian access to transit and identify solutions.

### 3.1.1 Evaluation Methodology

Focus Areas were chosen using geographic-based Multi-Criteria Decision Analysis (MCDA), a commonly used tool applied to complex decisions, such as site location. MCDA assists in the consideration of complex trade-offs among varying alternatives, and helped VTA identify where our efforts would generate the highest value for the greatest number of pedestrians.

### 3.1.2 Evaluation Factors

VTA, with input from a community-based Task Force<sup>2</sup> and VTA committees, chose six factors to evaluate transit need and quality of the walking environment: transit ridership, barriers, socioeconomics, major destinations, housing, and commute to work. The factors reflect existing conditions in the county, rather than future planned conditions. The factors and the 16 criteria used to measure them are described below and summarized in

**Table 3.1.**

### Ridership

Ridership is an important factor because this Plan aims to improve pedestrian access to transit, and because improvements implemented near stops with high ridership will benefit the most customers. Chapter 2 includes a map and discussion of VTA bus ridership.

### Barriers

Barriers to safely accessing transit emerged as an important factor in discussions with the Task Force and VTA committees. Barriers include physical features, such as sidewalk gaps or poor sidewalk conditions, missing curb cuts, or presence of freeways, train tracks, rivers, and large intersections.

Due to a lack of consistent countywide sidewalk and other barrier data, VTA used Across Barrier Connections (ABCs) from the *2008 Countywide Bike Plan* to identify physical barriers to walking. The *Countywide Bicycle Plan* evaluated existing bicycle/pedestrian crossings of all major barriers in the county, and identified locations with substandard crossings. The plan also evaluated the distance between existing crossings, and identified potential locations for pedestrian bridges or tunnels to keep distances between crossings to a mile or less. The list of ABCs includes the substandard crossings and areas where new pedestrian or bicycle bridges may be needed.


Collision data was included as a proxy for overall safety. The evaluation just considered severe and fatal collisions. Improving areas with higher incidences of severe and fatal collisions has a greater potential to improve safety. Chapter 2 includes a discussion of pedestrian collisions in Santa Clara County.

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<sup>2</sup> The task force and other outreach activities are described in Chapter 4, Outreach.

# 3 Focus Areas

**Table 3.1: Focus Area evaluation criteria**

Importance	Evaluation Factor	Data	Description	Year	
 <p>Weighted Heaviest</p>	Transit Ridership	Top 100 Bus Locations by Ridership	Top 100 bus locations (may include intersections with multiple bus stops) based on average daily boarding.	2013	
		ADA Lift Deployment	Annual ADA lift deployment (wheel chair lift) by bus stop.	2013	
		Top 20 Paratransit Stops	Top 20 most frequently used paratransit locations.	2013	
	Barriers	Across Barrier Connections	Recommended ABC's from the 2008 Countywide Bike Plan.	2008	
		Pedestrian-Vehicle Collisions	Pedestrian-vehicle collisions resulting in death or severe injury. Data from U.C. Berkeley Transportation Injury Mapping System.	2003-2012	
	Socioeconomics	Communities of Concern	Census tracts that meet low income and minority thresholds as defined and/or at least 4 of 8 other factors considered to render people in a census tract as disadvantaged.	2011	
		CARE	Census block groups with high concentrations of Toxic Air Contaminants that are also home to sensitive populations with income below 185% of the Federal Poverty Level.	2012	
	Major Destinations	Government Services	Social Services Agency, Services for Families and Children, Department of Motor Vehicles, Dept. of Employment and Benefits Services, Social Security Administration, US Citizenship and Immigration Services, Courthouses.	2014	
		Major Employers	Top 72 employers, based on employee numbers, in Santa Clara County as per the Business Journal Book of Lists	2012	
		Colleges	All four-year and community colleges.	2012	
		Senior Centers	All senior centers and senior nutrition centers in the county.	2013	
		Schools	All public and private middle and high schools in Santa Clara County.	2012	
		Health Care Facilities	All Hospitals, drop-in clinics, surgical centers, and cancer treatment centers in Santa Clara County.	2012	
	Housing	Housing Density	Housing density calculated from the 2010 US Census.	2010	
	Weighted Lightest	Journey to Work	Residents who commute by Bus	Census 2010 residents by census tract.	2010
			Residents who commute by Rail	Census 2010 residents by census tract.	2010

# 3 Focus Areas

## *Socioeconomic Factors*

For the purpose of this study, two pre-defined geographic areas of disadvantaged communities were included in the Focus Area evaluation. These are Communities of Concern (COC) and Community Air Risk Evaluation (CARE) communities. These are mapped in **Figure 3.1**.

COC are areas that meet low income and minority thresholds as defined by the Metropolitan Transportation Commission (MTC) and/or at least 4 of 8 other factors considered to render people in a census tract as disadvantaged.<sup>3</sup> CARE communities are areas with high concentrations of Toxic Air Contaminants (TAC) where sensitive populations (youth under 18, seniors over 64, and people with respiratory illness) meet a certain threshold, and where the census block group has income below 185% of the federal poverty level.

A secondary benefit of using COC and CARE in the evaluation is that these areas are often included in the scoring criteria for grant funding.

## *Major Destinations*

Major destinations are important to consider when choosing Focus Areas because they are, or can be, major ridership generators. Destinations were selected that may be critically important to transit riders: government services, major employers, colleges, senior centers, schools, and health care facilities.

## *Housing*

Residential density based on the 2010 Census was included as an evaluation factor. Chapter 2 includes a map and discussion of the residential density in Santa Clara County.

## *Commute to Work*

Census commute to work data is used to identify locations with high numbers of residents whose primary method of commuting to work is bus or rail. These

tracts are more likely to have higher percentages of people who walk to their transit stop.

Three additional factors were considered but not included in the evaluation:

## *Bus Stop Amenities*

Bus stop amenities were not included in the evaluation criteria because, while they influence the comfort and safety of a pedestrian at a bus stop, they do not affect the walking trip to the bus stop. As of 2006, approximately 20% of VTA's bus stops contained a shelter and 49% contained a bench. VTA's *Transit Passenger Environment Plan* describes amenities that should be included at bus stops.

## *Future Development*

Priority Development Areas (PDA) have been designated by local agencies to receive much of the future housing and employment growth. Local agencies have established policies and guidelines to identify and/or improve pedestrian facilities as part of future growth and development. VTA chose not to include PDAs as a weighted evaluation factor, with the understanding that pedestrian needs within PDAs will likely be addressed and funded through local agencies' development review and approval process. Additionally, pedestrian needs outside of PDAs may be less well studied, and it may be more difficult to identify resources to address them.

## *Employment Density*

Though major employers are included as one of the six factors, employment density is not. After looking at available employment density data, it was determined that the data would not accurately reflect employment density in the county. The geographic unit of analysis for employment density was too large to precisely pinpoint areas of high density, so it was not included in the analysis.

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<sup>3</sup> In addition to income and minority status, Communities of Concern consider limited English proficiency, vehicle ownership, seniors 75 or older, persons with disabilities, single-parent families, and cost-burdened renters.



# 3 Focus Areas

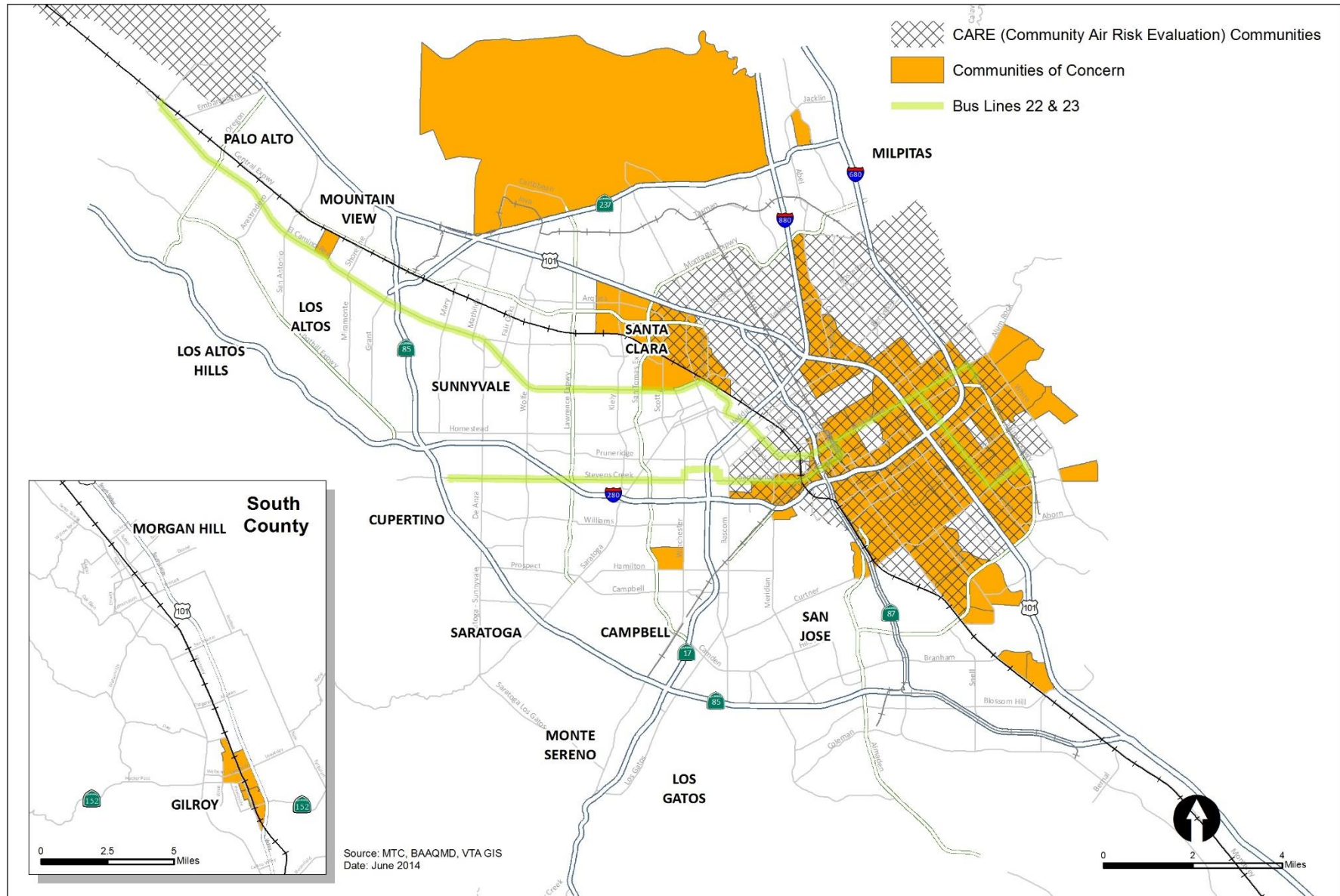


Figure 3.1: CARE and Community of Concern Areas; These pre-defined geographic areas of disadvantaged communities were used for the Focus Area evaluation.

# 3 Focus Areas

## Alternatives Analyzed

Available data were categorized into one of the six evaluation factors, which were weighted based on the goals of the plan and the Task Force preferences. These weighted layers were combined to identify “hot spots” for potential Focus Areas.

Based on feedback from the Task Force, staff performed multiple variations of the ranking and weighting process, which included such scenarios as excluding transit ridership completely, weighting barriers the highest, and including Outreach paratransit and senior Clipper Card use by line.

The type of data available for Outreach paratransit and senior Clipper Card usage were not helpful for refining the Focus Areas, and were ultimately excluded from the final analysis.

The resulting hotspot maps that were generated by running multiple alternatives had little variation. This is most likely due to the fact that land use within Santa Clara County follows a distinct pattern of development and activity along major corridors. As a result, the results are not highly sensitive to change in the weighting of the evaluation factors, and the decision was made to stick with the original evaluation factors described earlier.

## 3.2 Evaluation Results and Recommended Focus Areas

**Figure 3.2** shows the results of the Multi-Criteria Decision Analysis (MCDA), with darker areas scoring higher on more criteria than lighter areas.

Locations along the El Camino Real corridor, parts of the Stevens Creek Corridor, downtown San Jose, and East San Jose show the highest concentration of the six evaluation factors. The random, small but dark locations are explained by the heavy weighting of proposed across barrier connections from the *2008 Countywide Bicycle Plan*. While these are vital connections for

pedestrians, not all are located within a reasonable distance of transit, or they fall within areas with current pedestrian planning work.

VTA reviewed the results of the analysis in comparison with areas of the county that already have existing pedestrian plans or planning work. Twelve Focus Areas were chosen based on the MCDA results, known pedestrian needs, relationship to Priority Development Areas and the Community Design and Transportation Program’s Cores, Corridors and Station Areas, and areas with limited existing pedestrian plan or planning work.

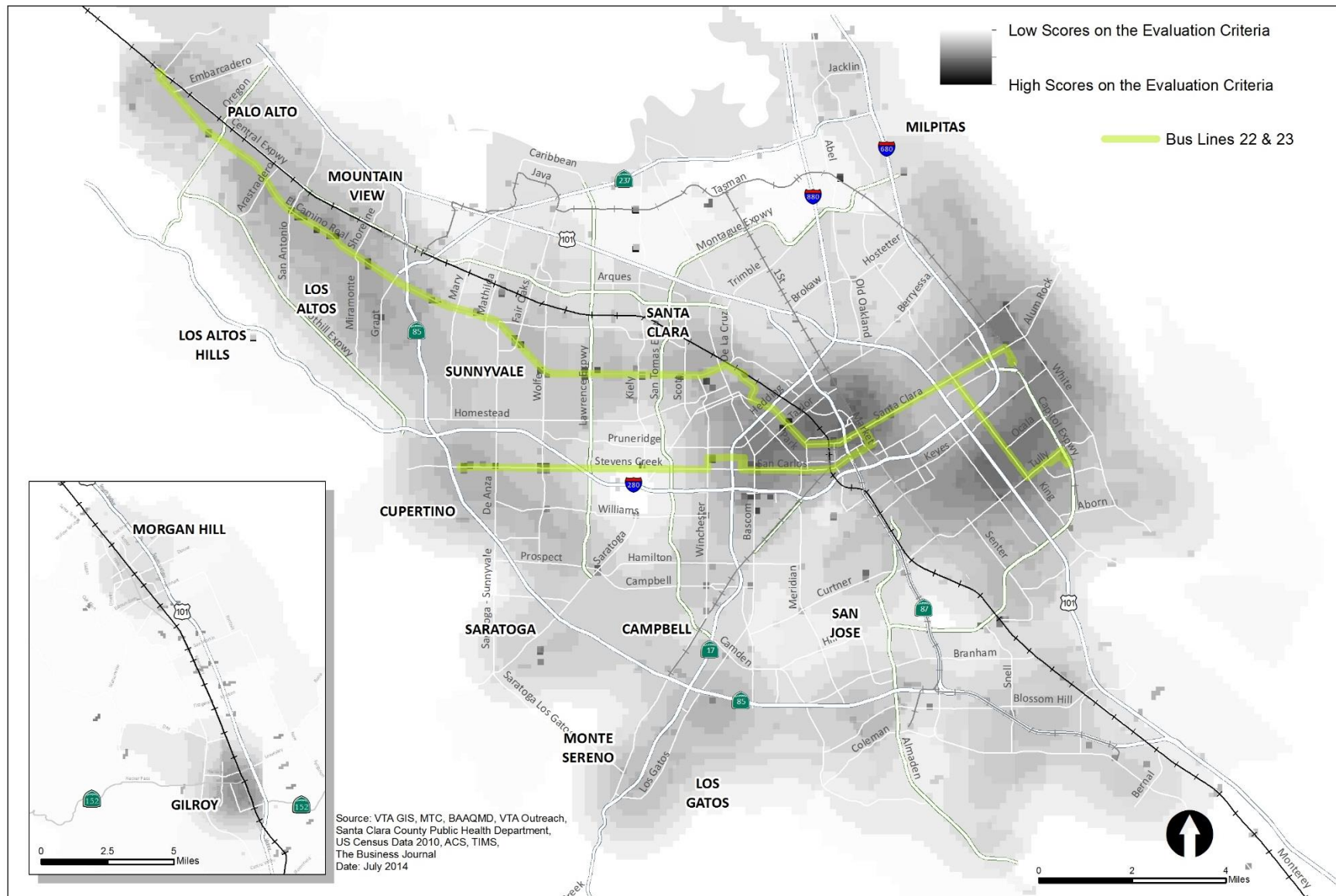
The recommended Focus Areas were reviewed by city, town, and county staff, and specific boundaries for field review were set to include the following locations:

- Top ridership locations for VTA bus, light rail, and Caltrain stations
- Areas of high employment density
- Areas of high residential density

The final Focus Area boundaries are shown in **Figure 3.3**, and **Table 3.2** lists the evaluation factors pertinent to each Focus Area, the jurisdiction of the Focus Area, relevant local plans, and the type of location.

Chapter 4 describes outreach conducted within the Focus Areas, and Chapter 5 describes the recommended projects for each Focus Area.

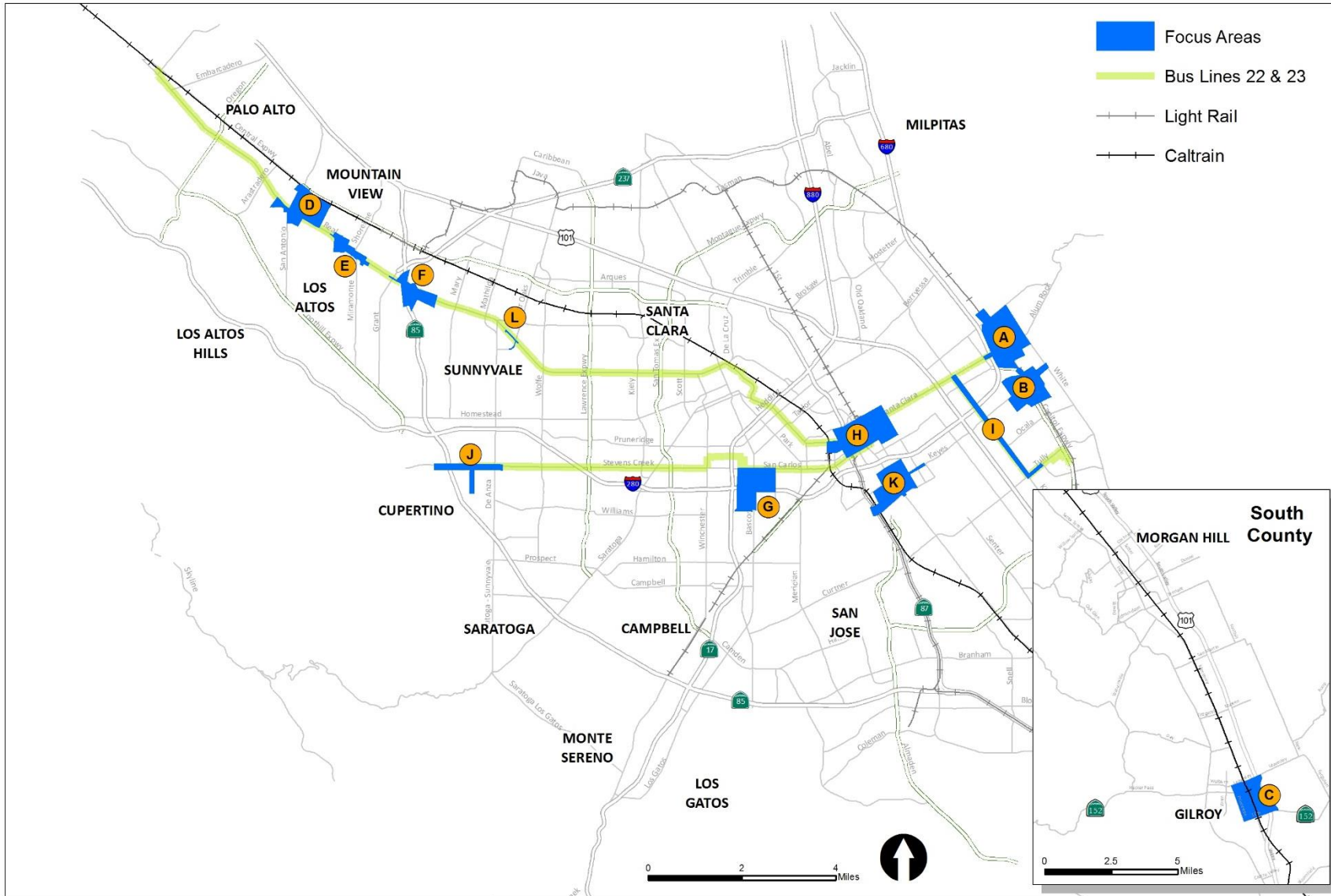
# 3 Focus Areas



**Figure 3.2: Result of Multi-Criteria Decision Analysis;** Darker areas score higher on the evaluation criteria, and are stronger candidates for becoming a Focus Area.



# 3 Focus Areas



**Figure 3.3: Final Focus Area boundaries;** Focus Areas were identified based on the results of the Multi-Criteria Decision Analysis, input from the Task Force, and conversations with city and County staff. Focus Areas are identified by letter.



# 3 Focus Areas

**Table 3.2: Recommended Focus Areas and Evaluation Factors**

Recommended Focus Areas				Evaluation Factors in Which the Focus Areas Scored High																		
ID	Name (Location)	Jurisdiction(s)	Prior Planning Efforts	* Cores, Corridors & Station Areas and Priority Development Areas were not scored, but rather used to help select Focus Areas after the other factors identified areas of high need.																		
				Pedestrian Collisions	Across Barrier Connections	Community of Concern Area	CARE Area	Employment (Top 72 Employers)	Schools	Colleges	Health Centers	Senior Centers	Government Centers	Housing Density	Transit Ridership	Top 20 Paratransit Stops	ADA Lift Deployment	Residents Who Commute by Bus	Residents Who Commute by Rail	Cores, Corridors & Station Areas*	Priority Development Areas*	
A	Alum Rock (Capitol Ave @ Alum Rock Ave)	San Jose, County	N/A	●		●	●	●							●	●	●	●	●	●	●	●
B	East San Jose (Capitol Expwy @ Story Rd)	San Jose, County	Comp County Expwy Planning Study- Capitol Expwy	●		●	●		●		●				●		●	●		●	●	●
C	Central Gilroy	Gilroy	<i>Downtown Gilroy Specific Plan</i>			●			●		●	●	●				●			●	●	●
D	San Antonio (San Antonio Rd @ El Camino Real)	Mountain View, Los Altos, Caltrans	<i>MV El Camino Real Precise Plan/ San Antonio Precise Plan</i>					●	●		●	●		●	●		●	●	●	●	●	●
E	Mountain View El Camino Real Corridor (Shoreline Blvd @ El Camino Real)	Mountain View, Caltrans	<i>MV El Camino Real Precise Plan</i>		●				●		●		●	●	●		●	●	●	●	●	●
F	El Camino Real at State Route 85	Mountain View, Caltrans	<i>MV El Camino Real Precise Plan</i>	●					●		●			●				●	●	●	●	●

# 3 Focus Areas

Recommended Focus Areas				Evaluation Factors in Which the Focus Areas Scored High																		
				* Cores, Corridors & Station Areas and Priority Development Areas were not scored, but rather used to help select Focus Areas after the other factors identified areas of high need.																		
ID	Name (Location)	Jurisdiction(s)	Prior Planning Efforts	Pedestrian Collisions	Across Barrier Connections	Community of Concern Area	CARE Area	Employment (Top 72 Employers)	Schools	Colleges	Health Centers	Senior Centers	Government Centers	Housing Density	Transit Ridership	Top 20 Paratransit Stops	ADA Lift Deployment	Residents Who Commute by Bus	Residents Who Commute by Rail	Cores, Corridors & Station Areas*	Priority Development Areas*	
G	Bascom Corridor (Bascom Ave @ Moorpark Ave)	San Jose, County	Bascom Corridor Complete Streets Study (VTA)			•	•	•		•	•				•	•	•	•	•	•		
H	Downtown San Jose- Including Diridon Station	San Jose	<i>Diridon Station Area Plan</i>			•	•	•		•	•	•	•	•	•		•	•	•	•	•	•
I	King Road Corridor- Tully Rd to Alum Rock Ave	San Jose	N/A	•	•	•	•		•		•		•		•		•	•		•	•	
J	Stevens Creek Blvd and Stelling Rd	Cupertino	<i>Heart of the City Master Plan/ Stevens Creek BRT</i>	•				•	•	•				•	•		•				•	•
K	Central San Jose (Keyes St @ First St)	San Jose	N/A	•		•	•				•	•	•	•	•		•	•		•	•	
L	El Camino Real and S. Fair Oaks Ave- Remington Dr	Sunnyvale, Caltrans	<i>Sunnyvale El Camino Real Precise Plan</i>	•								•	•	•	•		•	•	•	•	•	•

# 4 Community Outreach

## 4.1 Introduction

Outreach to community members is a key aspect of any planning study. To guide the development of the *Pedestrian Access to Transit Plan* (the Plan), VTA used a variety of methods to understand the community's needs. VTA's outreach followed best practices outlined in VTA's *Public Participation Plan*, and focused on reaching out to traditionally under-represented communities such as low-income, minority, and Limited English Proficient (LEP) populations.<sup>1</sup>

VTA's outreach included:

- Forming a Task Force to guide the development of the Plan
- Soliciting input through a trilingual, printed survey
- Presenting to community groups
- Presenting to VTA's Advisory and Standing Committees
- Meeting individually with City and County transportation staff

Input from stakeholders supplemented the existing conditions analysis, and helped guide Focus Area selection, field observations of Focus Areas, and criteria used to prioritize projects.

## 4.2 Task Force

VTA formed a Task Force that was consulted at key decision points during development of the Plan. The Task Force participants represent a diverse range of community members and transit customers. **Table 4.1** shows the organizations and agencies that were represented on the Task Force.

The Task Force met four times during the planning process:

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<sup>1</sup> *Public Participation Plan*, Santa Clara Valley Transportation Authority, January 24, 2013. <http://www.vta.org/sfc/servlet.shepherd/document/download/069A0000001EOpPIAW>

- March 2014 (kick off and introduction)
- June 2014 (review existing conditions and provide input on draft evaluation criteria to identify Focus Areas)
- April 2015 (comment on draft public survey questions and plans for field work)
- June 2016 (review public survey results, comment on draft prioritization criteria for projects and implementation plan)

Input provided by the Task Force guided the development of the criteria used to identify Focus Areas, the conditions to review during field work, questions included in the survey, and the criteria used to prioritize projects.

**Table 4.1: Task Force Representatives**

Organization/ Agency
VTA/County Bicycle and Pedestrian Advisory Committee
California Walks
Santa Clara County Public Health Department
VTA Committee for Transportation Mobility and Accessibility
City of San Jose Bicycle and Pedestrian Program
Santa Clara County Roads and Airport Department
Silicon Valley Independent Living Center
TransForm
SPUR
San Jose State University/ Mineta Transportation Institute
Outreach Paratransit
City of San Jose Senior Citizens Commission

# 4 Community Outreach

## 4.3 Customer Survey

To understand transit users' opinion of their walk to their transit stop, and to guide the project recommendations for Focus Areas, VTA developed and distributed a survey in English, Spanish, and Vietnamese. The survey supplements the technical field review of the Focus Areas and identifies conditions that VTA transit users would like to see improved. Responses to the survey were considered when conducting field work in Focus Areas and when identifying proposed pedestrian improvements.

### 4.3.1 Methodology

The customer survey was placed inside buses that serve popular bus lines in the Focus Areas and advertised through VTA's social media accounts. In addition, printed surveys were provided at VTA's customer service center in downtown San Jose and given to the VTA/County Bicycle and Pedestrian Advisory Committee for distribution.

After two months of advertising the survey, VTA received 475 responses. Out of these 475 responses, 371 identified specific locations in Santa Clara County that need improvement. The remaining 104 responses were general comments about transit stop facilities and access to stops.

Appendix A describes the advertising in more detail, provides the survey instruments and maps the locations that survey respondents identified as needing improvement.

### 4.3.2 Demographics of Survey Respondents

VTA's best understanding of its passenger demographics is provided by VTA's On-Board Customer Survey, most recently conducted in 2013. This survey has a large sample size and is collected using random sampling techniques. In comparison, the survey conducted for the *Pedestrian Access to Transit Plan* only includes a small subset of customers, and was not collected using random

sampling. As a result, the *Pedestrian Access to Transit Plan* survey over- and under-represents some demographic groups. Specifically:

- Customers that responded to the *Pedestrian Access to Transit Plan* survey were more likely to be female (53% female) than VTA's system-wide bus customers (46% female);
- White/Caucasian customers and Asian customers were over-represented in the *Pedestrian Access to Transit Plan's* survey while other races and ethnicities were under represented;
- The age distribution of respondents closely tracks that of VTA bus customers as measured in VTA's On-Board Customer Survey, with the exception that the *Pedestrian Access to Transit Plan* survey greatly undersampled customers aged 14 to 17.

Some of the differences between surveys may be explained by the fact that the *Pedestrian Access to Transit Plan's* survey was not system-wide like the On-Board Customer Survey, and only sampled riders on five bus routes.

**Figure 4.1** compares the ethnicity/race breakdown of VTA's On-Board Customer Survey and the *Pedestrian Access to Transit Plan* Survey.

**Figure 4.2** compares the age distribution of these two surveys.

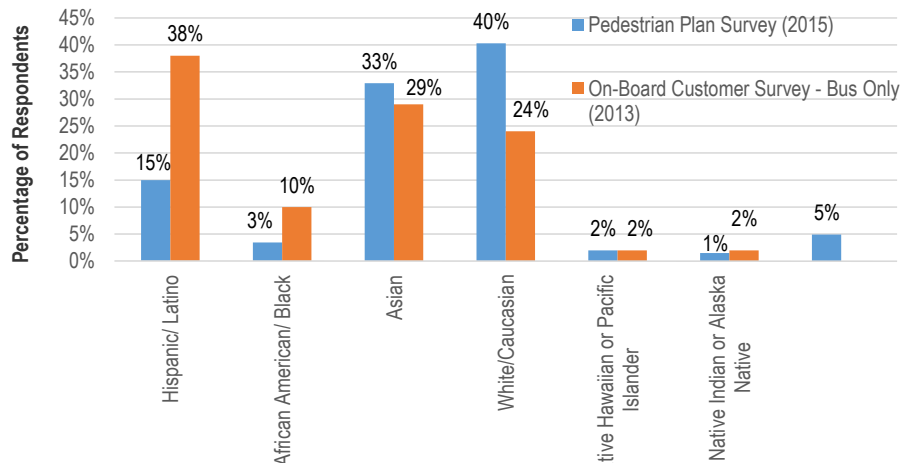
Of note:

- Respondents are young. More than half are 34 or younger. Only 7% are age 65 or older.
- Respondents reflect a variety of races and ethnicities, despite some demographics being under/over sampled: 40% of survey respondents identified as "White/Caucasian," 33% as "Asian", and 15% as "Hispanic/Latino."

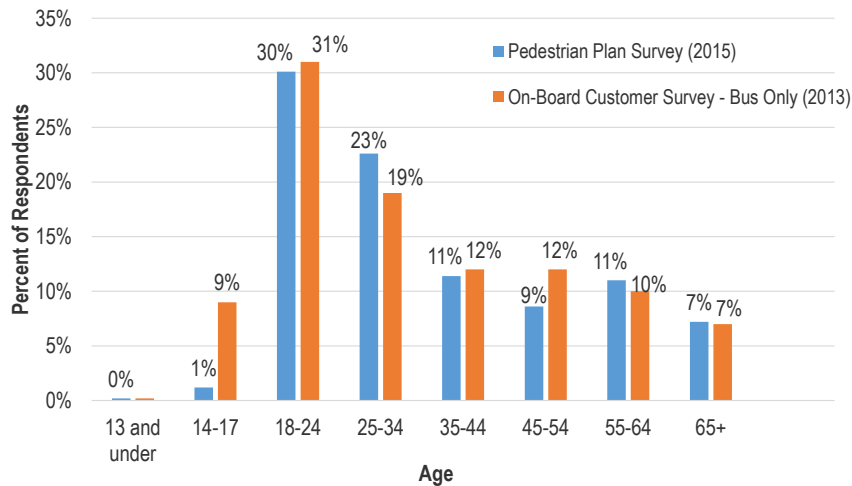


# 4 Community Outreach

**Figure 4.1: Race and Ethnicity of Survey Respondents Compared to On-Board Customer Survey**



**Figure 4.2: Age Distribution of Survey Respondents Compared to On-Board Customer Survey**



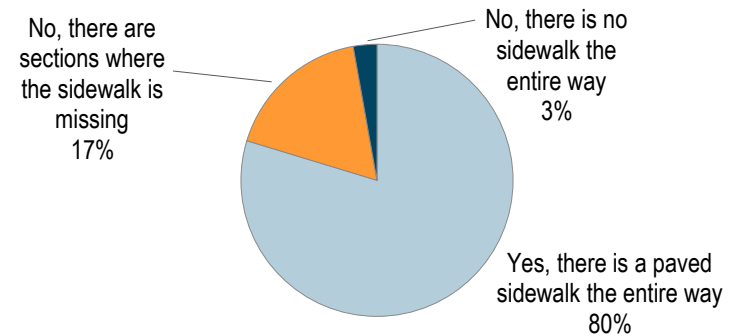
## 4.3.3 Survey Results

Several high-level findings came out of the survey. First, pedestrian infrastructure, including basic infrastructure like sidewalks, is missing in some areas. Street crossings can be improved by providing more time to cross and by timing signals to reduce waiting time between pedestrian phases. Operational and infrastructure improvements to improve the actual and perceived safety from cars or crime could significantly improve the walking environment for a majority of customers. Many respondents noted they would like to see specific improvements like installing bus shelters, reducing crime, improving lighting, and cleaner streets.

### Presence of Continuous Sidewalk

Customers reported that basic pedestrian infrastructure is not always present on their walk to the bus stop. As shown in **Figure 4.3**, 20% of respondents stated that part or their entire walk to transit does not have sidewalks.

**Figure 4.3: When you walk to and from the bus stop or train station, is there a sidewalk the entire way? (n=464)**



# 4 Community Outreach

## Quality of Walking Environment

Survey respondents were asked several questions to gauge the quality of their walk to the bus stop or train station. Results are shown in **Figure 4.4**.

Responses suggest that there are opportunities for improving street infrastructure and signal operations. Of note:

- Less than half (42%) felt that it was always easy to cross streets on their way to the bus stop or station.
- 35% felt that the wait for the walk signal was always short.

Driver behavior is problematic for many respondents:

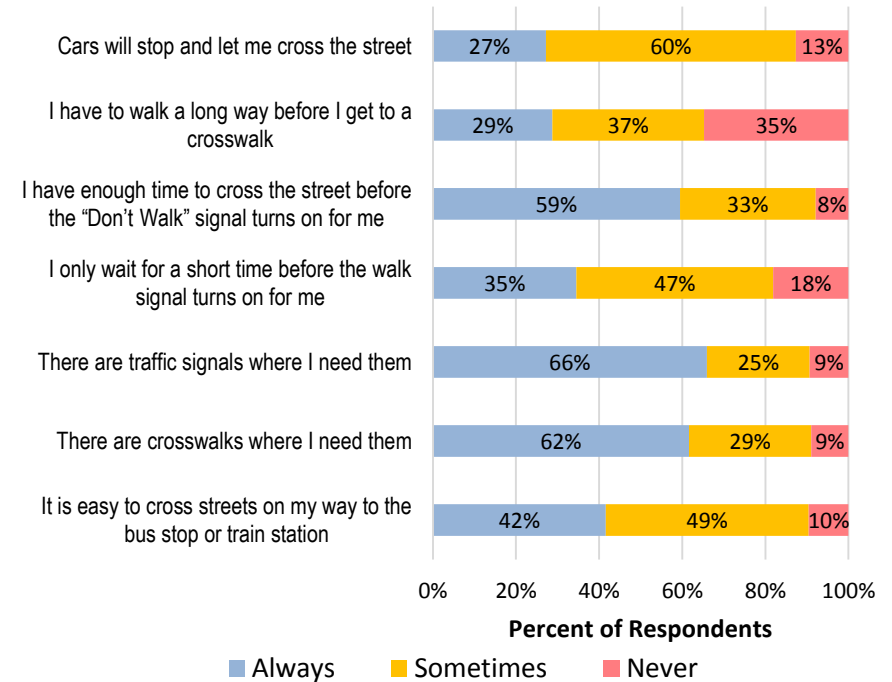
- 73% reported that cars do not always stop and let them cross the street.

Signal operations and locations of street crossings work well for about two-thirds of respondents:

- 59% felt that there was always enough time to cross the street at the walk signal.
- 66% felt that traffic signals were where they need them.
- 62% felt that crosswalks are where they need them.

**Figure 4.4: Experience of Crossing Streets on the Way to the Bus Stop or Train Station**

*Think about your walk to or from the bus stop or train station. How true are these sentences for you?*



# 4 Community Outreach

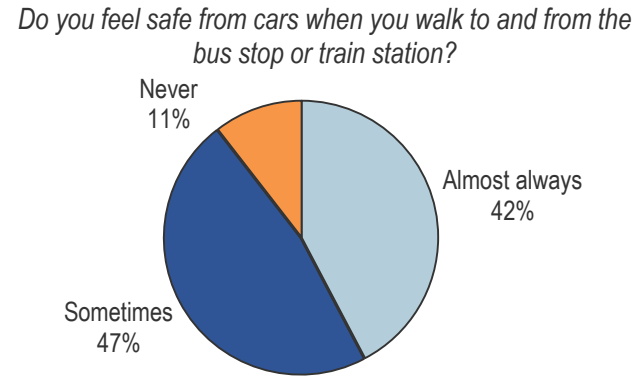
## Perceptions of Safety

Conflicts with motorists are a concern for a majority of survey respondents. As shown in **Figure 4.5**, more than half of survey respondents stated they do not always feel safe from cars while they are walking to their bus stop.

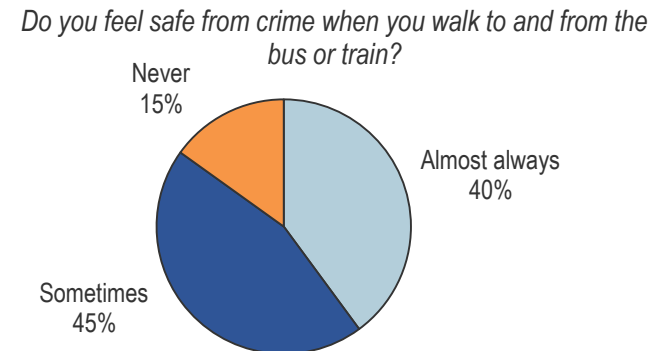
Crime is a concern for many survey respondents. As shown in **Figure 4.6**, 60% of respondents indicated that they do not always feel safe from crime while they are walking to their transit stop.

Women are 1.6 times as likely as men to say that they do not feel safe from crime. People between 18 to 34 years old are 1.5 times as likely as people over 34 years old to say that they do not feel safe from crime.

**Figure 4.5: Perception of Safety from Cars While Accessing Transit Stop**



**Figure 4.6: Perception of safety from crime while accessing transit stop**



# 4 Community Outreach

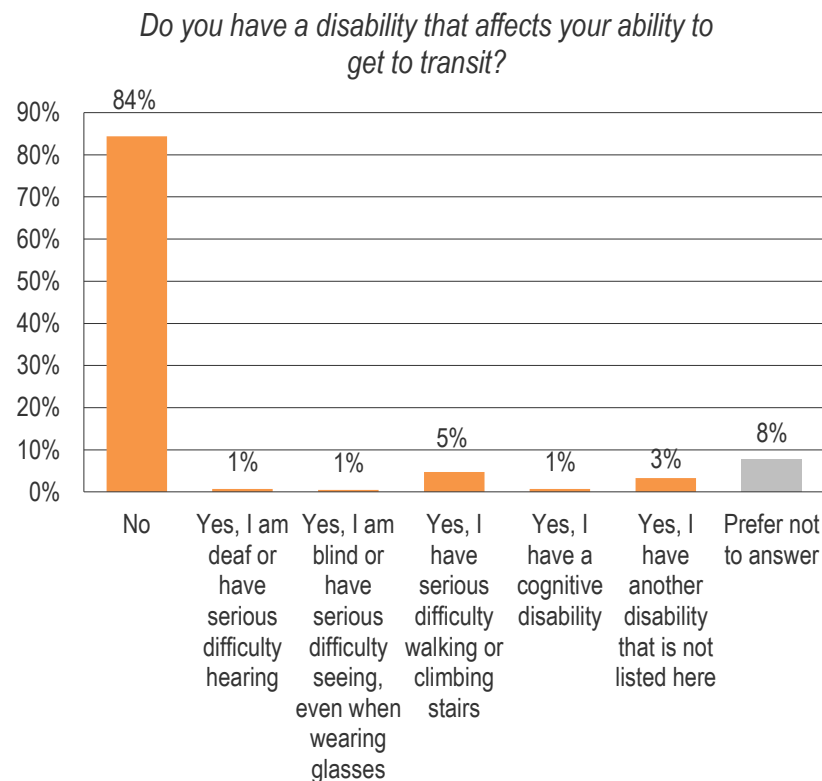
## Presence or Absence of a Disability

As shown in **Figure 4.7**, about 11% of survey respondents stated that they have some kind of disability that affects their ability to get to transit. While the 2013 On Board Customer Survey didn't ask this question directly, it found that 6% of riders are eligible for the disabled fare category.

## Specific Pedestrian Deficiencies and Desired Improvements

Respondents were asked to identify up to three ways their walk to transit could be improved. **Figure 4.8**, on the next page, shows the types of improvements that survey respondents stated they would like to see on their walk to their transit stop. Notably, only 9% chose, "Nothing, the walk is fine." The most frequently cited improvements are "install shade at bus stop", "better lighting around the bus stop and on streets", "less crime", "cleaner streets," and "less waiting time for pedestrian signal at intersections." Improved pedestrian infrastructure can only address some of these issues. The other issues could be addressed by crime prevention programs, traffic safety education programs, or future land use developments or streetscape improvements that change the sense of safety and quality of activities in the areas.

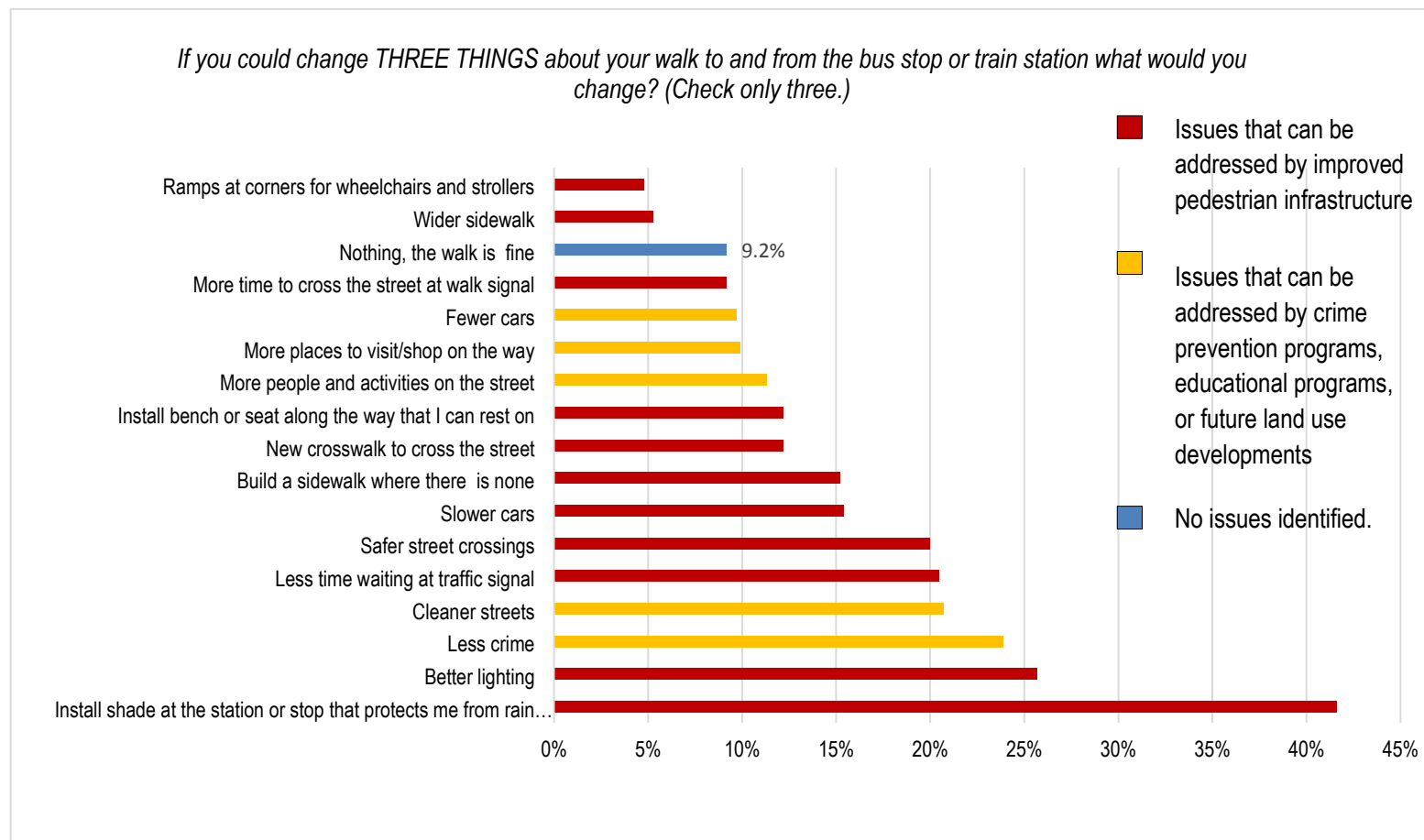
**Figure 4.7: Ability to get to transit: disability status**





# 4 Community Outreach

**Figure 4.8: Improvements that survey respondents stated they would like to see on their way walking to their transit stops**



# 4 Community Outreach

## 4.4 Public Presentations

In addition to soliciting direct input using the customer survey, VTA presented the plan to a variety of stakeholders to ensure their comments were incorporated during the planning process. Project staff reached out to community groups that serve the Focus Areas and organizations that represent specific stakeholder groups to receive their input on the plan and concerns they have regarding access to transit. VTA staff also made themselves available to present the plan at the request of outside groups.

Draft deliverables were also presented to VTA's Advisory Committees and one of VTA's Standing Committees to solicit comments. VTA's Advisory Committees advise the VTA Board of Directors on decisions, and serve as a way to give voice to all cities and the County of Santa Clara. VTA's Standing Committees are comprised of a subset of Board Members, and serve to review items in-depth before they are presented to the Board of Directors. All meetings are publicly noticed.

Different sections of the Plan were presented to the following VTA committees:

Technical Advisory Committee (TAC): Consists of one senior staff member (usually the public works or planning director) from each of the county's 15 cities and the County of Santa Clara. Non-voting representatives from Caltrans and the Metropolitan Transportation Commission also participate in meetings. The TAC advises the Board on technical aspects of transportation-related policy issues and initiatives.

Bicycle and Pedestrian Advisory Committee (BPAC): Consists of 16 members representing each of the 15 cities and the County, plus a non-voting representative of the Silicon Valley Bicycle Coalition. The BPAC advises the Board on funding and planning issues for bicycle and pedestrian projects. It also serves as the countywide bicycle and pedestrian advisory committee for Santa Clara County.

Committee for Transportation Mobility and Accessibility (CTMA): Consists of one VTA Board member, persons with disabilities, and representatives of human service agencies within the county. The CTMA advises the Board on bus and rail accessibility issues, paratransit service, public facilities and programs, and VTA's efforts to fully comply with the federal Americans with Disabilities Act.

Policy Advisory Committee (PAC): Consists of one City Council member from each of the 15 cities and one member from the Santa Clara County Board of Supervisors. The PAC allows all jurisdictions within the county to directly comment on the development of VTA's policies.

Citizens Advisory Committee (CAC): Consists of 17 appointed members: six citizens-at-large from the City and County groupings, six citizens representing certain specified community interests, and five citizens representing certain specified business and labor groups. The Committee advises the Board on policy issues referred to the Committee either by the Board or the General Manager in consultation with the Chairperson.

Congestion Management Program & Planning Committee (CMPP): This standing committee consists of six members (four members and two alternate) from VTA's Board of Directors. The committee reviews policy recommendations pertaining to the Congestion Management Program and the development of the countywide transportation plan for Santa Clara County.

**Table 4.2**, on the next page, summarizes the stakeholder presentations made during plan development.

# 4 Community Outreach

**Table 4.2: Presentations made to stakeholder groups**

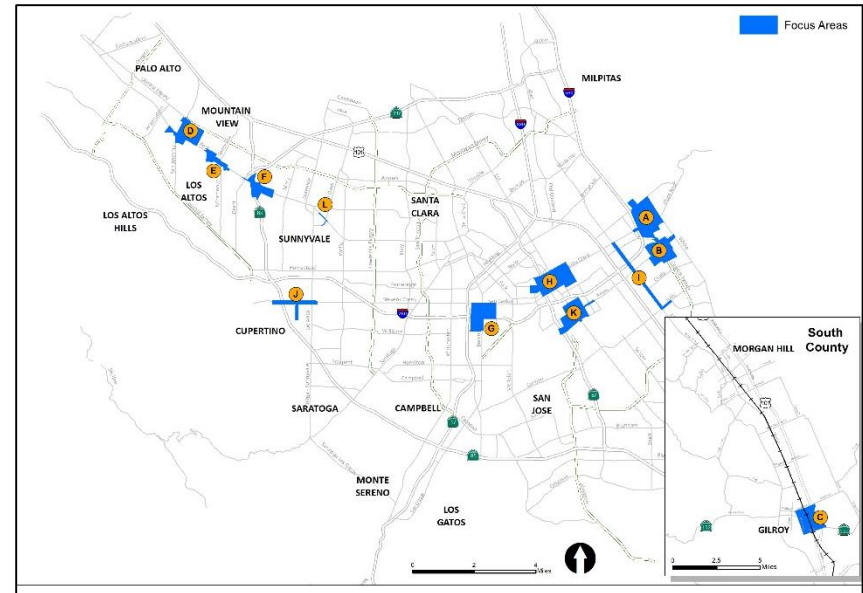
Stakeholder Group	Topic/Outreach	Date
<b>VTA Committees &amp; Working Groups</b>		
VTA Capital Improvement Program Working Group (Sub-committee of TAC)	Introduce plan, Existing Conditions Report, public survey results, recommended projects	January 2014, May 2014, July 2014, January 2015, October 2015 and June 2016
VTA Land Use and Transportation Integration Working Group (Sub-committee of TAC)	Introduce plan, ways to get involved	December 2014
VTA Advisory and Standing Committees (see list on prior page for description)	Existing Conditions Report Recommended Projects, Draft Final Plan, Final Plan	July 2014 (October 2014 CTMA) March 2016 BPAC, April 2016 TAC, PAC, CMPP, July 2017 BPAC, PAC, TAC and September 2017 BPAC, PAC, TAC, CTMA
<b>City &amp; County Committees</b>		
Traffic Safe Communities Network Quarterly Meeting	Introduce plan, ways to get involved	February 2014
Safe Routes to School County Providers Group	Introduce plan, ways to get involved	January 2013
City of San Jose Senior Citizen Commission	Introduce plan, ways to get involved	September 2014
Sunnyvale Bicycle and Pedestrian Advisory Commission	Overview of plan	November 2016
<b>City and County Departments</b>		
Cities of Mountain View, Los Altos, Sunnyvale, San Jose, Gilroy and County of Santa Clara	Define Focus Areas Review recommended projects	November 2014 January 2016
San Jose Parks, Recreation and Neighborhood Services	Introduce plan and discussion on the relationship between the recommended projects and trails	January 2015
<b>Non-Profit &amp; Advocacy Groups</b>		
Gilroy Senior Center	Overview of plan purpose, distribution of surveys and collection of survey responses	October 2015
Moffett Park Business Group meeting	Introduce plan	November 2014
TransForm's Let's Get Moving Silicon Valley Summit	Introduce plan, ways to get involved	March 2014
GreenTown Los Altos	Overview of plan	November 2016

# 5 Recommended Projects

## 5.1 Introduction

This chapter presents pedestrian improvement projects for the twelve Focus Areas (**Figure 5.1**), as well as a list of recommended projects outside of Focus Areas. Projects outside of Focus Areas were recommended by Member Agency staff, and serve areas where increases in transit use are anticipated in the future, including the Milpitas and Berryessa BART stations, and the Santa Clara Caltrain/Future BART Station. Each project is supported by cost estimates and sorted into one of four priority categories. The chapter includes:

- Section 5.2 describes the approach VTA took to identify projects and criteria that were used for identifying deficiencies in each Focus Area. The section is supported by Appendix A, which contains a toolkit that describes improvements that are suitable for addressing different pedestrian deficiencies, many of which are recommended for specific projects. The toolkit will also be useful for people wishing to identify potential improvements in other areas.
- Section 5.3 presents the methodology for sorting projects into four priority categories. The projects are scored on two groups of factors: Community Benefits and Ease of Implementation. Project scores and associated implementation matrices will assist VTA, the cities, and the County in allocating staff time and funding to the projects. **Figure 5.2** shows an example matrix.
- Section 5.4 presents assumptions and methodology for order-of-magnitude project cost estimates.
- Section 5.5 presents the recommended projects, and is organized by Focus Area. Each Focus Area includes a map of pedestrian barriers and deficiencies, a map of recommended projects, an associated table describing each project, and a project scoring table and matrix. Projects that VTA has an interest in proactively advancing are noted, and for these



**Figure 5.1: An overview of twelve Focus Areas**

projects, planning level cost estimates are provided in Chapter 6. The section concludes with a list describing recommended projects outside of Focus Areas.

## 5.2 How Projects Were Identified

Projects within Focus Areas were identified through a three-stage process, described below.

### Step 1: Walkshed and Walking Access Barrier Analysis

As a first step, Geographic Information System analysis (GIS) was conducted to identify deficiencies in pedestrian facilities within each Focus Area. The analysis identified walksheds around transit stops and identified “soft” barriers to walking access.



# 5 Recommended Projects

**Transit walkshed:** A transit stop's walkshed is the area within a reasonable walking distance: ¼ mile for local bus stops and ½ mile for rail stations and rapid bus stops. For this analysis, walksheds are calculated using the pedestrian network, rather than using as-the-crow-flies estimates. Walksheds are displayed on Focus Area maps as gradients around transit stops.

**“Soft” barriers to walking access:** High auto speeds and volumes detract from the quality and comfort of the walking environment and create a “soft” barrier to pedestrian crossings. “Soft” barriers are shown on Focus Area maps as “Major Barriers to Walking Access” (streets with speed limits equal to or greater than 35 mph and more than four vehicle travel lanes) and “Minor Barriers to Walking Access” (streets with speed limits of 30 or 35 mph and up to four vehicle travel lanes).

## Step 2: Virtual and Field Review

VTA conducted field reviews of the twelve Focus Areas, first through a virtual review of aerial photos and streetview imagery, followed by site visits to each Focus Area. Field reviews evaluated the following conditions:

### Connectivity

- Locations with missing sidewalks and crosswalks
- Absence of pedestrian signal heads
- Presence of crossing restrictions
- Uncontrolled marked crosswalks of major and minor barrier streets
- Absence of marked crosswalks
- Substantial (~1 mile) distances between crossings of major or minor barriers

### Safety

- Collision history (hotspot analysis, using most recent available data)
- Average traffic speed
- Visibility of pedestrians at crossings

- Intersections with uncontrolled right turns and/or large curb radii
- Intersections with long crossing distances and/or skewed crosswalks

### Quality

- Average Daily Traffic (ADT) volume (where available)
- The presence of on-street parking or tree/landscape buffer sidewalk width
- Presence or absence of pedestrian-scale lighting
- Presence of graffiti and/or trash
- Pedestrian “dead zones”: Blank space adjacent to pedestrian environment, such as a blank wall, abandoned building or parking lot
- Legibility: Unclear or unsigned pedestrian route to transit stops

### Accessibility

- Missing curb cuts and/or missing truncated domes at pedestrian crossings
- Inadequate sidewalk space near transit stops to comfortably maneuver a wheelchair, walker or other assistive device
- Accessibility of pedestrian signals to people using a wheelchair, walker or other assistive device

### Activity

- Pedestrian counts (where available)
- Qualitative assessment of pedestrian volumes during virtual/physical fieldwork

## Step 3: Individual Project Identification

Using results from the barrier analysis and field review, VTA identified a list of opportunities and deficiencies and a list of potential pedestrian improvements for each Focus Area. Project recommendations were based on VTA guidelines, including *Pedestrian Technical Guidelines* (VTA, 2003), *Transit Passenger Environment Plan* (VTA, 2016), and *Community Design and Transportation*

# 5 Recommended Projects

Manual (VTA, 2003). Project recommendations are consistent with design guidelines included in locally adopted specific plans, and incorporate proposed projects from adopted City, County and VTA plans. Member Agencies, Caltrans, VTA Highways Program and VTA Transit Operations Division reviewed and provided comments on the proposed recommendations. Recommendations presented here reflect comments received from these stakeholders.

## 5.3 Project Scoring Criteria and Implementation Matrix

The implementation matrix consists of two axes: Community Benefit, and Ease of Implementation. Projects are scored separately on each axis. The matrix divides projects into four categories based on their scores:

- **High Priority, Short Term** – easily implemented projects that provide immediate benefits to the community and address major challenges,
- **High Priority, Long Term** – difficult-to-implement projects that provide high benefit to the community and address major challenges,
- **Medium Term Projects** – easily implemented projects that enhance the quality of the pedestrian environment,
- **Long Term Projects** – difficult-to-implement projects that enhance the quality of the pedestrian environment.

The criteria under Community Benefit are scaled from high to low. However, projects which score lower in Community Benefit are not necessarily low priority, and should not be assumed to provide little benefit. All projects in the plan provide some community benefit. Projects that score high in Community Benefit typically address areas with higher pedestrian safety challenges or close a major gap in the pedestrian network. Other projects may score lower in Community Benefit, but be easier or less costly to implement.

Ease of Implementation criteria consider the complexity of a project, opportunities for receiving funding, project readiness, and ongoing maintenance

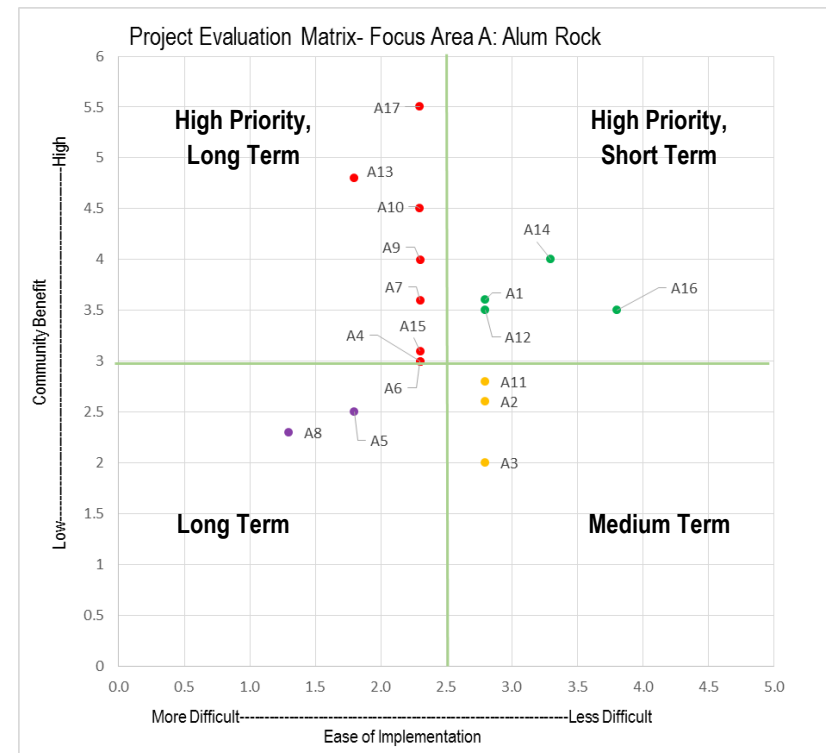


Figure 5.2: Example of project evaluation matrix

costs. The criteria recognize that some projects may be much more difficult to implement than others.

### 5.3.1 Scoring Criteria

Scoring criteria for Community Benefit and Ease of Implementation were developed with input from the Task Force (comprised of a mix of community members, nonprofit staff, and Member Agency staff, and described in Chapter 4). Up to 6 points could be awarded for a project's community benefits, and up to 5 points could be awarded for a project's ease of implementation. Scoring criteria and points are described in **Table 5.1** and **Table 5.2**.

# 5 Recommended Projects

**Table 5.1 Scoring criteria for Community Benefit**

Criterion	Description	Scoring
<b>Connectivity</b>	Project shortens pedestrian route to transit, completes sidewalks, and/or closes gaps in a transportation facility and/or multimodal network.	Yes=1 point No=0 points
<b>Safety</b>	<p><i>High:</i> Project will address a demonstrated safety issue (e.g. multiple collisions/fatalities/injuries) with a proven/demonstrated countermeasure.</p> <p><i>Medium:</i> Field review and/or public comment indicates a safety problem that would be addressed by the project (e.g. conflicts or evidence of high vehicle traffic volume or speed).</p> <p><i>Low:</i> Project will generally improve safety issues. Project has the potential to reduce exposure/risk of conflicts between motor-vehicles and pedestrians.</p>	<p>High=1 point Medium=0.6 points Low=0.3 points</p> <p><i>Points are not additive.</i></p>
<b>Accessibility</b>	Project eliminates a barrier to ADA accessibility (e.g. by installing curb ramps where there are none, closing sidewalk gaps, or adding ADA-compliant pedestrian signals where there are none).	Yes=1 point No=0 points
<b>Activity</b>	<p><i>Transit Access:</i> The project falls within a 1/2 mile walk of a rail transit stop or an express bus stop, OR the project falls within a 1/4 mile walk of a bus stop with 40 or more boardings per day.</p> <p><i>Destination Access:</i> The project serves locations that typically generate high levels of pedestrian demand, such as schools, senior centers, community centers, and walkable commercial districts.</p>	<p>Transit Access=0.5 points Destination Access=0.5 points</p>
<b>Equity</b>	Project is located within a Community of Concern or CARE area. <sup>1</sup>	Yes=1 point No=0 points
<b>Community Support</b>	<p><i>Local Plans:</i> The project is identified in a local plan.</p> <p><i>Community Champions:</i> The project is championed by local community members, elected officials or other leaders.</p>	<p>Local Plans= 0.5 points Community Champions= 0.5 points</p>

<sup>1</sup> Community of Concern is identified by Metropolitan Transportation commission (MTC). Community Air Risk Evaluation (CARE) is identified by Bay Area Air Quality Management District.

# 5 Recommended Projects

**Table 5.2 Scoring Criteria for Ease of Implementation**

Criterion	Description	Scoring
<b>Funding Competitiveness</b>	<p><u>Grant Competitiveness</u>: The project is competitive for One Bay Area Grant (OBAG), Priority Development Area (PDA) Planning Grants, Active Transportation Program (ATP), Highway Safety Improvement Program (HSIP), or other grant programs.</p> <p><u>Private Funding</u>: The project is likely to be receive matching funding through private donations (e.g. nonprofit groups, private companies) or be conditioned as part of nearby development.</p>	<p>Grant Competitiveness=0.5 points</p> <p>Private Funding=0.5 points<sup>2</sup></p>
<b>Maintenance Cost</b>	The project can be implemented without adding signage, striping, public art, lighting, or landscaping that would have to be maintained by the Member Agency.	<p>Yes=1 point</p> <p>No=0 points</p>
<b>Existing Funding</b>	The project is partially funded, with funding deadlines to meet.	<p>Yes=1 point</p> <p>No=0 points</p>
<b>Project Readiness</b>	<p><u>Environmental Analysis</u>: Environmental analysis has been completed, or the project is statutorily or categorically exempt from the California Environmental Quality Act (CEQA).</p> <p><u>Right of Way</u>: The project can be completed without acquisition of right-of-way or easements.</p>	<p>Environmental Analysis=0.5 points</p> <p>Right of Way=0.5 points</p>
<b>Jurisdictional Complexity</b>	<p><u>Multiple Member Agencies</u>: The project can be completed without coordination between multiple Member Agencies/VTA.</p> <p><u>Non-Member Agency Involvement</u>: The project can be completed without coordination with stakeholders such as Caltrans, the Santa Clara Valley Water District, Caltrain, or California Public Utilities Commission.</p>	<p>Multiple Member Agencies=0.5 points</p> <p>Non-Member Agency Involvement=0.5 points</p>

<sup>2</sup> To evaluate opportunities for private funding through conditions of development, VTA staff conducted a qualitative assessment of the potential for development project(s) to help fund or implement the specified improvements. This assessment was conducted for each Focus Area as a whole, rather than by individual project.

The assessment consisted of two parts: (1) a rating of the amount of recent development that has occurred in the Focus Area (roughly the past five years); and (2) a rating of the general development potential based on availability of underutilized land, and presence of supportive land use plans or policies. For each of these two parts, a score of 0, 0.125 or 0.25 points was given; in that way, the total points for this criterion range from 0 to 0.5 points.



# 5 Recommended Projects

## 5.4 Cost Estimates

This chapter provides order-of-magnitude cost estimates for all identified projects. In addition, planning level cost estimates for projects that VTA has an interest in proactively advancing are available in the next chapter, in **Table 6.1**).

### 5.4.1 Order of Magnitude Cost Estimates

Assumptions and references used in developing order of magnitude cost estimates for projects are outlined in **Table 5.3**. Project costs are categorized as “less than \$500,000”, “\$500,000 to \$5 Million” and “more than \$5 Million.” Based on these estimates, there are 83 projects under \$500,000, 46 projects between \$500,000 and \$5 Million, and 36 projects over \$5 Million.

**Table 5.3: Assumptions for order of magnitude project cost estimates (2016 dollars)**

Project type	less than \$500,000	\$500,000-\$5M	over \$5M
Single-intersection improvements including striping, curb extensions, and pedestrian signals	x		
Adding pedestrian hybrid beacons or rectangular rapid flash beacons	x		
Grouped railway crossing improvements		x	
Single-intersection improvements with adjacent landscaping changes and/or pedestrian refuge		x	
Addition of or relocation of a signal mast arm		x	
Multiple signalized intersection improvements		x	
New signalized intersection		x	
Realignment of an intersection		x	
Corridor-level streetscape improvements and sidewalk widening (less than 1/2 mile)		x	
Corridor-level streetscape improvements and sidewalk widening (more than 1/2 mile)			x
Construction of new overcrossings and corridor-level improvements at intersections			x
Completion of sidewalks throughout a neighborhood			x
Intersection ramp realignments, overpass lighting			x
Trail extensions			x

*References: Pedestrian Bicycle Information Center, Costs for Pedestrian and Bicyclist Infrastructure Improvements, 2013; Fehr & Peers, 2016.*

*Except where noted, cost estimates are for the largest-scale implementation of a project. Lower costs may be possible with partial implementation of recommendations or with the use of short-term/tactical interventions.*

*All cost estimates are approximate and intended to assist in project prioritization only. Additional study will be needed prior to applying for grant funding.*

# 5 Recommended Projects

## 5.5 Focus Area Recommended Improvements

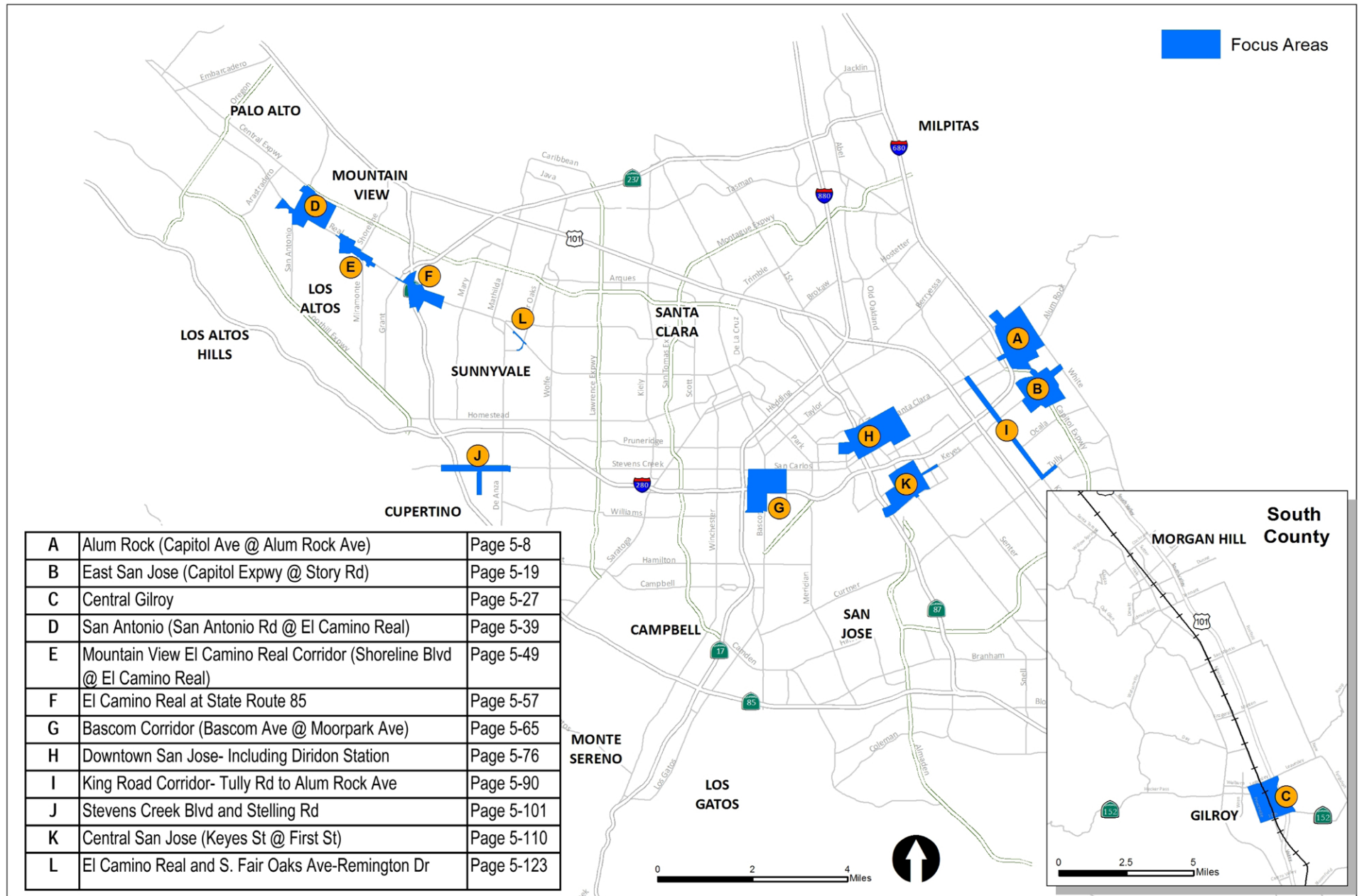
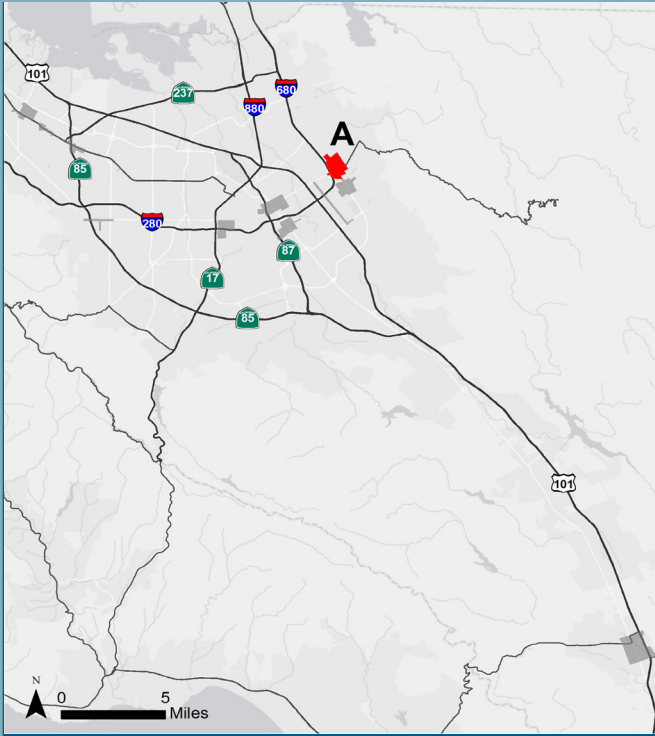


Figure 5.3: Location of twelve Focus Areas

## Focus Area A: Alum Rock (San Jose and Santa Clara County)



### Summary

Focus Area A is located in East San Jose between Alum Rock Avenue, White Road, McKee Road, Capitol Avenue, and Jackson Avenue. It includes several schools and shopping centers, and is served by VTA Light Rail (Line 901), the 522 Rapid/future Santa Clara-Alum Rock BRT, and several local bus routes, including Lines 23, 25, 64, 70, and 71.

### Issues

- Missing sidewalks throughout residential neighborhoods and along Alum Rock
- Unmarked crosswalks of major and minor barrier streets (White Road, Capitol Avenue)
- Several pedestrian collisions on major and minor barrier streets
- High speed vehicle turns at several major intersections
- Poor quality walking environment along corridors
- Intermittent pedestrian access to commercial centers
- High-density housing creates need for on-street parking in residential areas



*Pedestrian crossing White Road near Florence Avenue*



*Missing sidewalks near White Road*



*"Porkchop" pedestrian island at McKee/Capitol*

### Opportunities

- High pedestrian demand throughout Focus Area from housing, schools, commercial centers, and transit
- Santa Clara-Alum Rock Bus Rapid Transit Program implementation underway in Focus Area
- Alum Rock Avenue and White Road identified as Safety Priority Streets in San Jose's Vision Zero Program
- Santa Clara County's East San Jose Regional Pedestrian Improvement Program will construct sidewalks in the area.
- Future BART station west of focus area (28th/Santa Clara) may increase transit use



*People walking to commercial uses near Capitol Ave/McKee Rd intersection*



*Pedestrian-friendly shopping district at Alum Rock Ave/White Rd intersection*

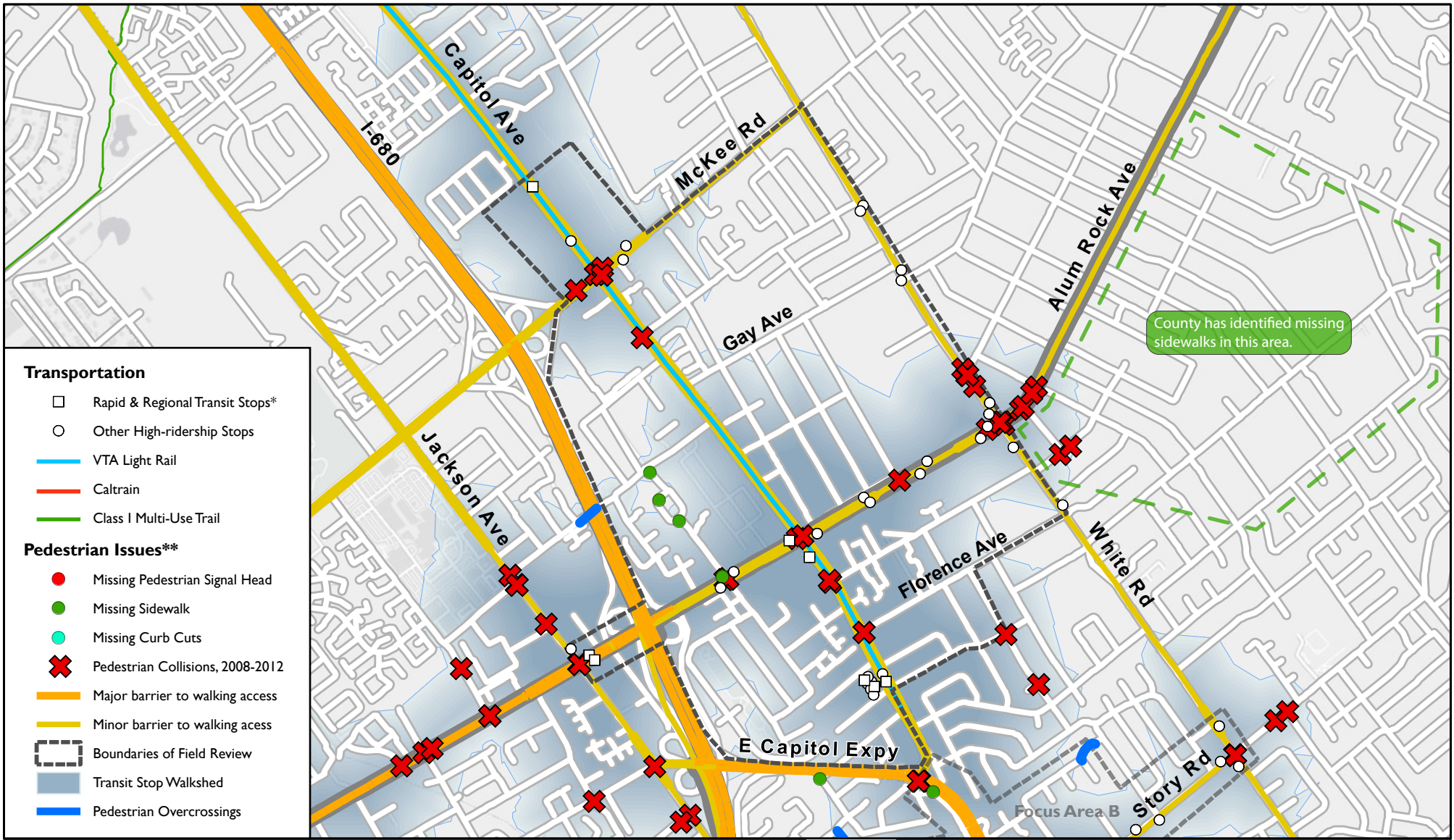


*High pedestrian demand at Capitol Ave/Alum Rock Ave*



# Focus Area A: Alum Rock (San Jose and Santa Clara County)

## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

\*\*Not all pedestrian deficiencies are mapped.

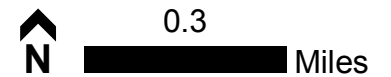
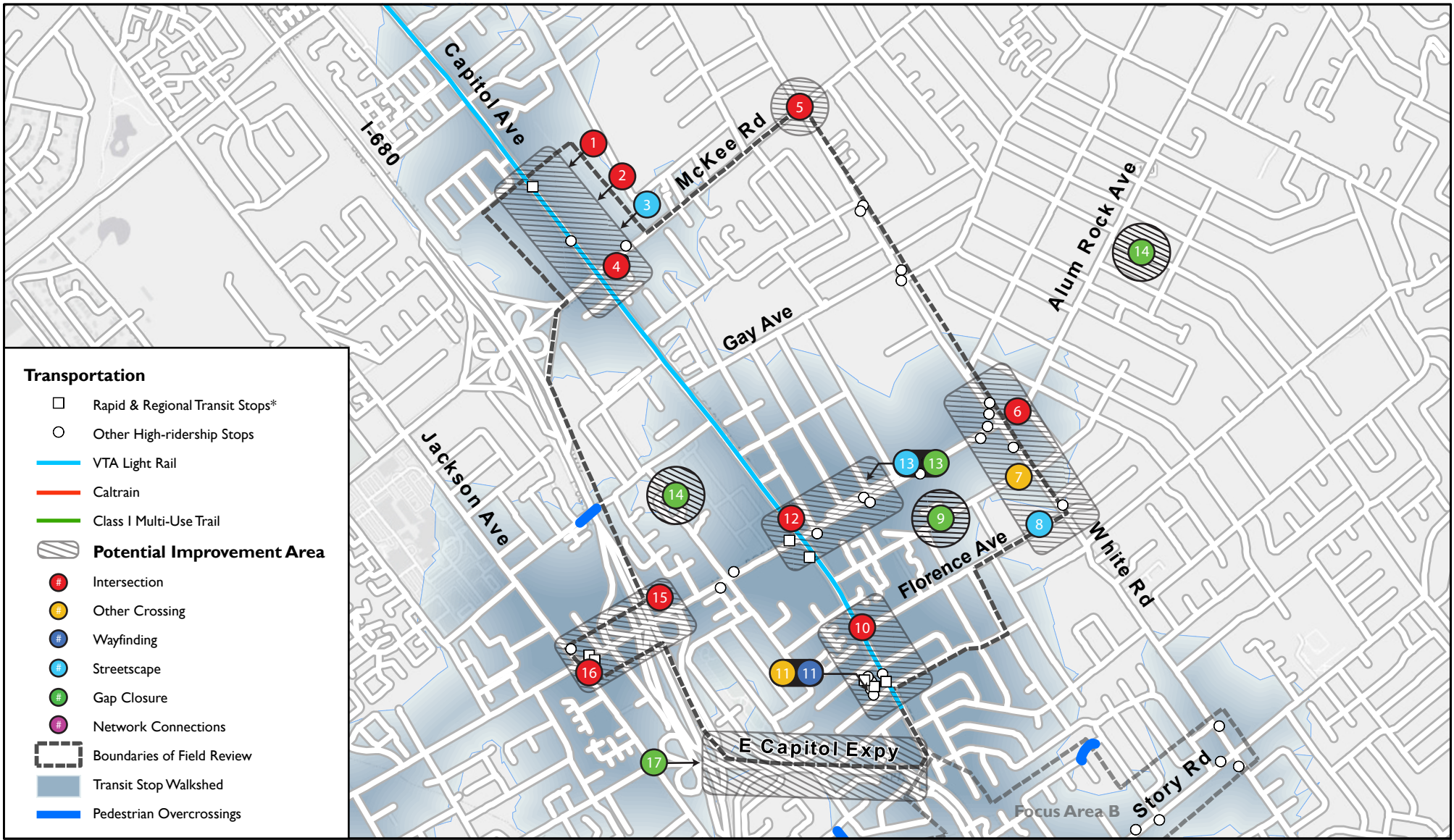


Figure 5.4: Focus Area A, barriers and infrastructure deficiencies



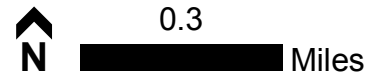
# Focus Area A: Alum Rock (San Jose and Santa Clara County)

## Potential Improvements by Project Type



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

Figure 5.5: Focus Area A, potential improvements



# 5 Recommended Projects

Table 5.4. Recommended Projects- for Focus Area A: Alum Rock (San Jose, County)

Project- Focus Area A					Existing Conditions Addressed	Issue or Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
McKee VTA LRT Station	A1	Complete & upgrade crosswalks around McKee VTA LRT Station	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks at intersections around McKee VTA LRT Station</li> <li>• Complete all four legs of each crosswalk, add pedestrian refuge on either side of rail tracks.</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High pedestrian volume near the station and commercial areas</li> <li>• High vehicle speeds on Capitol Ave</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Light rail signal timing may be a challenge</li> <li>• Potential safety challenge due to high vehicle speeds</li> </ul>	-
McKee VTA LRT Station	A2	Signal retiming around McKee VTA LRT station	<ul style="list-style-type: none"> <li>• Consider double-cycle/half-cycle operation at signalized crossings to improve pedestrian access and reduce crossing delay</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High pedestrian volume near the station and commercial areas</li> <li>• High vehicle speeds on Capitol Ave</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Light rail signal timing may be a challenge</li> </ul>	-
McKee VTA LRT Station	A3	Signal retiming around McKee VTA LRT station	<ul style="list-style-type: none"> <li>• Consider double-cycle/half-cycle operation at signalized crossings to improve pedestrian access and reduce crossing delay</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High pedestrian volume near the station and commercial areas</li> <li>• High vehicle speeds on Capitol Ave</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Light rail signal timing may be a challenge</li> </ul>	-
McKee Rd/ Capitol Ave	A4	McKee Rd/Capitol Ave intersection improvements	<ul style="list-style-type: none"> <li>• Redesign pork chops and curbs at NW &amp; SW corners to narrow right turn radii, reduce the angle of approach, reduce crossing distances, and expand pedestrian waiting space</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High-speed right turns, high pedestrian demand and limited pedestrian waiting area</li> <li>• Multiple pedestrian-involved crashes</li> </ul>	-

# 5 Recommended Projects

Project- Focus Area A					Existing Conditions Addressed	Issue or Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			<ul style="list-style-type: none"> <li>• Tighten curb radius at SE corner, widen sidewalk</li> <li>• Add advanced yield pavement markings and signage at dedicated right turn lanes</li> <li>• Stripe ladder crosswalks at all four legs of intersection</li> <li>• Re-time signal to synchronize with arriving trains</li> </ul>			
<b>McKee Rd/White Rd</b>	A5	McKee Rd/White Rd intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct pork chops and curbs at NW, NE &amp; SW corners to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>• Tighten curb radius at SE corner, widen sidewalk and pedestrian waiting area</li> <li>• Stripe ladder crosswalks at all four legs of intersection</li> <li>• Add advanced yield pavement markings at dedicated right turn lanes</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>• High-speed right turns, high pedestrian demand and limited pedestrian waiting area</li> <li>• Multiple pedestrian-involved crashes</li> </ul>	-
<b>White Rd/ Alum Rock Ave</b>	A6	White Rd/Alum Rock Ave intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct curbs at NW, NE &amp; SW corners to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>• Stripe ladder crosswalks at all four legs of intersection</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>• High pedestrian volumes, nearby school</li> <li>• High speed turns</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>• White Road and Alum Rock Ave are identified as Safety Priority Streets in <i>Vision Zero San Jose</i></li> </ul>	• <i>Vision Zero San Jose</i>
<b>White Road</b>	A7	White Road mid-block crossing	<ul style="list-style-type: none"> <li>• Consider adding uncontrolled or PHB-controlled pedestrian</li> </ul>	Other Crossing	<b>Issues</b>	• <i>Vision Zero San Jose</i>

# 5 Recommended Projects

Project- Focus Area A					Existing Conditions Addressed	Issue or Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			crossing at White Rd/Rose Ave or White Rd/Florence Ave ladder crosswalk, high-visibility pedestrian crossing signage, pedestrian-scale lighting, RRFB or PHB to improve driver yield rates • Add curb extension at SE corner of Florence and White Rd to reduce curb radius and slow turning vehicles		<ul style="list-style-type: none"> <li>• Unsafe walking environment for pedestrians who need to cross the street to access bus stops</li> <li>• Multiple pedestrian-involved crashes</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>• No median or hardscape obstruction</li> <li>• Identified as Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul>	
White Road	A8	White Road streetscape improvements	<ul style="list-style-type: none"> <li>• Widen sidewalks, add landscaped buffers (planters, short-term/tactical option), add pedestrian-scale lighting. Recommend minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>• Stripe ladder crosswalks alongside-street crossings.</li> </ul>	Streetscape	<b>Issues</b> <ul style="list-style-type: none"> <li>• Narrow sidewalks with little clear walkway width</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>• Identified as Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul> <b>Challenges</b> <ul style="list-style-type: none"> <li>• Widening sidewalks could require a taking of ROW</li> </ul>	• <i>Vision Zero San Jose</i>
White Road	A9	White Road neighborhood sidewalk completion	<ul style="list-style-type: none"> <li>• Complete sidewalks in neighborhood bounded by White Rd, Wilbur Ave, S. Capitol Ave, and Alum Rock Ave</li> </ul>	Gap Closure	<b>Issues</b> <ul style="list-style-type: none"> <li>• Incomplete sidewalks</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>• Identified as Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul>	• <i>Vision Zero San Jose</i>
Alum Rock VTA LRT Station	A10	Alum Rock VTA LRT Station crosswalk improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks to intersections around Alum Rock VTA LRT Station.</li> <li>• Complete all four legs of each crosswalk, add pedestrian refuge on either side of rail tracks.</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>• Incomplete crosswalk access; high volume of pedestrian crossings from adjacent Transit Center</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>• Santa Clara-Alum Rock BRT Program</li> </ul>	•Santa Clara-Alum Rock BRT Program



## 5 Recommended Projects

Project- Focus Area A					Existing Conditions Addressed	Issue or Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
Alum Rock VTA LRT Station	A11	Alum Rock Transit Center pedestrian path improvements	<ul style="list-style-type: none"> <li>• Stripe crosswalks or otherwise designate pedestrian routes from Capitol Ave to bus bays</li> </ul>	Wayfinding	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High pedestrian volume through Transit Center</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Santa Clara-Alum Rock BRT Program</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Clara-Alum Rock BRT Program</li> </ul>
Alum Rock Ave/Capitol Ave	A12	Alum Rock Ave/Capitol Ave intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct curbs at NW &amp; SE corners to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space.</li> <li>• Stripe ladder crosswalks across all four legs of intersection</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High-speed right turns, high pedestrian demand and limited pedestrian waiting area</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Alum Rock is identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> <li>• Intersection redevelopment included in Santa Clara-Alum Rock BRT Program</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Vision Zero San Jose</i></li> <li>• Santa Clara-Alum Rock BRT Program</li> </ul>
Alum Rock Ave/Capitol Ave	A13	Alum Rock Ave streetscape/side walk improvements	<ul style="list-style-type: none"> <li>• Complete sidewalks along north side of Alum Rock Ave east of Capitol Ave between Pala Ave and Cedar Lane. Sidewalks and landscaping can replace existing landscaping strip along frontage road or sidewalks can be added inside of existing landscaping strip</li> <li>• Widen existing sidewalks on south side of Alum Rock Ave between bus stops, add landscaped buffers (planters, short-term/tactical option), add pedestrian-scale lighting. Recommend minimum total</li> </ul>	Streetscape Gap Closure	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Narrow sidewalks with little clear walkway width</li> <li>• Incomplete sidewalks</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Alum Rock Ave is identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> <li>• Potential to narrow frontage road and add sidewalk between Pala Ave and Cedar Lane</li> <li>• Potential to reallocate space from 20' outside vehicle travel lanes on Alum Rock Ave to sidewalk space</li> </ul> <p><b>Challenges</b></p>	<ul style="list-style-type: none"> <li>• <i>Vision Zero San Jose</i></li> </ul>

## 5 Recommended Projects

Project- Focus Area A					Existing Conditions Addressed	Issue or Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			<ul style="list-style-type: none"> <li>sidewalk width of 13' per VTA <i>Pedestrian Technical Guidelines</i></li> <li>Stripe ladder crosswalks alongside-street crossings.</li> </ul>		<ul style="list-style-type: none"> <li>Sidewalk widening may require taking right-of-way</li> <li>Improvements will require coordination with San Jose Fire Department to ensure fire trucks have adequate access</li> </ul>	
<b>Alum Rock Ave/Capitol Ave</b>	A14	Alum Rock neighborhood sidewalk improvements	<ul style="list-style-type: none"> <li>Complete sidewalks in neighborhoods bounded by Alum Rock Ave/Capitol Ave/Mueller Ave/I-680 and Madeline Dr/Fleming Ave/ E. Hills Dr/White Rd</li> </ul>	Gap Closure	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Incomplete sidewalks in neighborhoods in and around Focus Area</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Sidewalk completion through County Sidewalk Improvement Program</li> </ul>	-
<b>Alum Rock Ave/ I-280/I-680</b>	A15	Alum Rock/I-280/I-680 Ramps improvements	<ul style="list-style-type: none"> <li>Stripe ladder crosswalks, advanced yield lines, and add high-visibility pedestrian crossing signage at ramp crossings</li> <li>Tighten curb radii where possible</li> <li>Consider signaling pedestrian crossing of NB on ramp at NE corner of Alum Rock Ave/I-680 NB ramp</li> <li>Realign ramps to 90-degree angles and consolidate intersections and pedestrian crossings when interchanges are reconstructed</li> <li>Install pedestrian-scale lighting on overpass</li> <li>Consider additional long-term pedestrian improvements with</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Low-visibility crossings of ramps</li> <li>High-speed turns to on-ramps</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Approach lanes for on ramps have underutilized roadway space</li> <li>Alum Rock is identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> <li>Long-term improvements possible with implementation of proposed Median Express Bus Station redesign (identified in VTA's <i>I-680 Corridor Study</i>)</li> </ul>	<ul style="list-style-type: none"> <li><i>Vision Zero San Jose</i></li> <li><i>I-680 Corridor Study</i> (VTA, 2016)</li> </ul>

# 5 Recommended Projects

Project- Focus Area A					Existing Conditions Addressed	Issue or Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			implementation of proposed I-680 Median Express Bus Station (identified in VTA's <i>I-680 Corridor Study</i> )			
<b>Alum Rock Ave/Jackson Ave</b>	A16	Alum Rock Ave/Jackson Ave intersection improvements	<ul style="list-style-type: none"> <li>Reconstruct curbs at NW, NE &amp; SE corners to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space.</li> <li>Stripe ladder crosswalks at all four legs of intersection</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Wide turning radii, high pedestrian volumes</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Intersection redesign will be included in Santa Clara-Alum Rock BRT Program</li> <li>Jackson Ave and Alum Rock Ave identified as Safety Priority Streets in <i>Vision Zero San Jose</i></li> </ul>	<ul style="list-style-type: none"> <li>Santa Clara-Alum Rock BRT Program</li> <li><i>Vision Zero San Jose</i></li> </ul>
<b>Capitol Expy/ I-680 Ramps</b>	A17	Capitol Expressway sidewalk and crosswalk improvements	<ul style="list-style-type: none"> <li>Complete sidewalks on south side of Capitol Expressway between S. Jackson Ave and S. Capitol Ave</li> <li>Stripe ladder crosswalks at all pedestrian crossings of I-680 ramps</li> <li>Consider additional long-term pedestrian improvements with implementation of proposed diverging diamond interchange redesign (identified in VTA's <i>I-680 Corridor Study</i>)</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Missing sidewalks between S. Jackson Ave and South Capitol Ave</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>County-identified project to add sidewalks between Jackson Ave and Massar Ave</li> <li>Jackson Ave and Capitol Expy identified as Safety Priority Streets in <i>Vision Zero San Jose</i></li> <li>Crosswalk improvements identified in <i>I-680 Corridor Study</i> (VTA, 2016)</li> <li>Interchange redesign identified in <i>I-680 Corridor Study</i> (VTA, 2016)</li> </ul>	<ul style="list-style-type: none"> <li><i>I-680 Corridor Study</i> (VTA, 2016)</li> <li><i>Vision Zero San Jose</i></li> </ul>

# 5 Recommended Projects

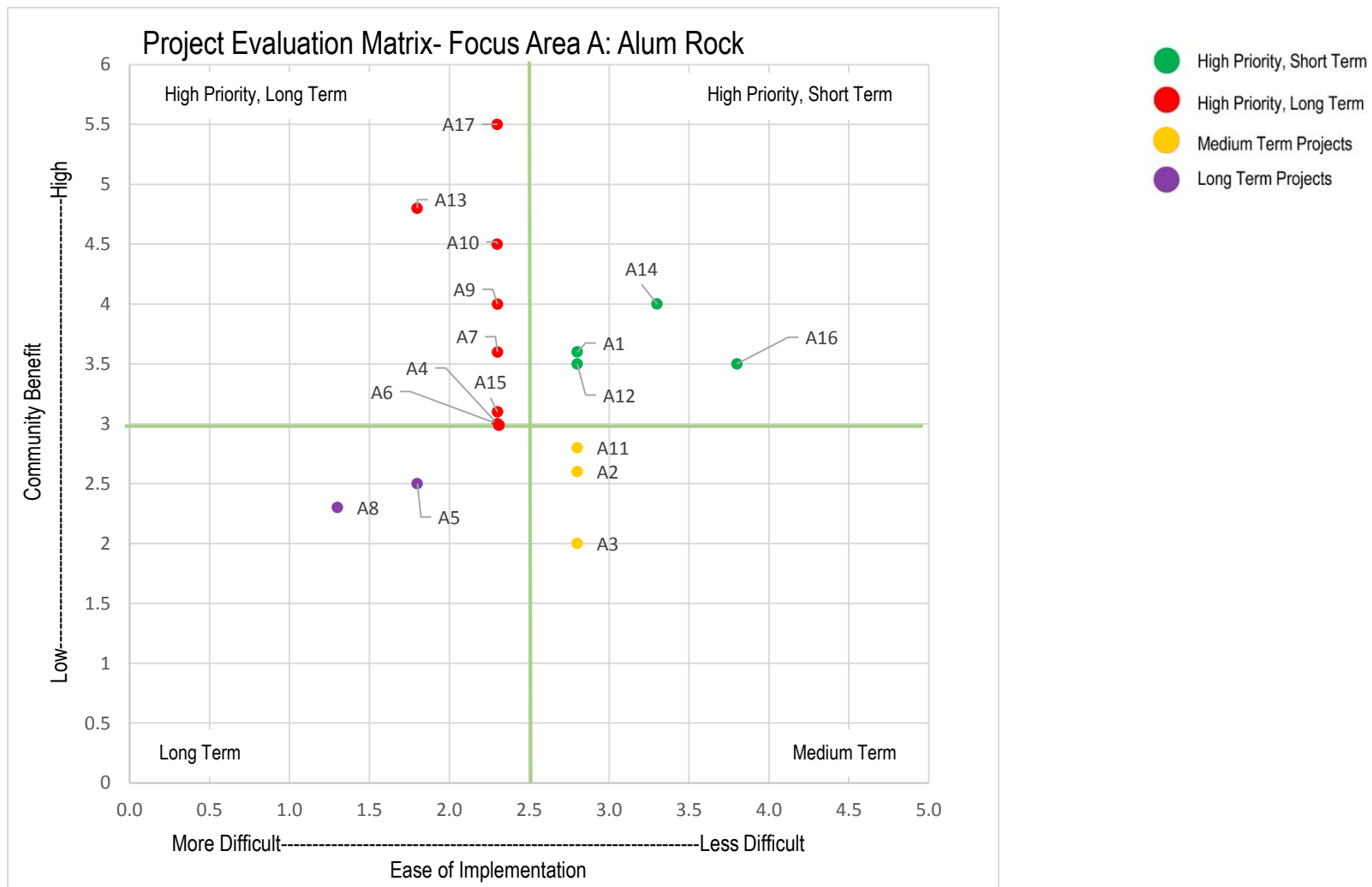


Figure 5.6: Project Evaluation Matrix for Focus Area A: Alum Rock (San Jose, County)



# 5 Recommended Projects

**Table 5.5. Project Scores and Cost Estimates for Focus Area A: Alum Rock (San Jose, County)**

#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project priority
				less than \$500,000	\$500,000-\$5M	over \$5M	
A1	Complete & upgrade crosswalks around McKee VTA LRT Station	3.6	2.8	x			High priority, short term
A2	Signal retiming around McKee VTA LRT Station	2.6	2.8	x			Medium term
A3	McKee/Capitol pedestrian access to commercial development	2.0	2.8	x			Medium term
A4	McKee/Capitol intersection improvements	3.0	2.3	x			High priority, long term
A5	McKee/White intersection improvements	2.5	1.8	x			Long term
A6	White Road/Alum Rock intersection improvements	3.0	2.3	x			High priority, long term
A7	White Road mid-block crossing	3.6	2.3	x			High priority, long term
A8	White Road streetscape improvements	2.3	1.3			x	Long term
A9	White Road neighborhood sidewalk completion	4.0	2.3			x	High priority, long term
A10	Alum Rock VTA LRT Station crosswalk improvements	4.5	2.3	x			High priority, long term
A11*	Alum Rock Transit Center pedestrian path improvements	2.8	2.8	x			Medium term
A12	Alum Rock/Capitol intersection improvements	3.5	2.8	x			High priority, short term
A13	Alum Rock streetscape/sidewalk improvements	4.8	1.8		x		High priority, long term
A14	Alum Rock neighborhood sidewalk improvements	4.0	3.3			x	High priority, short term
A15	Alum Rock/280-680 ramps improvements	3.1	2.3			x	High priority, long term
A16	Alum Rock/Jackson intersection improvements	3.5	3.8	x			High priority, short term
A17*	Capitol Expressway sidewalk and crosswalk improvements	5.5	2.3		x		High priority, long term

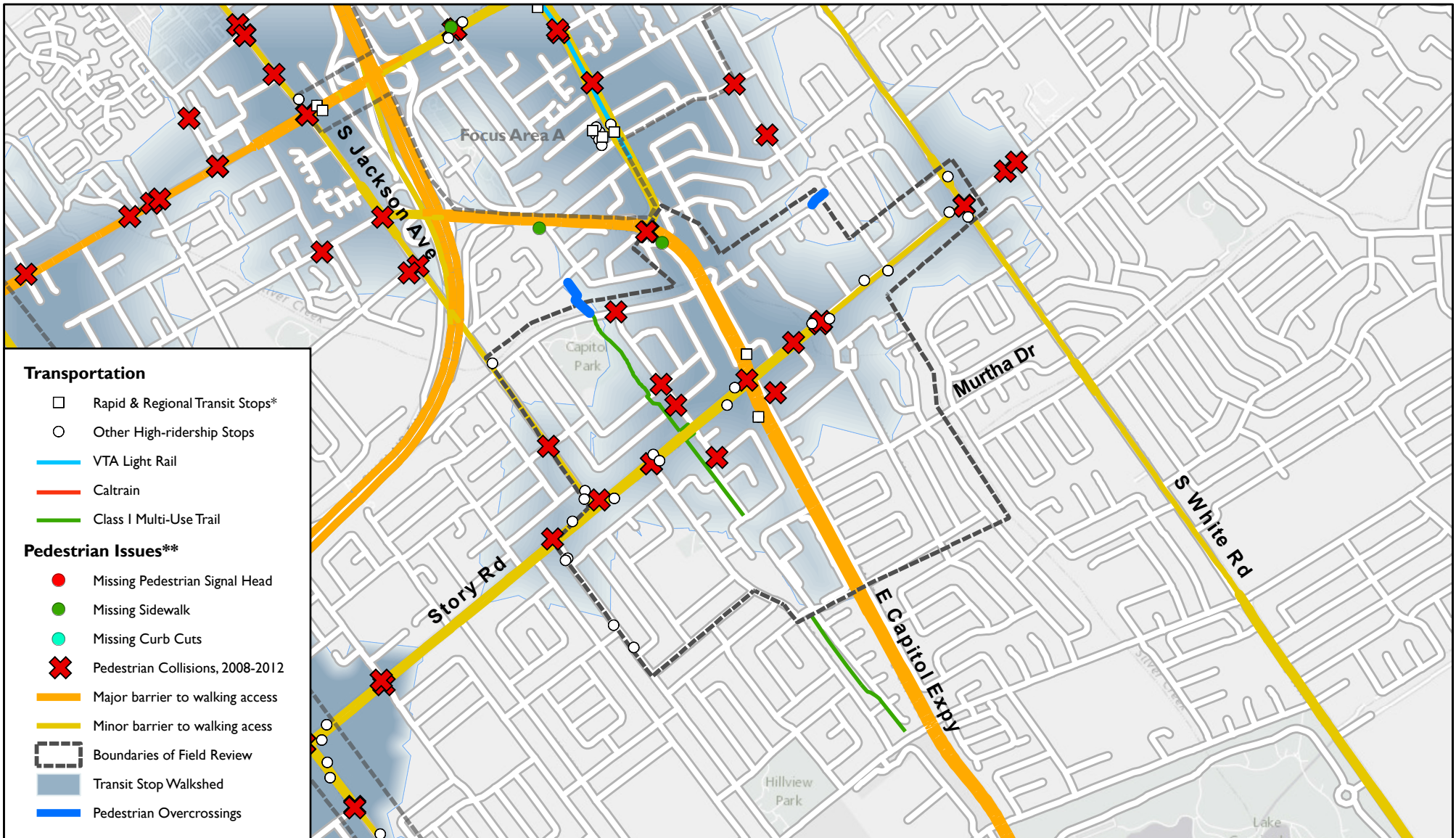
\* Projects that VTA has an interest in proactively advancing. See chapter 6 for planning level cost estimates for these projects.





# Focus Area B: East San Jose

## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

\*\*Not all pedestrian deficiencies are mapped.

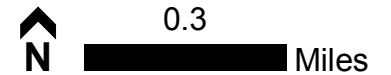
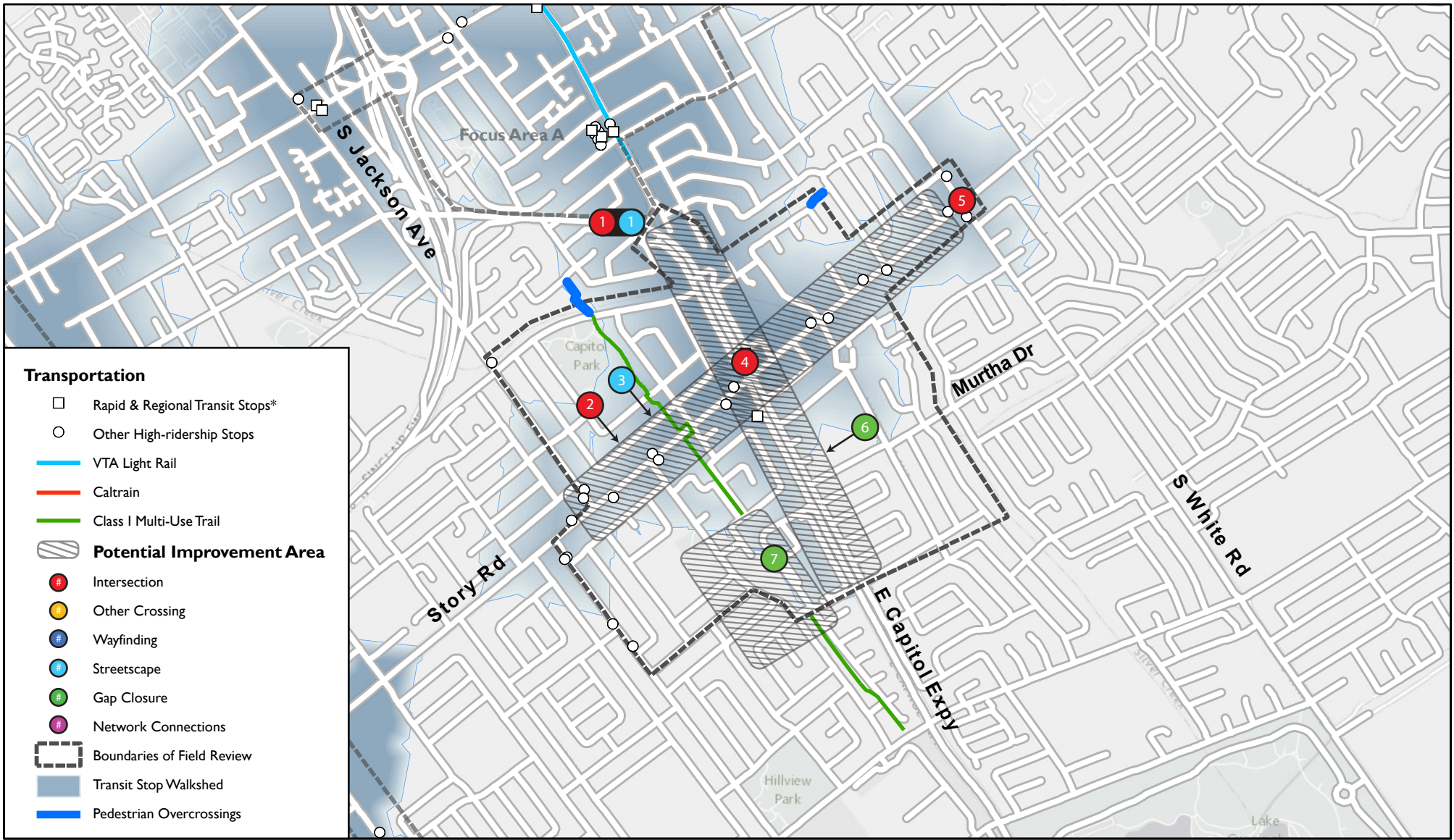


Figure 5.7: Focus Area B, barriers and infrastructure deficiencies

# Focus Area B: East San Jose

## Potential Improvements by Project Type



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

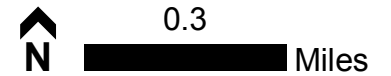


Figure 5.8: Focus Area B, potential improvements



# 5 Recommended Projects

Table 5.6. Recommended Projects- for Focus Area B: East San Jose (San Jose, County)

Project- Focus Area B					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
Capitol Expy/ Capitol Ave	B1	Capitol Expy/Capitol Ave intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct pork chops and curbs at all four corners to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space.</li> <li>• Add advanced yield pavement markings and signage at right turns</li> <li>• Stripe ladder crosswalks on all four legs of intersection</li> <li>• Add landscaping to islands/hardscape at NE &amp; SE corners to improve quality of pedestrian environment and channel pedestrians away from restricted crossing areas. Ensure that landscaping does not restrict sight lines</li> </ul>	Intersection Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Wide crossing with little shade at corners</li> <li>• Poor pedestrian visibility</li> <li>• Restricted access on east leg</li> <li>• Unpleasant walking environment, high traffic exposure</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Capitol Expy identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• High vehicle traffic volumes</li> <li>• Landscaping and ladder crosswalks generate additional maintenance costs</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Vision Zero San Jose</i></li> </ul>
Story Rd Corridor	B2	Story Rd Corridor signalized intersection improvements	<ul style="list-style-type: none"> <li>• Provide marked pedestrian crossings (signal heads and crosswalks) on all four legs of intersections</li> <li>• Stripe ladder crosswalks</li> <li>• Tighten wide curb radii via curb extensions or pork chop reconstruction</li> <li>• Locations: S. Jackson Ave, Leeward Dr, Galahad Ave, McGinness Ave, Home Depot Driveway, Highwood Dr</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Incomplete pedestrian access at signalized intersections along Story Rd corridor</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>East San Jose Community-Based Transportation Plan (2009)</i></li> <li>• <i>Vision Zero San Jose</i></li> </ul>

# 5 Recommended Projects

Project- Focus Area B					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
Story Rd Corridor	B3	Story Rd streetscape improvements	<ul style="list-style-type: none"> <li>Widen sidewalks on N side of Story Rd between S. Jackson Ave and White Rd; Recommend minimum 13' total sidewalk width per VTA Pedestrian Technical Guidelines</li> <li>Stripe ladder crosswalks alongside street crossings</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Very narrow sidewalks on north.(residential) side of Story Rd</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Underutilized roadway space and parking space in outside lanes on Story Rd</li> <li>Identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>On-street parking along this corridor</li> <li>Taking right-of-way may be required to widen sidewalks</li> </ul>	<ul style="list-style-type: none"> <li><i>East San Jose Community-Based Transportation Plan (2009)</i></li> <li><i>Vision Zero San Jose</i></li> </ul>
Story Rd/ Capitol Expy	B4	Capitol Expy/Story Rd intersection improvements	<ul style="list-style-type: none"> <li>Reconstruct pork chops at NE and SW corners to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>Add advanced yield pavement markings and signage at NE and SW corner dedicated right turns</li> <li>Stripe ladder crosswalks</li> <li>Consider landscaping at NW, SW and NE corners to improve waiting experience and provide shade</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Wide intersection lacks shade</li> <li>Poor pedestrian visibility</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Platforms under construction as part of Santa Clara-Alum Rock BRT</li> <li>Story Rd and Capitol Expy identified as Safety Priority Streets in <i>Vision Zero San Jose</i></li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>High vehicle traffic volumes</li> <li>Landscaping and ladder crosswalks generate additional maintenance costs</li> </ul>	<ul style="list-style-type: none"> <li><i>East San Jose Community-Based Transportation Plan (2009)</i></li> <li>Santa Clara-Alum Rock BRT Program</li> <li><i>Vision Zero San Jose</i></li> </ul>
Story Rd/White Rd	B5	White Rd/Story Rd intersection improvements	<ul style="list-style-type: none"> <li>Reconstruct curbs at SW and SE corners to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>Stripe ladder crosswalks</li> </ul>	Intersection	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Story Rd and White Rd identified as Safety Priority Streets in <i>Vision Zero San Jose</i></li> </ul>	<ul style="list-style-type: none"> <li><i>East San Jose Community-Based Transportation Plan (2009)</i></li> <li><i>Vision Zero San Jose</i></li> </ul>

## 5 Recommended Projects

Project- Focus Area B					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>Capitol Expy Corridor</b>	B6	Capitol Expy streetscape and neighborhood access improvements	<ul style="list-style-type: none"> <li>Consider streetscape improvements along west side of Capitol Expressway south of Story Rd: widen sidewalks, add landscaped buffer strip</li> <li>Consider adding “punch-thru” pedestrian access path at Logsdan Way. Access through sound walls must include sound-dampening features</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Limited transit access along this stretch of Capitol Expy</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Capitol Expy identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>“Punch thru” pedestrian access likely to require land purchase or easement from existing homeowners</li> <li>Limited transit access along this stretch of Capitol Expy</li> <li>Soundwalls restrict right-of-way that can be used to widen sidewalks</li> </ul>	<ul style="list-style-type: none"> <li><i>Vision Zero San Jose</i></li> </ul>
<b>Capitol Expy Corridor</b>	B7	Silver Creek Trail Extension	<ul style="list-style-type: none"> <li>Extend Silver Creek Trail between Cassell Park and Lake Cunningham Park</li> </ul>	Network Connection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Silver Creek Trail ends at Cassell Park</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>City of San Jose and Santa Clara Valley Water District have identified trail extension as a future project</li> </ul>	<ul style="list-style-type: none"> <li><i>Lower Silver Creek Trail Master Plan (SJ, 2007) and Initial Study</i></li> </ul>

# 5 Recommended Projects

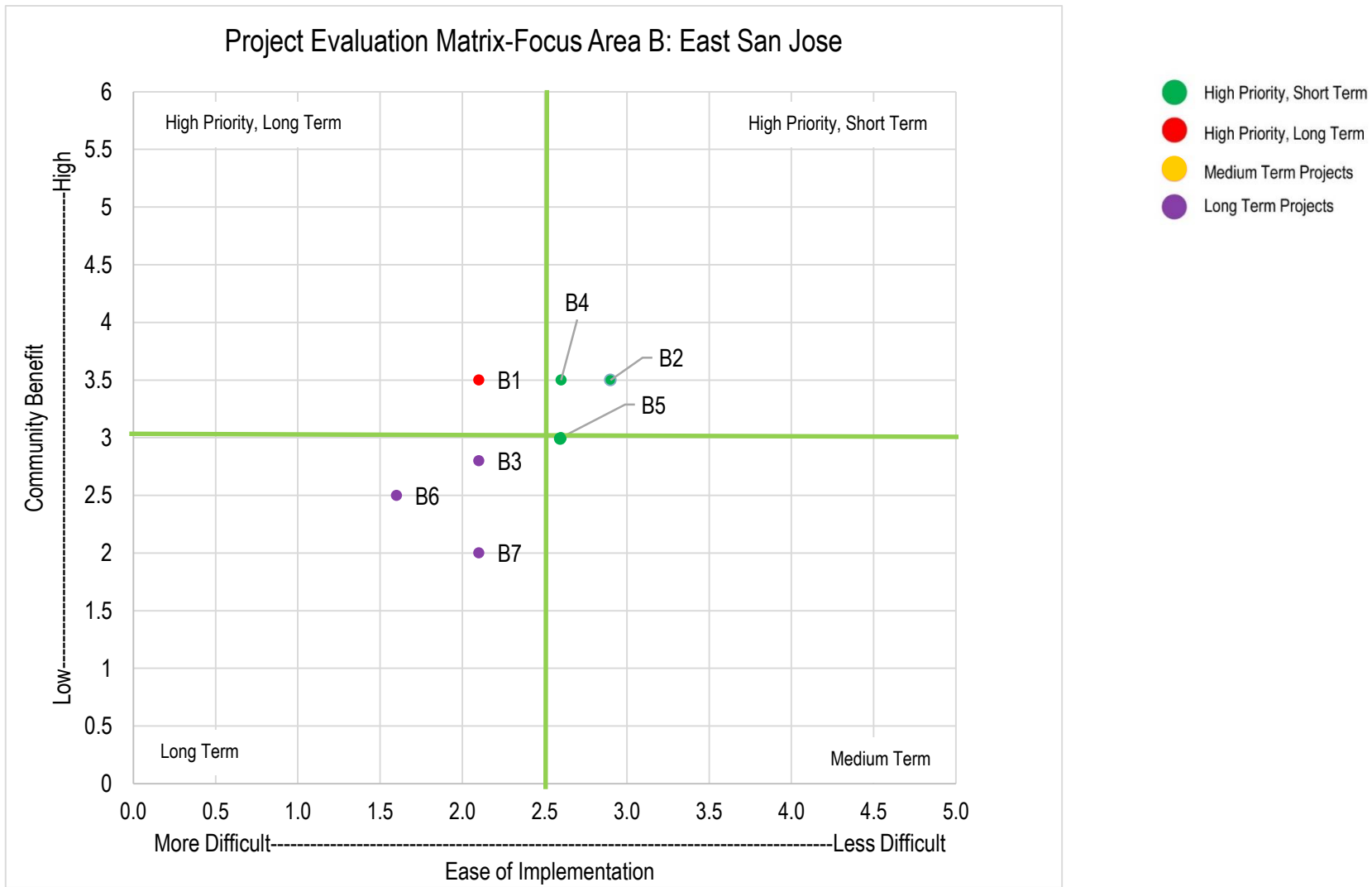


Figure 5.9: Project Evaluation Matrix for Focus Area B: East San Jose (San Jose, County)



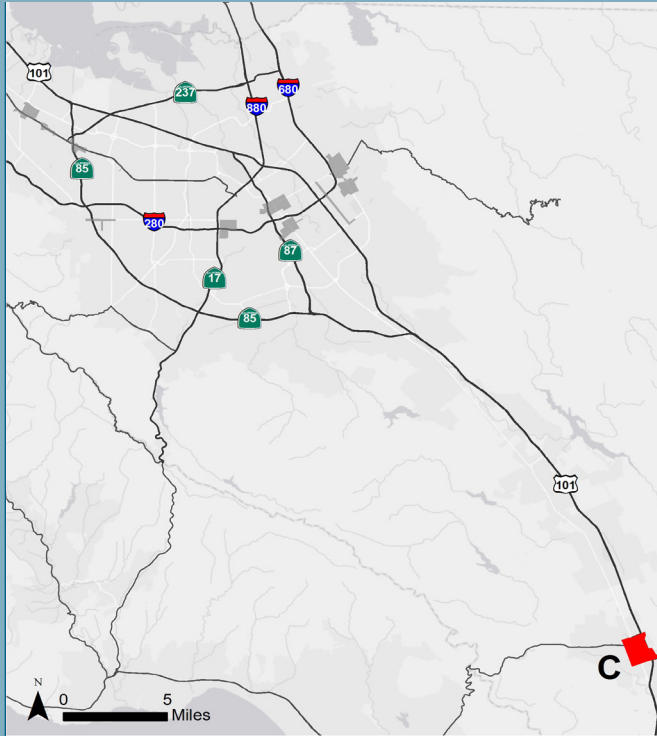
## 5 Recommended Projects

**Table 5.7: Project Scores and Cost Estimates for Focus Area B: East San Jose (San Jose, County)**

#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project Priority
				less than \$500,000	\$500,000-\$5M	over \$5M	
<b>B1</b>	Capitol Expy/Capitol Ave intersection improvements	3.5	2.1		x		High priority, long term
<b>B2*</b>	Story Rd Corridor signalized intersection improvements	3.5	2.9			x	High priority, short term
<b>B3</b>	Story Rd streetscape improvements	2.8	2.1			x	Long term
<b>B4*</b>	Capitol Expy/Story Rd intersection improvements	3.5	2.6		x		High priority, short term
<b>B5</b>	White Rd/Story Rd intersection improvements	3.0	2.6	x			High priority, short term
<b>B6</b>	Capitol Expy streetscape and neighborhood access improvements	2.5	1.6			x	Long term
<b>B7</b>	Silver Creek Trail Extension	2.0	2.1			x	Long term

\* Projects that VTA has an interest in proactively advancing. See chapter 6 for planning level cost estimates for these projects.

## Focus Area C: Central Gilroy



### Summary

Focus Area C is located in downtown Gilroy and is bounded by Highway 101, Princevalle Street, W. 10<sup>th</sup> Street, and Leavesley Road. It is served by Caltrain and several local bus routes centered on the Gilroy Transit Center. Major bus routes within the Focus Area are VTA Lines 14, 18, 19, 68, and 121). The Focus Area includes four schools, three parks, and commercial districts along Monterey Road, E. 10<sup>th</sup> Street, and 1<sup>st</sup> Street.

### Issues

- US 101 and Caltrain tracks present major barriers to pedestrian circulation
- Existing at-grade rail crossings do not provide adequate pedestrian facilities
- Several intersections with pedestrian crossing restrictions
- Incomplete sidewalks in neighborhoods



Existing pedestrian crossing at 7th Street-Old Gilroy



Missing sidewalks within Focus Area



Highway 101 creates a barrier between residential and commercial areas

### Opportunities

- Existing pedestrian-oriented retail along Monterey Road and 1<sup>st</sup> Street
- Excellent streetscape around Caltrain Station and Gilroy Transit Center
- High pedestrian demand throughout Focus Area due to housing, retail, schools and parks
- Excess right-of-way at streets and intersections provides space for pedestrian-oriented improvements
- Pedestrian improvements identified in *Downtown Gilroy Specific Plan*, including bicycle/pedestrian paths along east side of Caltrain alignment and along Western Ronan Channel
- *Downtown Station Area Plan* in progress right now.



High-quality streetscape at Gilroy Transit Center



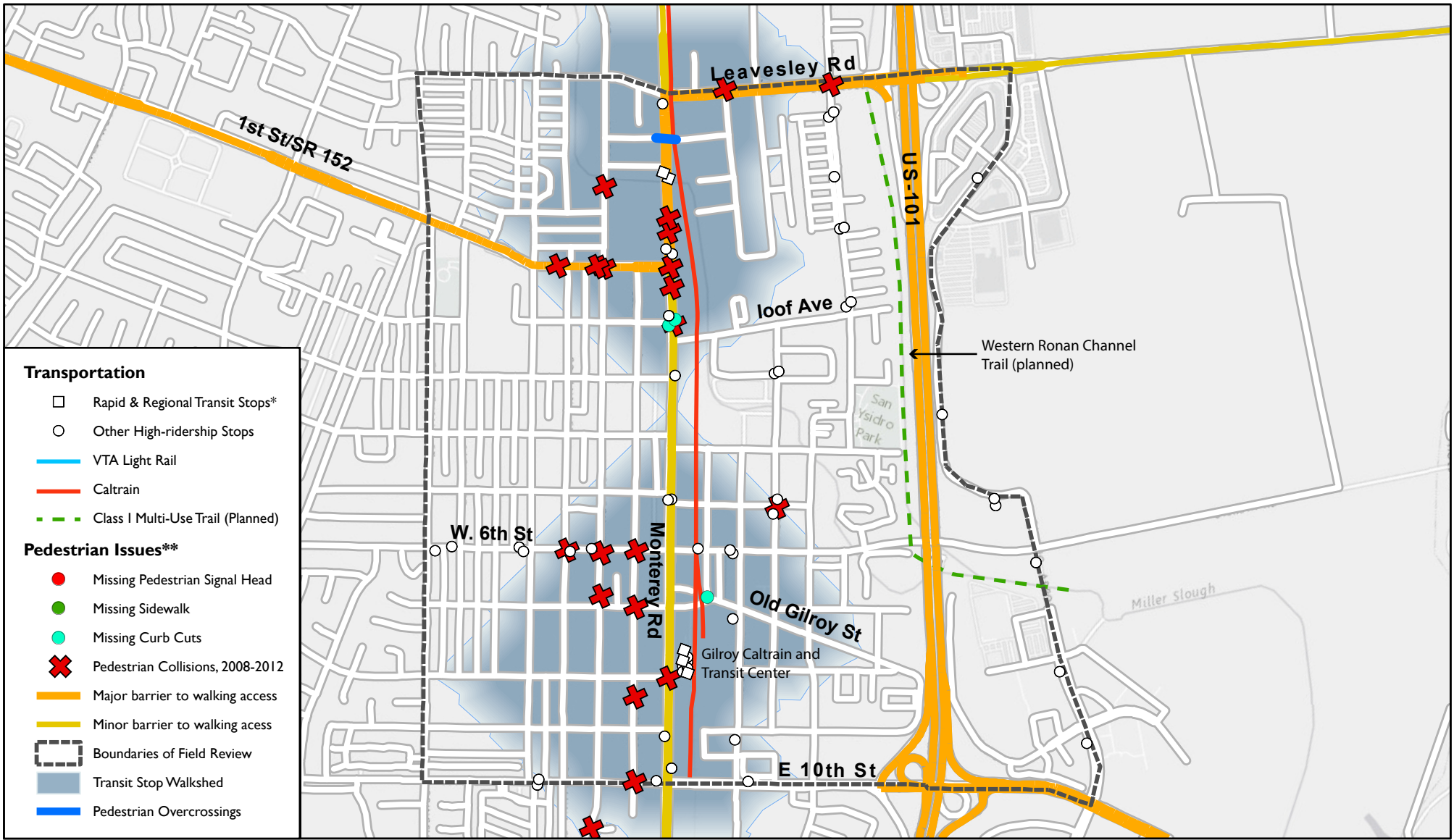
Unused right-of-way on Monterey Rd



Schools and housing generate pedestrian demand

# Focus Area C: Central Gilroy

## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

\*\*Not all pedestrian deficiencies are mapped.

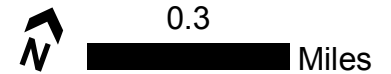
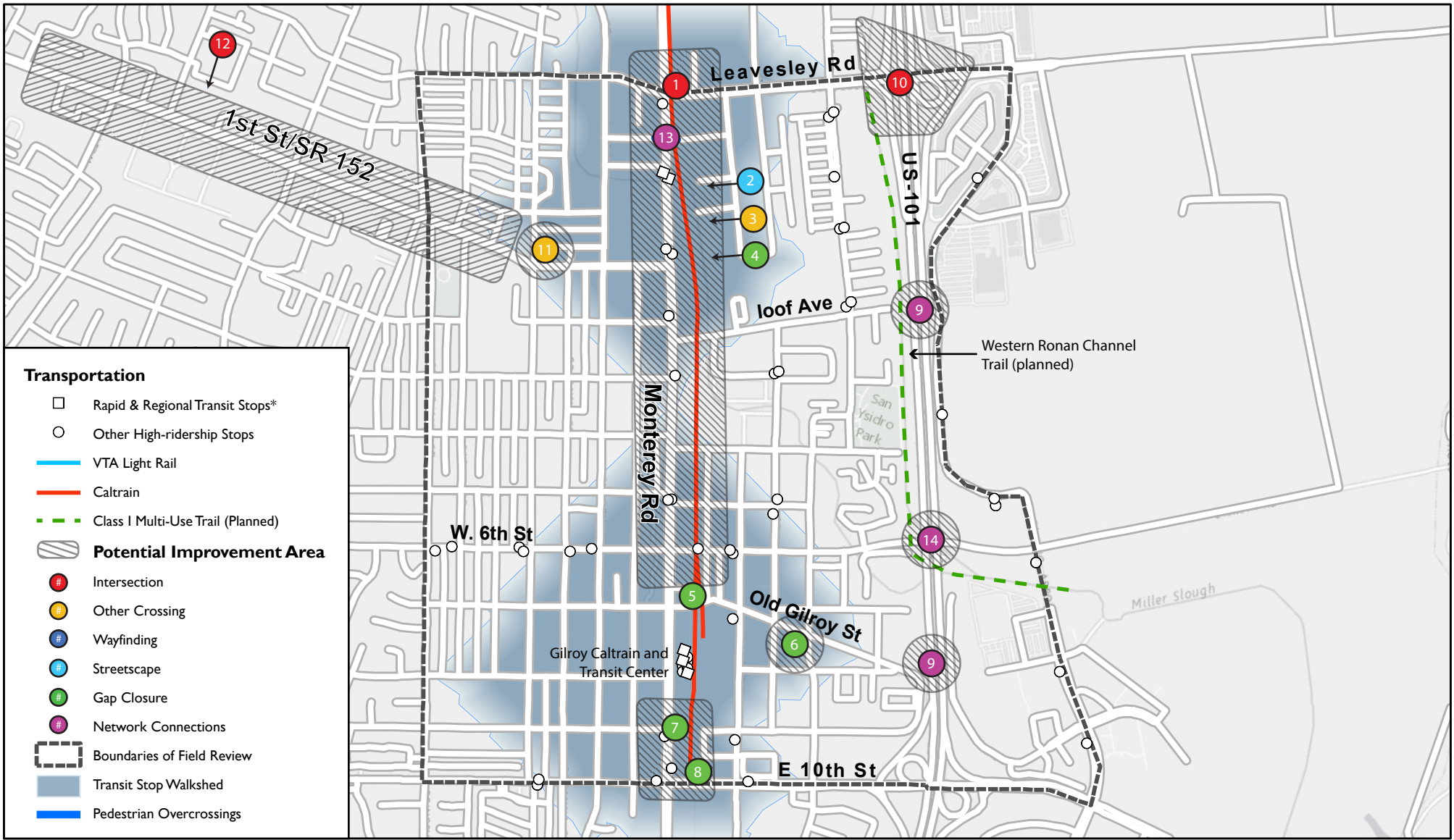


Figure 5.10: Focus Area C, barriers and infrastructure deficiencies



# Focus Area C: Central Gilroy

## Potential Improvements by Project Type



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

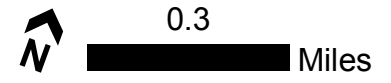


Figure 5.11: Focus Area C, potential improvements



# 5 Recommended Projects

Table 5.8. Recommended Projects- for Focus Area C: Central Gilroy

Project- Focus Area C					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
Monterey Rd/Leavesley Rd	C1	Monterey Rd/Leavesley Rd intersection improvements	<ul style="list-style-type: none"> <li>Consider removing or reconstructing pork chop at SE corner to narrow right turn radii, reduce crossing distances, expand pedestrian waiting space, and improve driver yielding rates</li> <li>Tighten curb radius at NE corner</li> <li>Add advanced yield pavement markings and signage at dedicated right turn lane</li> <li>Stripe ladder crosswalks</li> <li>Stripe ladder crosswalks at NE and SE corner track crossings to designate pedestrian crossing</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Wide curb radii and high vehicle speeds</li> <li>WB trucks regularly collide with railroad crossing sign (crossbuck)</li> <li>Heavy truck turning movement WB to NB</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Identified improvements in <i>Downtown Gilroy Specific Plan</i></li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Due to proximity to Caltrain tracks, changes will require coordination with California Public Utilities Commission</li> </ul>	<ul style="list-style-type: none"> <li><i>Downtown Gilroy Specific Plan</i></li> </ul>
Monterey Rd Corridor	C2	Monterey Rd Corridor streetscape improvements	<ul style="list-style-type: none"> <li>Add buffer on west side of Monterey Rd through streetscape and pedestrian lighting</li> <li>Widen sidewalks, add landscaped buffers (planters, short-term/tactical option), add pedestrian-scale lighting. Recommend minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>Stripe ladder crosswalks alongside street crossings</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Monterey Rd is wide with high pedestrian volumes, high vehicle speeds and poor lighting</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Underused parking spaces on both sides of Monterey Road.</li> <li>ROW can be reallocated to implement streetscape improvements.</li> <li>Identified improvements in <i>Downtown Gilroy Specific Plan</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Downtown Gilroy Specific Plan</i></li> </ul>
Monterey Rd Corridor	C3	Monterey Rd/Howson St uncontrolled crossing improvements	<ul style="list-style-type: none"> <li>Improve existing uncontrolled crossing at Monterey Rd/Howson St: ladder crosswalk, high-visibility pedestrian crossing signage, Rectangular Rapid Flash Beacon or</li> </ul>	Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Poor driver yield rates observed at existing crosswalk</li> <li>High number of pedestrian-involved collisions at this location</li> </ul>	-

# 5 Recommended Projects

Project- Focus Area C					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			<p>Pedestrian Hybrid Beacon to improve driver yield rates</p> <ul style="list-style-type: none"> <li>Evaluate possibility of relocating NB bus stop closer to Howson</li> </ul>		<ul style="list-style-type: none"> <li>Pedestrians observed crossing Monterey Rd against traffic</li> </ul>	
Caltrain corridor	C4	At-grade railway crossing improvements	<ul style="list-style-type: none"> <li>Improve at-grade crossings at IOOF Ave, Lewis St, Martin St, E. 6th St, E. 7th St</li> <li>Widen or add sidewalks. Recommend minimum 9'6" total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>Stripe ladder crosswalks at track crossings to designate pedestrian crossing</li> <li>Add pedestrian gates and potentially intertrack fencing to restrict pedestrian access to tracks</li> <li>Evaluate possibility of adding bicycle/pedestrian path east of Caltrain right-of-way between 10th St and Leavesley Rd, as identified in <i>Downtown Gilroy Specific Plan</i></li> </ul>	Gap Closure	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Identified in <i>Downtown Gilroy Specific Plan</i></li> <li>Crossing improvements identified in <i>Caltrain Safety Improvement Study</i> conducted by VTA in 2013</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Due to proximity to Caltrain tracks, changes will require coordination with California Public Utilities Commission</li> </ul>	<ul style="list-style-type: none"> <li><i>Downtown Gilroy Specific Plan</i></li> <li><i>Caltrain Safety Improvement Study</i> (VTA, 2013)</li> </ul>
E 7th St -Old Gilroy St	C5	E 7th St - Old Gilroy St railway crossing improvements	<ul style="list-style-type: none"> <li>Add sidewalk and crosswalk to NE side of track crossing</li> <li>Stripe ladder crosswalks at track crossings to designate pedestrian crossing</li> <li>Add pedestrian gates to channel pedestrian access</li> <li>Add pedestrian refuge between two sets of tracks: raised curb,</li> </ul>	Gap Closure	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Pedestrian access is unclear</li> <li>No restrictions to pedestrian access at rail track</li> <li>No infrastructure to alert drivers to presence of pedestrians</li> <li>Narrow sidewalk at Old Gilroy St. north side</li> <li>Existing crossings are not ADA-compliant</li> </ul>	-

# 5 Recommended Projects

Project- Focus Area C					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			pedestrian gates, possibly intertrack fencing <ul style="list-style-type: none"> <li>Consider reconstructing RR/Old Gilroy St intersection to reduce turning radii at NE corner/shorten crossing distance, and bring the two streets together at closer to a 90 degree angle.</li> </ul>		<b>Opportunities</b> <ul style="list-style-type: none"> <li>On Railroad Rd/ Old Gilroy St there is space for sidewalks, crosswalks, and lighting</li> </ul> <b>Challenges</b> <ul style="list-style-type: none"> <li>Due to proximity to Caltrain tracks, changes will require coordination with California Public Utilities Commission</li> <li>Design must accommodate truck movement as this is an industrial area.</li> </ul>	
<b>Monterey Rd Corridor</b>	C6	Neighborhood sidewalk completion	<ul style="list-style-type: none"> <li>Complete sidewalk networks throughout neighborhood bounded by Monterey Rd, IOOF Ave, US 101, and E. 10th St including areas around new affordable housing development at Alexander Street</li> </ul>	Gap Closure	<b>Issues</b> <ul style="list-style-type: none"> <li>Incomplete sidewalk network in this neighborhood</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>Space available on Alexander and Old Gilroy St for bus waiting area and sidewalk</li> <li>This area has space for sidewalk and pedestrian lighting</li> </ul> <b>Challenges</b> <ul style="list-style-type: none"> <li>Little development anticipated in this neighborhood, presenting few opportunities to complete sidewalks as part of new projects</li> </ul>	<ul style="list-style-type: none"> <li><i>Downtown Gilroy Specific Plan</i></li> </ul>
<b>Monterey Rd Corridor</b>	C7	Monterey Road sidewalk completion	<ul style="list-style-type: none"> <li>Complete sidewalks between Caltrain Station and W. 10th St</li> <li>Short-term solution: Install ADA-compliant all-weather asphalt path</li> </ul>	Gap Closure	<b>Opportunities</b> <ul style="list-style-type: none"> <li>Implementation of High Speed Rail provides opportunity to make improvements</li> </ul> <b>Challenges</b> <ul style="list-style-type: none"> <li>Right-of-way taking, parking and tree removal, and relocation of utility lines</li> </ul>	<ul style="list-style-type: none"> <li><i>Downtown Gilroy Specific Plan</i></li> <li><i>City of Gilroy Pedestrian Safety Assessment (2013)</i></li> </ul>

# 5 Recommended Projects

Project- Focus Area C					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
					would be required and would increase project cost	
Monterey Rd/ E.10th St	C8	10th st/Monterey Rd crossing improvements and gap closure	<ul style="list-style-type: none"> <li>• Complete and widen sidewalks at track crossing and on south side of E 10th St; Recommend minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>• Stripe ladder crosswalks at track crossing to designate pedestrian crossing</li> <li>• Add pedestrian gates and potentially intertrack fencing to restrict pedestrian access</li> <li>• Add pedestrian refuge between two sets of tracks: raised curb, pedestrian gates, potentially intertrack fencing</li> <li>• Consider tightening radii at NE corner of Monterey Rd/10th St and realigning north leg crosswalk</li> </ul>	Gap Closure	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Pedestrian access is unclear</li> <li>• No restrictions to pedestrian access at rail track</li> <li>• No infrastructure to alert drivers to presence of pedestrians</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Major access point for Caltrain station</li> <li>• City-led traffic calming study of 10th St improvements underway</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Due to proximity to Caltrain tracks, changes will require coordination with California Public Utilities Commission</li> <li>• Right-of-way taking with property redevelopment may be required to widen sidewalks</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Downtown Gilroy Specific Plan</i></li> <li>• <i>Gilroy traffic calming study</i> (City of Gilroy, forthcoming)</li> </ul>
US 101 corridor	C9	Proposed pedestrian crossings at loof Ave, Old Gilroy Street	<ul style="list-style-type: none"> <li>• US 101 overcrossings proposed at: loof St, Old Gilroy St</li> <li>• loof Ave overcrossing would include vehicle, bicycle, and transit access</li> <li>• Old Gilroy St overcrossing would be pedestrian-only</li> <li>• Considerations for a new overpass should include: conflicts with overhead utilities, close-in pedestrian overpasses (10th, 6th, Leavesley Rd)</li> </ul>	Network Connection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Proposed overcrossings could connect neighborhood to major commercial areas</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Bridge at Crocker Ln may conflict with power lines, elevations</li> <li>• May duplicate access provided at E. 6th Street/Gilman Road.</li> </ul>	-



# 5 Recommended Projects

Project- Focus Area C					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>US 101/ Leavesley Rd</b>	C10	Leavesley Rd/US 101/San Ysidro Ave interchange improvements	<ul style="list-style-type: none"> <li>• Reconstruct curb at NE corner and pork chop at SE corner of San Ysidro Ave/Leavesley Rd to tighten right turn radii, reduce crossing distances, expand pedestrian waiting space, and reduce angle of approach</li> <li>• Lane restriping and crosswalk relocations as identified in <i>Gilroy Pedestrian Safety Assessment</i></li> <li>• Stripe ladder crosswalks and add pedestrian crossing signage at existing ramp crossings</li> <li>• Add pedestrian-scale lighting under underpass</li> <li>• Consider adding mural or other public art under underpass</li> <li>• Western Ronan Channel continues across Leavesley. Consider bike pedestrian overcrossing or at-grade crossing at this location to facilitate trail connection</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Wide curb radii, long pedestrian crossing distance, and high vehicle speeds</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Interchange identified as an Across Barrier Connection (Unfriendly interchange) in 2008 <i>Santa Clara Countywide Bicycle Plan</i></li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Santa Clara Countywide Bicycle Plan</i> (VTA, 2008)</li> </ul>
<b>1st St/Hanna St</b>	C11	1st St mid-block crossing at Hanna St or Rosanna St	<ul style="list-style-type: none"> <li>• Consider mid-block crossing at 1st St/Hanna St or Rosanna St: ladder crosswalk, high-visibility pedestrian crossing signage, pedestrian-scale lighting, either median refuge or Rectangular Rapid Flash Beacon/Pedestrian Hybrid Beacon</li> </ul>	Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High pedestrian volumes</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	-
<b>1st St/SR 152 corridor</b>	C12	1st St/SR 152 corridor streetscape and	<ul style="list-style-type: none"> <li>• Evaluate complete streets improvements along 1st St/SR 152 between Monterey Rd and Santa Teresa Blvd. Consider crossing</li> </ul>	Intersection Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High pedestrian volumes</li> <li>• School access along corridor</li> </ul> <p><b>Challenges</b></p>	-

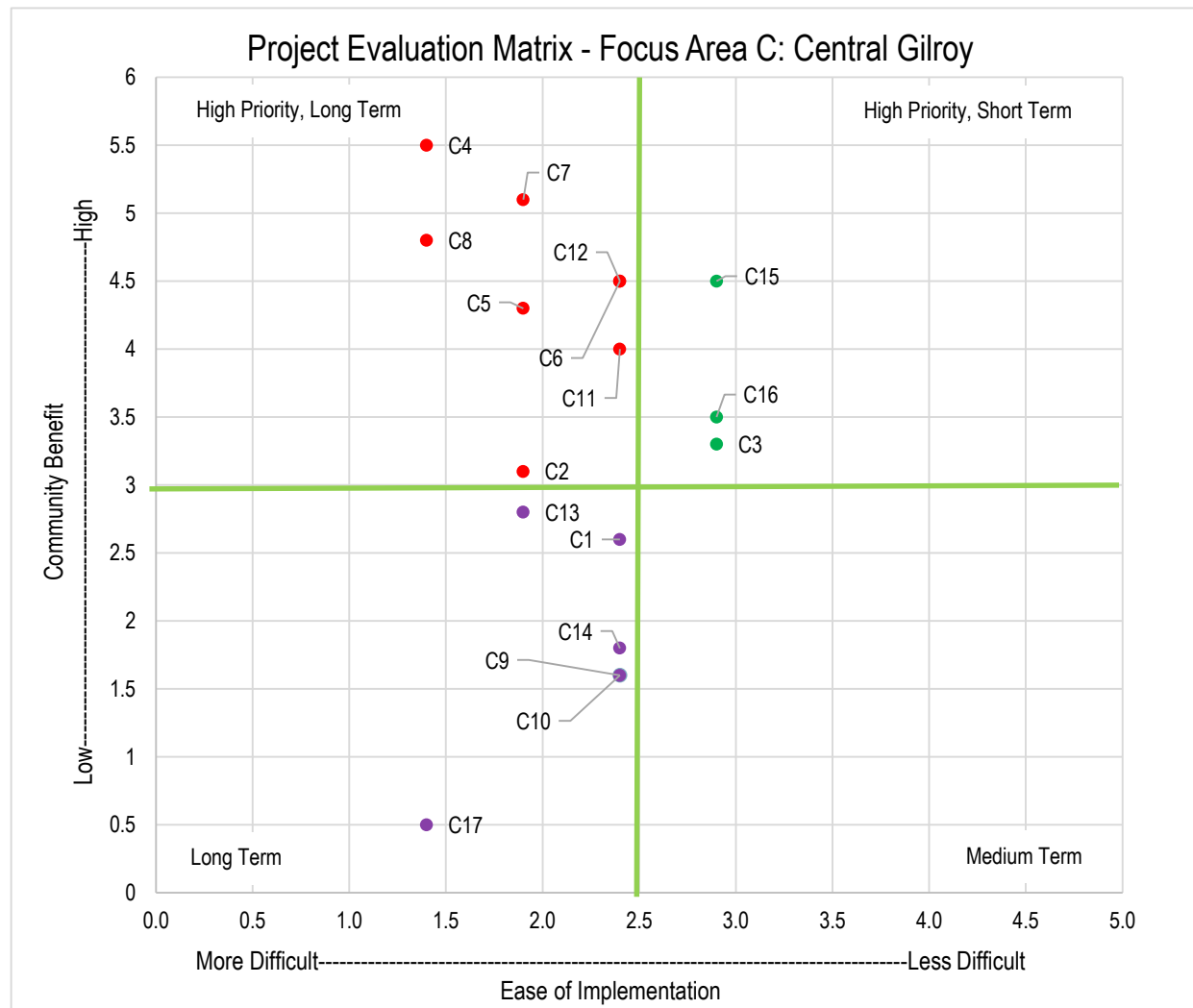
## 5 Recommended Projects

Project- Focus Area C					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
		crossing improvements	improvements and traffic calming to improve safety at nearby schools		<ul style="list-style-type: none"> <li>Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	
<b>Monterey Rd Corridor</b>	C13	Swantston Ln pedestrian crossing improvements	<ul style="list-style-type: none"> <li>Consider improvements to Swantston Ln pedestrian crossing of Caltrain line. Potential improvements include striping ladder crossings and adding pedestrian gates to restrict access</li> <li>Consider feasibility of adding pedestrian/bicycle undercrossing</li> </ul>	Network connection	<p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Due to proximity to Caltrain tracks, changes will require coordination with California Public Utilities Commission</li> </ul>	-
<b>US 101 Corridor</b>	C14	6th St /US101 overcrossing improvements	<ul style="list-style-type: none"> <li>Add barrier between pedestrians and vehicles on north side of overcrossing</li> <li>Look for opportunities to expand pedestrian space when bridge is rebuilt or expanded</li> </ul>	Network connection	<p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Substantial improvements would require structural changes to bridge</li> <li>Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	-
<b>Alexander St</b>	C15	Alexander St improvements	<ul style="list-style-type: none"> <li>Complete sidewalk on west side of Alexander St between Old Gilroy St and 10th St</li> </ul>	Network connection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Gap in sidewalk network on west side of Alexander St</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Identified in <i>Downtown Gilroy Specific Plan (2005)</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Downtown Gilroy Specific Plan (2005)</i></li> </ul>
<b>Tenth St</b>	C16	Tenth St improvements	<ul style="list-style-type: none"> <li>Consider improvements on Tenth St between Monterey Rd and Princevalle St, to widen sidewalks, stripe ladder crosswalks across side street intersections. Recommend minimum 13' total sidewalk width per <i>VTA Pedestrian Technical Guidelines</i></li> </ul>	Streetscape	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Tenth St improvements identified in <i>Gilroy Bicycle Pedestrian Transportation Plan (2002)</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Gilroy Bicycle Pedestrian Transportation Plan (Gilroy, 2002)</i></li> </ul>

# 5 Recommended Projects

Project- Focus Area C					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
Luchessa Ave	C17	Luchessa Ave bicycle/pedestrian bridge	<ul style="list-style-type: none"> <li>Construct a bicycle/pedestrian bridge over Uvas Creek between Thomas Rd and Princevalle St</li> </ul>	Network connection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Existing Luchessa Avenue overcrossing of Uvas Creek provides substandard (narrow/unmarked) pedestrian and bicycle access</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Identified in <i>Gilroy Bicycle Pedestrian Transportation Plan</i> (2002) and <i>City of Gilroy Trails Master Plan</i> (2005)</li> </ul>	<ul style="list-style-type: none"> <li><i>Gilroy Bicycle Pedestrian Transportation Plan</i> (2002)</li> <li><i>City of Gilroy Trails Master Plan</i> (2005)</li> </ul>

# 5 Recommended Projects



- High Priority, Short Term
- High Priority, Long Term
- Medium Term Projects
- Long Term Projects

Figure 5.12: Project Evaluation Matrix for Focus Area C: Central Gilroy



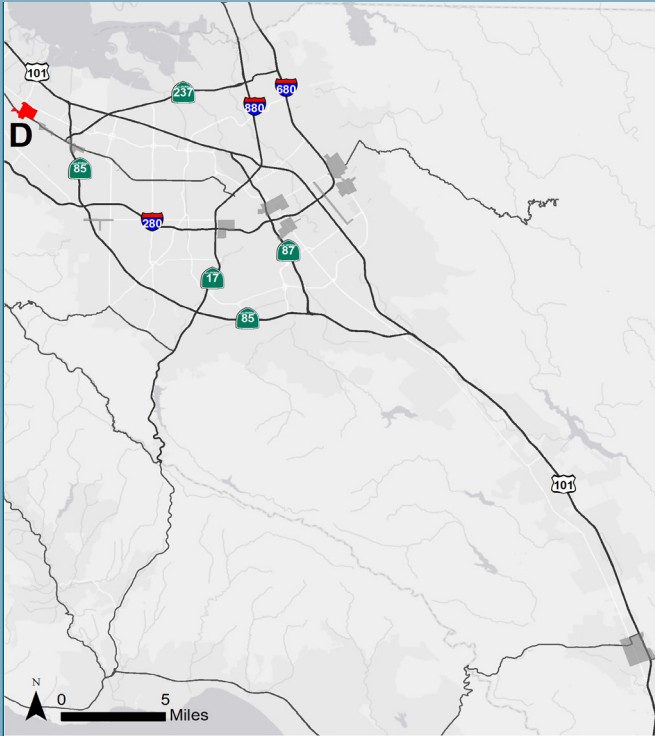
# 5 Recommended Projects

**Table 5.9: Project Scores and Cost Estimates for Focus Area C: Central Gilroy**

#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project priority
				less than \$500,000	\$500,000-\$5M	over \$5M	
C1	Monterey Rd/Leavesley Rd intersection improvements	2.6	2.4	x			Long term
C2	Monterey Rd Corridor streetscape improvements	3.1	1.9			x	High priority, long term
C3	Monterey Rd/Howson St uncontrolled crossing improvements	3.3	2.9	x			High priority, short term
C4*	At-grade railway crossing improvements	5.5	1.4		x		High priority, long term
C5*	E 7th St/Old Gilroy St railway crossing improvements	4.3	1.9		x		High priority, long term
C6	Neighborhood sidewalk completion	4.5	2.4			x	High priority, long term
C7	Monterey Road sidewalk completion	5.1	1.9	x			High priority, long term
C8*	10 <sup>th</sup> St/Monterey Rd crossing improvements and gap closure	4.8	1.4		x		High priority, long term
C9	Proposed pedestrian crossings at IOOF Ave, Old Gilroy Street	1.6	2.4			x	Long term
C10	Leavesley Rd/Hwy 101/San Ysidro Ave interchange improvements	1.6	2.4			x	Long term
C11	1st St mid-block crossing at Hanna St or Rosanna St	4.0	2.4	x			High priority, long term
C12*	1st St/SR 152 corridor streetscape and crossing improvements	4.5	2.4		x		High priority, long term
C13	Swantston Ln pedestrian crossing improvements	2.8	1.9		x		Long term
C14	6th St/ Hwy 101 overcrossing improvements	1.8	2.4		x		Long term
C15	Alexander St improvements	4.5	2.9		x		High priority, short term
C16	10th St improvements	3.5	2.9		x		High priority, short term
C17	Luchessa Ave bicycle/pedestrian bridge	0.5	1.4			x	Long term

\* Projects that VTA has an interest in proactively advancing. See chapter 6 for planning level cost estimates for these projects.

## Focus Area D: San Antonio (Mountain View/ Los Altos)



### Summary

Focus Area D is located in West Mountain View and Los Altos and is bounded by El Camino Real, San Antonio Road, Central Expressway, and S. Rengstorff Avenue. It is served by Caltrain at the San Antonio station, VTA's 522 Rapid bus, and several local bus routes (including VTA Lines 22, 34, 35, and 40), with a small transit hub just north of the El Camino/Showers intersection. It includes a major commercial development at the El Camino Real/San Antonio Road intersection (the San Antonio Shopping Center), as well as commercial development along the El Camino Real corridor and several multifamily housing complexes.

### Issues

- Pedestrians and transit passengers exposed to high levels of vehicle traffic along El Camino Real, Rengstorff Ave, and San Antonio Road
- High speed vehicle turns at several major intersections
- Poor pedestrian access to San Antonio Caltrain Station
- Caltrain tracks at Central Expressway present barrier to connectivity for neighborhoods north of Focus Area



Narrow sidewalks along El Camino Real



Limited space at bus stop boarding areas

### Opportunities

- Excellent streetscape around new development at NE corner of El Camino Real/San Antonio Road, provides model for new development
- Potential to reallocate right-of-way at streets and intersections to pedestrian-oriented improvements as properties redevelop
- Existing uncontrolled crossings along El Camino Real and San Antonio Road can be upgraded
- Existing pedestrian and bicycle undercrossing at Mayfield Ave
- San Antonio Center Phase II is under construction.



High-quality streetscape at San Antonio Road and El Camino Real



# Focus Area D: San Antonio (Mountain View/Los Altos)

## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

\*\*Not all pedestrian deficiencies are mapped.

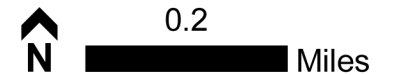
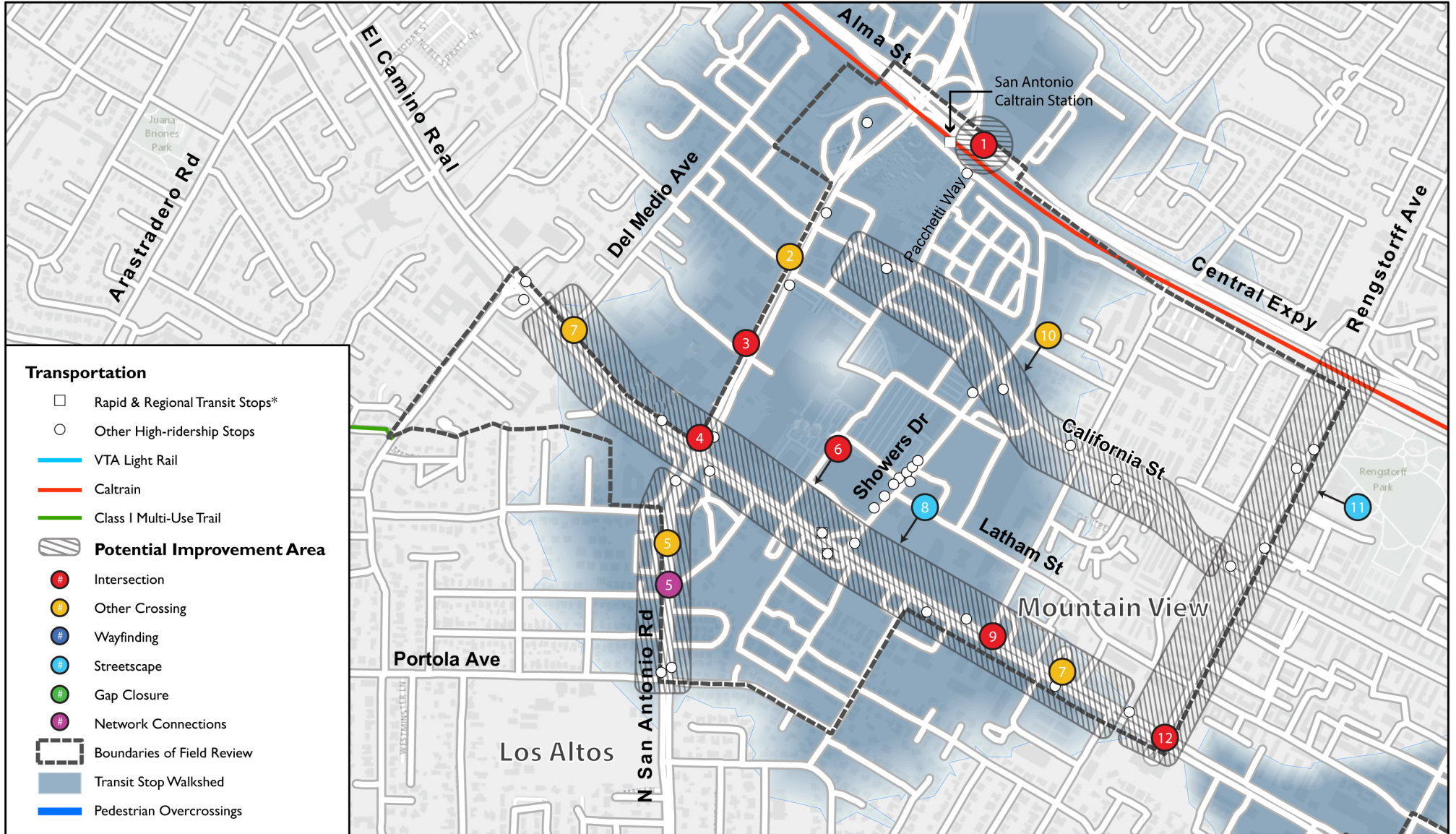


Figure 5.13: Focus Area D, barriers and infrastructure deficiencies





\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

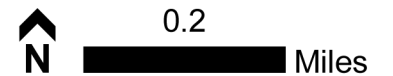


Figure 5.14: Focus Area D, potential improvements



# 5 Recommended Projects

**Table 5.10. Recommended Projects- for Focus Area D: San Antonio (Mountain View/Los Altos)**

Project- Focus Area D					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>Mayfield Ave/ Central Expy</b>	D1	Mayfield Ave/Central Expy intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct pork chops and curbs at NE corner to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>• Add advanced yield pavement markings and signage at dedicated right turn lane (NE corner)</li> <li>• Stripe ladder crosswalks at existing two legs of intersection</li> <li>• Consider reconstruction of San Antonio Rd/Central Expy off-ramp per County conceptual design</li> <li>• Add wayfinding signage along San Antonio Road to direct pedestrians and bicyclists to use the Caltrain undercrossing instead of San Antonio Road overpass.</li> <li>• Long-term improvement project is constructing a bicycle and pedestrian tunnel under Central Expressway.</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Poor access to pedestrian undercrossing of Caltrain tracks</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• County has long-term plan to rebuild ramp at Mayfield Ave/Central Expy/San Antonio Rd so it comes down east of Mayfield Ave</li> </ul>	Mayfield bicycle and pedestrian tunnel under Central Expressway, which continues to San Antonio Caltrain Station is listed as a potential project in VTP 2040 and 2016 Measure B Program.
<b>San Antonio Rd corridor</b>	D2	San Antonio Rd/Miller Ave uncontrolled crossing improvements	<ul style="list-style-type: none"> <li>• Improve existing uncontrolled crossing of San Antonio Rd at Miller Ave: ladder crosswalk, high-visibility pedestrian crossing signage, Rectangular Rapid Flash Beacon or Pedestrian Hybrid Beacon to improve driver yield rates.</li> </ul>	Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High vehicle volumes, poor pedestrian visibility at uncontrolled crossing</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Existing uncontrolled crossing</li> </ul>	San Antonio Phase II is currently under construction and includes San Antonio/ Miller Ave crosswalk with activated flashers.

# 5 Recommended Projects

Project- Focus Area D					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
San Antonio Rd corridor	D3	San Antonio Rd/Fayette Dr intersection improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks across San Antonio Rd</li> <li>• Tighten curb radius at SW corner and realign S leg of crosswalk to reduce crossing distance</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>• High pedestrian demand, skewed south leg of intersection</li> </ul>	-
San Antonio Rd/El Camino Real	D4	San Antonio Rd/El Camino Real intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct curbs at all corners to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>• Stripe ladder crosswalks</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>• High speed right turns, low-visibility crosswalks</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>• Noted in <i>Los Altos Pedestrian Master Plan</i></li> <li>• Reduced curb radii and ladder crosswalks recommended in Mountain View's <i>El Camino Real Precise Plan</i></li> </ul> <b>Challenges</b> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Los Altos Pedestrian Master Plan</i></li> <li>• <i>El Camino Real Precise Plan</i> (Mountain View)</li> </ul>
San Antonio Rd corridor	D5	San Antonio Rd corridor uncontrolled crossing improvements and sidewalk completion	<ul style="list-style-type: none"> <li>• At existing uncontrolled crossings of N San Antonio Rd/Pasa Robles Ave, consider adding Rectangular Rapid Flash Beacon or Pedestrian Hybrid Beacon to improve driver yield rates at existing uncontrolled crossings</li> </ul>	Other Crossing	<b>Issues</b> <ul style="list-style-type: none"> <li>• Pedestrians must cross five mixed-traffic lanes plus bike lanes at these locations</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Los Altos Pedestrian Master Plan</i></li> </ul>
El Camino Real corridor	D6	El Camino Real corridor signalized intersection improvements	<ul style="list-style-type: none"> <li>• Improve intersections of El Camino Real and Del Medio Ave, Los Altos Ave, Jordan Ave, Ortega Avenue, Distel Drive</li> <li>• Stripe ladder crosswalks at all intersections</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>• High speed right turns, low-visibility crosswalks along corridor</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>• El Camino Real/Del Medio Ave intersection improvements are currently</li> </ul>	<ul style="list-style-type: none"> <li>• <i>El Camino Real Bus Rapid Transit Draft EIR</i> (VTA)</li> </ul>

# 5 Recommended Projects

Project- Focus Area D					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			<ul style="list-style-type: none"> <li>Evaluate opportunities to narrow curb radii, remove free right turns, and provide marked crosswalks and pedestrian signal heads at all four legs of intersections</li> <li>Evaluate opportunities to improve and relocate bus stops at intersections along El Camino Real</li> </ul>		underway (as of September 2017) by private developer. <ul style="list-style-type: none"> <li>Ladder crosswalks across El Camino Real and selected turning radii reductions are included in the <i>Draft EIR for El Camino Real BRT</i></li> </ul> <b>Challenges</b> <ul style="list-style-type: none"> <li>Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	
<b>El Camino Real corridor</b>	D7	El Camino Real corridor uncontrolled crossing improvements	<ul style="list-style-type: none"> <li>Improve existing uncontrolled crossings El Camino Real/Distel Circle: ladder crosswalks, high-visibility pedestrian crossing signage, Pedestrian Hybrid Beacon to improve driver yield rates</li> <li>Potential to signalize or convert to right-in/right-out with implementation of El Camino Real BRT</li> </ul>	Other Crossing	<b>Issues</b> <ul style="list-style-type: none"> <li>High vehicle volumes, poor pedestrian visibility at uncontrolled crossing</li> </ul> <b>Challenges</b> <ul style="list-style-type: none"> <li>Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	<ul style="list-style-type: none"> <li><i>El Camino Real Bus Rapid Transit Draft EIR</i> (VTA)</li> <li>Crossing improvements (adding HAWK) are planned at Distel Circle by Caltrans</li> </ul>
<b>El Camino Real corridor</b>	D8	El Camino Real corridor streetscape improvements	<ul style="list-style-type: none"> <li>Streetscape improvements between Los Altos Avenue and S. Rengstorff Avenue</li> <li>As property redevelops, widen sidewalks. Recommend minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>Add landscaped buffers (planters as short-term/tactical option) including shade trees</li> <li>Add pedestrian-scale lighting</li> </ul>	Streetscape	<b>Issues</b> <ul style="list-style-type: none"> <li>Narrow sidewalks, limited pedestrian access to commercial areas, and multiple driveway conflicts along corridor</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>Parking lane along El Camino only intermittently used</li> </ul> <b>Challenges</b> <ul style="list-style-type: none"> <li>Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	<ul style="list-style-type: none"> <li><i>Mountain View El Camino Real Streetscape Plan</i> (In progress)</li> </ul>

# 5 Recommended Projects

Project- Focus Area D					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			<ul style="list-style-type: none"> <li>• To the extent feasible, consolidate driveways as properties redevelop and examine opportunities to add protected bicycle lane along El Camino Real</li> <li>• Add pedestrian access through parking lots to commercial developments</li> <li>• Stripe ladder crosswalks along side-street crossings</li> </ul>		<ul style="list-style-type: none"> <li>• Widening sidewalks may require major drainage work</li> <li>• Some businesses may rely on on-street parking</li> </ul>	
<b>El Camino Real/Showers Dr</b>	D9	El Camino Real/Showers Dr intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct curb at NE and NW corners to narrow right turn radius, reduce crossing distances, and expand pedestrian waiting space</li> <li>• Stripe ladder crosswalks at existing three legs of intersection (including driveway)</li> <li>• Consider adding pedestrian crossing to E leg of intersection: ladder crosswalk and pedestrian signal heads</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Worn crosswalks, low pedestrian visibility</li> <li>• Pedestrian access prohibited across east leg of crosswalk</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Noted in <i>San Antonio Precise Plan</i></li> <li>• Noted in <i>Los Altos Pedestrian Master Plan</i></li> <li>• Curb reconstructions and El Camino Real crossing improvements identified in <i>El Camino Real BRT Draft EIR</i></li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	<ul style="list-style-type: none"> <li>• <i>San Antonio Precise Plan</i> (Mountain View)</li> <li>• <i>Los Altos Pedestrian Master Plan</i></li> <li>• <i>El Camino Real BRT Draft EIR</i> (VTA)</li> </ul>
<b>California Ave corridor</b>	D10	California Ave uncontrolled crossing improvements	<ul style="list-style-type: none"> <li>• Evaluate opportunities to provide mid-block and unsignalized crossings along California Ave</li> </ul>	Other crossings	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Road diet planned for California Avenue</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Mountain View California Avenue Complete streets Feasibility Study</i> (2015)</li> </ul>



# 5 Recommended Projects

Project- Focus Area D					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
Rengstorff Ave corridor	D11	Rengstorff Ave corridor improvements	<ul style="list-style-type: none"> <li>• Consider improvements to existing uncontrolled pedestrian crossings along Rengstorff Ave between El Camino Real and Central Expy: ladder crosswalks, high-visibility pedestrian crossing signage, PHB or RRFB to improve driver yield rates</li> <li>• Streetscape improvements on Rengstorff Ave between Central Expy and El Camino Real: widen sidewalks if possible, improvements to pedestrian crossings including ladder crosswalks, high-visibility pedestrian crossing signage, PHB or RRFB to improve driver yield rates, and median pedestrian refuges. Recommend minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> </ul>	Streetscape Other crossings	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Existing uncontrolled crossings connect bus stops along Rengstorff Ave</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• County has long-term plan for grade separation of Rengstorff Ave and Central Expy/ Caltrain tracks, which would improve pedestrian connection to Rengstorff Ave north of Focus Area</li> </ul>	<ul style="list-style-type: none"> <li>• Mountain View existing <i>Capital Improvement Program (CIP)</i> listed a project for new traffic signal to be constructed to replace uncontrolled crossing at Rengstorff Ave/Stanford Ave. Construction contract is awarded (as of September 2017).</li> </ul>
Rengstorff Ave/El Camino Real	D12	Rengstorff Ave/El Camino Real intersection improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks on all four legs of intersection</li> <li>• Consider reducing curb radii/adding curb extensions to NE and NW corners and removing free SB right turn</li> <li>• Realign west leg of intersection</li> <li>• Consider possibility of adding marked pedestrian crossing and signal head to east leg of</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Wide curb radii at NE and NW corners (Rengstorff Ave approach)</li> <li>• No pedestrian crossing of south leg of intersection, which restricts access to SB bus stop</li> <li>• Skewed crosswalk on north leg of intersection</li> </ul> <p><b>Challenges</b></p>	-

# 5 Recommended Projects

Project- Focus Area D					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			intersection (El Camino Real crossing)		<ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	

# 5 Recommended Projects

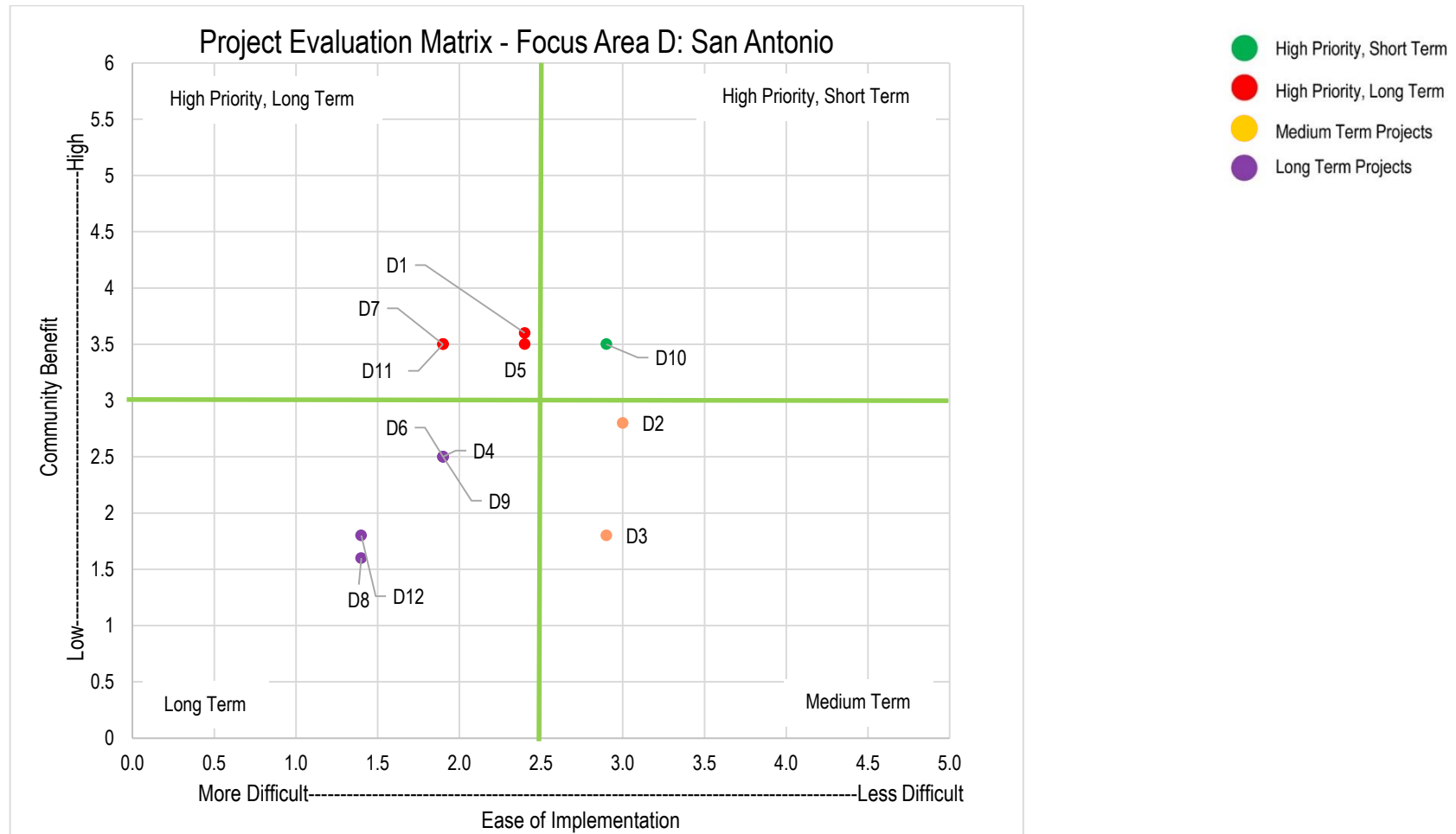


Figure 5.15: Project Evaluation Matrix for Focus Area D: San Antonio (Mountain View/Los Altos)

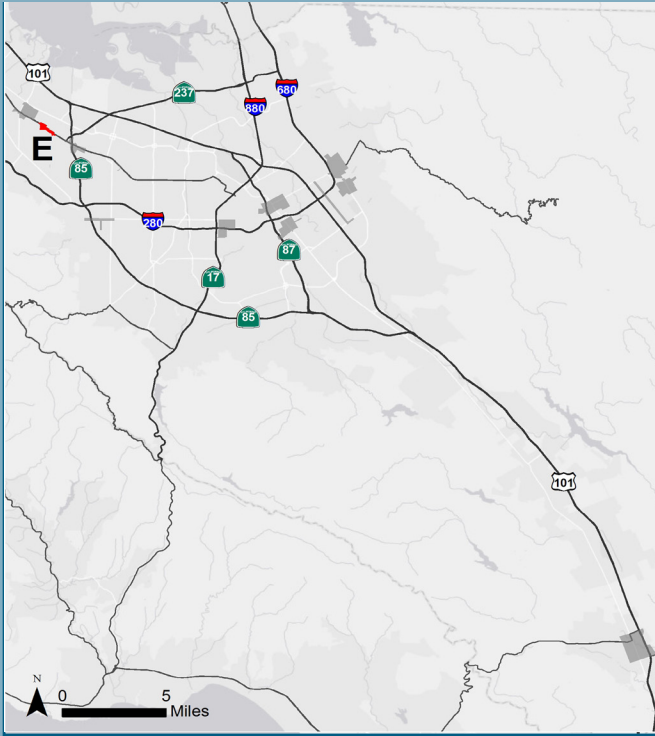
## 5 Recommended Projects

**Table 5.11. Project Scores and Cost Estimates for Focus Area D: San Antonio (Mountain View/Los Altos)**

#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project Priority
				less than \$500,000	\$500,000-\$5M	over \$5M	
D1	Mayfield Ave/Central Expy intersection improvements	3.6	2.4			x	High priority, Long term
D2	San Antonio Rd/Miller Ave uncontrolled crossing improvements	2.8	3.0	x			Medium term
D3	San Antonio Rd/Fayette Dr intersection improvements	1.8	2.9	x			Medium term
D4	San Antonio Rd/El Camino Real intersection improvements	2.5	1.9	x			Long term
D5	San Antonio Rd corridor uncontrolled crossing improvements and sidewalk completion	3.5	2.4	x			High priority, long term
D6	El Camino Real corridor signalized intersection improvements	2.5	1.9			x	Long term
D7	El Camino Real corridor uncontrolled crossing improvements	3.5	1.9	x			High priority, long term
D8	El Camino Real corridor streetscape improvements	1.6	1.4			x	Long term
D9	El Camino Real/Showers Dr intersection improvements	2.5	1.9	x			Long term
D10	California Ave uncontrolled crossing improvements	3.5	2.9	x			High priority, short term
D11	Rengstorff Ave corridor improvements	3.5	1.9			x	High priority, long term
D12	Rengstorff Ave/El Camino Real intersection improvements	1.8	1.4	x			Long term



## Focus Area E: Mountain View El Camino Real Corridor



### Summary

Focus Area E is located in Mountain View on either side of El Camino Real between Escuela Avenue and Lane Avenue. It is served by VTA's 522 Rapid bus, and several local bus routes, including VTA Lines 22 and 52. It includes both large and small commercial development along the El Camino Real corridor, along with several multifamily housing complexes.

### Issues

- Several pedestrian collisions along El Camino Real
- Narrow sidewalks along El Camino Real
- Several major intersections have high speed vehicle turns, long pedestrian crossing distances, pedestrian crossing restrictions
- Intersection configuration at El Camino Real/ El Monte Ave creates potential safety issues
  - At the Transit Center, Central Expressway and Caltrain tracks are barriers.



Wide curb radii and underbuilt porkchop at intersections



SW corner of El Camino Real/ El Monte Ave intersection



Narrow sidewalks and driveway curb cuts along El Camino Real

### Opportunities

- Existing uncontrolled crossings can be upgraded
- Many small businesses in the area provide pedestrian-scale shopping and services
- Existing pedestrian crossing improvements (porkchops, medians)



Small businesses and narrow sidewalks along El Camino Real



Pedestrians crossing at Castro/El Camino Real

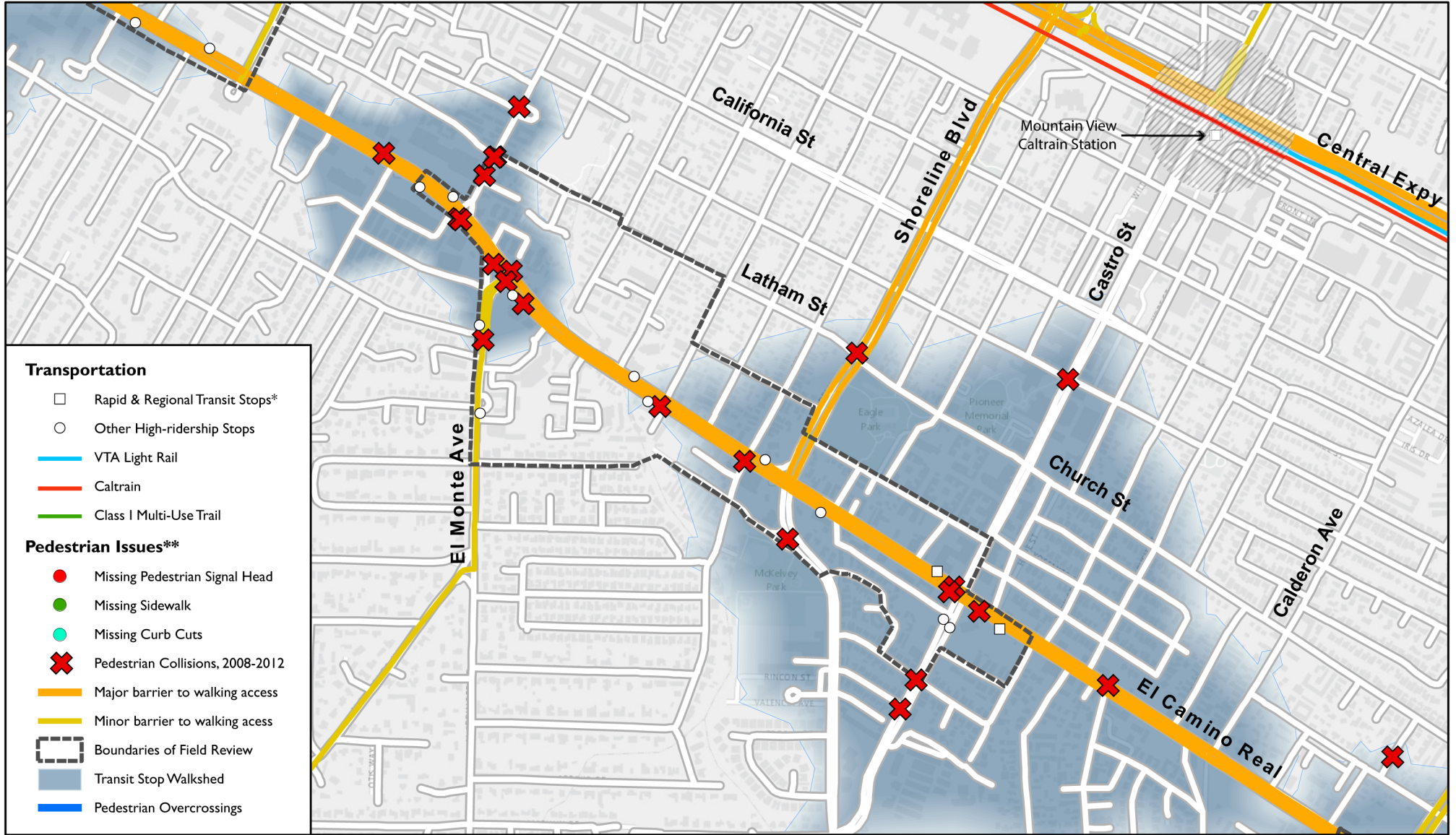


Existing pedestrian crossing improvements at Shoreline Blvd-Miramonte Ave/El Camino Real



# Focus Area E: Mountain View El Camino Real Corridor

## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

\*\*Not all pedestrian deficiencies are mapped.

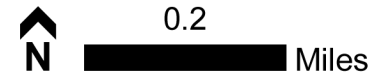
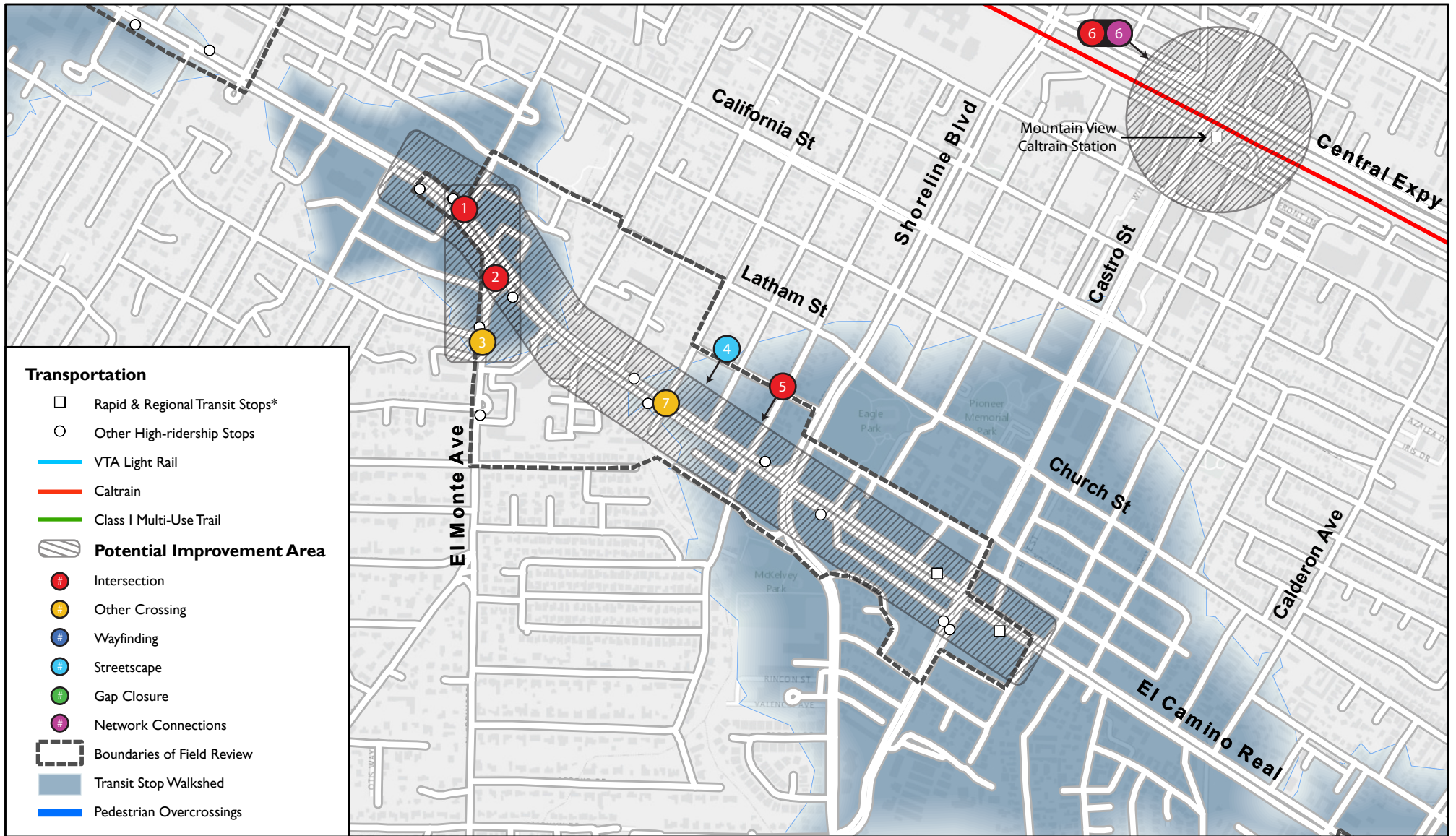


Figure 5.16: Focus Area E, barriers and infrastructure deficiencies



# Focus Area E: Mountain View El Camino Real Corridor Potential Improvements by Project Type



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

Figure 5.17: Focus Area E, potential improvements

# 5 Recommended Projects

Table 5.12. Recommended Projects- for Focus Area E: Mountain View El Camino Real Corridor

Project- Focus Area E					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>El Camino Real/Escuela Ave</b>	E1	El Camino Real/Escuela Ave intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct curb at NE corner to narrow right turn radius, reduce crossing distances, and expand pedestrian waiting space</li> <li>• Stripe ladder crosswalks (including driveway)</li> <li>• Re-time signal to eliminate conflicts between pedestrian crossing of El Camino Real and permissive left turn movement from Escuela Ave</li> <li>• Add high-visibility pedestrian crossing signage at SB right turn (Escuela Ave approach)</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Wide turn radii , high-speed vehicle turning movements</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Ladder crosswalks across El Camino Real at Escuela Ave included in VTA <i>El Camino Real BRT Draft EIR</i> (dedicated lane option)</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	<ul style="list-style-type: none"> <li>• <i>El Camino Real BRT Draft EIR</i> (VTA)</li> </ul>
<b>El Camino Real/El Monte Ave</b>	E2	El Monte Ave/El Camino Real intersection redesign	<ul style="list-style-type: none"> <li>• Evaluate El Monte Ave/El Camino Real redesign: Rebuild island at SW corner: close dedicated right turn from El Camino Real, add lane for right turn at main intersection, stripe ladder crosswalks, install advanced yield sign on SB departure lane, retain right-in/right-out access to driveways at businesses N of Ednamary Way</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Lack of visibility and high right turn speeds at El Monte Ave/El Camino Real intersection</li> <li>• Pedestrian-involved collisions on El Monte Ave south of this intersection</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> <li>• Auto-oriented existing businesses need driveway access</li> <li>• Substantial study of existing and future traffic volumes, capacity, operations, and geometry is required</li> </ul>	-



# 5 Recommended Projects

Project- Focus Area E					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
					<ul style="list-style-type: none"> <li>• Full set of improvements only likely with redevelopment of property at this location</li> </ul>	
<b>El Camino Real/ El Monte Ave</b>	E3	El Monte Ave mid-block crossing improvements	<ul style="list-style-type: none"> <li>• Improve existing uncontrolled crossing at El Monte Ave/Marich Way: median island, pedestrian-scale lighting, Rectangular Rapid Flash Beacon or Pedestrian Hybrid Beacon to improve driver yield rates</li> </ul>	Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Multiple threat and limited treatments at existing uncontrolled crossing; multiple pedestrian-involved crashes</li> </ul> <p><b>Opportunity</b></p> <ul style="list-style-type: none"> <li>• Existing uncontrolled crossing</li> </ul>	<ul style="list-style-type: none"> <li>• Existing <i>Capital Improvement Program (CIP)</i> listed the El Monte Ave/Marich Way pedestrian improvements. The improvements include adding median island and Rectangular Rapid Flash Beacons or (RRFB's). Scheduled to publish project bid in Fall 2017.</li> </ul>
<b>El Camino Real Corridor</b>	E4	El Camino Real corridor streetscape improvements	<ul style="list-style-type: none"> <li>• Streetscape improvements between El Camino Real between Escuela Ave and Castro St</li> <li>• Widen sidewalks, add landscaped buffers (planters, short-term/tactical option), add pedestrian-scale lighting. Recommend minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>• Stripe ladder crosswalks alongside street crossings</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Very narrow sidewalks given pedestrian volumes</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Right-of-way taking or elimination of parking would be required to widen sidewalks</li> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> <li>• Many small businesses along corridor, may rely on on-street parking</li> <li>• Widening sidewalks may require major drainage work.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Mountain View El Camino Real Streetscape Plan</i> (In progress)</li> </ul>

# 5 Recommended Projects

Project- Focus Area E					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>El Camino Real/ Shoreline Blvd</b>	E5	El Camino Real and S. Shoreline Blvd intersection improvements	<ul style="list-style-type: none"> <li>Remove or reconstruct pork chops at NW, SW &amp; SE corners to reduce right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>Stripe ladder crosswalks</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Lack of visibility, waiting area and high turning speed creates unsafe environment for pedestrians</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Underutilized roadway space at existing right turn lanes</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	-
<b>Central Expressway/ Castro St</b>	E6	Mountain View Transit Center and Central Expressway improvements	<ul style="list-style-type: none"> <li>Pedestrian access improvements to Mountain View Transit Center and across Central Expressway, as outlined in <i>Shoreline Transportation Study (2013)</i>, <i>Shoreline Corridor Study (2014)</i>, and <i>Mountain View Transit Center Master Plan Study (forthcoming)</i></li> </ul>	Intersection Network Connections	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>City of Mountain View has identified near-term improvements at Castro St/Moffett Blvd/Central Expy intersection in its <i>Capital Improvement Plan</i></li> <li>Improvements identified in <i>Shoreline Transportation Study (2013)</i>, <i>Shoreline Corridor Study (2014)</i>, and <i>Mountain View Transit Center Master Plan Study (forthcoming)</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Shoreline Transportation Study (2013)</i></li> <li><i>Shoreline Corridor Study (2014)</i></li> <li><i>Mountain View Transit Center Master Plan Study (May 2017)</i></li> <li>Existing <i>Capital Improvement Program (CIP)</i> listed the Castro St/Central Expressway short-term bicycle and pedestrian improvements as a project. The project is currently under design (as of September 2017).</li> <li>The Evelyn St ramp and the bicycle and pedestrian undercrossing at Castro</li> </ul>

# 5 Recommended Projects

Project- Focus Area E					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
						St/Central Expressway project is identified in <i>Transit Center Master Plan</i> and is listed in the existing <i>Capital Improvement Program (CIP)</i> . The project is in environmental clearance process (as of September 2017).
<b>El Camino Real Corridor</b>	E7	Signalized pedestrian crossing of El Camino Real at Pettis Ave	<ul style="list-style-type: none"> <li>Construct signalized pedestrian crossing with ladder crosswalk at west leg of Pettis Ave/El Camino Real, as proposed in <i>VTA El Camino Real BRT Draft EIR</i></li> </ul>	Other crossing	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Project identified in <i>VTA El Camino Real BRT Draft EIR</i></li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	<ul style="list-style-type: none"> <li><i>VTA El Camino Real BRT Draft EIR</i></li> </ul>

# 5 Recommended Projects

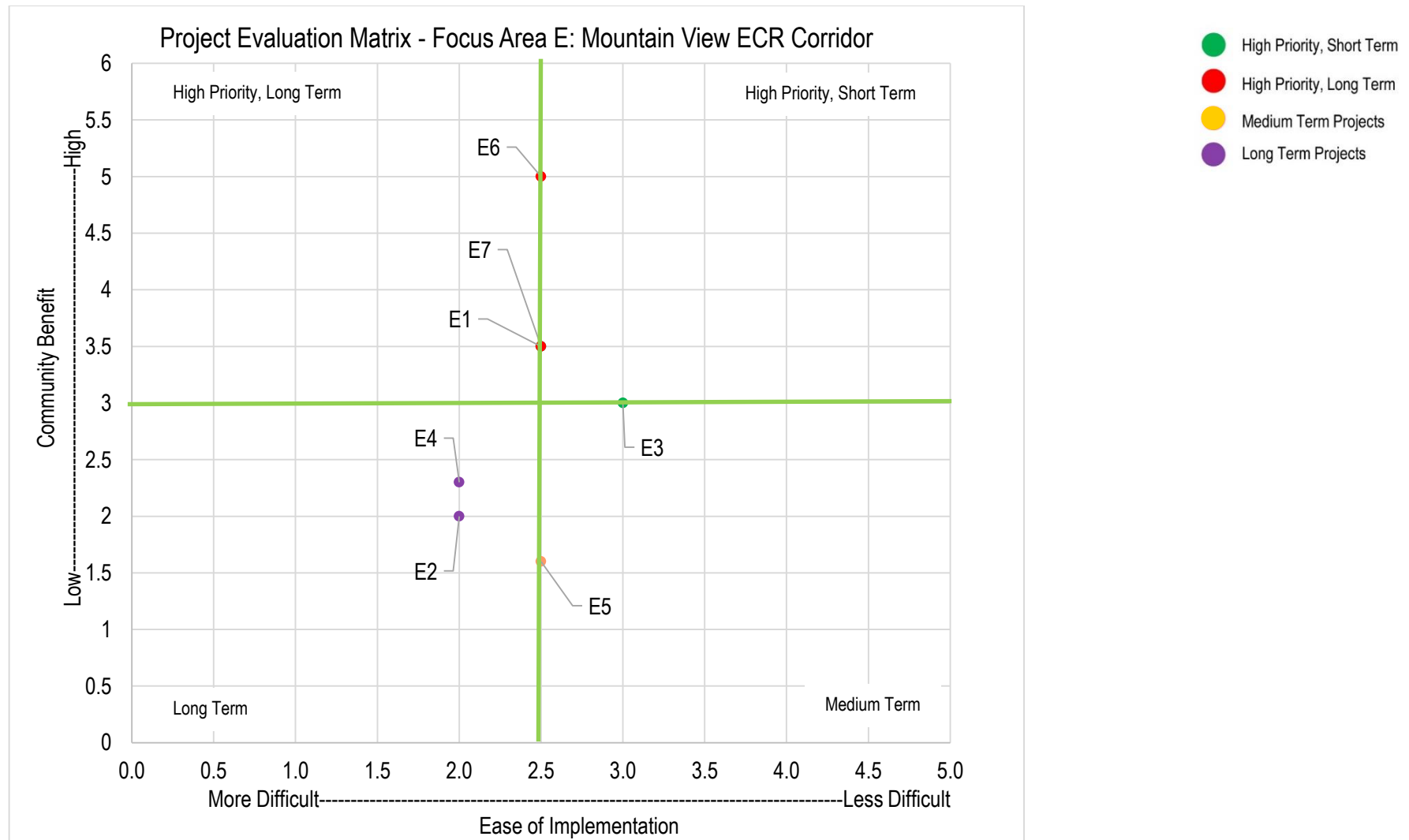


Figure 5.18: Project Evaluation Matrix for Focus Area E: Mountain View El Camino Real Corridor

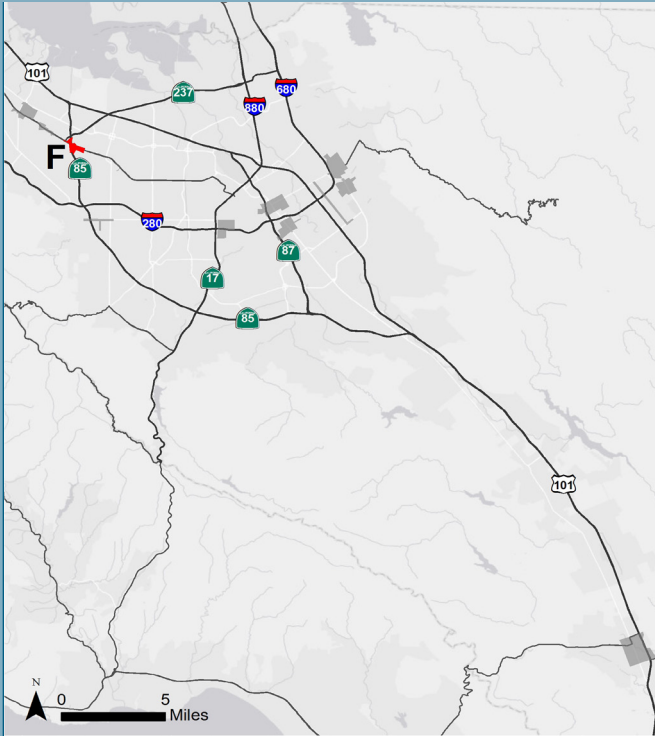


# 5 Recommended Projects

**Table 5.13: Project Scores and Cost Estimates for Focus Area E: Mountain View El Camino Real Corridor**

#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project Priority
				<i>less than \$500,000</i>	<i>\$500,000-\$5M</i>	<i>over \$5M</i>	
E1	El Camino Real/Escuela Ave intersection improvements	3.5	2.5	x			High priority, long term
E2	El Monte Ave/El Camino Real intersection redesign	2.0	2.0		x		Long term
E3	El Monte Ave mid-block crossing improvements	3.0	3.0	x			High priority, short term
E4	El Camino Real corridor streetscape improvements	2.3	2.0			x	Long term
E5	El Camino Real and S. Shoreline Blvd intersection improvements	1.6	2.5	x			Medium term
E6	Mountain View Transit Center and Central Expressway improvements	5	2.5			x	High priority, long term
E7	Signalized pedestrian crossing of El Camino Real at Pettis Ave	3.5	2.5	x			High priority, long term

## Focus Area F: El Camino Real/SR 85 (Mountain View/ Sunnyvale)



### Summary

Focus Area F is located along El Camino Real in Mountain View and Sunnyvale, between Grant Road and South Bernardo Avenue. It is served by VTA's 522 Rapid bus and by local bus routes including VTA Line 22. The Focus Area includes several hotels, a medical office complex, many small businesses along the El Camino Real corridor, and several multifamily housing complexes.

### Issues

- Uncontrolled on-/off-ramps at SR 85/El Camino Real interchange
- High speed vehicle turns and wide curb radii at several major intersections along El Camino Real
- Long distances between marked crosswalks along El Camino Real
- Narrow sidewalks along El Camino Real



Wide curb radii at major intersections



Low-visibility pedestrian crossing of SR 85 ramps



Narrow sidewalks on the SR 85 overcrossing

### Opportunities

- Excess space at SR 85 ramps and intersections to permit pedestrian improvements
- Potential high pedestrian demand due to VTA 522 Rapid bus/Future El Camino Real BRT, commercial development, multi-family housing
- Stevens Creek Trail provides pedestrian amenity to area



High pedestrian demand due to multi-family housing and commercial development



Transit service along El Camino Real

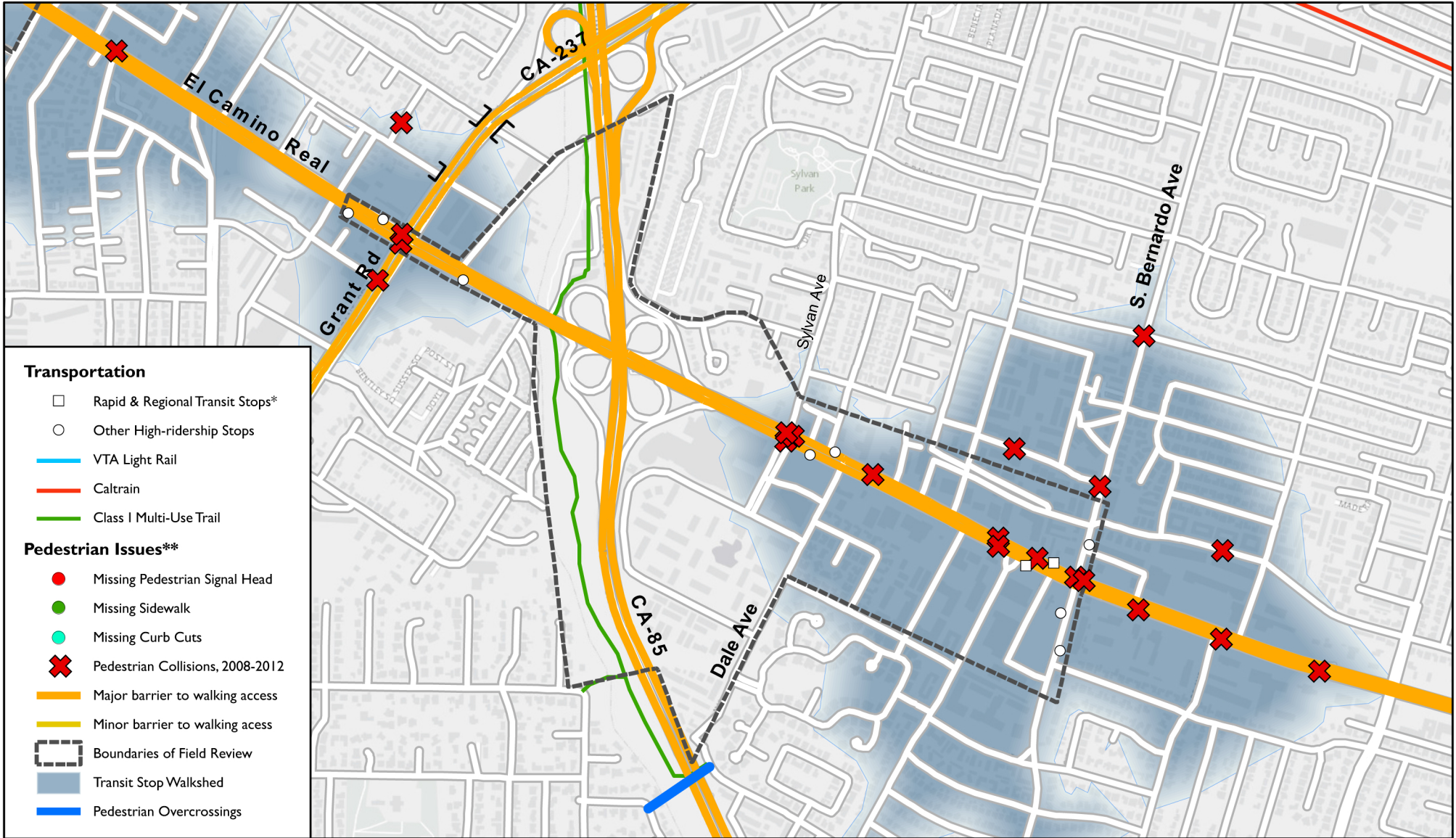


Stevens Creek Trail provides a recreational amenity for pedestrians



# Focus Area F: El Camino Real/SR 85 (Mountain View/Sunnyvale)

## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



**Transportation**

- Rapid & Regional Transit Stops\*
- Other High-ridership Stops
- VTA Light Rail
- Caltrain
- Class I Multi-Use Trail

**Pedestrian Issues\*\***

- Missing Pedestrian Signal Head
- Missing Sidewalk
- Missing Curb Cuts
- ✕ Pedestrian Collisions, 2008-2012
- Major barrier to walking access
- Minor barrier to walking access
- - - Boundaries of Field Review
- Transit Stop Walkshed
- Pedestrian Overcrossings

\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services  
 \*\*Not all pedestrian deficiencies are mapped.

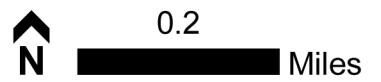
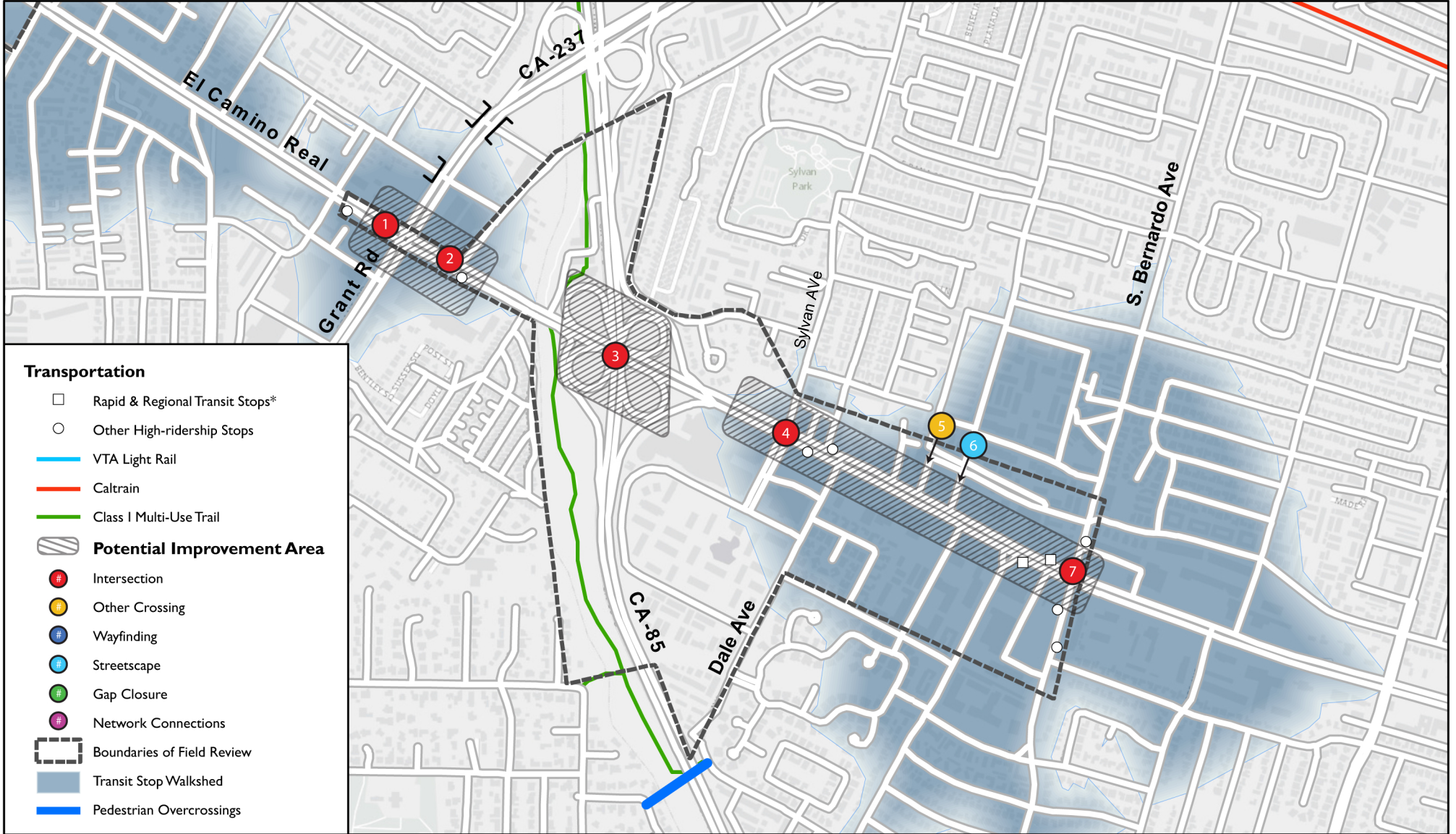


Figure 5.19: Focus Area F, barriers and infrastructure deficiencies





\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

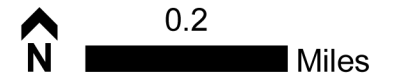


Figure 5.20: Focus Area F, potential improvements



# 5 Recommended Projects

Table 5.14. Recommended Projects- for Focus Area F: El Camino Real at State Route 85 (Mountain View)

Project- Focus Area F					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
El Camino Real/ Grant Road	F1	Grant Road/El Camino Real intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct curbs at NE, SE, &amp; NW corners to reduce right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>• Stripe ladder crosswalks</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High-speed turns, long crossing distances</li> <li>• Skewed crosswalk on north leg of intersection (across Grant Rd-SR 237)</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	-
El Camino Real/ Grant Road	F2	Yuba Dr side-street crossing redesign	<ul style="list-style-type: none"> <li>• Remove or reconstruct median on Yuba Dr to provide pedestrian refuge and slow right turns from El Camino Real</li> <li>• Add curb extension to NE corner</li> <li>• Stripe ladder crosswalk across Yuba Dr</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Existing median on N leg of intersection (on Yuba Dr.) creates dedicated right turn lane where drivers turn at high speeds</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Median can be removed and replaced with double yellow line and crosswalk</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	-
El Camino Real/ SR 85 Interchange	F3	SR 85/El Camino Real interchange improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks, add advance yield lines, add high-visibility pedestrian crossing signage to ramp crossings</li> <li>• Consider reconstructing curbs at ramps to reduce right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>• Realign ramps to 90-degree angles and consolidate pedestrian</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Ramp entrance and exits have poor visibility due to curvature</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Available space for lighting installation</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	-

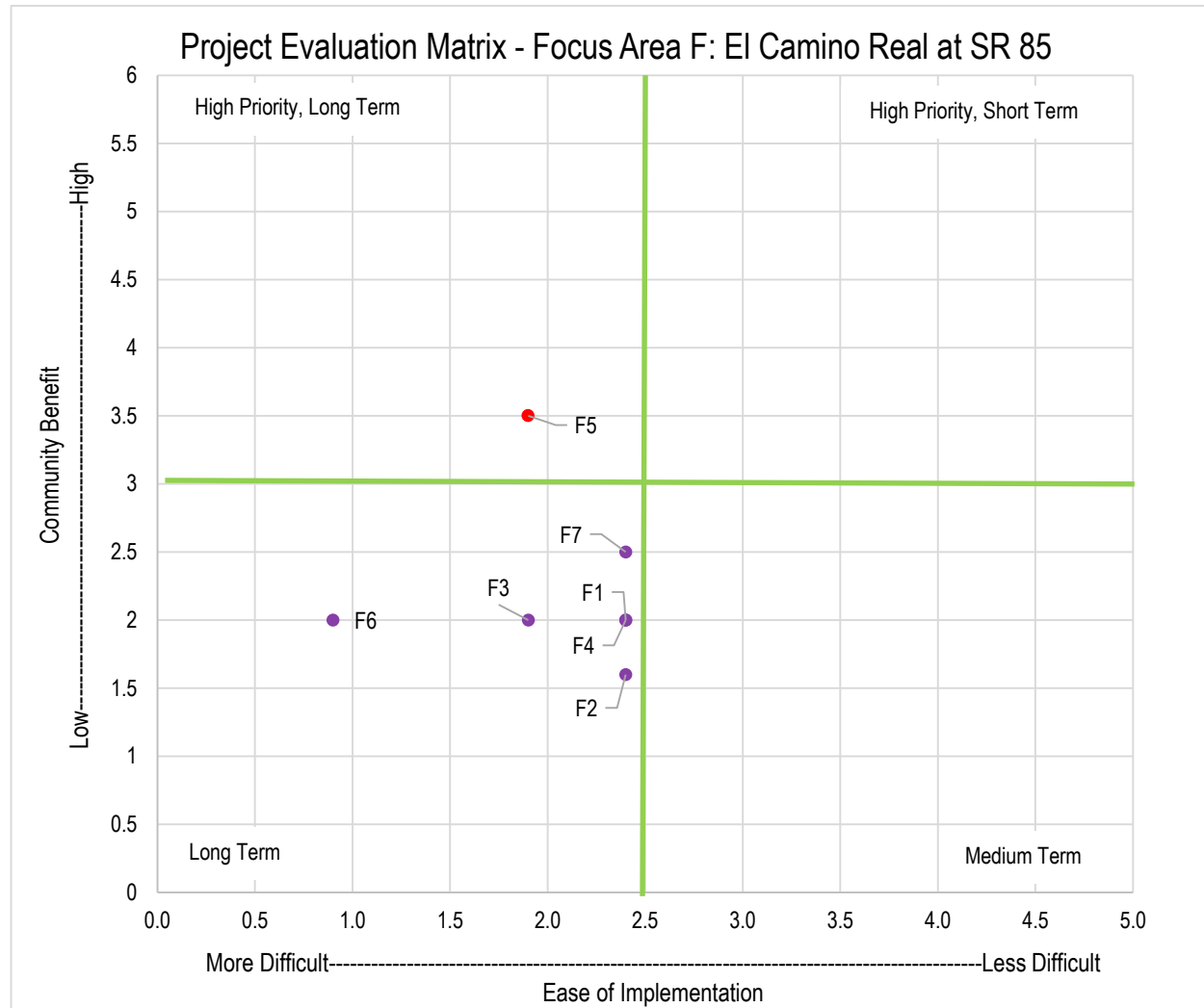
# 5 Recommended Projects

Project- Focus Area F					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			<ul style="list-style-type: none"> <li>crossings when interchanges are reconstructed</li> <li>• Install pedestrian-scale lighting on SR 85 bridge sidewalks</li> </ul>			
<b>El Camino Real/The Americana</b>	F4	El Camino Real/The Americana intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct curbs at SW &amp; SE corners to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>• Stripe ladder crosswalks</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Angled crosswalks, long crossing distances</li> <li>• Dedicated turn lanes on El Camino Real and The Americana facilitate quick vehicle turning movements and encourage low driver yielding rates</li> <li>• Multiple pedestrian-involved crashes</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	-
<b>El Camino Real Corridor (E of SR 85)</b>	F5	Pedestrian Hybrid Beacon-controlled crossing between El Camino Real/South. Bernardo Ave and El Camino Real/ Americana	<ul style="list-style-type: none"> <li>• Consider adding a Pedestrian Hybrid Beacon-controlled crossing between El Camino Real/South. Bernardo Ave and El Camino Real/ The Americana: ladder crosswalk, high-visibility pedestrian crossing signage</li> <li>• Potential for addition of signalized pedestrian crossing at Crestview Drive with implementation of VTA <i>El Camino Real BRT Draft EIR</i> (dedicated lane option)</li> </ul>	Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High vehicle volumes and speeds</li> <li>• Multiple pedestrian-involved crashes</li> <li>• Distance from El Camino Real/South. Bernardo Ave and El Camino Real/ The Americana is 0.4 miles, potentially a long walk for pedestrians accessing bus stops or commercial areas on the other side of the road</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Signalized crossing project identified in VTA <i>El Camino Real BRT Draft EIR</i> (dedicated lane option)</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	<ul style="list-style-type: none"> <li>• VTA <i>El Camino Real BRT Draft EIR</i></li> </ul>

# 5 Recommended Projects

Project- Focus Area F					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
El Camino Real Corridor (E of SR 85)	F6	El Camino Real streetscape and side-street crossing improvements	<ul style="list-style-type: none"> <li>Streetscape improvements on El Camino Real between SR 85 and South. Bernardo Ave</li> <li>Widen sidewalks, add landscaped buffers (planters, short-term/tactical option), add pedestrian-scale lighting. Recommend minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>Stripe ladder crosswalks alongside street crossings</li> <li>To the extent feasible, consolidate driveways when properties are redeveloped</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Long distances between marked crosswalks along El Camino Real, lack of shade, poor visibility at side-street crossings</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>City of Sunnyvale requires 10' sidewalks with new development along El Camino Real</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Multi-jurisdiction location; improvements would require coordination with Caltrans</li> <li>Widening sidewalks may require major drainage work</li> <li>Taking ROW may be required to widen sidewalks</li> </ul>	<ul style="list-style-type: none"> <li><i>Mountain View El Camino Real Streetscape Plan</i> (In progress)</li> </ul>
El Camino Real/ S Bernardo Ave	F7	El Camino Real/S. Bernardo Ave intersection improvements	<ul style="list-style-type: none"> <li>Reconstruct curbs at all four corners to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>Stripe ladder crosswalks across all four legs of intersections</li> <li>Add countdown pedestrian signal heads</li> <li>Reconfigure NB/Palo Alto bound bus stop when property at NW corner redevelops</li> </ul>	Intersection	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Curb reconstruction and ladder crosswalks across El Camino Real at Bernardo Ave included in VTA <i>El Camino Real BRT Draft EIR</i> (dedicated lane option)</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	<ul style="list-style-type: none"> <li>El Camino Real BRT</li> <li><i>El Camino Real Precise Plan</i> identifies new signalized crossing at Crestview intersection.</li> </ul>

# 5 Recommended Projects



- High Priority, Short Term
- High Priority, Long Term
- Medium Term Projects
- Long Term Projects

Figure 5.21: Project Evaluation Matrix for Focus Area F: El Camino Real at State Route 85 (Mountain View)



## 5 Recommended Projects

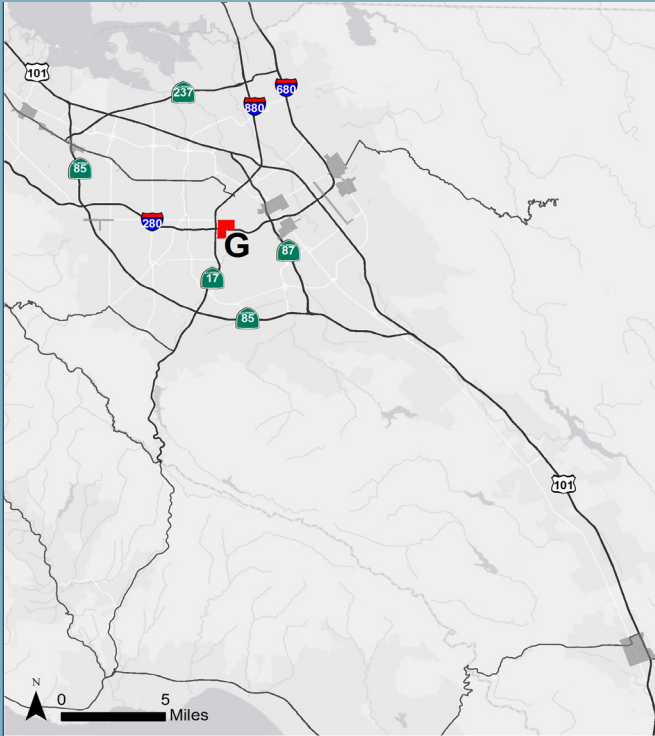
**Table 5.15: Project Scores and Cost Estimates for Focus Area F: El Camino Real at State Route 85 (Mountain View)**

#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project priority
				less than \$500,000	\$500,000-\$5M	over \$5M	
F1	Grant Rd/El Camino Real intersection improvements	2.0	2.4	x			Long term
F2	Yuba Dr side-street crossing redesign	1.6	2.4	x			Long term
F3*	SR 85/El Camino Real interchange improvements	2.0	1.9			x**	Long term
F4	El Camino Real/The Americana intersection improvements	2.0	2.4	x			Long term
F5	Pedestrian Hybrid Bacon (PHB)-controlled crossing between El Camino Real/S. Bernardo Ave and El Camino Real/ The Americana	3.5	1.9	x			High priority, long term
F6	El Camino Real streetscape and side-street crossing improvements	2.0	0.9			x	Long term
F7	El Camino Real/S. Bernardo Ave intersection improvements	2.5	2.4		x		Long term

\* Project that VTA has an interest in proactively advancing. See chapter 6 for planning level cost estimates for this project.

\*\* Cost of redesigning interchange over \$5 million, cost of short-term pedestrian improvements between \$500,000 and \$5 million.

## Focus Area G: Bascom Corridor (San Jose and Santa Clara County)



### Summary

Focus Area G is located in San Jose and extends to either side of Bascom Avenue between W. San Carlos Street-Stevens Creek Boulevard and Fruitdale Avenue. It is served by the VTA Rapid 323 bus on W. San Carlos Street-Stevens Creek Boulevard and by several local bus routes, including 23, 25, 61, and 62. It includes the Santa Clara Valley Medical Center and is adjacent to San Jose City College.

### Issues

- Inconsistent sidewalk widths and street frontages along Bascom Avenue
- High speed vehicle turns/wide curb radii along Bascom Avenue, pedestrian crossing restrictions at signalized intersections
- Poor quality pedestrian environment at I-280 overcrossing
- Long distances between marked crosswalks along Bascom Avenue
- Lack of bicycle facilities throughout Focus Area leads bicyclists to use limited sidewalk space



Wide curb radii at intersections along Bascom Ave



Pedestrian crossing restrictions at Bascom Ave/Parkmoor Ave



Porkchop pedestrian refuge at Bascom Ave/San Carlos St-Stevens Creek Blvd

- Pedestrian-friendly district along W. San Carlos Street (east of Bascom Avenue)
- Potential high pedestrian demand due to VTA 323 Rapid bus/Future San Carlos-Stevens Creek BRT
- Includes portions of South Bascom Urban Village (City of San Jose)
- Bascom Avenue has excess right-of-way that can be used for pedestrian and bicycle improvements
- Existing mid-block crossing of west San Carlos Street works well
- Pedestrian improvements included in Bascom Corridor Complete Streets Study (VTA, in progress) and West San Carlos Street and South Bascom Urban Village Plans (2014)



Pedestrian-friendly shopping district on west San Carlos St, narrow sidewalks



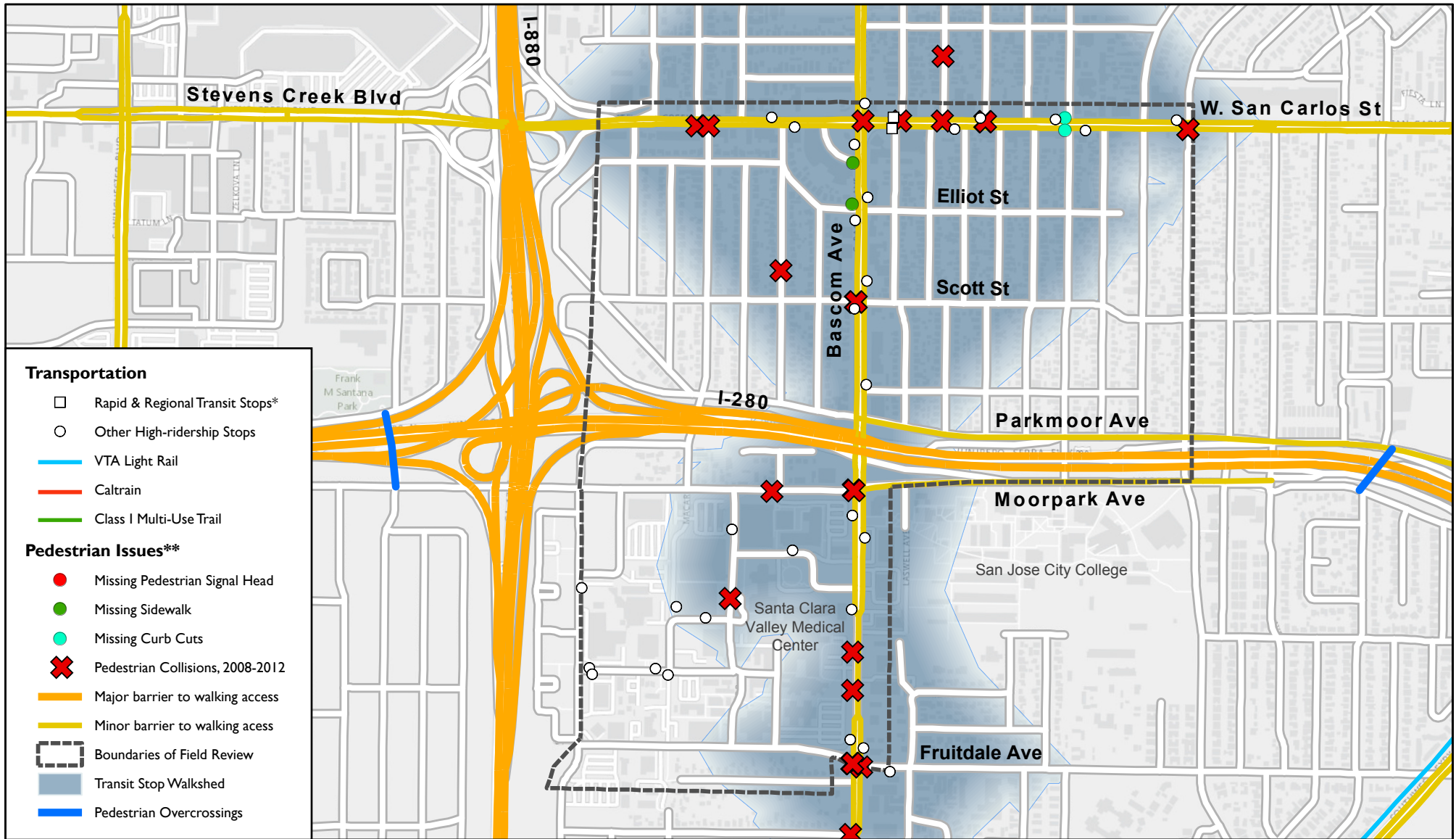
Existing pedestrian crossing on west San Carlos St



Incomplete crosswalks and on-street parking along Bascom Ave

# Focus Area G: Bascom Corridor (San Jose and Santa Clara County)

## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

\*\*Not all pedestrian deficiencies are mapped.

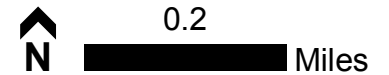
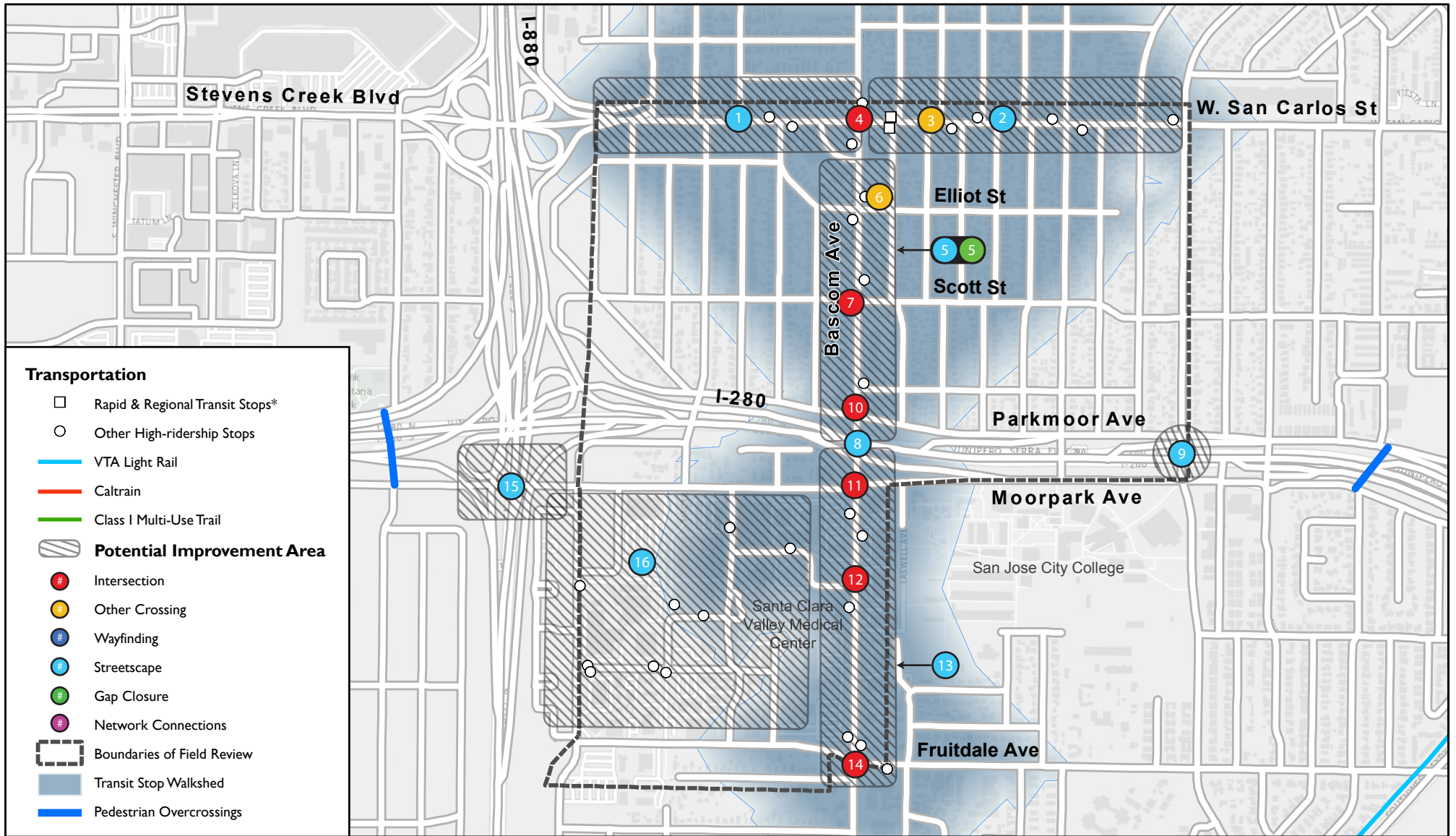


Figure 5.22: Focus Area G, barriers and infrastructure deficiencies



# Focus Area G: Bascom Corridor (San Jose and Santa Clara County)

## Potential Improvements by Project Type



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

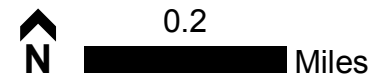


Figure 5.23: Focus Area G, potential improvements



# 5 Recommended Projects

Table 5.16. Recommended Projects- for Focus Area G: Bascom Corridor (San Jose, County)

Project- Focus Area G					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
San Carlos St- Stevens Creek Blvd Corridor	G1	Stevens Creek Blvd streetscape improvements	<ul style="list-style-type: none"> <li>• Add landscaped buffers (planters as short-term/tactical option)</li> <li>• Add pedestrian-scale lighting</li> <li>• To the extent feasible, consolidate driveways when properties are redeveloped</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Parking lots adjacent to street are unwelcoming to pedestrians - multiple curb cuts, no buffer between walkway and parked cars</li> </ul> <p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>• Streetscape improvements possible with future implementation of Stevens Creek BRT</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Auto-oriented existing businesses need driveway access</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Complete Streets Audit and Community Engagement Report: West San Carlos and Bascom Ave Corridors Complete Streets Report (2012)</i></li> </ul>
San Carlos St- Stevens Creek Blvd Corridor	G2	San Carlos St streetscape improvements	<ul style="list-style-type: none"> <li>• Look for opportunities to add parklets in existing parking spaces</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Very narrow sidewalks</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Strong street walls, pedestrian scale lighting, high pedestrian activity</li> <li>• Streetscape improvements possible with future implementation of Stevens Creek BRT</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Complete Streets Audit and Community Engagement Report: West San Carlos and Bascom Ave Corridors Complete Streets Report (2012)</i></li> </ul>
San Carlos St- Stevens Creek Blvd Corridor	G3	Uncontrolled crossing at Vaughn Ave/ San Carlos St	<ul style="list-style-type: none"> <li>• Consider adding an uncontrolled crossing at Vaughn Ave&amp; San Carlos St: ladder crosswalk, high-visibility pedestrian crossing signage, Rectangular Rapid Flash Beacon to improve driver yield rates.</li> </ul>	Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High pedestrian demand</li> <li>• Two bus stops on either side of San Carlos St at this location</li> </ul> <p><b>Opportunities</b></p>	<ul style="list-style-type: none"> <li>• <i>Complete Streets Audit and Community Engagement Report: West San Carlos and Bascom Ave Corridors Complete Streets Report (2012)</i></li> </ul>

# 5 Recommended Projects

Project- Focus Area G					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
					<ul style="list-style-type: none"> <li>Existing Rectangular Rapid Flash Beacon at Brooklyn Ave/San Carlos St works well</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Future Stevens Creek BRT may require removal of mid-block crossings</li> </ul>	
<b>Bascom Ave/ San Carlos St- Stevens Creek Blvd</b>	G4	Bascom Ave/Stevens Creek Blvd intersection improvements	<ul style="list-style-type: none"> <li>Reconstruct pork chops and curbs at NW &amp; SW corners to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space.</li> <li>Tighten curb radius at SE corner, widen sidewalk walkway space into existing landscaping</li> <li>Add advanced yield pavement markings and signage at right turns.</li> <li>Stripe ladder crosswalks</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>High pedestrian demand</li> <li>High-speed turns</li> <li>Insufficient pedestrian space at corners</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>High vehicle volumes</li> </ul>	<ul style="list-style-type: none"> <li><i>Complete Streets Audit and Community Engagement Report: West San Carlos and Bascom Ave Corridors Complete Streets Report (2012)</i></li> </ul>
<b>Bascom Corridor</b>	G5	Bascom Ave corridor streetscape improvements (north. of I-280)	<ul style="list-style-type: none"> <li>Complete sidewalks along entire corridor</li> <li>Add landscaped buffers (planters as short-term/tactical option) including shade trees</li> <li>Add pedestrian-scale lighting</li> <li>Consider road diet on Bascom Ave north of I-280 to provide additional sidewalk space and bicycle lanes</li> </ul>	Streetscape Gap Closure	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Inconsistent curb/ROW, multiple sidewalks/walkways asphalt or unpaved</li> <li>Cars parked on sidewalks</li> <li>Lack of shade, high exposure to traffic</li> <li>Throughout study area, lack of bicycle facilities force bicyclists to share space with pedestrians</li> </ul> <p><b>Opportunities</b></p>	<ul style="list-style-type: none"> <li><i>Bascom Corridor Complete Streets Study (VTA, in progress)</i></li> </ul>

# 5 Recommended Projects

Project- Focus Area G					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
					<ul style="list-style-type: none"> <li>Bascom Ave may be overbuilt for current vehicle volumes - potential road diet candidate</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>High-speed vehicles, multiple small businesses with limited off-street parking</li> <li>Bascom Ave used as detour for auto traffic when I-280 is closed</li> </ul>	
Bascom Corridor	G6	Bascom Ave/Eliot St mid-block crossing	<ul style="list-style-type: none"> <li>Consider adding marked pedestrian crossing at Bascom Ave/Eliott St ladder crosswalk, advance yield markings/shark's teeth, high-visibility pedestrian crossing signage, Rectangular Rapid Flash Beacon or Pedestrian Hybrid Beacon to improve driver yield rates, curb extensions to shorten pedestrian crossing distance</li> </ul>	Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Long distance between signalized intersections</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Bascom Ave may be overbuilt for current vehicle volumes - potential road diet candidate</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>High-speed vehicles</li> <li>6-lane roadway poses additional risks for pedestrians crossing roadway</li> <li>Ladder crosswalk imposes additional ongoing maintenance costs not covered by current budgets</li> </ul>	-
Bascom Corridor	G7	Bascom Ave/ Scott St intersection improvements	<ul style="list-style-type: none"> <li>Stripe ladder crosswalks at all four legs of intersection</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Low-visibility crosswalks</li> </ul>	-
Bascom Corridor	G8	Bascom Ave/I-280 overcrossing improvements	<ul style="list-style-type: none"> <li>Evaluate possibility of widening sidewalks on overpass, adding pedestrian-scale lighting</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Poor lighting, narrow sidewalks</li> </ul>	-

# 5 Recommended Projects

Project- Focus Area G					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
Leigh Ave/ I-280 overcrossing	G9	Leigh Ave/I-280 overcrossing improvements	<ul style="list-style-type: none"> <li>Evaluate possibility of widening sidewalks on overpass, adding pedestrian-scale lighting</li> </ul>	Streetscape	<b>Issues</b> <ul style="list-style-type: none"> <li>Poor lighting, narrow sidewalks</li> </ul>	-
Bascom Ave/ 280 Ramps	I- G10	Bascom Ave/Parkmoor Ave intersection improvements	<ul style="list-style-type: none"> <li>Add curb extension at SE corner - potential to extend into Parkmoor Ave by narrowing/shifting vehicle lanes, or to extend into Bascom Ave with road diet along Bascom Ave</li> <li>Stripe ladder crosswalks on all three legs of crosswalk</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>Limited space for pedestrians waiting at SE corner</li> </ul> <b>Challenges</b> <ul style="list-style-type: none"> <li>High volume of vehicles accessing freeway</li> </ul>	-
Bascom Ave/ 280 Ramps	I- G11	Bascom Ave/Moorpark Ave intersection improvements	<ul style="list-style-type: none"> <li>Add curb extensions to all corners (except SW) to improve pedestrian visibility</li> <li>Rebuild SW corner pork chop to expand pedestrian waiting area. Add advance yield markings to pavement</li> <li>Stripe ladder crosswalks</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>Poor pedestrian visibility for turning vehicles</li> </ul> <b>Challenges</b> <ul style="list-style-type: none"> <li>High volume of vehicles accessing freeway</li> </ul>	-
Bascom Ave/ Renova Dr	G12	Bascom Ave/Renova Dr intersection improvements	<ul style="list-style-type: none"> <li>Add pedestrian crossing to north leg: ladder crosswalk, pedestrian signal, curb cuts</li> <li>Add curb extensions to all corners to improve pedestrian visibility and reduce crossing distance</li> <li>Stripe ladder crosswalks at all four legs of intersection</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>Wide turning radii, no pedestrian crossing on north leg</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>Bascom Ave has new pedestrian adaptive traffic signal timing</li> </ul>	<ul style="list-style-type: none"> <li><i>Draft South Bascom Urban Village Plan (2014)</i></li> </ul>
Bascom Corridor	G13	Bascom Ave corridor streetscape improvements (S. of I-280)	<ul style="list-style-type: none"> <li>Widen sidewalks on Bascom Ave south of Moorpark Ave; Recommend 12' minimum width</li> </ul>	Streetscape	<b>Issues</b> <ul style="list-style-type: none"> <li>Narrow sidewalks, inconsistent tree cover</li> </ul> <b>Opportunities</b>	<ul style="list-style-type: none"> <li><i>Draft South Bascom Urban Village Plan (2014)</i></li> </ul>



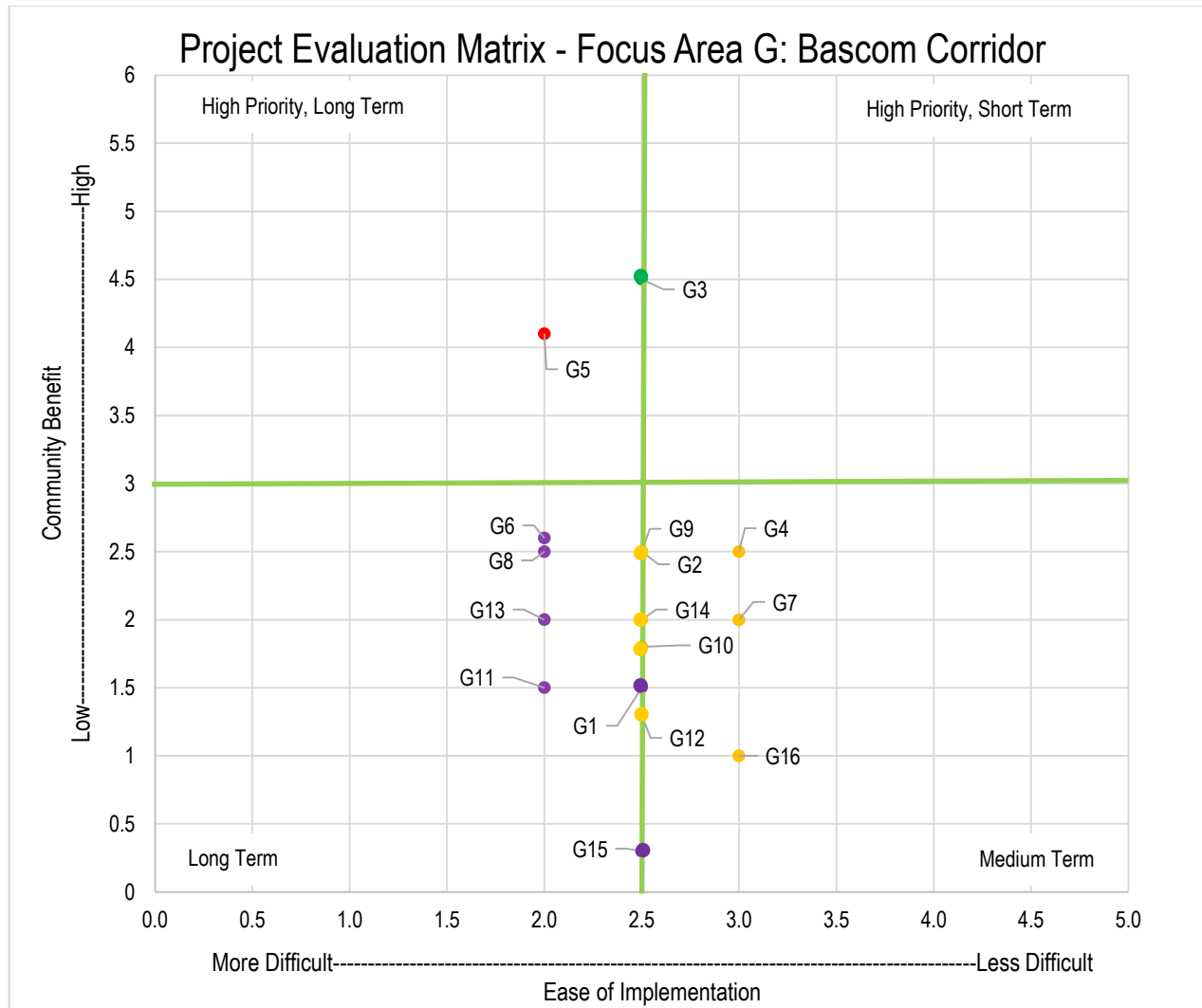
# 5 Recommended Projects

Project- Focus Area G					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			<p>per <i>Draft South Bascom Urban Village Plan (2014)</i></p> <ul style="list-style-type: none"> <li>• Add landscaped buffers (planters as short-term/tactical option), including shade trees</li> </ul>		<ul style="list-style-type: none"> <li>• <i>Draft South Bascom Urban Village Plan (2014)</i> provides design guidance for streetscape improvements.</li> <li>• Could be implemented along with the addition of a cycle track on Bascom Ave, per <i>Draft South Bascom Urban Village Plan (2014)</i></li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Requires re-allocating space currently dedicated to parking lanes and travel lanes</li> </ul>	
<b>Bascom Ave/ Enborg Ln</b>	G14	Bascom Ave/Enborg Ln intersection improvements	<ul style="list-style-type: none"> <li>• Add pedestrian crossing to S leg: ladder crosswalk, pedestrian signal, curb cuts</li> <li>• Add curb extensions to all corners (except NW) to improve pedestrian visibility and reduce crossing distance. Curb extensions must accommodate bus turning radii</li> <li>• Remove or redesign NW corner pork chop to expand pedestrian waiting area</li> <li>• Stripe ladder sidewalks on all four legs of intersection</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Wide turning radii, no pedestrian crossing on south leg</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Pork chop and dedicated right turn lane at NW corner may not be necessary to accommodate vehicle traffic</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Curb extensions must accommodate bus turning radii</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Draft South Bascom Urban Village Plan (2014)</i></li> </ul>
<b>Moorpark Ave/I-880 undercrossing</b>	G15	Moorpark Ave/I-880 undercrossing improvements	<ul style="list-style-type: none"> <li>• Add pedestrian-scale lighting and public art at undercrossing</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Poor lighting, narrow sidewalks</li> </ul>	-
<b>Valley Medical Center</b>	G16	Valley Medical Center Bus Stop Improvements	<ul style="list-style-type: none"> <li>• Upgrade bus stops within Valley Medical Center to meet Community Destination stop</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High-volume bus stops with few amenities</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Draft South Bascom Urban Village Plan (2014)</i></li> </ul>

## 5 Recommended Projects

Project- Focus Area G					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			<p>criteria. Amenities should include shelters, seating, transit information, and other amenities as described in VTA's <i>Transit Passenger Environment Plan</i> (2016)</p> <ul style="list-style-type: none"> <li>• Consider service frequency when determining seating needs and shade structures</li> <li>• Provide rich transit information at bus stops</li> </ul>			<ul style="list-style-type: none"> <li>• <i>Transit Passenger Environment Plan</i> (VTA, 2016)</li> </ul>

# 5 Recommended Projects



- High Priority, Short Term
- High Priority, Long Term
- Medium Term Projects
- Long Term Projects

Figure 5.24: Project Evaluation Matrix for Focus Area G: Bascom Corridor (San Jose, County)

# 5 Recommended Projects

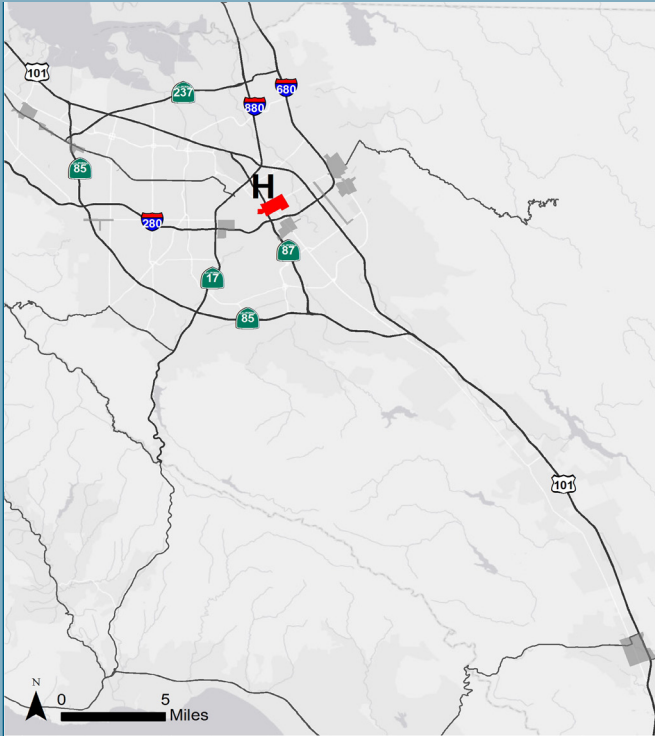
**Table 5.17: Project Scores and Cost Estimates for Focus Area G: Bascom Corridor (San Jose, County)**

#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project priority
				less than \$500,000	\$500,000-\$5M	over \$5M	
G1	Stevens Creek Blvd streetscape improvements	1.5	2.5			x	Long term
G2	San Carlos St streetscape improvements	2.5	2.5	x			Medium term
G3	Uncontrolled crossing at Vaughn Ave/W San Carlos St	4.5	2.5	x			High priority, short term
G4	Bascom Ave/Stevens Creek Blvd intersection improvements	2.5	3.0	x			Medium term
G5*	Bascom Ave corridor streetscape improvements (N. of I-280)	4.1	2.0		x		High priority, long term
G6	Bascom Ave/Elliott St mid-block crossing	2.6	2.0	x			Long term
G7	Bascom Ave/Scott St intersection improvements	2.0	3.0	x			Medium term
G8	Bascom Ave/I-280 overcrossing improvements	2.5	2.0	x			Long term
G9	Leigh Ave/I-280 overcrossing improvements	2.5	2.5	x			Medium term
G10	Bascom Ave/Parkmoor Ave intersection improvements	1.8	2.5	x			Medium term
G11	Bascom Ave/Moorpark Ave intersection improvements	1.5	2.0	x			Long term
G12	Bascom Ave/Renova Dr intersection improvements	1.3	2.5	x			Medium term
G13	Bascom Ave corridor streetscape improvements (South of I-280)	2.0	2.0		x		Long term
G14	Bascom Ave/Enborg Ln intersection improvements	2.0	3.0	x			Medium term
G15	Moorpark Ave/I-880 undercrossing improvements	0.3	3.0		x		Long term
G16	Valley Medical Center bus stop improvements	1.0	3.0		x		Medium term

\* Project that VTA has an interest in proactively advancing. See chapter 6 for planning level cost estimates for this project.



## Focus Area H: Downtown San Jose



### Summary

Focus Area H is located in downtown San Jose and extends from Diridon Transit Center to San Jose State University. It includes a high density of office developments, multifamily residential development, entertainment districts, and San Jose City Hall. It is served by Caltrain, Amtrak, and Capitol Corridor rail at Diridon Station, VTA Light Rail, VTA Rapid 522 and 323 buses, as well as several local and inter-city buses, including VTA Lines 22, 23, 181, 81, 64, and 68, the Highway 17 bus connecting San Jose to Santa Cruz, and Downtown San Jose DASH shuttles.

### Issues

- High speed vehicle turns/wide curb radii and long crossing distances along San Carlos Street and Market Street
- Poorly marked pedestrian crossings at SR 87 ramps (Santa Clara Street, Julian Street)
- Long distances between pedestrian crossings along Santa Clara St. near San Jose Diridon
- VTA Light Rail creates barrier for pedestrians using San Fernando Street to access transit



Existing conditions at Delmas Ave/San Fernando St near VTA LRT track crossing



Wide intersection and restricted pedestrian access at Notre Dame-SR 87 ramp/St. John St



Wide crossing at Market/San Carlos St

### Opportunities

- High-density of transit service
- High pedestrian demand throughout downtown, likely to increase with new development
- Fairly high-quality existing pedestrian environment and strong street grid
- New development and transit system improvements planned
- Expansion of Bay Area Bike Share (2016-2017) will improve access to transit



Potential pedestrian scramble at Montgomery St/Santa Clara St



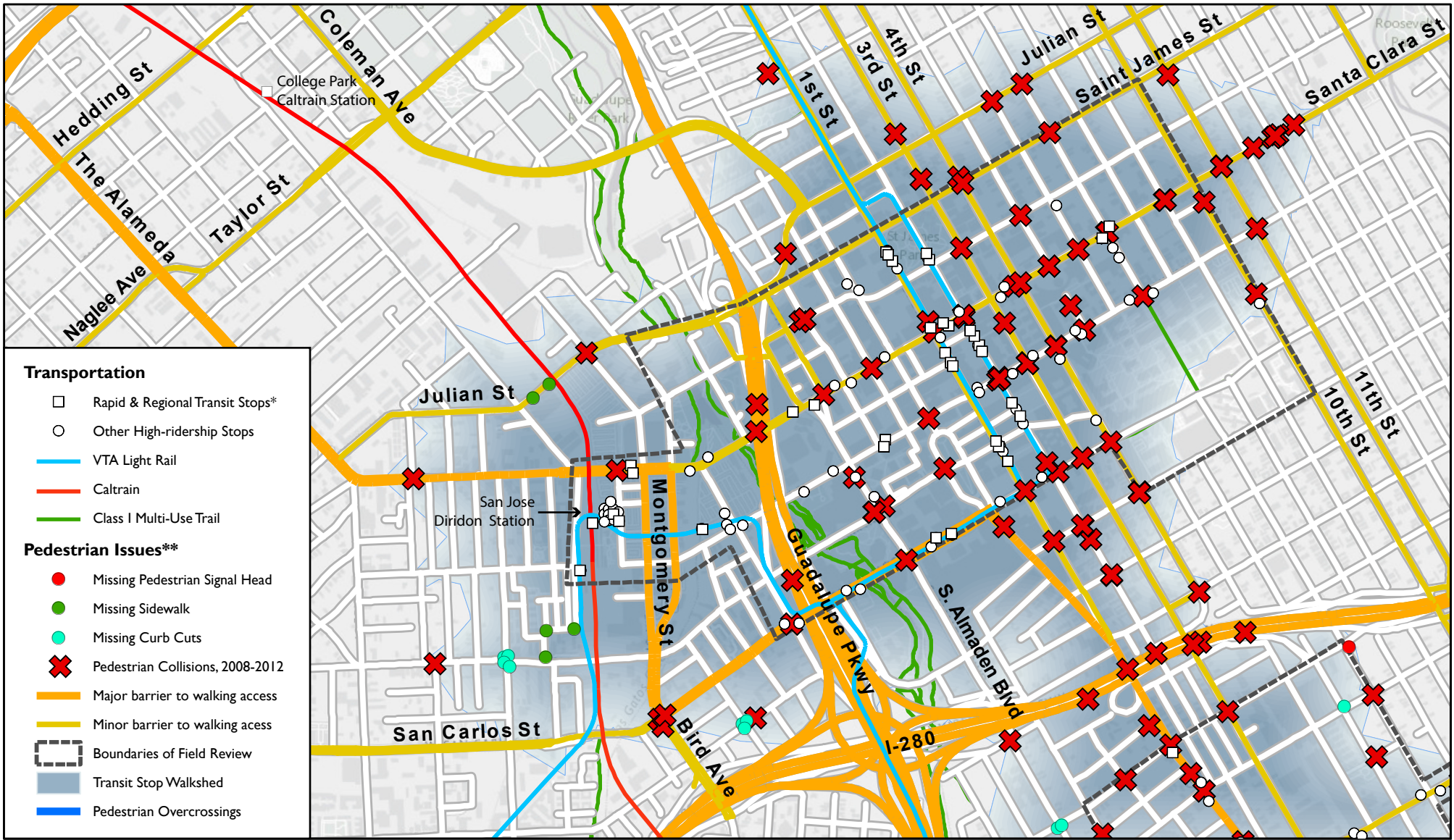
Existing mid-block crossing at Delmas Ave/Santa Clara St



High-quality pedestrian environment on 2nd Street

# Focus Area H: Downtown San Jose

## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

\*\*Not all pedestrian deficiencies are mapped.

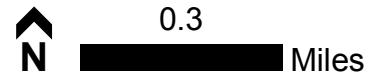
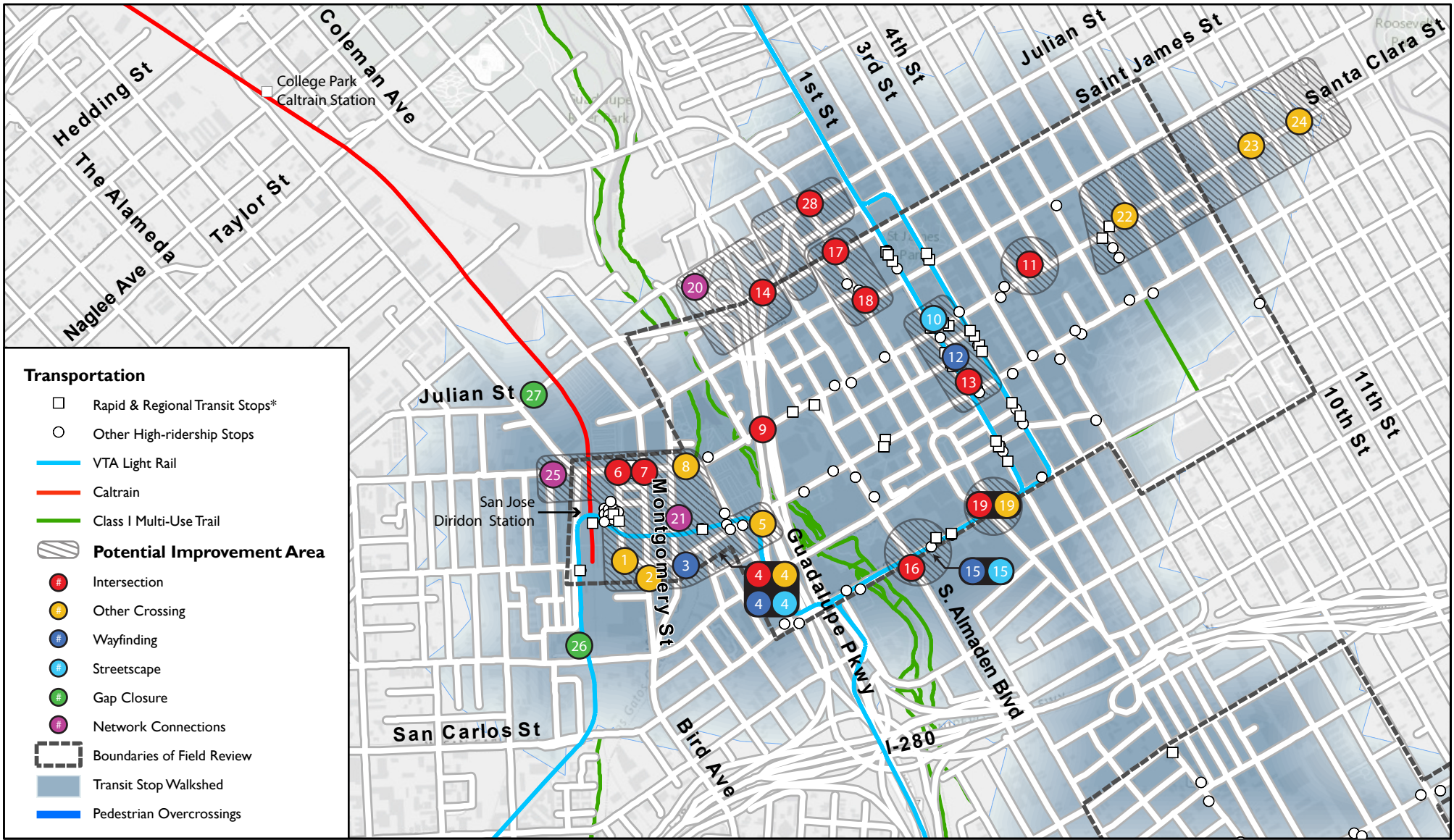


Figure 5.25: Focus Area H, barriers and infrastructure deficiencies



# Focus Area H: Downtown San Jose

## Potential Improvements by Project Type



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

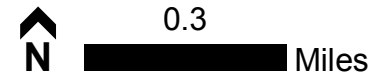


Figure 5.26: Focus Area H, potential improvements

# 5 Recommended Projects

**Table 5.18. Recommended Projects- for Focus Area H: Downtown San Jose/Diridon Station**

Project- Focus Area H					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
San Jose Diridon	H1	Pathway and uncontrolled crossing to San Fernando VTA LRT Station	<ul style="list-style-type: none"> <li>• Stripe ladder-style crossing of South. Montgomery St at Crandall St</li> <li>• Designate pedestrian corridor to San Fernando Station with new paving, landscaping, and/or paint on existing walkways</li> <li>• Montgomery Street crossing alternatives:               <ol style="list-style-type: none"> <li>1. Remove 2-3 parking spaces on east side of Montgomery St, stripe two ladder crosswalks, add advance yield lines (“shark’s teeth”) and pedestrian crossing signs</li> <li>2. Remove 5 parking spaces total (2 west side, 3 east side) to create painted pedestrian walk zone, add advance yield lines (“shark’s teeth”) and pedestrian crossing signs</li> </ol> </li> </ul>	Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Pathway to San Fernando Station unclear, blocked by parked vehicles</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Ample space near taxi queue; abundant on-street parking</li> </ul>	-
Diridon	H2	Curb cuts and crosswalk improvements at Diridon Station	<ul style="list-style-type: none"> <li>• Add curb cuts and replace existing crosswalks with ladder crosswalks for higher visibility at pedestrian crossings of Cahill St</li> <li>• Consider enhanced crossing striping or stamped asphalt treatment</li> <li>• Identified in <i>Diridon Station Master Plan</i></li> </ul>	Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Missing curb cuts and worn crosswalk markings at sidewalks that provide access to station entrance</li> <li>• High pedestrian volumes</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Identified in <i>Diridon Station Master Plan</i></li> </ul>	• <i>Diridon Station Area Plan (2014)</i>
San Fernando VTA Station	H3	Wayfinding improvements	<ul style="list-style-type: none"> <li>• Improve wayfinding through San Fernando Station through</li> </ul>	Wayfinding	<p><b>Issues</b></p>	• San Jose Downtown Wayfinding Project



# 5 Recommended Projects

Project- Focus Area H					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
		through San Fernando Station	pavement markings and signage • Coordinate design with forthcoming studies: San Jose Downtown Wayfinding Project and VTA Transit Ridership Improvement Program		<ul style="list-style-type: none"> <li>• Unclear that main route to San Fernando Street is through San Fernando VTA Station</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>• Wayfinding guidance provided by San Jose Downtown Wayfinding Project (forthcoming)</li> </ul>	(City of San Jose, forthcoming)
San Fernando St	H4	San Fernando St/Delmas Ave VTA improvement alternatives	Alternatives: 1) Restrict and formalize access at Delmas Ave/San Fernando St: add public art or low vertical landscaping to NE corner, add landscaping/planters) or improved fence treatment to NW corner, stripe ladder crosswalk on west side of pedestrian crossing of tracks on Delmas Ave, replace bollards with swing gates 2) Woonerf treatment to slow all traffic on San Fernando St between Autumn St and SR 87 undercrossing (assumes VTA LRT speeds will remain at 10 mph maximum)	Intersection Streetscape	<b>Issues</b> <ul style="list-style-type: none"> <li>• No pedestrian access across north side of Delmas Ave</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>• Several pedestrians observed crossing Delmas Ave at intersection near LRT tracks</li> </ul>	-
San Fernando St	H5	Signalized pedestrian crossing west of SR 87 underpass	<ul style="list-style-type: none"> <li>• Add signalized pedestrian crossing immediately east of signal at rail crossing on San Fernando St: stripe ladder crosswalk, add pedestrian signal heads, add curb cuts, remove portion of raised median</li> </ul>	Other Crossing	<b>Issues</b> <ul style="list-style-type: none"> <li>• No pedestrian access across north side of San Fernando St</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>• Several pedestrians observed crossing San Fernando St with no accommodation</li> </ul>	-

# 5 Recommended Projects

Project- Focus Area H					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>Santa Clara Street</b>	H6	Santa Clara St/Cahill St intersection improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalk and add pedestrian signal head to west leg</li> <li>• Consider adding pedestrian actuation and reducing signal lengths to reduce pedestrian wait time</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>• No pedestrian access to west side of intersection</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Clara-Alum Rock BRT Program</li> </ul>
<b>Santa Clara Street</b>	H7	Santa Clara St /Montgomery St pedestrian scramble	<ul style="list-style-type: none"> <li>• Restripe existing crosswalks to provide pedestrian scramble; opportunity for public art/placemaking similar to mid-block crosswalks at Paseo de San Antonio</li> <li>• Consider signalized pedestrian scramble phase</li> </ul>	Intersection	<b>Opportunities</b> <ul style="list-style-type: none"> <li>• Existing all-pedestrian phase in signal timing</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Clara-Alum Rock BRT Program</li> <li>• <i>Diridon Station Area Plan (2014)</i></li> </ul>
<b>Santa Clara Street</b>	H8	Santa Clara St/ Delmas Ave uncontrolled crossing improvements	<ul style="list-style-type: none"> <li>• Relocate uncontrolled ladder crosswalk to W side of intersection</li> <li>• Add advance yield lines (“shark’s teeth”) for advance stop lines</li> <li>• Add curb extensions to reduce pedestrian crossing distance</li> <li>• Consider adding Rectangular Rapid Flash Beacon or Pedestrian Hybrid Beacon to improve driver yield rates</li> <li>• Consider adding median refuge for pedestrians crossing Santa Clara St</li> </ul>	Other Crossing	<b>Issues</b> <ul style="list-style-type: none"> <li>• Drivers observed not yielding to pedestrians</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>• Relocation would shorten crossing distance and remove pedestrian exposure to vehicles making WB left turn onto Delmas Ave</li> </ul>	-
<b>Santa Clara Street</b>	H9	SR 87/ Santa Clara St ramps improvements	<ul style="list-style-type: none"> <li>• Add marked pedestrian crossings (ladder) to all legs and re-time signal to permit pedestrian crossing of all legs.</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>• Inadequate pedestrian facilities at off ramps</li> </ul>	-

# 5 Recommended Projects

Project- Focus Area H					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>Santa Clara Street</b>	H10	Bus stop improvements on Santa Clara St	<ul style="list-style-type: none"> <li>• Santa Clara St between Market St and 2nd St: Opportunity for bus stop improvements with Santa Clara/Alum Rock BRT Program implementation</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Limited passenger waiting space, no shelters on north side of street</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Santa Clara-Alum Rock BRT stations are under construction</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Clara-Alum Rock BRT Program</li> </ul>
<b>Santa Clara Street</b>	H11	3rd/4th Street curb extensions	<ul style="list-style-type: none"> <li>• Consider adding curb extensions to shorten pedestrian crossing distances of Santa Clara St at 3rd and 4th Streets. Realign bicycle lanes through existing buffers</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Wide turn radii at 3rd/4th Streets</li> </ul>	-
<b>Santa Clara VTA Station</b>	H12	Wayfinding improvements at Santa Clara VTA station	<ul style="list-style-type: none"> <li>• Consider wayfinding signage between stops on Santa Clara Street and on 1st/2nd Streets</li> <li>• Coordinate design with forthcoming studies: San Jose Downtown Wayfinding Project</li> </ul>	Wayfinding	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Unclear connection between stops</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Wayfinding guidance provided by San Jose Downtown Wayfinding Project (forthcoming) and VTA Transit Ridership Improvement Program (forthcoming)</li> </ul>	<ul style="list-style-type: none"> <li>• San Jose Downtown Wayfinding Project (City of San Jose, forthcoming)</li> </ul>
<b>Santa Clara VTA LRT Station</b>	H13	Add high-visibility crosswalk treatment at crossings of 1st St and 2nd St	<ul style="list-style-type: none"> <li>• Consider ladder crosswalks or other high-visibility crossing treatments at Santa Clara St/1st St and Santa Clara St/2nd St</li> </ul>	Intersection		-
<b>Notre Dame Ave/ E. St James St/ SR 87 Ramps</b>	H14	SR 87 ramps/Saint James St/Notre Dame Ave improvements	<ul style="list-style-type: none"> <li>• Realign crosswalk on south side; widen south side crosswalk and sidewalk under freeway overpass, add pedestrian-scale lighting at undercrossing. Tighten NW corner via a curb extension</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Incomplete pedestrian facilities</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Outside lane on south side of West. Julian St over 15' wide</li> </ul>	-

# 5 Recommended Projects

Project- Focus Area H					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
San Carlos St	H15	Convention Center VTA Station area improvements	<ul style="list-style-type: none"> <li>• Retime mid-block signal and move bus stops closer to mid-block pedestrian crossing.</li> <li>• Consider pedestrian wayfinding via pavement markings and passive wayfinding (landscaping, etc.) to clarify routes to/through Civic and National theaters</li> <li>• Coordinate design with forthcoming studies: San Jose Downtown Wayfinding Project</li> </ul>	Wayfinding Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Long wait to cross at mid-block pedestrian signal</li> <li>• Pedestrian “dead zone” around bus stops</li> <li>• Poor wayfinding/legibility unclear around Civic/National theaters</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Wayfinding guidance provided by San Jose Downtown Wayfinding Project (forthcoming)</li> </ul>	<ul style="list-style-type: none"> <li>• San Jose Downtown Wayfinding Project (City of San Jose, forthcoming)</li> </ul>
San Carlos St	H16	Almaden Blvd/San Carlos St intersection improvements	<ul style="list-style-type: none"> <li>• Remove pork chops where feasible, narrow curb radii via curb extensions, stripe ladder crosswalks, add pedestrian refuge to medians</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Long crossing distances and wide turning radii</li> </ul>	-
Market Street	H17	Market St/Saint James St intersection improvements	<ul style="list-style-type: none"> <li>• Add pedestrian crossing on North leg, add curb extension at SW corner into Market St</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Incomplete pedestrian facilities</li> </ul>	-
Market Street	H18	Market St/Saint John St intersection improvements	Complete crosswalks and sidewalks, stripe ladder crosswalks on all legs	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Incomplete pedestrian facilities</li> </ul>	-
Market Street	H19	Market St/San Carlos St intersection improvements	<ul style="list-style-type: none"> <li>• Cesar Chavez park triangle:               <ol style="list-style-type: none"> <li>1) stripe SB U-turn more narrowly to slow traffic on turns</li> <li>2) add second crosswalk closer to Market St NB lanes; OR convert to stop-control and add crosswalk east of existing yield line</li> <li>3) stripe ladder striped crosswalks</li> </ol> </li> </ul>	Intersection Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Incomplete pedestrian facilities between Cesar Chavez Park oval and triangle</li> <li>• Long crossing distances across San Carlos St</li> </ul> <p><b>Opportunities</b></p>	-



# 5 Recommended Projects

Project- Focus Area H					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			<p>between main Cesar Chavez Park and “triangle;” consider adding raised intersection or raised crosswalk treatment for pedestrian crossings</p> <p>4) extend sidewalks and landscaping of “triangle” portion of park, extending park to area currently striped out alongside Market St NB lanes</p> <ul style="list-style-type: none"> <li>• Market St/San Carlos St intersection: add curb extension to NW corner, stripe ladder crosswalks at all legs of intersection</li> </ul>		<ul style="list-style-type: none"> <li>• Unused ROW on east side of Market north of intersection</li> </ul>	
<b>Diridon</b>	H20	Pedestrian access/connection to Diridon Station through Guadalupe Parkway	<ul style="list-style-type: none"> <li>• Enhanced underpass connection identified in <i>Diridon Station Master Plan</i></li> <li>• Consider adding lighting, murals and/or other public art to enhance existing underpass at Guadalupe Parkway</li> </ul>	Network Connection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Poor lighting at existing underpass</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Diridon Station Area Plan (2014)</i></li> </ul>
<b>Santa Clara St/7th St</b>	H21	Santa Clara St/7th St and Santa Clara St/8th St improvements	<ul style="list-style-type: none"> <li>• Add ladder crosswalks to all four legs of 7th St intersection</li> <li>• Add ladder crosswalks to south and north legs of 8th St intersection</li> <li>• Consider signaling 8th St intersection to provide opportunities for pedestrian crossing of Santa Clara St</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High pedestrian volumes and low-visibility crosswalks</li> <li>• No marked pedestrian crossing at Santa Clara St/8th St</li> </ul>	-

# 5 Recommended Projects

Project- Focus Area H					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>Santa Clara St/ 12th St</b>	H22	Santa Clara St/12th St improvements	<ul style="list-style-type: none"> <li>• Add high-visibility side-street crosswalks</li> <li>• Consider signaling intersection to provide opportunities for pedestrian crossing</li> </ul>	Other crossing	<b>Issues</b> <ul style="list-style-type: none"> <li>• No pedestrian crossing of Santa Clara St at this location</li> </ul>	-
<b>Santa Clara St/ 14th St</b>	H23	Santa Clara St/14th St improvements	<ul style="list-style-type: none"> <li>• Add ladder crosswalks to side street crossings</li> <li>• Consider signaling intersection to provide opportunities for pedestrian crossing</li> </ul>	Other crossing	<b>Issues</b> <ul style="list-style-type: none"> <li>• No pedestrian accommodation at this location</li> </ul>	-
<b>Diridon</b>	H24	Pedestrian Access from Diridon Station to The Alameda and Stockton Ave	<ul style="list-style-type: none"> <li>• Enhance pedestrian access to The Alameda/Stockton Ave intersection via White St and Laurel Grove Lane/Bush St</li> <li>• Identified in <i>Diridon Station Master Plan</i></li> </ul>	Network Connection	<b>Issues</b> <ul style="list-style-type: none"> <li>• Not a high quality pedestrian path from Diridon to White Street, at west side of the station, especially during dark hours</li> </ul>	• <i>Diridon Station Area Plan</i>
<b>Diridon</b>	H25	Laurel Grove Lane/ Park Ave sidewalk completion	<ul style="list-style-type: none"> <li>• Complete sidewalks around parcel at NW corner of Laurel Grove Lane/ Park Ave when parcel is redeveloped</li> </ul>	Network Connection	<b>Issues</b> <ul style="list-style-type: none"> <li>• Missing sidewalks</li> </ul>	• <i>Diridon Station Area Plan</i>
<b>West Julian St</b>	H26	West Julian St railway undercrossing	<ul style="list-style-type: none"> <li>• Add pedestrian-scale lighting, mural and/or other public art to existing pedestrian undercrossing of railway tracks</li> <li>• Evaluate possibility of adding pedestrian crossing on south side of West Julian St</li> </ul>	Network Connection	<b>Issues</b> <ul style="list-style-type: none"> <li>• Poorly lit undercrossing on north side of Julian St</li> </ul>	-
<b>West. Julian St</b>	H27	Intersection and streetscape improvements along West Julian St	<ul style="list-style-type: none"> <li>• Add high-visibility side-street crosswalks along West Julian St between Guadalupe Pkwy and N 1st St</li> </ul>	Intersection Streetscape	<b>Issues</b> <ul style="list-style-type: none"> <li>• Long crossing distances, low-visibility crosswalks, and narrow sidewalks along West Julian St</li> </ul> <b>Opportunities</b>	-

## 5 Recommended Projects

Project- Focus Area H					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			<ul style="list-style-type: none"> <li>• Consider widening sidewalks, adding landscaped buffers (planters as short-term/tactical option) including shade trees; Recommend minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>• Add pedestrian-scale lighting</li> <li>• Add curb extensions to reduce pedestrian crossing distance</li> <li>• Consider realigning and signalizing intersection of North. San Pedro St and West Julian St to provide opportunities for pedestrian crossing</li> </ul>		<ul style="list-style-type: none"> <li>• Future development planned along West Julian St</li> </ul>	

# 5 Recommended Projects

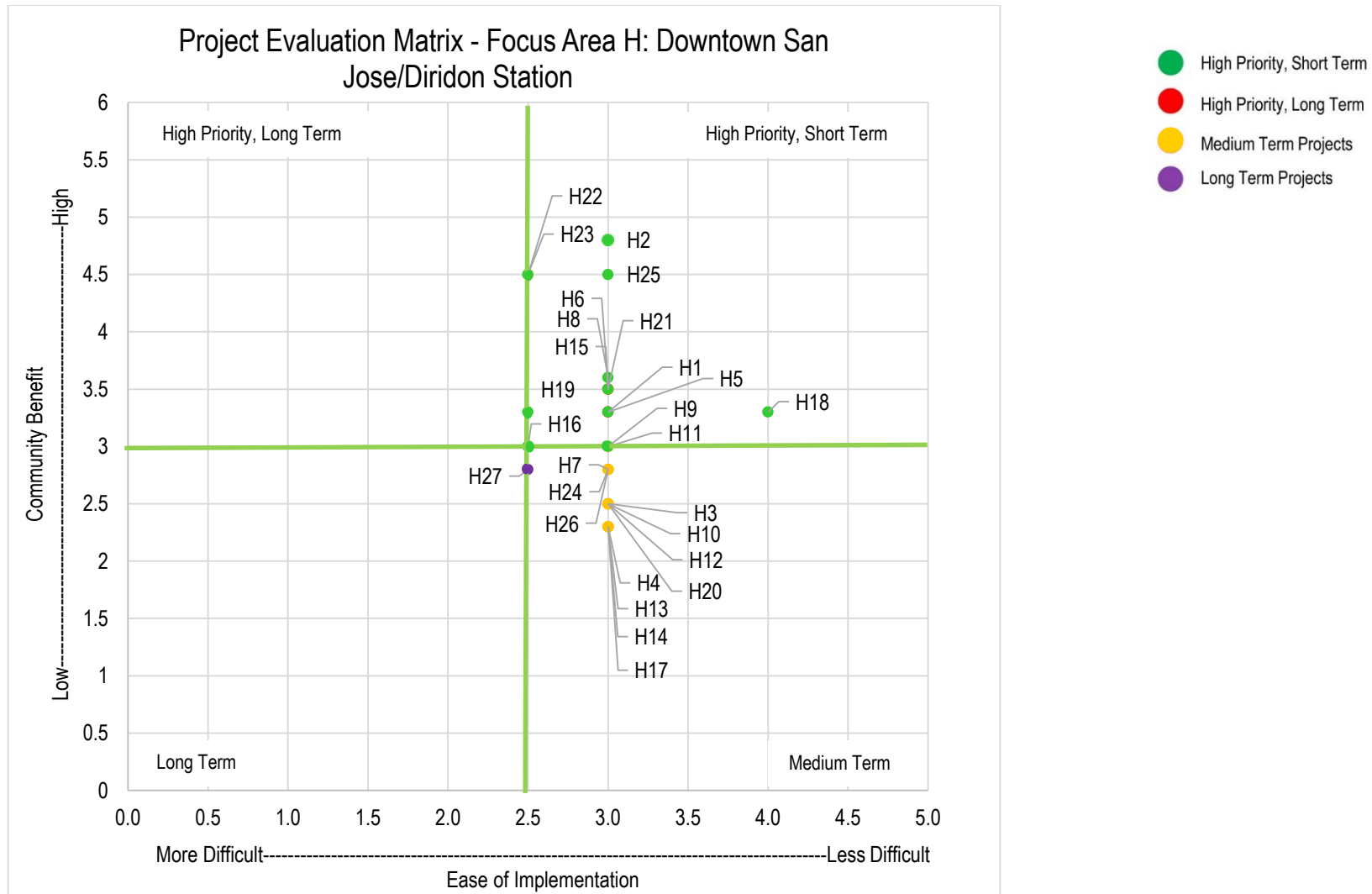


Figure 5.27: Project Evaluation Matrix for Focus Area H: Downtown San Jose/Diridon Station



## 5 Recommended Projects

**Table 5.19: Project Scores and Cost Estimates for Focus Area H: Downtown San Jose/Diridon Station**

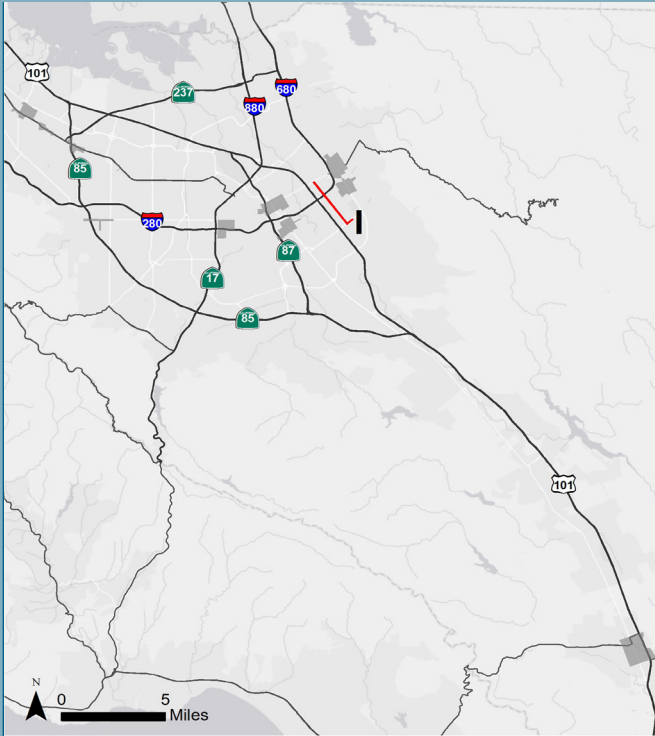
#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project Priority
				less than \$500,000	\$500,000-\$5M	over \$5M	
H1	Pathway and uncontrolled crossing to San Fernando VTA LRT Station	3.3	3.0		x		High priority, short term
H2	Curb cuts and crosswalk improvements at Diridon Station	4.8	3.0	x			High priority, short term
H3	Wayfinding improvements through San Fernando Station	2.5	3.0	x			Medium term
H4*	San Fernando St/Delmas Ave VTA improvement alternatives	2.3	3.0		x		Medium term
H5	Signalized pedestrian crossing west of SR 87 underpass	3.3	3.0	x			High priority, short term
H6	Santa Clara St/Cahill St intersection improvements	3.5	3.0	x			High priority, short term
H7	Santa Clara St/Montgomery St pedestrian scramble	2.8	3.0	x			Medium term
H8	Santa Clara St/Delmas Ave uncontrolled crossing improvements	3.6	3.0		x		High priority, short term
H9	SR 87/Santa Clara St ramps improvements	3.0	3.0	x			High priority, short term
H10	Bus stop improvements on Santa Clara St	2.5	3.0	x			Medium term
H11	3rd/4th St curb extensions	3.0	3.0	x			High priority, short term
H12	Wayfinding improvements at Santa Clara VTA LRT Station	2.5	3.0	x			Medium term
H13	Add high-visibility crosswalk treatment at crossings of 1st St and 2nd St	2.3	3.0	x			Medium term
H14	SR 87 ramps/Saint James St/Notre Dame Ave improvements	2.3	3.0		x		Medium term
H15	Convention Center VTA LRT Station area improvements	3.5	3.0	x			High priority, short term
H16	Almaden Blvd/San Carlos St intersection improvements	3.0	2.5	x			High priority, short term

## 5 Recommended Projects

#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project Priority
				less than \$500,000	\$500,000-\$5M	over \$5M	
H17	Market St/Saint James St intersection improvements	2.3	3.0	x			Medium term
H18	Market St/Saint John St intersection improvements	3.3	4.0	x			High priority, short term
H19	Market St/San Carlos St intersection improvements	3.3	2.5		x		High priority, short term
H20	Pedestrian access/connection to Diridon Station through Guadalupe Parkway	2.5	3.0		x		Medium term
H21	Santa Clara St/7th St and Santa Clara/8th St improvements	3.5	3.0		x		High priority, short term
H22	Santa Clara St/12th St improvements	4.5	2.5		x		High priority, short term
H23	Santa Clara St/14th St improvements	4.5	2.5		x		High priority, short term
H24	Pedestrian access from Diridon Station to The Alameda and Stockton Ave	2.8	3.0		x		Medium term
H25	Laurel Grove Ln/Park Ave sidewalk completion	4.5	3.0	x			High priority, short term
H26	W Julian St railway undercrossing	2.8	3.0		x		Medium term
H27	Intersection and streetscape improvements along W Julian St	2.8	2.5			x	Long term

\* Project that VTA has an interest in proactively advancing. See chapter 6 for planning level cost estimates for this project.

## Focus Area I: King Road Corridor (San Jose)



### Summary

Focus Area I is located in East San Jose along King Road between Tully Road and Alum Rock Avenue. It is within walking distance of five schools and is adjacent to Emma Prusch Farm Park and the Mexican Heritage Plaza cultural center. It includes residential and commercial development clustered around major intersections (Alum Rock Avenue, Story Road, and Tully Road). The Focus Area is bisected by I-680. It is served by local buses along the King Road corridor (VTA Lines 12, 22, 70, 77) and connects to the Rapid 522 bus at Alum Rock Avenue.

### Issues

- High speed vehicle turns/wide curb radii and long crossing distances at intersections along King Road and Tully Road
- Long distances between pedestrian crossings along King Road north of I-280/I-680
- Poorly-lit freeway undercrossing at I-280/I-680 and long crossing distances at I-280/I-680 ramps
- Pedestrian access restricted at several intersections
- Pedestrian “dead zones” and “superblocks”, which require pedestrians to walk long distances through unpleasant or dull environments



Poorly-lit undercrossing and low-visibility sidewalks at I-680



Long crossing distances at intersections throughout Focus Area



Pedestrian “dead zones” along corridor

### Opportunities

- Bus stops and commercial development are clustered together along the corridor
- High pedestrian demand from schools, transit, and commercial uses
- Located near planned improvements along Alum Rock Avenue (Santa Clara-Alum Rock BRT) and at Tully Road/Quimby Road (Eastridge Transit Center)
- Corridor provides bus connection to future BART stations
- Existing pedestrian-scale commercial development
- Corridor identified in *San Jose Vision Zero Plan*
- King Rd bikeway gap closures was completed in 2016



Existing pedestrian-scale small businesses



Schools generate high pedestrian demand

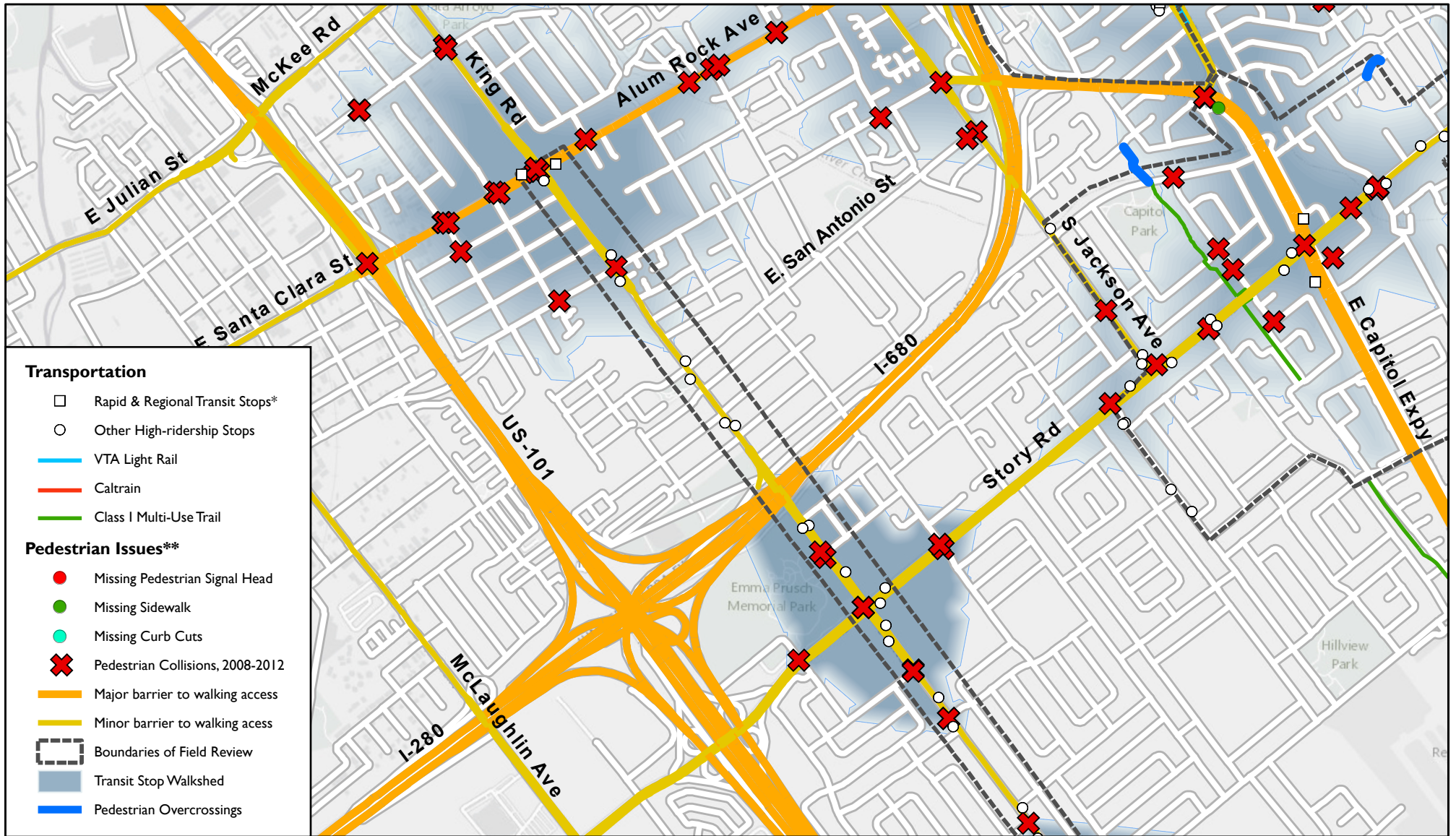


Transit service located near commercial development



# Focus Area I: King Road Corridor (San Jose)

## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

\*\*Not all pedestrian deficiencies are mapped.

Note: map continued on next page

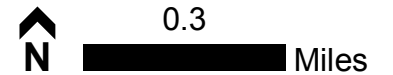
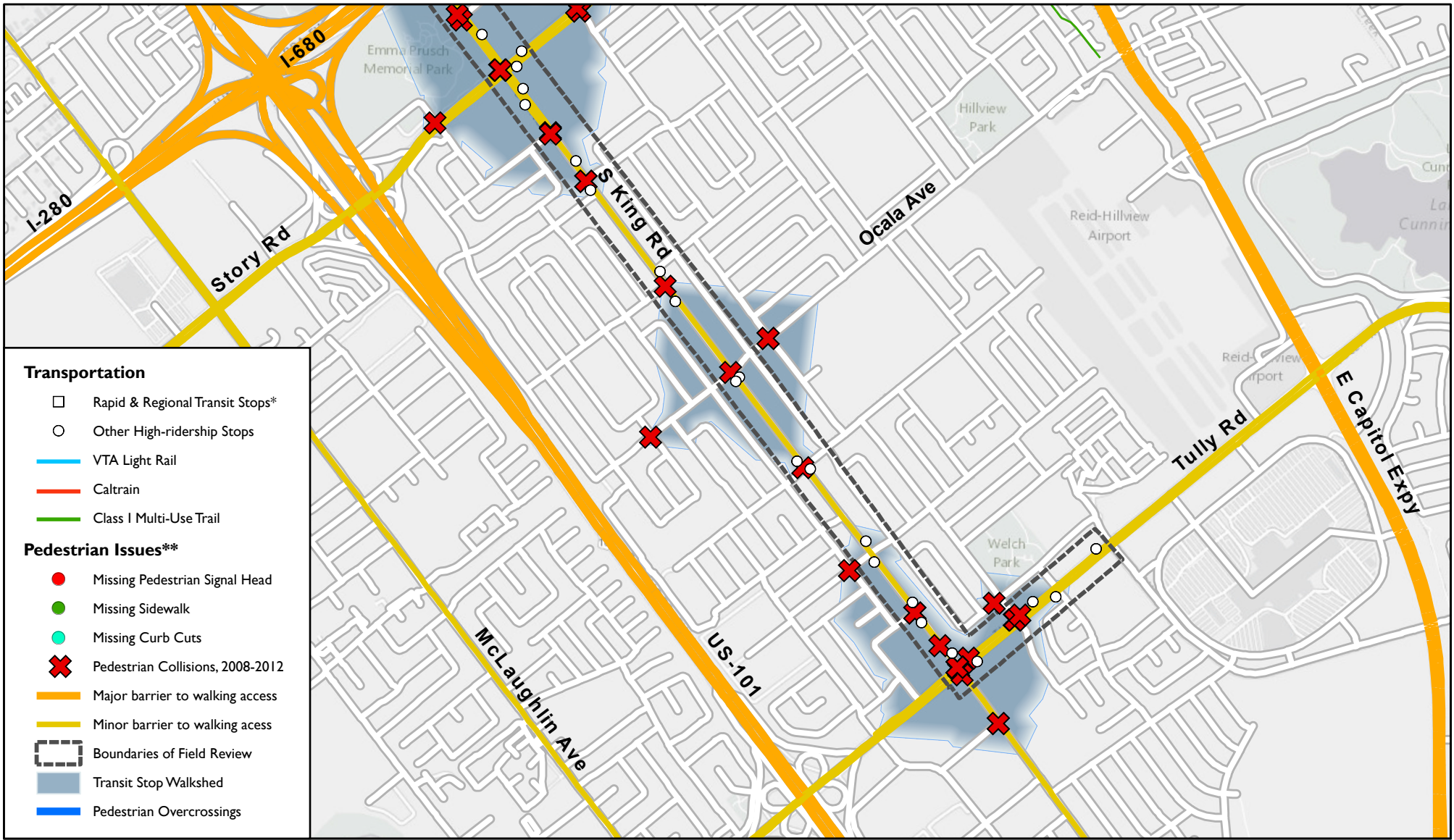


Figure 5.28: Focus Area I (north segment), barriers and infrastructure deficiencies



# Focus Area I: King Road Corridor (San Jose)

## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

\*\*Not all pedestrian deficiencies are mapped.

Note: map continued from previous page

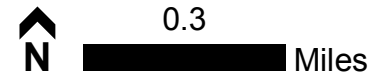
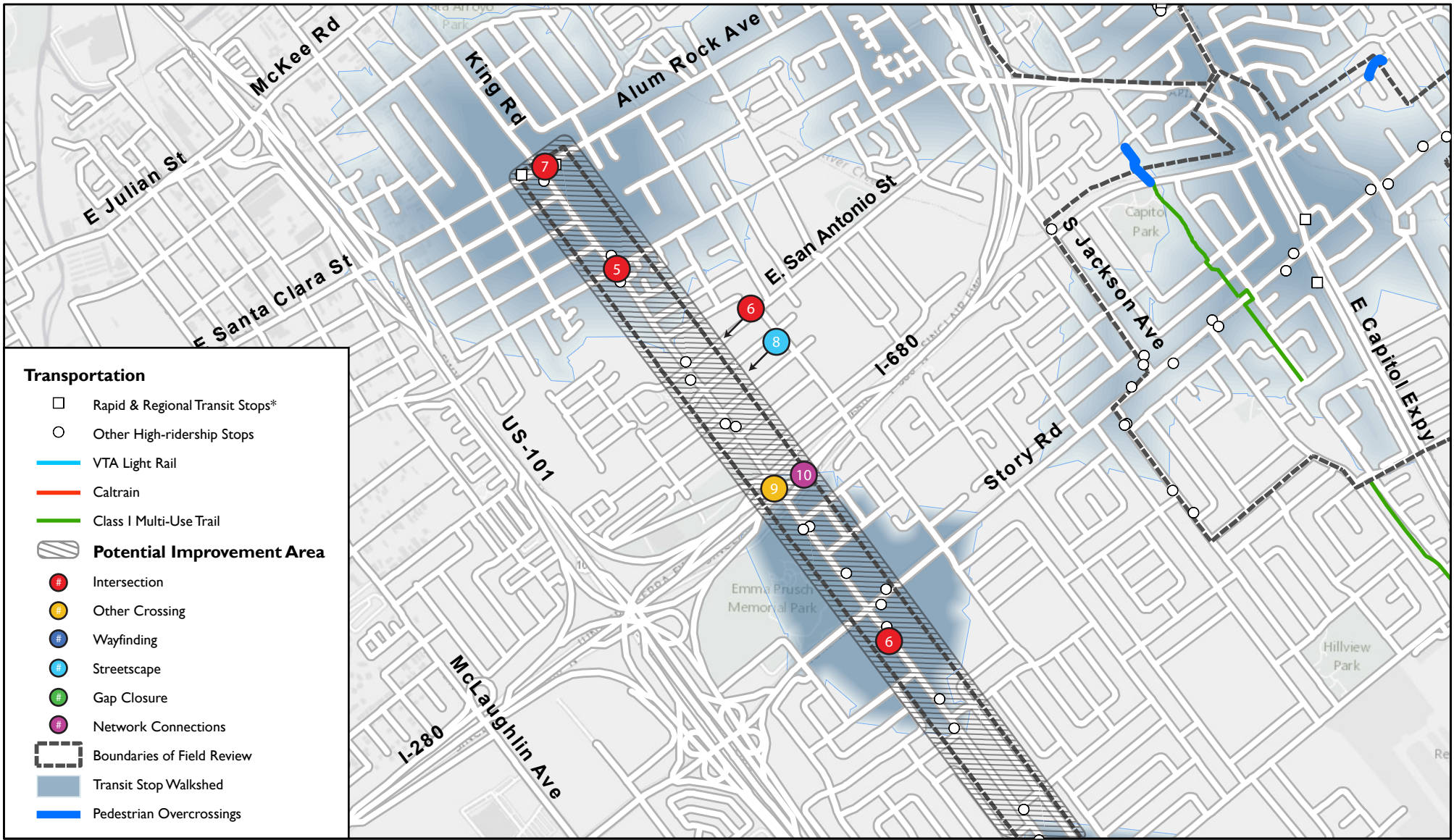


Figure 5.29: Focus Area I (south segment), barriers and infrastructure deficiencies

# Focus Area I: King Road Corridor (San Jose) Potential Improvements by Project Type



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

Note: map continued on next page

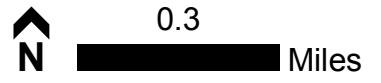
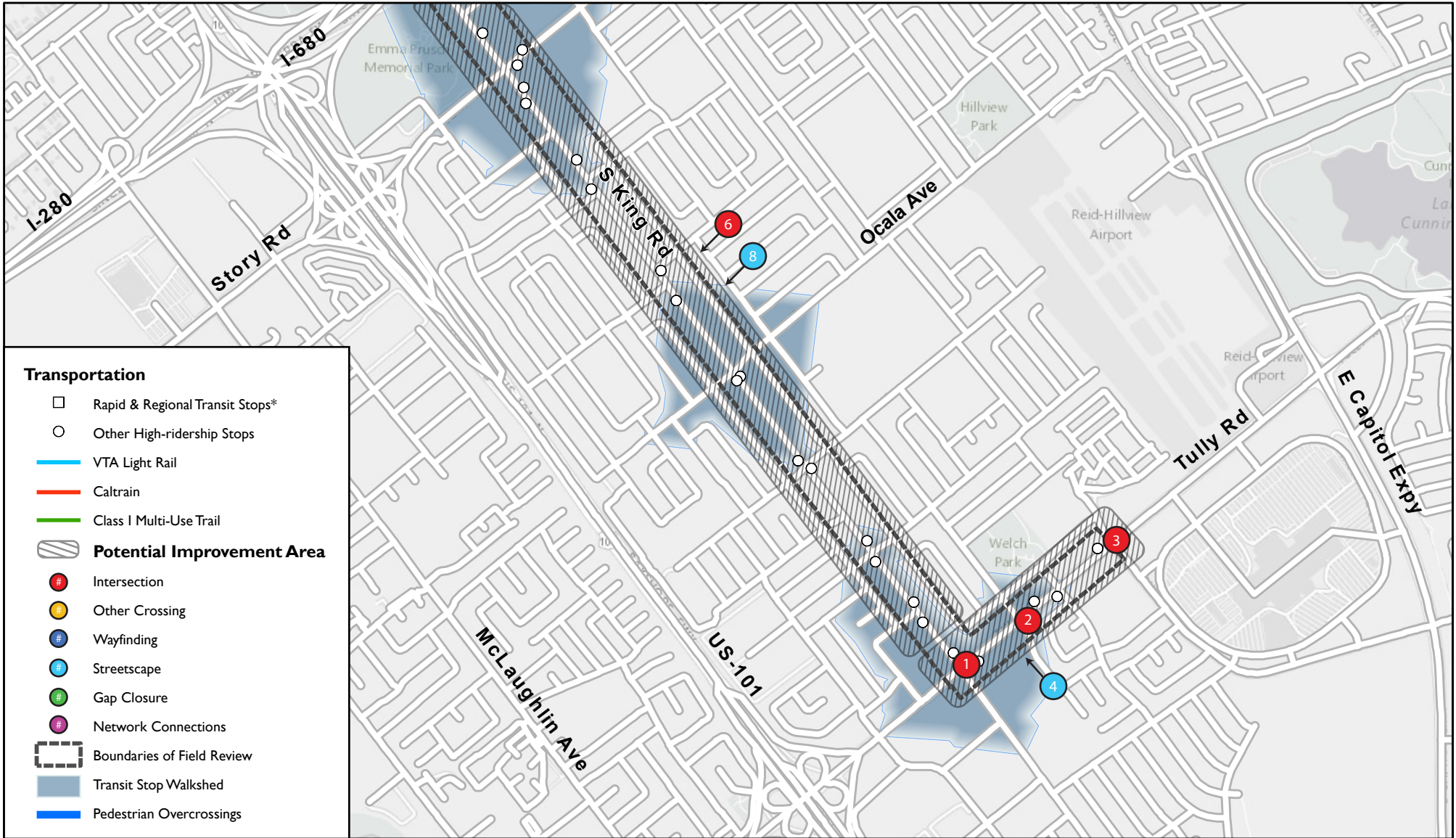


Figure 5.30: Focus Area I (north segment), potential improvements



# Focus Area I: King Road Corridor (San Jose) Potential Improvements by Project Type



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

Note: map continued from previous page

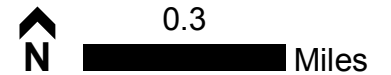


Figure 5.31: Focus Area I (south segment), potential improvements

# 5 Recommended Projects

Table 5.20. Recommended Projects- for Focus Area I: King Road Corridor from Tully Rd to Alum Rock Ave (San Jose)

Project- Focus Area I					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
King Rd/Tully Rd	11	King Rd/Tully Rd intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct curbs to narrow right turn radii</li> <li>• Stripe ladder crosswalks</li> <li>• Evaluate signal timing to see whether pedestrian crossing wait time can be reduced. Consider leading pedestrian interval</li> <li>• Add signage to right turn lanes stating “Turning vehicles must yield to pedestrians</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Concentration of pedestrian demand generators: commercial area and bus stops</li> <li>• Pedestrians may cross the street unsafely due to long wait times</li> <li>• Poor pedestrian visibility</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• King Rd and Tully Rd identified as Safety Priority Streets in <i>Vision Zero San Jose</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Vision Zero San Jose</i></li> </ul>
Huran Dr/Tully Rd	12	Huran Dr/Tully Rd intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct curbs to narrow right turn radii</li> <li>• Stripe ladder crosswalks</li> <li>• Evaluate signal timing to see whether pedestrian crossing wait time can be reduced</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Concentration of pedestrian demand generators: commercial area and bus stops</li> <li>• Pedestrians may cross the street unsafely due to long wait times</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Tully Rd identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Vision Zero San Jose</i></li> </ul>
Quimby Rd/Tully Rd	13	Quimby Rd/Tully Rd intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct curbs and curbs to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>• Add advanced yield pavement marking and signage</li> <li>• Stripe ladder crosswalks</li> <li>• Evaluate signal timing to see whether pedestrian crossing wait time can be reduced</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Concentration of pedestrian demand generators: commercial area and bus stops</li> <li>• Pedestrians may cross the street unsafely due to long wait times</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Tully Rd identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Vision Zero San Jose</i></li> </ul>



# 5 Recommended Projects

Project- Focus Area I					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>Tully Rd Corridor</b>	14	Tully Rd streetscape improvements	<ul style="list-style-type: none"> <li>• Streetscape improvements on Tully Rd between King Rd and Quimby Dr</li> <li>• Add landscaped buffers (planters short-term/tactical option), add pedestrian-scale lighting</li> <li>• Stripe ladder crosswalks alongside street crossings</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Concentration of pedestrian demand generators: commercial area and bus stops</li> <li>• High-speed traffic, need for buffer separating pedestrians from traffic</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Opportunity to create buffer via reallocation of underused parking spaces along south side of Tully Rd</li> <li>• Tully Rd identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Vision Zero San Jose</i></li> </ul>
<b>King Road/ East San Antonio St</b>	15	King/East San Antonio St intersection improvements	<ul style="list-style-type: none"> <li>• Reconstruct SW and SE curbs to narrow right turn radii.</li> <li>• Add pocket parks/landscaping/rain gardens/public art in space reclaimed at SW and SE corners</li> <li>• Stripe ladder crosswalks</li> <li>• Evaluate signal timing to see whether pedestrian crossing wait time can be reduced</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Wide radii on these intersection prompts drivers to turn at high speeds, creating a unsafe walking environment for pedestrians</li> <li>• School crossing</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• High pedestrian demand at this location</li> <li>• King Rd identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Vision Zero San Jose</i></li> </ul>
<b>King Road Corridor</b>	16	King Rd Corridor intersection improvements	<ul style="list-style-type: none"> <li>• Intersection improvements along King Rd at Kammerer Ave, Virginia Pl.-Vollmer Way, Lido Way, Story Rd, Marsh St, Biscayne Way, Miami Dr, O'cala Ave, Cunningham Ave, Waverly Ave</li> <li>• Reconstruct curbs to narrow right turn radii</li> <li>• Stripe ladder crosswalks</li> <li>• Evaluate opportunities to remove free right turns and add marked</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Wide radii on these intersections prompts drivers to turn at high speeds, creating a unsafe walking environment for pedestrians</li> <li>• Many drivers block intersections due to limited sightlines</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• City of San Jose reducing number of left turn lanes at King Rd/Story Rd intersection</li> <li>• King Rd identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Vision Zero San Jose</i></li> </ul>

# 5 Recommended Projects

Project- Focus Area I					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			crosswalks/pedestrian signal heads at all four legs of intersections			
<b>King Road/Alum Rock Ave</b>	17	King Road/Alum Rock Ave intersection and bus waiting area improvements	<ul style="list-style-type: none"> <li>• Reconstruct all curbs to reduce right turn radii and reduce crossing distances</li> <li>• Stripe ladder crosswalks</li> <li>• Evaluate signal timing to see whether pedestrian crossing wait time can be reduced</li> <li>• Expand bus passenger waiting areas, add shade</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Many buses including school buses stop at Alum Rock Ave and King Rd. Waiting area is small, lacks lighting and shade</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• There is room in the corner of SW of Alum Rock Ave and King Rd for shade and increased waiting area</li> <li>• King Rd and Alum Rock Ave identified as Safety Priority Streets in <i>Vision Zero San Jose</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Santa Clara-Alum Rock BRT Program</i></li> <li>• <i>Vision Zero San Jose</i></li> </ul>
<b>King Road Corridor</b>	18	King Road Corridor streetscape improvements	<ul style="list-style-type: none"> <li>• As properties redevelop, widen sidewalks, add landscaped buffers (planters short-term/tactical option), add pedestrian-scale lighting; Recommend minimum 13' total sidewalk width per <i>VTA Pedestrian Technical Guidelines</i></li> <li>• Stripe ladder crosswalks alongside street crossings</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High-speed traffic, narrow (4-ft) sidewalks, limited shade</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Varying street width and underutilized roadway space along corridor provides opportunity to narrow vehicle lanes and expand pedestrian space as properties redevelop</li> <li>• King Rd identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Taking right-of-way may be required to provide continuous pedestrian improvements along corridor</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Vision Zero San Jose</i></li> </ul>
<b>I-280/I-680 Ramps</b>	19	I-280/I-680 Ramp improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks and advanced yield signage to pedestrian crossings of ramps</li> <li>• Tighten curb radii where possible</li> </ul>	Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Low-visibility crosswalks, no advance signage</li> </ul> <p><b>Opportunities</b></p>	<ul style="list-style-type: none"> <li>• <i>I-680 Corridor Study (VTA)</i></li> <li>• <i>Vision Zero San Jose</i></li> </ul>

## 5 Recommended Projects

Project- Focus Area I					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			<ul style="list-style-type: none"> <li>• Realign ramps to 90-degree angles and consolidate pedestrian crossings when interchanges are reconstructed, or provide enhanced pedestrian facilities in median if interchange is reconstructed as diverging diamond per <i>I-680 Corridor Study</i></li> <li>• Add pedestrian-scale lighting and mural or other public art under overpass</li> </ul>		<ul style="list-style-type: none"> <li>• <i>I-680 Corridor study</i> (VTA) recommends reconfiguring SB on ramp and NB off ramp to meet king road at 90 degrees or modifying interchange into a diverging diamond, with pedestrians and bicycles in median</li> <li>• King Rd identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul>	
<b>I-280/I-680 Ramps</b>	110	I-680 access road improvements	<ul style="list-style-type: none"> <li>• Upgrade pedestrian facilities along existing access road under I-680 to connect Emma Prusch Park and Police Activities League</li> <li>• Consider pedestrian/bicycle shared-use path with pedestrian scale lighting and public art</li> </ul>	Network connection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Poorly lit existing roadway shared with motor vehicles</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Enhance pedestrian access to recreational facilities</li> </ul>	-

# 5 Recommended Projects

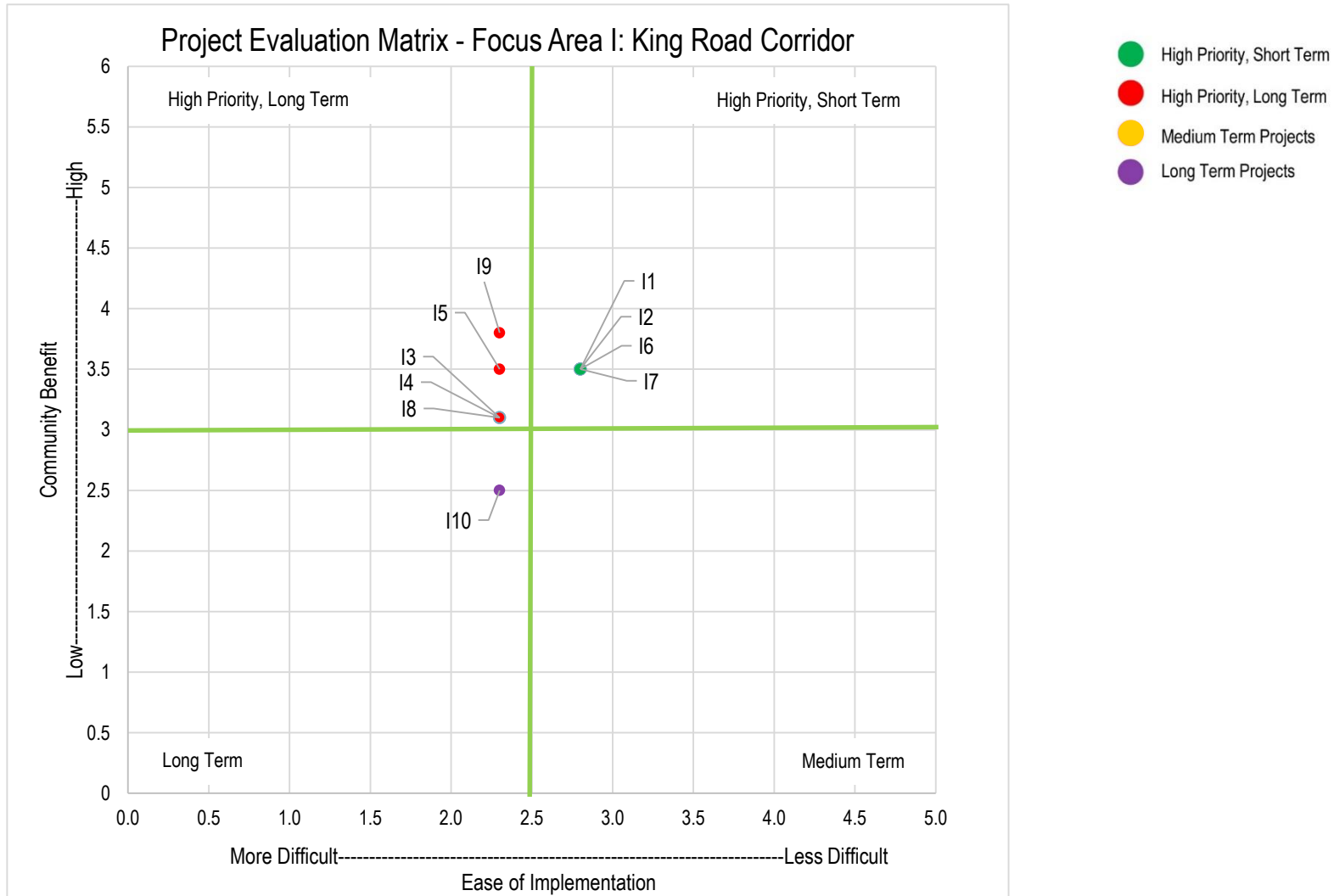


Figure 5.32: Project Evaluation Matrix for Focus Area I: King Road Corridor from Tully Rd to Alum Rock Ave (San Jose)



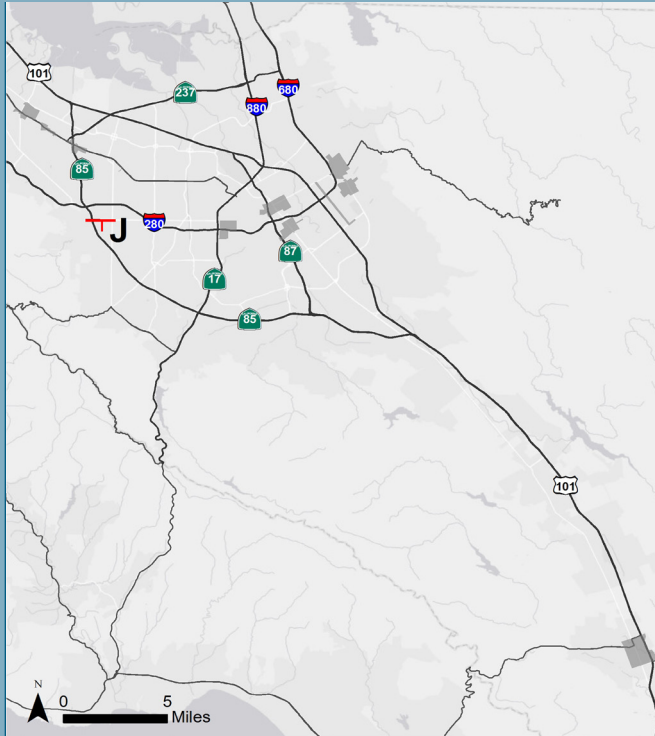
## 5 Recommended Projects

**Table 5.21: Project Scores and Cost Estimates for Focus Area I: King Road Corridor from Tully Rd to Alum Rock Ave (San Jose)**

#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project priority
				less than \$500,000	\$500,000-\$5M	over \$5M	
11	King Rd/Tully Rd intersection improvements	3.5	2.8	x			High priority, short term
12	Huran Dr/Tully Rd intersection improvements	3.5	2.8	x			High priority, short term
13	Quimby Rd/Tully Rd intersection improvements	3.1	2.3	x			High priority, long term
14	Tully Road streetscape improvements	3.1	2.3		x		High priority, long term
15	King Rd/E San Antonio St intersection improvements	3.5	2.3	x			High priority, long term
16*	King Road Corridor intersection improvements	3.5	2.8			x	High priority, short term
17	King Rd/Alum Rock Ave intersection and bus waiting area improvements	3.5	2.8	x			High priority, short term
18*	King Road Corridor streetscape improvements	3.1	2.3			x	High priority, long term
19*	I-280/I-680 freeway ramp improvements	3.8	2.3			x	High priority, long term
110	I-680 access road improvements	2.5	2.3			x	Long term

\* Projects that VTA has an interest in proactively advancing. See chapter 6 for planning level cost estimates for these projects.

## Focus Area J: Stevens Creek Blvd. and Stelling Rd (Cupertino)



### Summary

Focus Area J extends along Stevens Creek Boulevard between Orange Avenue and Torre Avenue/Vista Drive, and south along S. Stelling Road to McClellan Road. It is served by the 23, 25, 53, 54, 55, 55, 81, and 323 VTA buses. The SR 85/Stevens Creek Boulevard interchange is located immediately to the west of DeAnza College. The Focus Area includes the north and east frontages of DeAnza College, commercial destinations along Stevens Creek Boulevard, the Cupertino Senior Center, and the south frontages of Cupertino Memorial Park and the Cupertino Sports Center, and is within walking distance of several office complexes and multifamily housing developments to the north and south of the Stevens Creek corridor. Stevens Creek Boulevard and Stelling Road have sidewalks and bicycle lanes through the study area.

### Issues

- Pedestrian crossings at the SR 85 ramps are uncontrolled, and vehicle turning speeds are high, creating the potential for conflicts
- Pedestrian crossings of the existing rail tracks west of SR 85 do not provide clear and consistent walkways
- Narrow and meandering sidewalks along Stevens Creek Boulevard (east of Stelling Rd) and along Stelling Road limit space available to pedestrians and transit users
- Signalized intersections have large right-turn curb radii and long crossing distances, which result in higher automobile turning speeds and create potential conflicts and hazards for pedestrians using crosswalks
- There are restricted pedestrian crossings at several signalized intersections and long distances between crossing opportunities along Stevens Creek Boulevard
- Commercial developments along Stevens Creek Boulevard vary in the quality of pedestrian access provided through parking lots



Narrow sidewalks limit space available to pedestrians and transit users



Restricted crossing at Mary Ave and Stevens Creek Blvd



Inconsistent and unclear pedestrian walkway at rail crossing.

### Opportunities

- High pedestrian demand is generated by DeAnza College, Cupertino Senior Center, Cupertino Memorial Park, Cupertino Sports Complex, retail development, and multi-family residential complexes, meaning improvements will be used by many
- Bus stop improvements will be added in Fall 2017 at DeAnza College and DeAnza Blvd/Stevens Creek Blvd for the future Rapid 523 bus service, with the potential to create a bus rapid transit corridor on Stevens Creek in the long term
- High-visibility continental and ladder-striped crosswalks are present along Stevens Creek Boulevard west of SR 85
- Wide sidewalks and landscaped buffers along several recently-redeveloped segments of Stevens Creek Boulevard



Continental crosswalks, landscaped medians, and bicycle lanes along Stevens Creek Blvd



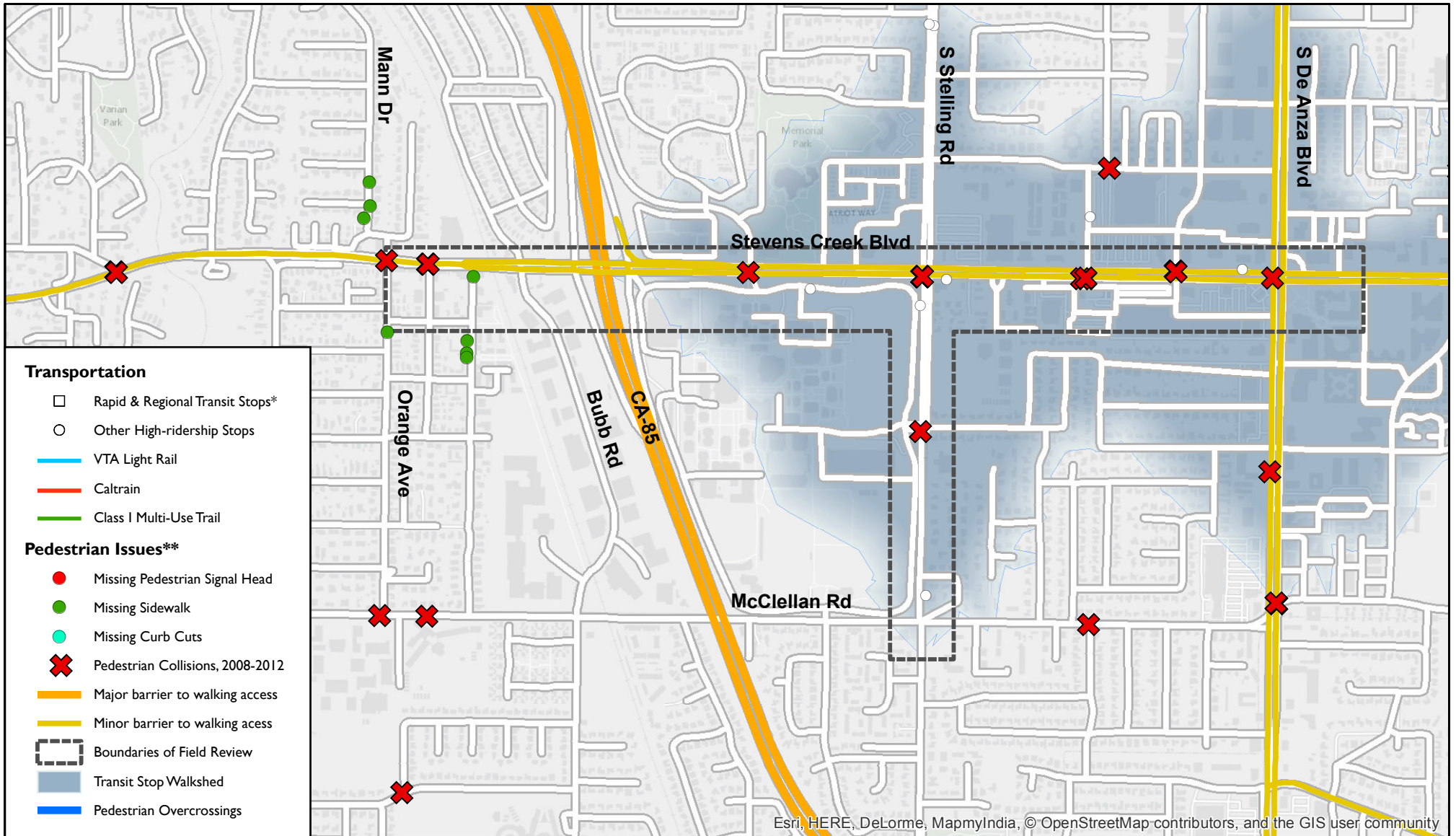
Retail development generates pedestrian demand along Stevens Creek Blvd



Bus stop and service improvements planned for VTA route 323

# Focus Area J: Stevens Creek Blvd. and Stelling Rd (Cupertino)

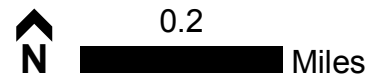
## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

\*\*Not all pedestrian deficiencies are mapped.

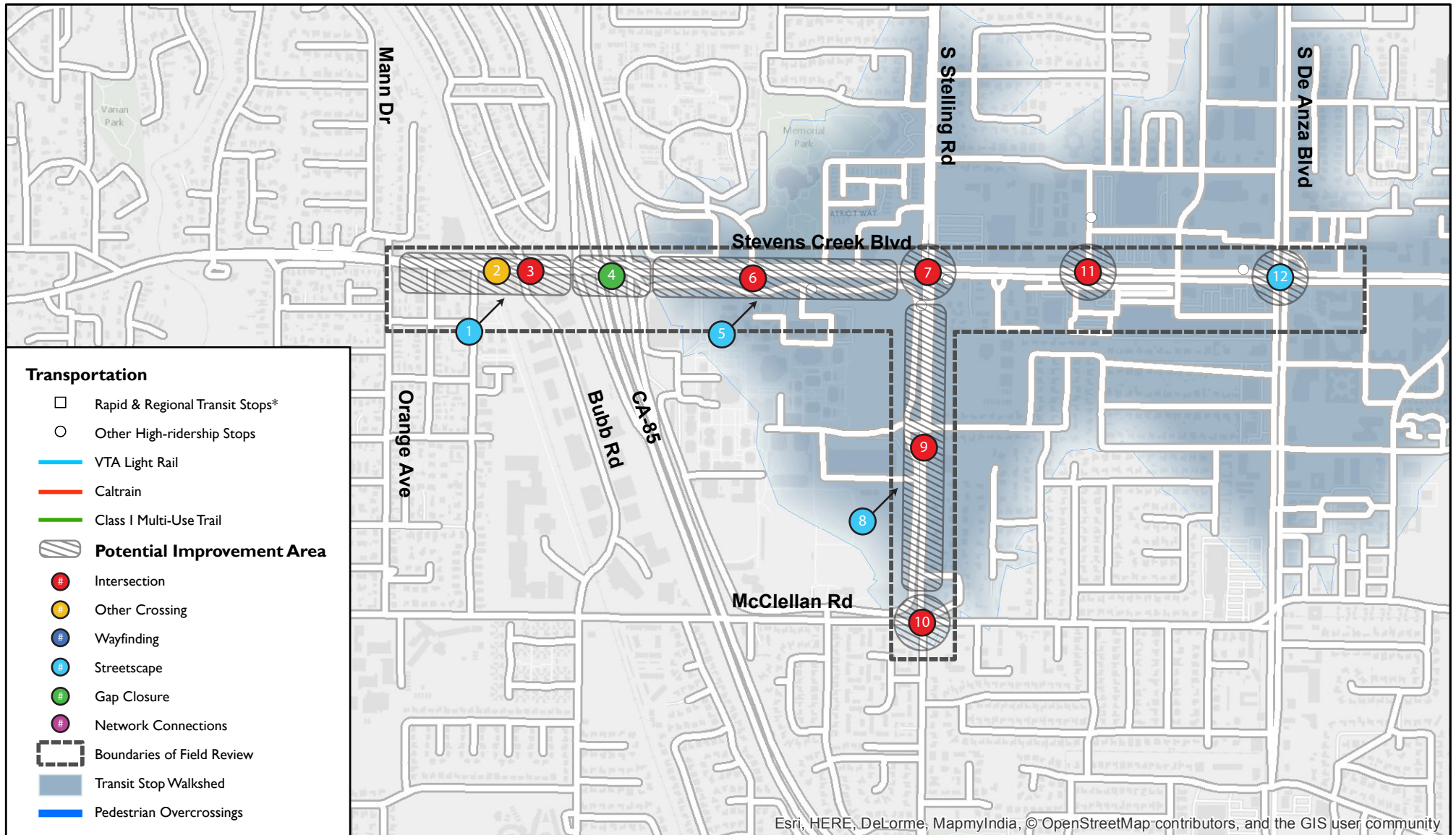


**Figure 5.33: Focus Area J, barriers and infrastructure deficiencies**



# Focus Area J: Stevens Creek Blvd. and Stelling Rd (Cupertino)

## Potential Improvements by Project Type



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

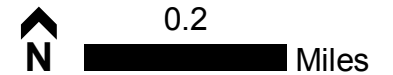


Figure 5.34: Focus Area J, potential improvements



# 5 Recommended Projects

**Table 5.22. Recommended Projects- for Focus Area J: Stevens Creek Blvd and Stelling Rd (Cupertino)**

Project- Focus Area J					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
Stevens Creek Blvd West of SR 85	J1	West Stevens Creek Blvd streetscape improvements	<ul style="list-style-type: none"> <li>Widen sidewalks, add landscaped buffers with street trees (planters, short-term/tactical option), add pedestrian-scale lighting. Recommend minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>Reconfigure meandering sidewalk and mail drop-off lane at post office</li> <li>Stripe ladder crosswalks (or other high-visibility crosswalks) alongside street crossings</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Narrow and meandering sidewalks limit space available to pedestrians and transit users</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Widening sidewalks may require removal of on-street parking</li> </ul>	-
Stevens Creek Blvd West of SR 85	J2	West Stevens Creek Blvd railway crossing improvements	<ul style="list-style-type: none"> <li>Stripe ladder crosswalks at track crossings to designate pedestrian crossing</li> <li>Add pedestrian gates to restrict pedestrian access</li> </ul>		<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Pedestrian crossings of rail tracks west of SR 85 do not provide clear and consistent walkways</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Due to proximity to Caltrain tracks, changes will require coordination with California Public Utilities Commission</li> </ul>	-
Stevens Creek Blvd West of SR 85	J3	Bubb Road/ Stevens Creek Blvd intersection improvements	<ul style="list-style-type: none"> <li>Reconstruct curb at SE and SW corners to tighten right turn radii, reduce crossing distances, expand pedestrian waiting space, and reduce angle of approach</li> <li>Stripe ladder crosswalks on north, south, and east legs of intersection</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Wide curb radii encourage high vehicle turning speeds and contribute to potential for conflicts</li> </ul>	-
SR 85/ Stevens Creek	J4	SR 85 ramps improvements	<ul style="list-style-type: none"> <li>Stripe ladder crosswalks, add advance yield lines, add high-visibility</li> </ul>	Gap Closure	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Ramp entrance and exits have poor visibility due to curvature</li> </ul>	-

# 5 Recommended Projects

Project- Focus Area J					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>Blvd Interchange</b>			<p>pedestrian crossing signage to ramp crossings</p> <ul style="list-style-type: none"> <li>• Consider reconstructing curbs at ramps to reduce right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>• Realign ramps to 90-degree angles and consolidate pedestrian crossings when interchanges are reconstructed</li> </ul>		<p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	
<b>Stevens Creek Blvd East of SR 85</b>	J5	Stevens Creek Blvd streetscape improvements	<ul style="list-style-type: none"> <li>• Widen sidewalks, add landscaped buffers with street trees (planters, short-term/tactical option), add pedestrian-scale lighting. Strive to achieve minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>• Expand bus stop waiting and boarding areas</li> <li>• Consider reconfiguring meandering sidewalk and right turn lane when DeAnza College redevelops its northern frontage</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Narrow and meandering sidewalks limit space available to pedestrians and transit users</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Rapid 523 bus stop improvements planned for Fall 2017</li> <li>• Cupertino Oaks shopping center likely to redevelop in near term</li> </ul>	<ul style="list-style-type: none"> <li>• Stevens Creek Bus Rapid Transit Project (VTA, ongoing)</li> </ul>
<b>Stevens Creek Blvd East of SR 85</b>	J6	Mary Ave/Stevens Creek Blvd intersection improvements	<ul style="list-style-type: none"> <li>• Retime W leg crossing to accommodate seniors, children, and groups of students</li> <li>• Consider adding pedestrian crossing to west leg of intersection: ladder crosswalk and pedestrian signal heads</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Long crossing of Stevens Creek Blvd poorly served by existing signal timing</li> <li>• Pedestrian crossing not permitted on west leg of intersection</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Cupertino Oaks shopping center likely to redevelop in near term</li> </ul>	<ul style="list-style-type: none"> <li>• Stevens Creek Bus Rapid Transit Project (VTA, ongoing)</li> </ul>

## 5 Recommended Projects

Project- Focus Area J					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
Stevens Creek Blvd /Stelling Road	J7	Stelling Road /Stevens Creek Blvd intersection improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalk on south leg of intersection</li> <li>• Consider shortening medians that extend into crosswalks on north, east, and west legs with implementation of protected intersection treatment</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Hardscaped medians extend into crosswalks</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Reconstructing medians would require relocation of left turn signal posts and likely replacement of mast head signal arms</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Protected intersection treatment identified in <i>Cupertino Bicycle Transportation Plan</i> (2016)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Cupertino Bicycle Transportation Plan</i> (2016)</li> </ul>
Stelling Road	J8	Stelling Road streetscape improvements	<ul style="list-style-type: none"> <li>• Expand sidewalks when DeAnza College redevelops eastern frontage. Strive to achieve minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>• Expand bus stop waiting area on the east side of Stelling Road</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Narrow sidewalks limit space available to pedestrians and transit users</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Bus stop waiting area expansion proposed by VTA Operations Division (2016)</li> </ul>	<ul style="list-style-type: none"> <li>• VTA Operations proposal to extend existing bus duck-out and expand passenger waiting area (2016)</li> </ul>
Stelling Road	J9	Stelling Road/ Pepper Tree Lane intersection improvements	<ul style="list-style-type: none"> <li>• Restripe three existing legs with ladder-style crosswalks</li> <li>• Consider adding pedestrian crossing to north leg of intersection: ladder crosswalk and pedestrian signal heads</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Pedestrian crossing not permitted on north leg of intersection</li> </ul>	-
Stelling Road	J10	Stelling Road /McClellan Rd intersection improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks on all four legs of intersection</li> <li>• Consider including curb extensions at all four corners with implementation of planned protected intersection treatment</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Wide curb radii encourage high vehicle turning speeds and contribute to potential for conflicts</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Protected intersection treatment identified in <i>Cupertino Bicycle Transportation Plan</i> (2016)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Cupertino Bicycle Transportation Plan</i> (2016)</li> </ul>

## 5 Recommended Projects

Project- Focus Area J					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>Stevens Creek Blvd East of SR 85</b>	J11	Stevens Creek Blvd/ Saich Way intersection improvements	<ul style="list-style-type: none"> <li>Consider adding pedestrian crossing to west leg of intersection: ladder crosswalk and pedestrian signal heads</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>Pedestrian crossing not permitted on west leg of intersection</li> </ul>	-
<b>Stevens Creek Blvd East of SR 85</b>	J12	Stevens Creek Blvd/DeAnza Blvd bus stop improvements	<ul style="list-style-type: none"> <li>Expand bus stop waiting and boarding areas when Rapid 523 improvements are added</li> </ul>	Streetscape	<b>Issues</b> <ul style="list-style-type: none"> <li>Narrow sidewalks limit space available to pedestrians and transit users</li> </ul> <b>Opportunities</b> <ul style="list-style-type: none"> <li>Rapid 523 bus stop improvements planned for Fall 2017</li> </ul>	<ul style="list-style-type: none"> <li>Stevens Creek Bus Rapid Transit Project (VTA, ongoing)</li> </ul>



# 5 Recommended Projects

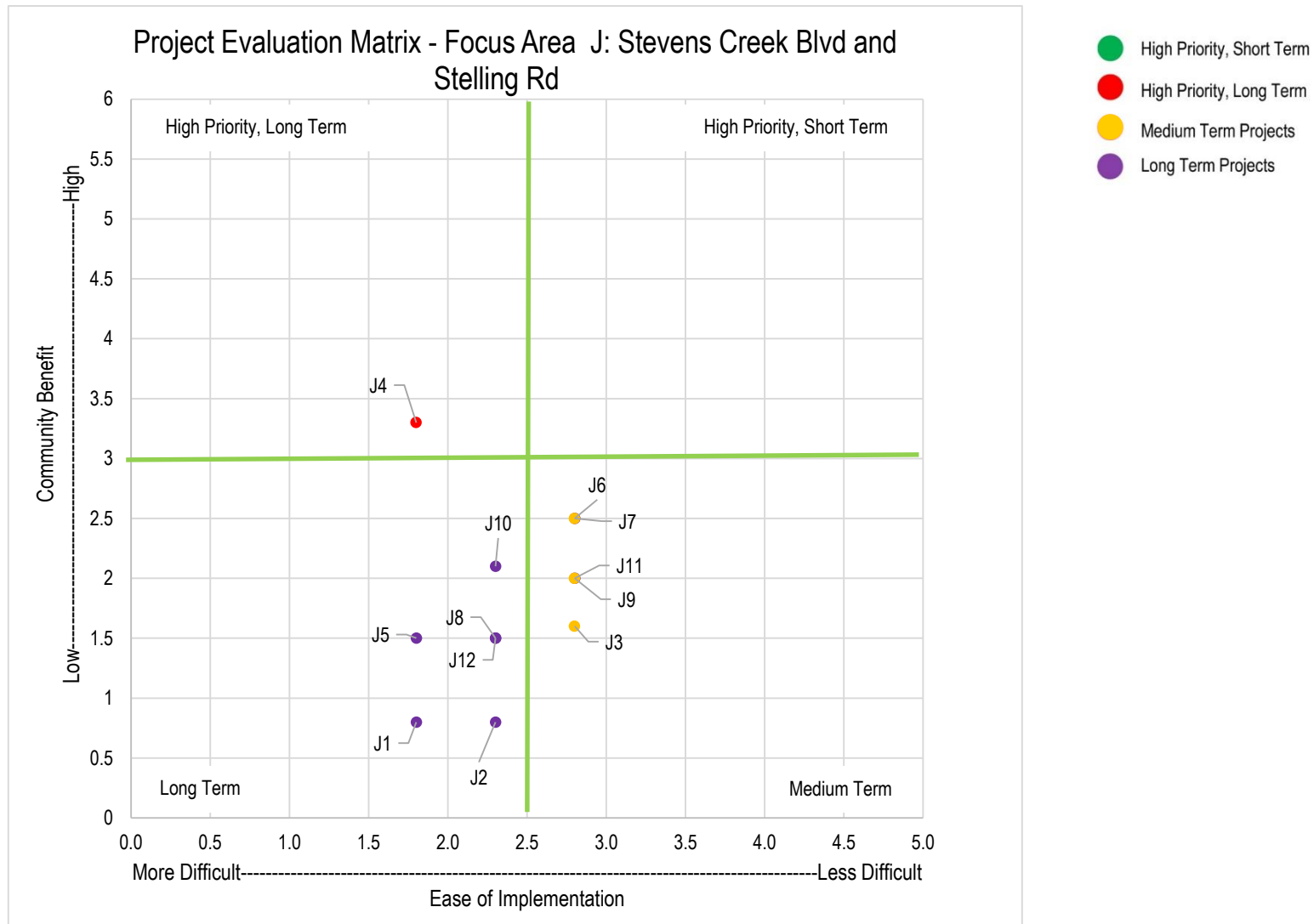


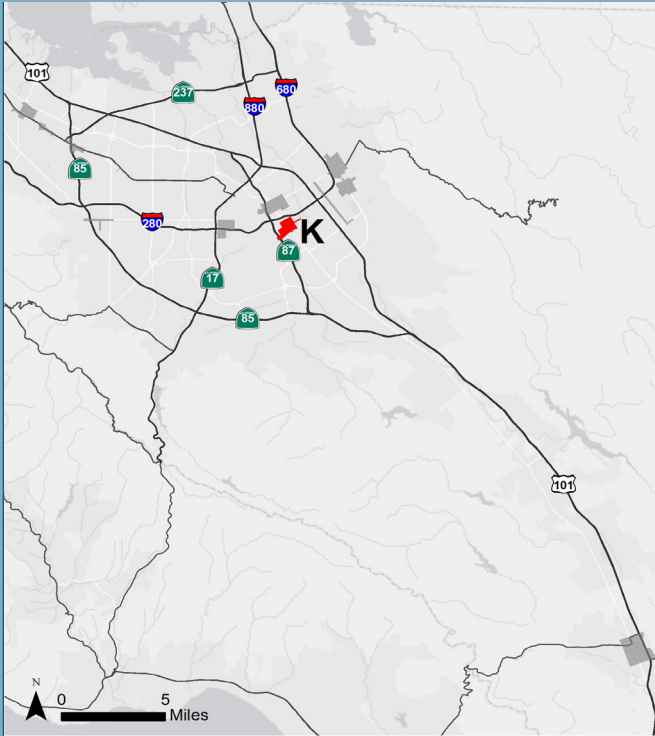
Figure 5.35: Project Evaluation Matrix for Focus Area J: Stevens Creek Blvd and Stelling Rd (Cupertino)

# 5 Recommended Projects

**Table 5.23: Project Scores and Cost Estimates for Focus Area J: Stevens Creek Blvd and Stelling Rd (Cupertino)**

#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project Priority
				less than \$500,000	\$500,000-\$5M	over \$5M	
J1	W Stevens Creek Blvd streetscape improvements	0.8	1.8		x		Long term
J2	W Stevens Creek Blvd railway crossing improvements	0.8	2.3	x			Long term
J3	Bubb Rd/Stevens Creek Blvd intersection improvements	1.6	2.8	x			Medium term
J4	SR 85 ramp improvements	3.3	1.8			x	High priority, long term
J5	Stevens Creek Blvd streetscape improvements	1.5	1.8		x		Long term
J6	Mary Ave/Stevens Creek Blvd intersection improvements	2.5	2.8	x			Medium term
J7	Stelling Rd/Stevens Creek Blvd intersection improvements	2.5	2.8	x			Medium term
J8	Stelling Rd streetscape improvements	1.5	2.3		x		Long term
J9	Stelling Rd/Peppertree Ln intersection improvements	2.0	2.8	x			Medium term
J10	Stelling Rd/McClellan Rd intersection improvements	2.1	2.3	x			Long term
J11	Stevens Creek Blvd/Saich Way intersection improvements	2.0	2.8	x			Medium term
J12	Stevens Creek Blvd/DeAnza Blvd bus stop improvements	1.5	2.3	x			Long term

## Focus Area K: Central San Jose



### Summary

Focus Area K is located in Central San Jose in the area immediately south of I-280 bounded by Alma Avenue, South Almaden Avenue, Keyes Street/Willow Street, and Virginia Street. It includes residential and industrial areas, two elementary schools, and with commercial development along 1<sup>st</sup> Street/Monterey Rd and in the Calle Willow business district. It is served by Caltrain and VTA Light Rail at Tamien Station and by several local bus routes, including VTA Lines 25, 66, and 68.

### Issues

- High speed vehicle turns/wide curb radii and long crossing distances at several major intersections
- Several complex/non-right angle intersections throughout Focus Area (Willow St/Graham Ave, Graham Ave/Goodyear-Keyes St, South. 2nd St/South. 1st St.)
- High pedestrian demand along Willow St., Keyes St., South. 1st St./Monterey Road
- Freeway undercrossings at northern (I-280) and western (SR 87) edges of Focus Area
- Missing sidewalks along Keyes Street



Long crossing distances at intersections throughout Focus Area



Missing sidewalks along Keyes St



Incomplete pedestrian facilities at 1st/2nd Streets

### Opportunities

- Tamien Station provides regional transit hub
- Excess ROW at several intersections can be repurposed as pedestrian/parklet space
- Existing pedestrian-oriented commercial districts (1<sup>st</sup> Street and Willow Street)
- High pedestrian demand from schools and commercial uses



Tamien Station provides regional transit service



Existing public art at Little Orchard Street;



Pedestrian-scale shopping district along 1st Street



# Focus Area K: Central San Jose

## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

\*\*Not all pedestrian deficiencies are mapped.

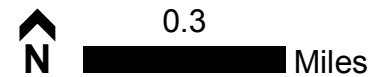
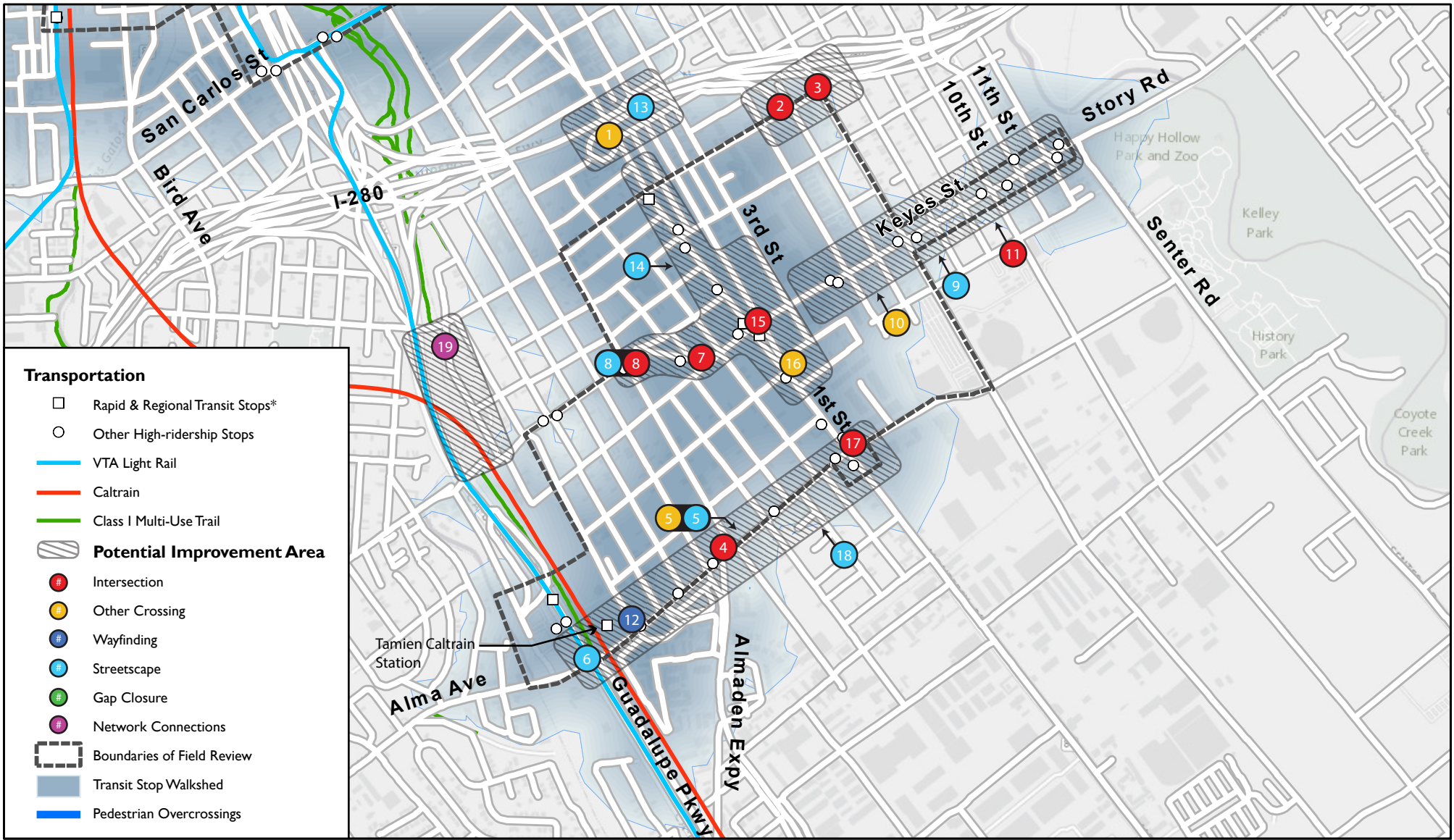


Figure 5.36: Focus Area K, barriers and infrastructure deficiencies



# Focus Area K: Central San Jose Potential Improvements by Project Type



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

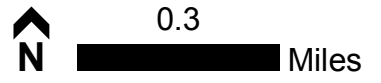


Figure 5.37: Focus Area K, potential improvements

# 5 Recommended Projects

**Table 5.24. Recommended Projects- for Focus Area K: Central San Jose**

Project- Focus Area K					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
I-280 Ramps	K1	1st Street/ I-280 Ramp improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks and advanced yield signage to pedestrian crossings of ramps</li> <li>• Realign ramps to 90-degree angles when interchanges are reconstructed</li> </ul>	Other Crossing	<b>Issues</b> <ul style="list-style-type: none"> <li>• Low-visibility crosswalks, no advance signage</li> </ul>	-
I-280 Ramps	K2	6th Street/ I-280 Ramp improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks and advanced yield signage to pedestrian crossings of ramps</li> <li>• Add pedestrian scale lighting and public art under underpass</li> <li>• Consider stop for SB off-ramps at South 6th Street</li> <li>• Consider extending the nose of the raised island separating the off ramp and the driveway of the property to the east of ramps</li> <li>• Realign ramps to 90-degree angles when interchanges are reconstructed</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>• No marked pedestrian crossing on NE leg of intersection</li> <li>• Crossing not ADA-compliant</li> </ul>	-
I-280 Ramps	K3	7th Street/ I-280 Ramp improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks, add pedestrian signal heads at three existing legs of S. 7th St/E. Virginia St</li> <li>• Rebuild SW corner to reduce curb radii and crossing distance</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>• Low-visibility crosswalks</li> <li>• Long crossing distance</li> <li>• School crossing location</li> </ul>	-
W. Alma Ave/ Almaden Rd	K4	W. Alma Ave/Almaden Ave -Almaden Expy/Little	<ul style="list-style-type: none"> <li>• Redesign crosswalks at Almaden Ave/West Alma Ave/Little Orchard St intersection:</li> <li>1) restripe all crosswalks to</li> </ul>	Intersection	<b>Issues</b> <ul style="list-style-type: none"> <li>• Long crossing distances and high exposure to vehicles making high-speed turns</li> </ul>	-

# 5 Recommended Projects

Project- Focus Area K					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
		Orchard St/Vine St intersection improvements	ladder-style 2) add curb extensions to NW and SE corners of South. Almaden Ave-Almaden Rd/West Alma Ave and NE, SW corners of Vine St-Almaden Expy/West Alma Ave • Consider full intersection redesign to consolidate vehicle access to SB Almaden Expy to existing west leg of Almaden Expy (S. of Vine Street)		<ul style="list-style-type: none"> <li>• Skewed crosswalks at west leg of Vine St/West Alma Ave and east leg of S. Almaden Ave-Almaden Rd/West Alma Ave</li> </ul>	
<b>W. Alma Ave/ Almaden Rd</b>	K5	Almaden Ave. - Little Orchard St/W. Alma Ave pocket park	<ul style="list-style-type: none"> <li>• Close 5th leg of South Almaden Ave north of Little Orchard St, create public park/plaza with landscaping</li> <li>• Potential to retain narrow lane (20 feet) to allow parking in front of multifamily residential complexes</li> </ul>	Other Crossing Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Confusing intersection, multiple points where pedestrians are exposed to turning vehicles</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Underutilized roadway space on NE corner of intersection, existing public art</li> </ul>	-
<b>W. Alma Ave/ Almaden Rd</b>	K6	SR 87 undercrossing improvements	<ul style="list-style-type: none"> <li>• Add pedestrian lighting and public art at undercrossing</li> </ul>	Streetscape		-
<b>S. Almaden Ave/Graham Ave/Willow St/Goodyear St</b>	K7	Graham & Goodyear St intersection improvements	<ul style="list-style-type: none"> <li>• Consider roundabout at Graham Ave/Goodyear St to formalize and slow vehicle maneuvers</li> <li>• Consider realigning Graham Ave and Goodyear St approaches to create a T-intersection</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Confusing intersection with multiple conflicts</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Underutilized roadway space at this intersection</li> <li>• T-intersection redesign recommended in <i>Santa Clara County-San Jose NACTO Street Design Workshop Report (2015)</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Santa Clara County-San Jose NACTO Street Design Workshop Report (2015)</i></li> </ul>

# 5 Recommended Projects

Project- Focus Area K					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>S. Almaden Ave/ Graham Ave/Willow St/ Goodyear St</b>	K8	Graham Ave & Willow St pocket park	<ul style="list-style-type: none"> <li>• Rebuild triangle median at Graham Ave/Willow:               <ol style="list-style-type: none"> <li>1) Realign Graham Ave and Willow St approached to create a T-intersection, aligning EB/WB lanes on Graham Ave</li> <li>2) extend triangle median southward to permit only bicycle/parking access</li> <li>3) consolidate driveways of corner property at South. Almaden Ave/ Willow St/Graham Ave</li> <li>4) add pocket park landscaping and public art</li> </ol> </li> </ul>	Intersection Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Confusing intersection with multiple conflicts</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Underutilized roadway space at this intersection</li> </ul>	-
<b>Keyes Street Corridor</b>	K9	Keyes Street corridor streetscape and side-street crossing improvements	<ul style="list-style-type: none"> <li>• Complete sidewalks along Keyes St between 2nd Street and Senter Road</li> <li>• Stripe ladder crosswalks at side-street crossings</li> <li>• Consider road diet along Keyes St between 2nd St and Senter Road</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Missing sidewalks, unmarked side-street crosswalks, incomplete crosswalks at intersections along Keyes St</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Story-Keyes Complete Streets Corridor Study (VTA, in progress) will identify future improvements in this area</li> <li>• Road diet identified in <i>Santa Clara County-San Jose NACTO Street Design Workshop Report (2015)</i></li> <li>• Story Rd and Senter Rd identified as Safety Priority Streets in <i>Vision Zero San Jose</i></li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Sidewalk completion may require taking ROW or road diet on some segments</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Story-Keyes Complete Streets Corridor Study (VTA, in progress)</i></li> <li>• <i>Santa Clara County-San Jose NACTO Street Design Workshop Report (2015)</i></li> <li>• <i>Vision Zero San Jose</i></li> </ul>



# 5 Recommended Projects

Project- Focus Area K					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
					<ul style="list-style-type: none"> <li>Road diet would require further study, design would need to accommodate industrial traffic between 3rd St and 10th St</li> </ul>	
<b>Keyes Street Corridor</b>	K10	Keyes Street crossing	<ul style="list-style-type: none"> <li>Consider uncontrolled or beacon-controlled crossing between 3rd St and 7th St: ladder crosswalk, high-visibility pedestrian crossing signage, Rectangular Rapid Flash Beacon or Pedestrian Hybrid Beacon to improve driver yield rates. This may be more appropriate if housing or higher-density employment is added to the immediate area</li> </ul>	Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>1/4 mile between signalized intersections at 3rd St and 7th St</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Story-Keyes Complete Streets Corridor Study (VTA, in progress) will identify future improvements in this area</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>May be more appropriate if housing or higher-density employment is added to the immediate area</li> </ul>	<ul style="list-style-type: none"> <li>Story-Keyes Complete Streets Corridor Study (VTA, in progress)</li> <li>Santa Clara County-San Jose NACTO Street Design Workshop Report (2015)</li> </ul>
<b>Keyes Street Corridor</b>	K11	Keyes Street between 7th St and Senter Rd signalized intersection improvements	<ul style="list-style-type: none"> <li>Provide pedestrian crossings (signal heads and crosswalks) at all four legs of intersections.</li> <li>Stripe ladder crosswalks.</li> <li>Reduce wide curb radii via curb extensions or pork chop reconstruction</li> <li>Consider road diet along Keyes St between 2nd St and Senter Road</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Restricted pedestrian access at major intersections, high-speed vehicle turning movements due to wide curb radii</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Road diet identified in Santa Clara County-San Jose NACTO Street Design Workshop Report (2015)</li> <li>Story-Keyes Complete Streets Corridor Study (VTA, in progress) will identify future improvements in this area</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Road diet would require further study, design would need to accommodate industrial traffic between 3rd St and 10th St</li> </ul>	<ul style="list-style-type: none"> <li>Story-Keyes Complete Streets Corridor Study (VTA, in progress)</li> <li>Santa Clara County-San Jose NACTO Street Design Workshop Report (2015)</li> </ul>

## 5 Recommended Projects

Project- Focus Area K					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
Tamien Station	K12	Wayfinding and sidewalks around Tamien Caltrain Station	<ul style="list-style-type: none"> <li>• Install pedestrian wayfinding signs along Alma Ave; add passive wayfinding/streetscape improvements on Lick Ave</li> <li>• Widen and add sidewalks on east and west sides of Lelong St in front of station</li> <li>• Reduce radius at NW corner of Lelong St/Alma Ave</li> </ul>	Wayfinding	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Station is hard to find around the area due to lack of wayfinding signs</li> <li>• Incomplete pedestrian facilities at station entrance</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Potential future development and infrastructure improvements of VTA property at Tamien</li> </ul>	-
I-280 Ramps	K13	I-280 undercrossing improvements	<ul style="list-style-type: none"> <li>• Add pedestrian-scale lighting, public art to I-280 undercrossing</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Poorly-lit underpass</li> </ul>	-
1st St Corridor	K14	1st Street Corridor streetscape improvements	<ul style="list-style-type: none"> <li>• Consider adding parklets along 1st street corridor</li> <li>• Add landscaped buffer between walkway and travel/parking lane as properties are redeveloped</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Limited ROW, narrow sidewalks</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Many small businesses, high pedestrian activity</li> <li>• Future development activity can yield funding for improvements</li> </ul>	-
1st/2nd/Goodyear-Keyes St	K15	1st/2nd/Goodyear-Keyes St intersection improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks</li> <li>• Tighten wide curb radii via curb extensions</li> <li>• Eliminate driveway on “island” between 1st and 2nd St (north side of intersection) when adjacent property is redeveloped</li> <li>• Consider road diet on Keyes between Goodyear St and 2nd St to accommodate buffered bike lanes and curb extensions to reduce pedestrian crossing distances</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Confusing intersection with multiple conflicts</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Road diet recommended in <i>Santa Clara County-San Jose NACTO Street Design Workshop Report (2015)</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Santa Clara County-San Jose NACTO Street Design Workshop Report (2015)</i></li> </ul>

# 5 Recommended Projects

Project- Focus Area K					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
1st/2nd/ E. Humboldt St	K16	1st St/2nd St merge intersection improvements	<ul style="list-style-type: none"> <li>• Consolidate pedestrian crossings at 1st/2nd St/Humboldt St</li> <li>• Stripe ladder striped crosswalk, add high-visibility pedestrian crossing signage</li> <li>• Consider uncontrolled or beacon-controlled pedestrian crossing of 1st St at Humboldt St: ladder crosswalk, high-visibility pedestrian crossing signage, pedestrian-scale lighting, pedestrian refuge or Pedestrian Hybrid Beacon/Rectangular Rapid Flash Beacon to improve pedestrian visibility and improve driver yield rates</li> </ul>	Other Crossing	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Confusing and incomplete pedestrian access</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Park space N of E. Humboldt St between 1st and 2nd St</li> </ul>	-
Monterey Rd/ Alma Ave	K17	Monterey Rd-1 <sup>st</sup> St/Alma Ave intersection improvements	<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks</li> <li>• Consider curb extensions and/or pedestrian refuge on north and south legs</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Wide crossings, high traffic exposure</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Potential to narrow 12' travel lanes to 11' to provide space for curb extensions</li> <li>• Monterey Rd identified as a Safety Priority Street in <i>Vision Zero San Jose</i></li> </ul>	• <i>Vision Zero San Jose</i>
Alma Ave Corridor	K18	Alma Ave Corridor streetscape improvements	<ul style="list-style-type: none"> <li>• Streetscape improvements between Alma Ave between Lick Ave &amp; S. 7th St.</li> <li>• Widen sidewalk, add/expand planting strips to create landscaped buffer &amp; provide shade</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Lack of shade, narrow sidewalks, maintenance issues/trash</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• On-street parking along corridor, potential road diet candidate</li> </ul>	-

## 5 Recommended Projects

Project- Focus Area K					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			<ul style="list-style-type: none"> <li>• Stripe ladder crosswalks on side-street crossings</li> <li>• Consider road diet, and/or curb extensions at intersections along Alma Ave corridor</li> </ul>			
<b>SR 87/Guadalupe Parkway</b>	K19	Guadalupe River Trail/ SR 87 trail gap closure	<ul style="list-style-type: none"> <li>• Complete Guadalupe River Trail/ SR 87 multi-use trail between West Virginia St and Willow St</li> <li>• Consider grade-separated pedestrian and bicycle crossing over Willow Ave</li> </ul>	Network Connection	<b>Issues</b> <ul style="list-style-type: none"> <li>• Gap in existing multi-use trail</li> </ul>	-
<b>SR 87/Willow Ave</b>	K20	SR 87 undercrossing at Willow Ave	<ul style="list-style-type: none"> <li>• Consider closing gap in sidewalk on N side of Willow Ave at SR 87 undercrossing (between Minnesota Avenue and McLellan Ave)</li> <li>• If grading or other engineering issues make sidewalk completion infeasible, stripe ladder crosswalks and add high-visibility pedestrian crossing signs at Minnesota Ave and Lick Ave</li> </ul>	Network Connection	<b>Issues</b> <ul style="list-style-type: none"> <li>• Gap in existing sidewalk</li> </ul>	-



# 5 Recommended Projects

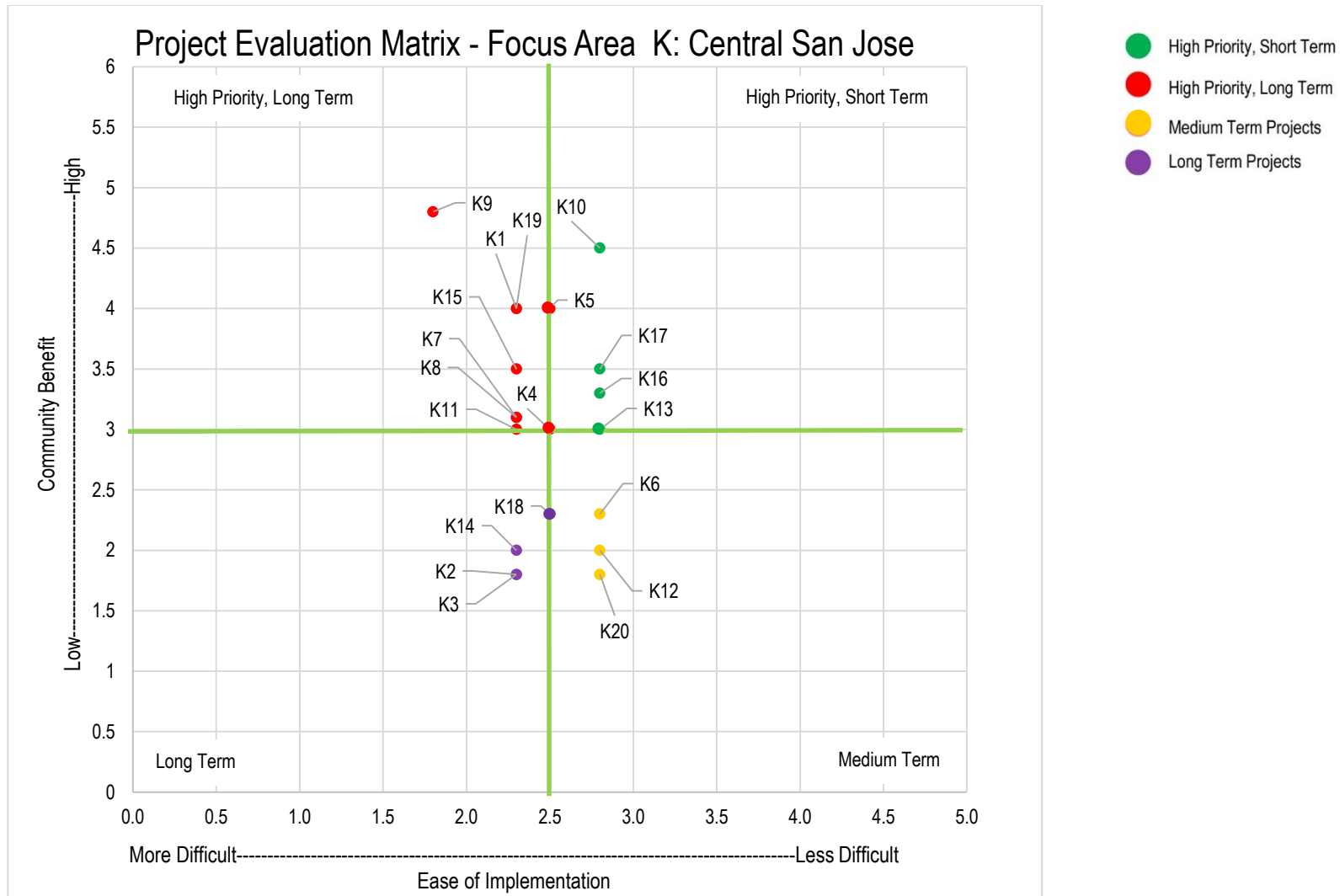


Figure 5.38: Project Evaluation Matrix Focus Area K: Central San Jose

## 5 Recommended Projects

**Table 5.25: Project Scores and Cost Estimates for Focus Area K: Central San Jose**

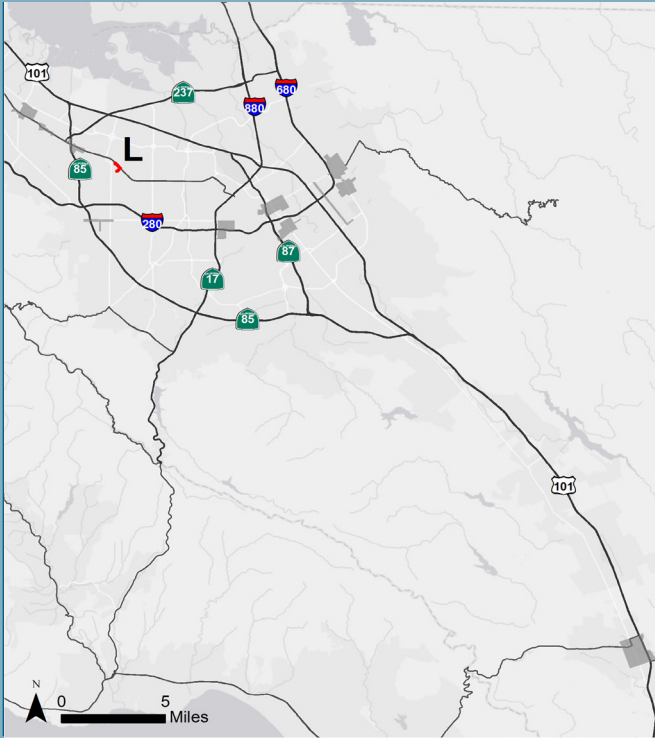
#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project Priority
				<i>less than \$500,000</i>	<i>\$500,000-\$5M</i>	<i>over \$5M</i>	
<b>K1</b>	1st St/I-280 ramp improvements	4.0	2.3			x	High priority, long term
<b>K2</b>	6th St/I-280 ramp improvements	1.8	2.3			x	Long term
<b>K3</b>	7th St/I-280 ramp improvements	1.8	2.3	x			Long term
<b>K4</b>	W Alma Ave/Almaden Ave -Almaden Expy/Little Orchard St/Vine St intersection improvements	3.0	2.5		x		High priority, long term
<b>K5</b>	Almaden Ave/Little Orchard St/W Alma Ave pocket park	4.0	2.5		x		High priority, long term
<b>K6</b>	SR 87 undercrossing improvements	2.3	2.8		x		Medium term
<b>K7</b>	Graham Ave & Goodyear St intersection improvements	3.1	2.3			x	High priority, long term
<b>K8</b>	Graham Ave & Willow St pocket park	3.1	2.3		x		High priority, long term
<b>K9*</b>	Keyes St corridor streetscape and side-street crossing improvements	4.8	1.8			x	High priority, long term
<b>K10*</b>	Keyes St crossing	4.5	2.8	x			High priority, short term
<b>K11</b>	Keyes St between 7th St and Senter Rd signalized intersection improvements	3.0	2.3			x	High priority, long term
<b>K12</b>	Wayfinding and sidewalks at Tamien Caltrain Station	2.0	2.8		x		Medium term
<b>K13</b>	I-280 undercrossing improvements	3.0	2.8		x		High priority, short term
<b>K14</b>	1st St Corridor streetscape improvements	2.0	2.3		x		Long term
<b>K15</b>	1st St/2nd St/Goodyear-Keyes St intersection improvements	3.5	2.3	x			High priority, long term
<b>K16</b>	1st St/2nd St merge intersection improvements	3.3	2.8	x			High priority, short term

## 5 Recommended Projects

#	Name	Community Benefit Score	Ease of Implementation Score	Order of Magnitude Cost			Project Priority
				less than \$500,000	\$500,000-\$5M	over \$5M	
<b>K17</b>	Monterey Rd-1st St/Alma Ave intersection improvements	3.5	2.8	x			High priority, short term
<b>K18</b>	Alma Ave Corridor streetscape improvements	2.3	2.5			x	Long term
<b>K19</b>	Guadalupe River Trail/SR 87 trail gap closure	4.0	2.3			x	High priority, long term
<b>K20</b>	SR 87 undercrossing at Willow Ave	1.8	2.8		x		Medium term

\* Projects that VTA has an interest in proactively advancing. See chapter 6 for planning level cost estimates for these projects.

## Focus Area L: El Camino Real & S. Fair Oaks- Remington Drive



### Summary

Focus Area L extends along El Camino Real between Cezanne Drive and South Fair Oaks Avenue-East Remington Drive, and south along East Remington Drive to Manet Drive. It is served by the 22, 55 and 522 Rapid VTA buses. The Focus Area includes commercial destinations along El Camino Real and the Sunnyvale Community Center on East Remington Drive; it includes transit access for several multifamily housing units to the north and south of the El Camino Real corridor, including senior housing north of El Camino Real at Fair Oaks.

### Issues

- Long distances between signalized intersections along El Camino Real, with many pedestrians observed to cross at uncontrolled and unmarked locations
- Lack of shade and consistent landscaping strip along El Camino Real
- Limited pedestrian access to commercial development along El Camino Real
- Signalized intersections have wide right turn radii, long crossing distances, and permissive lefts, which create conflicts and potential hazards for pedestrians using crosswalks



Limited pedestrian access to commercial development along El Camino Real



Long crossing distances at Fair Oaks Ave/El Camino Real



Long distances between signalized intersections on El Camino Real encourage pedestrians to cross at unmarked locations

### Opportunities

- Median on El Camino Real provides opportunity for pedestrian refuge at mid-block crossing
- Existing mid-block crossing at South Remington Dr. can be improved with additional safety features
- High pedestrian demand (multifamily residential complexes, community center, commercial development)



Existing midblock crossing on South Remington Drive

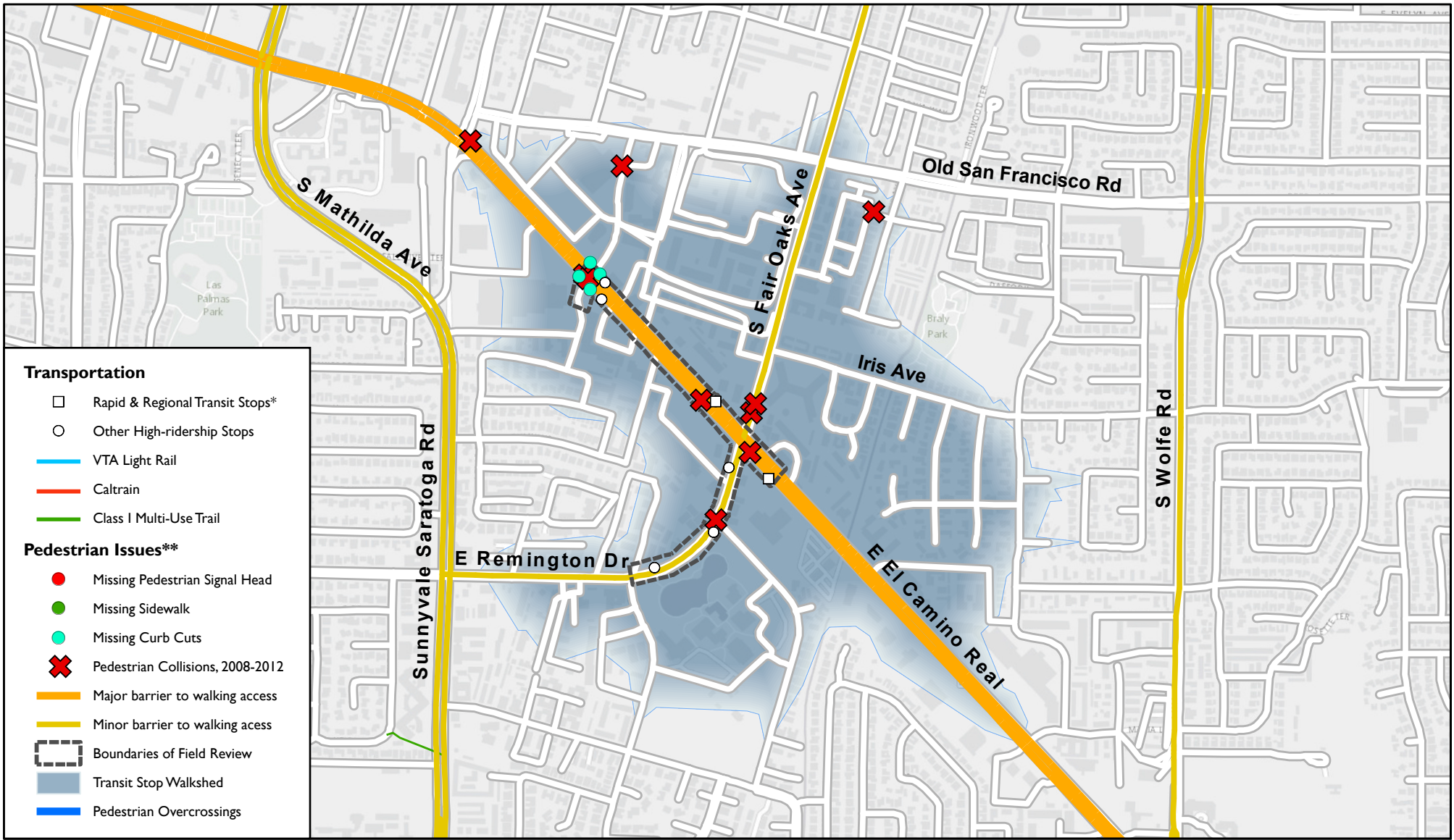


High pedestrian demand due to residential and commercial development



# Focus Area L: El Camino Real & S. Fair Oaks-Remington Drive

## Barriers to Pedestrian Access & Pedestrian Infrastructure Deficiencies



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

\*\*Not all pedestrian deficiencies are mapped.

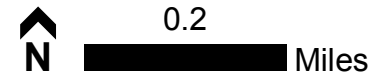
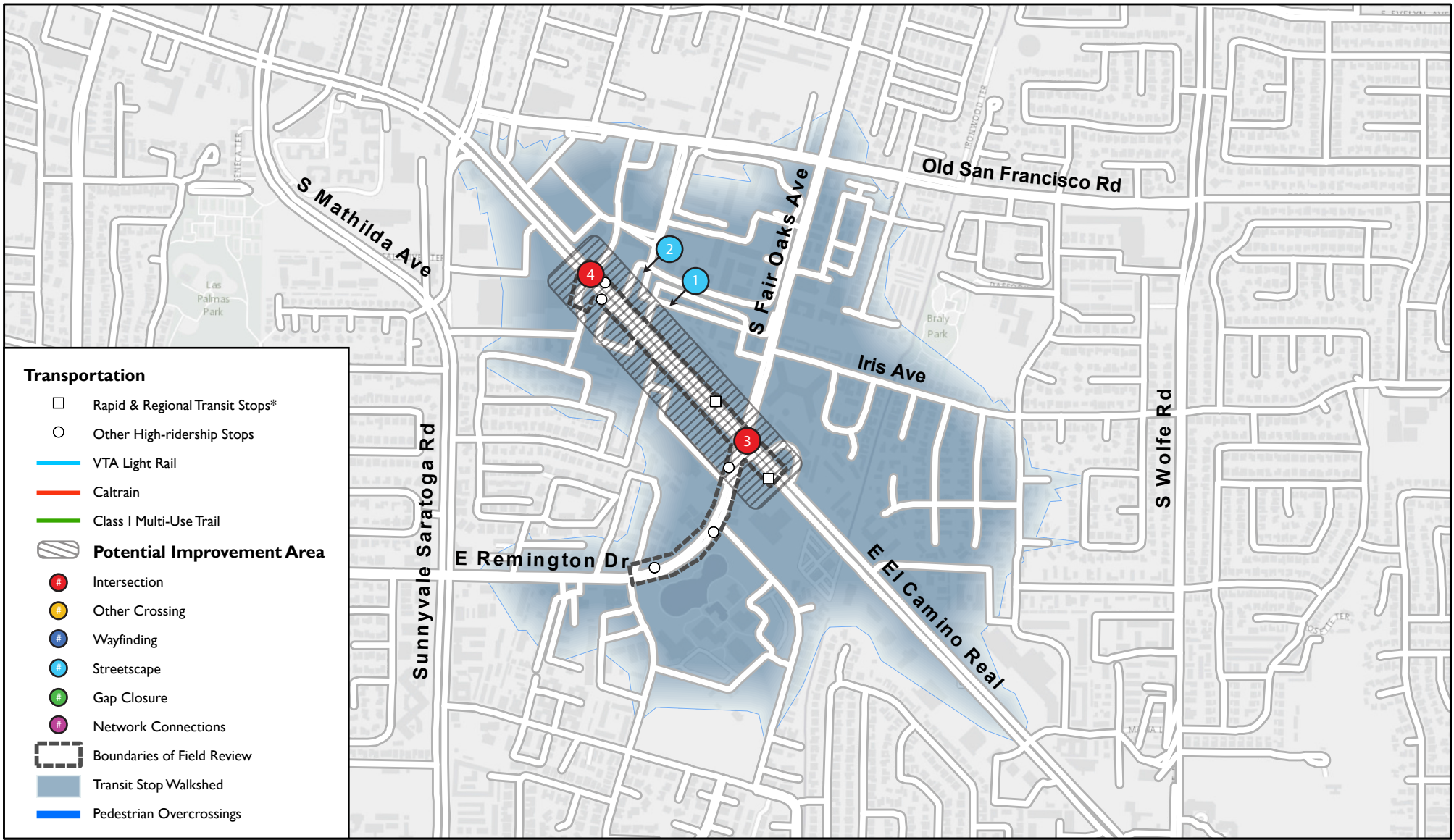


Figure 5.39: Focus Area L, barriers and infrastructure deficiencies

# Focus Area L: El Camino Real & S. Fair Oaks-Remington Drive Potential Improvements by Project Type



\*VTA Light Rail, Caltrain, Long Distance Bus Stops, Bus Rapid Transit Services

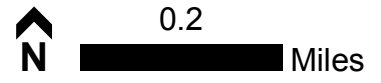


Figure 5.40: Focus Area L, potential improvements

# 5 Recommended Projects

**Table 5.26: Recommended Projects- for Focus Area L: El Camino Real and South Fair Oaks Ave (Sunnyvale)**

Project- Focus Area L					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>El Camino Real corridor</b>	L1	El Camino Real streetscape and side-street crossing improvements	<ul style="list-style-type: none"> <li>• Add landscaped planter strip along El Camino Real to provide shade and buffer from adjacent traffic</li> <li>• Stripe ladder crosswalks at side-street crossings along El Camino Real</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Lack of shade makes uncomfortable walking environment</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	-
<b>El Camino Real corridor</b>	L2	Pedestrian access to commercial areas on El Camino Real	<ul style="list-style-type: none"> <li>• As properties redevelop, add commercial access along El Camino Real: create pedestrian access from sidewalk and stripe pedestrian routes through parking lots</li> <li>• To the extent feasible, consolidate driveways when properties are redeveloped</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Pedestrians must access commercial areas along El Camino Real through parking lots and driveways</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• New developments along El Camino Real include pedestrian access from sidewalk</li> </ul>	-
<b>El Camino Real/ S Fair Oaks Ave</b>	L3	El Camino Real/S. Fair Oaks Ave intersection improvements	<ul style="list-style-type: none"> <li>• Remove or reconstruct pork chops and curbs at all four corners to narrow right turn radii, reduce crossing distances, and expand pedestrian waiting space</li> <li>• Add shade at bus stops on El Camino Real and South Fair Oaks Ave</li> <li>• Realign crosswalks to reduce crossing distances</li> <li>• Stripe ladder crosswalks</li> <li>• Add pedestrian countdown signals</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Wide turning radii resulting in vehicles making high-speed right turns</li> <li>• No pedestrian countdown signals</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• El Camino Real BRT Program recommends eliminating pork chops, adding ladder crosswalks and countdown signals</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Likely high cost of improvements</li> </ul>	• El Camino Real BRT Project



## 5 Recommended Projects

Project- Focus Area L					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
<b>El Camino Real/Cezanne Drive</b>	L4	El Camino /Cezanne Dr intersection improvements	<ul style="list-style-type: none"> <li>• Realign crosswalks to reduce crossing distances</li> <li>• Stripe ladder crosswalks</li> <li>• Add pedestrian countdown signals</li> <li>• Consider retiming signal to provide protected (not permissive) left turn from Cezanne Dr</li> </ul>	Intersection	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• No audio/countdown signal heads at this intersection</li> <li>• High pedestrian volume from retirement home and commercial areas nearby</li> <li>• Unprotected left turn creates conflicts for pedestrians</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Warrant study required to ensure that protected left turn meets warrants</li> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> </ul>	-



# 5 Recommended Projects

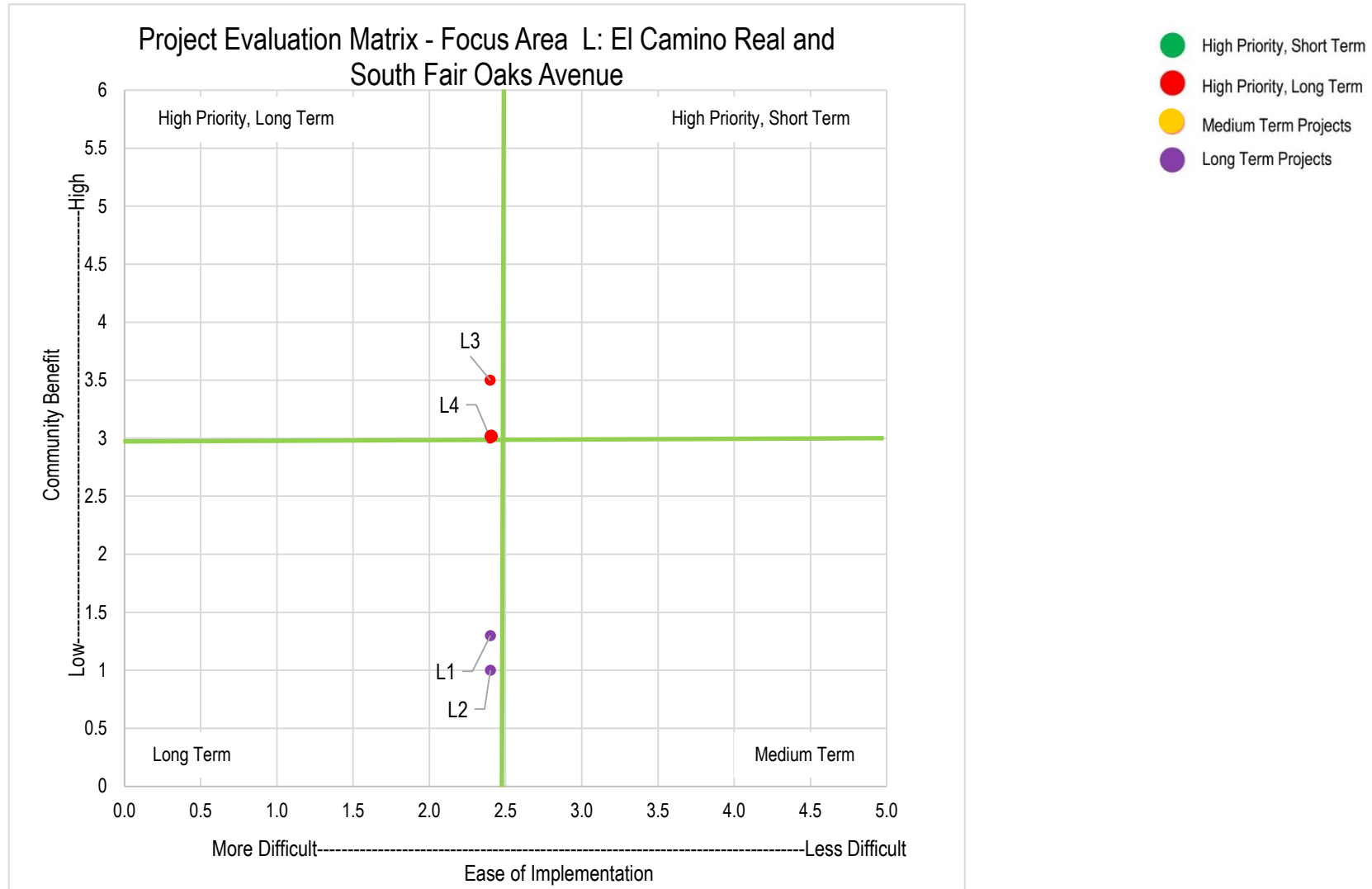


Figure 5.41: Project Evaluation Matrix for Focus Area L: El Camino Real and South Fair Oaks Ave (Sunnyvale)

# 5 Recommended Projects

**Table 5.27: Project Scores and Cost Estimates for Focus Area L: El Camino Real and South Fair Oaks Ave (Sunnyvale)**

#	Name	Community Benefit Score	Ease of Implementation	Order of Magnitude Cost			Project priority
				<i>less than \$500,000</i>	<i>\$500,000-\$5M</i>	<i>over \$5M</i>	
L1	El Camino Real streetscape and side-street crossing improvements	1.3	2.4		x		Long term
L2	Pedestrian access to commercial areas on El Camino Real	1.0	2.4	x			Long term
L3	El Camino Real/S. Fair Oaks Ave intersection improvements	3.5	2.4		x		High priority, long term
L4	El Camino Real/Cezanne Dr intersection improvements	3.0	2.4	x			High priority, long term

# 5 Recommended Projects

## Project Scoring Results for Projects Outside of Focus Areas

During stakeholder outreach, Member Agencies requested that several projects outside of a Focus Areas that support pedestrian access to transit be included in the Pedestrian Access to Transit Plan. These are listed in **Table 5.29**. Four of these projects (X2, X3, X5, and X6) are located in areas that will, in the next several years, see major changes in regard to transit ridership and transit services with the opening of the Milpitas and Berryessa BART Stations. Of the other five projects, project X4 supports the City of Santa Clara's in-development *El Camino Real Precise Plan*, and project X1 supports pedestrian safety for all transit users.

**Table 5.28: Recommended Projects- Outside Focus Areas**

Project					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
Program	X1	Pedestrian Education Program	<ul style="list-style-type: none"> <li>VTA should consider developing a pedestrian safety education program targeting transit riders. Advertisements and information can be provided on transit vehicles and at bus shelters within Focus Areas.</li> </ul>	Program	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Pedestrians may cross streets and rail tracks at locations that are unsafe.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Transit riders are generally pedestrians and may be receptive to safety messaging.</li> </ul>	-
Santa Clara	X2	Benton St streetscape improvements	<ul style="list-style-type: none"> <li>Widen sidewalks, add landscaped buffers with street trees (planters, short-term/tactical option), add pedestrian-scale lighting. Recommend minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>Stripe ladder crosswalks alongside street crossings.</li> </ul>	Streetscape	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Primary pedestrian route to Santa Clara Caltrain Station</li> <li><i>City of Santa Clara General Plan (2010)</i> identifies streetscape improvements on Benton St</li> </ul>	<ul style="list-style-type: none"> <li><i>City of Santa Clara General Plan (2010)</i></li> </ul>
Santa Clara	X3	Brokaw Rd streetscape improvements	<ul style="list-style-type: none"> <li>Widen sidewalks, add landscaped buffers with street trees (planters, short-term/tactical option), add pedestrian-scale lighting. Recommend minimum 13' total sidewalk width per VTA <i>Pedestrian Technical Guidelines</i></li> <li>Stripe ladder crosswalks alongside street crossings.</li> </ul>	Streetscape	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Industrial area with minimal pedestrian facilities</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Will provide access to Santa Clara Caltrain once Santa Clara Caltrain Station Pedestrian Undercrossing (2017 VTA project) is completed</li> </ul>	<ul style="list-style-type: none"> <li><i>City of Santa Clara General Plan (2010)</i></li> </ul>

# 5 Recommended Projects

Project					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
					<ul style="list-style-type: none"> <li>• <i>City of Santa Clara General Plan (2010)</i> identifies streetscape improvements on Brokaw Rd</li> </ul>	
<b>Santa Clara</b>	X4	El Camino Real Corridor streetscape and intersection improvements	<ul style="list-style-type: none"> <li>• Streetscape improvements between Helen Ave and Alviso St</li> <li>• As property redevelops, widen sidewalks. Recommend minimum 13' total sidewalk width per <i>VTA Pedestrian Technical Guidelines</i></li> <li>• Add landscaped buffers (planters as short-term/tactical option) including shade trees</li> <li>• Add pedestrian-scale lighting</li> <li>• To the extent feasible, consolidate driveways as properties redevelop</li> <li>• Add pedestrian access through parking lots to commercial developments</li> <li>• Stripe ladder crosswalks alongside street crossings</li> <li>• Add enhanced crosswalk paving treatments, bus bulbs, street furniture, wayfinding signage, public art, and crosswalk extensions at and between the intersections of El Camino Real and: Helen Ave, Halford Ave, and Flora Vista Avenue; Kiely Blvd/Bowers Ave and Bowe Ave; Los Padres Blvd and Scott Blvd</li> </ul>	Streetscape	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• <i>City of Santa Clara General Plan (2010)</i> identifies extensive streetscape improvements on El Camino Real</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdiction location; improvements would require coordination with Caltrans</li> <li>• Widening sidewalk and enhancing streetscape may require taking ROW in some locations</li> </ul>	<ul style="list-style-type: none"> <li>• <i>City of Santa Clara General Plan (2010)</i></li> </ul>
<b>Berryessa BART</b>	X5	Berryessa BART pedestrian access analysis	<ul style="list-style-type: none"> <li>• Consider conducting a thorough analysis of pedestrian access within 1/2</li> </ul>	Study		-



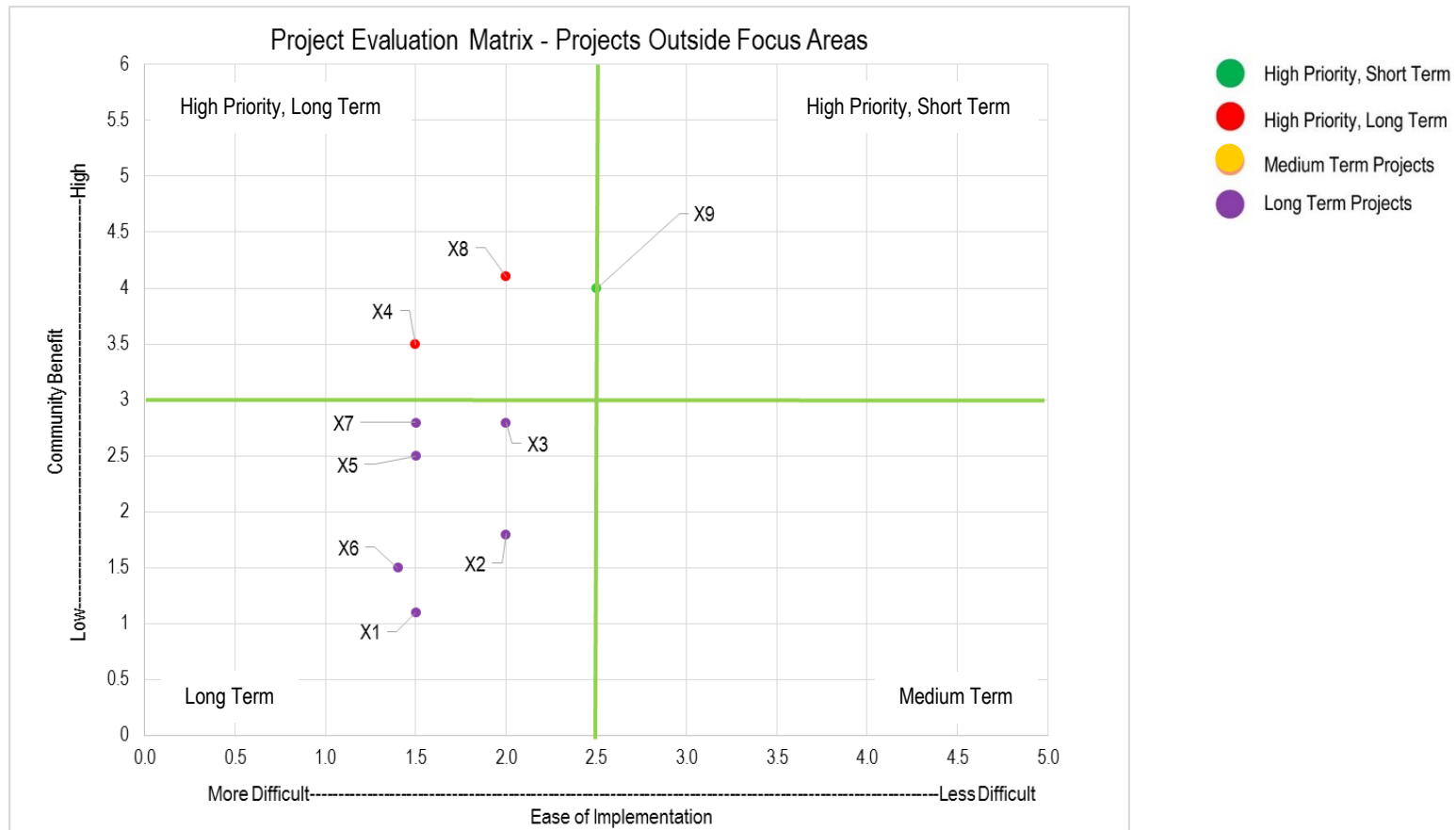
## 5 Recommended Projects

Project					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
			mile of Berryessa BART in order to identify future improvements			
<b>Milpitas BART</b>	X6	Berryessa BART pedestrian access	<ul style="list-style-type: none"> <li>• Consider conducting a thorough analysis of pedestrian access within 1/2 mile of Milpitas BART in order to identify future improvements</li> </ul>	Study		-
<b>Los Gatos</b>	X7	Intersection improvements	<ul style="list-style-type: none"> <li>• Intersection improvements at Santa Cruz Ave at Los Gatos-Saratoga Rd (Highway 9); adding high-visibility crosswalk, pedestrian flashing beacon, remove free right-turns</li> <li>• Intersection improvements at Santa Cruz Ave at Main Street; adding high-visibility crosswalk and remove free right-turns</li> <li>• Intersection improvements at University Avenue at Los Gatos-Saratoga Rd (highway 9); adding high-visibility crosswalks</li> <li>• Intersection improvements at Main St and Villa Ave; adding high-visibility crosswalk and pedestrian flashing beacon</li> <li>• Intersection improvements at Main St and Pleasant St/Jackson St; adding high-visibility crosswalks</li> <li>• Intersection improvements at Main St between High School Ct and Chicago Ave; adding high-visibility crosswalks and pedestrian flashing beacon.</li> </ul>	Intersection	<b>Opportunities</b> <ul style="list-style-type: none"> <li>• Projects are identified in the Los Gatos local plans with great public support.</li> </ul>	<i>Los Gatos Bicycle and Pedestrian Master Plan (2017)</i>

# 5 Recommended Projects

Project					Existing Conditions Addressed	Issue of Project Noted in a Previous Plan
Sub Area	#	Name	Description	Type		
Los Gatos	X8	Sidewalk improvements and gap closure	<ul style="list-style-type: none"> <li>• Sidewalk gap closure at Kennedy Rd between Los Gatos Blvd and Englewood and ADA improvements at Kennedy Rd/Englewood Ave intersection.</li> <li>• Sidewalk gap closure at Shannon Rd between Los Gatos Blvd and Lansberry Ct/Peacock Ln.</li> </ul>	Gap closure, streetscape	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Projects are identified in the Los Gatos local plans with great public support.</li> </ul>	<i>Los Gatos Bicycle and Pedestrian Master Plan (2017)</i>
El Camino Real Corridor	X9	El Camino Real Pedestrian Safety Study	<ul style="list-style-type: none"> <li>• Developing a pedestrian safety study for El Camino Real corridor.</li> </ul>	Study	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• High pedestrian activity and high number of pedestrian-vehicle collisions.</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Multi-jurisdictional corridor.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Several new residential, retail, and office developments are happening or in the progress along the corridor. Pedestrian improvements could be done in conjunction with new developments.</li> </ul>	

# 5 Recommended Projects



**Figure 5.42: Project Evaluation Matrix- Projects Outside Focus Areas**

# 5 Recommended Projects

**Table 5.29: Project Priorities and Cost Estimates for Pedestrian Access to Transit Projects outside of Focus Areas**

#	Name (Potential sponsor)	Community Benefit Score	Feasibility Score	Order of Magnitude Cost			Project Priority
				less than \$500,000	\$500,000-\$5M	over \$5M	
X1	Pedestrian Education Program (VTA)	1.1	1.5	x			Long term
X2	Santa Clara/Benton St streetscape improvements (City of Santa Clara)	1.8	2.0		x		Long term
X3	Santa Clara/Brokaw Rd streetscape improvements (City of Santa Clara)	2.8	2.0		x		Long term
X4	Santa Clara-El Camino Real Corridor streetscape and intersection improvements (City of Santa Clara)	3.5	1.5			x	High priority, long term
X5	Berryessa BART pedestrian access analysis (San Jose)	2.5	1.5	x			Long term
X6	Milpitas BART pedestrian access analysis (Milpitas)	1.5	1.4	x			Long term
X7	Los Gatos intersection improvements	2.8	1.5	x			Long term
X8	Los Gatos sidewalk improvements and gap closure	4.1	2		x		High priority, long term
X9	El Camino Real Pedestrian Safety Study	4	2.5	x			High priority, short term



# 6 Next Steps

## 6.1 Implementation Responsibility

To identify potential capital improvements for the *Pedestrian Access to Transit Plan* (the Plan), VTA completed initial planning work, including: reviewing local planning documents, conducting targeted outreach to Member Agency staff and transit customers, and examining field conditions. The vast majority of projects are located within Member Agency or Caltrans jurisdictions. For this reason, and the fact that many of the projects are small-scale and could be done through road maintenance programs, local capital improvement programs, or conditioned with new developments, the responsibility of implementing projects will typically be with the cities, towns, the County, or Caltrans.

However, there are some projects that VTA will take a proactive role in advancing. Generally, these projects are large-scale, involve multiple jurisdictions, involve VTA property, or improve connections to high volume transit stops. The projects provide high benefit to the community, but will be challenging to implement due to project size or complexity. VTA's role as the countywide transportation authority, its relationships with Caltrans, CPUC, and other regulatory agencies, its expertise in transportation funding, and its strength in delivering complex projects can benefit challenging projects.

**Table 6.1** lists projects that VTA has an interest in moving forward and presents planning level cost estimates for these projects.

The Plan also identifies several smaller projects that could potentially be implemented as a part of an upcoming larger project. For example, projects that are identified in Focus Area H around Diridon Station could be implemented in conjunction with Diridon Station improvements for future BART and High Speed Rail services.

### 6.1.1 Planning Level Cost Estimates for Selected Projects

VTA developed planning level cost estimates for projects VTA has an interest in proactively advancing (shown in **Table 6.1**). While these cost estimates are more precise than the order of magnitude cost estimates, they are still approximations, and additional study will be needed when advancing projects. The planning level cost estimates include costs of environmental clearance, plan specification and estimates, right-of-way acquisition, and construction. They are based on unit costs of project components, in 2016 dollars.



**Figure 6.1:** VTA has led projects to improve pedestrian access to transit, such as the Santa Clara Caltrain Station pedestrian and bicycle undercrossing; open to the public in summer 2017 (image source: VTA)

# 6 Next Steps

**Table 6.1: Planning level cost estimates for projects that VTA has interest in proactively advancing (2016 dollars)**

Project ID	Name	Environmental	PS&E	Construction	Total Cost
A11	Alum Rock Transit Center pedestrian path improvement (VTA, San Jose)	\$10,000	\$11,000	\$30,000	\$51,000
A17	Capitol Expressway/I-680/Jackson Ave intersection improvement (San Jose, County, Caltrans)	\$10,000	\$55,000	\$160,000	\$225,000
B2, B4	Story Road Corridor signalized intersection improvements, Capitol Expressway/Story Rd intersection improvements (San Jose, County)	There is an ongoing complete streets study for Story-Keyes corridor. Cost estimates and phasing will be provided as part of this study.			
C4, C5, C8	At-grade railway crossing improvements along Caltrain line (Gilroy, VTA, Union Pacific Railroad)	\$70,000	\$490,000	\$1,400,000	\$1,960,000
C12	1st Street/SR 152 complete street improvements; streetscape and crossing improvements (Gilroy, Caltrans)	\$41,000	\$290,000	\$820,000	\$1,151,000
F3	El Camino Real/SR 85 interchange pedestrian accommodation and improvements (Mountain View, Caltrans)	\$18,000	\$130,000	\$360,000	\$508,000
G5	Bascom Avenue Corridor streetscape improvements, north of I-280 (San Jose)	There is an ongoing complete streets study for Bascom corridor. Cost estimates and phasing will be provided as part of this study.			
H4	San Fernando St/Delmas Ave VTA LRT Station improvements (San Jose, VTA)	\$10,000	\$60,000	\$170,000	\$240,000
I6, I8, I9	King Road corridor intersection & streetscape improvements, King Road/I-280/I-680 ramp improvements (San Jose, Caltrans)	\$160,000	\$400,000	\$5,000,000	\$5,560,000
K9, K10	Keyes Street crossings and streetscape improvements (San Jose)	There is an ongoing complete streets study for Story-Keyes corridor. Cost estimates and phasing will be provided as part of this study.			
X1	Pedestrian Education Program for Transit Customers	Not a capital project. Program anticipated to be under \$500,000.			

# 6 Next Steps

## 6.2 Funding Availability

Many of the projects identified in the *Pedestrian Access to Transit Plan* could be implemented through local Capital Improvement Programs, ADA compliance programs, repaving programs, integrated into larger transportation projects, or conditioned as part of new development. In general, the smaller-scale projects will likely be advanced using local funding, while the larger-scale, more complex projects will probably need to rely on competitive outside funding.

There are a variety of competitive grant programs that focus on projects that support transit access, active transportation, safety, or economic development. Appendix C lists several grant programs, and describes details such as eligibility and cycle timing. The most common grants are summarized below.

**Transportation Development Act, Article 3 (TDA3)** and **Transportation Fund for Clean Air (TFCA)** funding can support lower-cost projects identified in this plan. Seventy-five percent of TDA3 funding is distributed to Member Agencies by formula based on their population, and funding priorities are set by the Member Agency. The remainder of TDA 3 funding is available as a competitive grant program for VTA's Bicycle Expenditure Program Tier 1 projects and a non-competitive \$150,000 annual program for county expressway sidewalk projects. TFCA is a competitive grant program. Standalone pedestrian projects do not always meet TFCA eligibility criteria, which require projects to demonstrate effectiveness in reducing greenhouse gas emissions.

The **Active Transportation Program (ATP)** is a major source of state and federal funding for bicycle and pedestrian projects. The ATP prioritizes funds for disadvantaged communities—communities with high environmental burden or low median household income, compared to the state average. Since many of the projects identified in the *Pedestrian Access to Transit Plan* fall within disadvantaged communities, they may be competitive for ATP grants.

Other projects in the Plan could be competitive for **One Bay Area Grants (OBAG)** since many of these projects are located within Priority Development Areas and core transit station areas (prioritized through OBAG grants), or at high-collision locations.

Numerous projects in the Plan could be competitive for the Federal **Highway Safety Improvement Program**, which provides funding to projects that address a documented safety concern with effective countermeasures.

**2016 Measure B**, passed by Santa Clara County voters in November 2016, establishes a half-cent sales tax that will provide, among other things, \$250 million for bicycle and pedestrian projects over 30 years. Projects in the *Pedestrian Access to Transit Plan* are eligible to compete for 2016 Measure B funding.

**Priority Development Area Planning Grants** could fund initial planning and design of projects located within or serving Priority Development Areas. Nearly all of the Plan's Focus Areas are located within a Priority Development Area.

## 6.3 Strategies for Implementing the *Pedestrian Access to Transit Plan*

The strategies presented in the next few pages support the overall mission and vision of the *Pedestrian Access to Transit Plan* first introduced in Chapter 1:

**Mission:** To improve the safety, comfort, and convenience of the walking environment for VTA's customers.

**Vision:** A safe, comfortable, and convenient walk to transit for all customers.

VTA will strive to deliver on these strategies, within the context of staff availability and funding. Each strategy is supported by several objectives. In line with best planning practices, objectives are specific, measurable, achievable,

# 6 Next Steps

realistic, and time bound. They also indicate the party responsible for achieving the objective.

## Strategy 1: Continue to better understand existing conditions for walking in Santa Clara County

- Periodically publish a report that analyzes the most recent five years of reported pedestrian collisions from collision databases such as Statewide Integrated Traffic Records System or Crossroads to identify hotspots proximate to VTA's transit stops.

*Responsible party: VTA Bicycle & Pedestrian Program, with assistance from County Public Health Department*

*Timeframe: first report in two years*

- Develop a countywide inventory of sidewalks and trails in OpenStreetMap, in collaboration with Member Agencies, with 100% of geography entered into the database. Share data resource with Technical Advisory Committee and associated working groups.

*Responsible party: VTA GIS group, with assistance from Member Agencies;*

*Timeframe: three years*

## Strategy 2: Continue to better understand the needs of customers who walk to/from transit

- Include questions related to pedestrian conditions and motorist behavior in VTA's On Board Customer Survey, and update approach to providing improvements as necessary.

*Responsible party: VTA GIS group, with VTA Bicycle & Pedestrian Program assistance;*

*Timeframe: ongoing, concurrent with On-Board Customer Survey*

- Develop a method for customer complaints received by VTA Customer Service regarding pedestrian infrastructure and motorist behavior to be relayed to the appropriate Member Agency staff.

*Responsible party: VTA Customer Service, with VTA Bicycle & Pedestrian Program assistance and Member Agency consultation;*

*Timeframe: two years*

## Strategy 3: Work with Member Agencies and other stakeholders to implement improvements identified in the Pedestrian Access & Transit Plan

- In order to support integration of projects into new development, develop and post on the VTA website an online, searchable map of projects recommended by the Plan, and share the map with VTA's Development Review Team, Highways Program, and VTA's Bicycle and Pedestrian Advisory Committee, Technical Advisory Committee, and associated working groups.

*Responsible party: VTA Bicycle & Pedestrian Program, with assistance from VTA GIS group and VTA Customer Service;*

*Timeframe 18 months*

- Provide an overview (written and/or presentation) of the Plan, relevant recommended projects, and implementation plan to the governing bodies of the agencies in which Focus Areas are located (Gilroy, Mountain View, Los Altos, Sunnyvale, San Jose, and County of Santa Clara), and request that they adopt or endorse the Plan.

*Responsible party: VTA Bicycle & Pedestrian Program;*

*Timeframe: one year*



## 6 Next Steps

- Request that Gilroy, Mountain View, Los Altos, Sunnyvale, San Jose, and County of Santa Clara incorporate relevant projects into their relevant planning documents as the documents are updated, and incorporate them into their Capital Improvement Programs per their local practices.

*Responsible party: VTA Bicycle & Pedestrian Program and VTA BPAC;  
Timeframe: one year*

- Provide an overview (written and/or presentation) of the Plan, relevant recommended projects, and implementation strategies to California Walks, SPUR, TransForm, the Silicon Valley Bicycle Coalition, Traffic Safe Communities Network, and other interested advocacy groups and community organizations to build broad awareness of the plan.

*Responsible party: VTA Bicycle & Pedestrian Program;  
Timeframe: ongoing*

- Actively seek grant funding opportunities for the advancement of VTA-led recommended projects.

*Responsible party: VTA Bicycle & Pedestrian Program, with input from Member Agencies and VTA BPAC;  
Timeframe: ongoing*

### Strategy 4: Monitor progress and proactively seek new areas for improvement

- Provide cities and the County with Focus Area identification methodology and associated GIS files in order to assist agencies in identifying their own Focus Areas.

*Responsible party: VTA Bicycle & Pedestrian Program;  
Timeframe: one year*

- Report the progress Member Agencies and VTA have made in implementing pedestrian improvements recommended in the Plan. Report to be shared with VTA Bicycle and Pedestrian Advisory Committee, VTA Committee for Transportation Mobility and Accessibility, and VTA Technical Advisory Committee.

*Responsible party: VTA Bicycle & Pedestrian Program, with assistance from VTA Project Development Department and input from Member Agency staff;*

*Timeframe: ongoing, first report in 18 months*

- Report the progress made on the goals and objectives of the implementation plan and make revisions to goals as appropriate.

*Responsible party: VTA Bicycle & Pedestrian Program;  
Timeframe: ongoing, first report in 18 months*

- Periodically update the Plan Focus Area analysis to identify new Focus Areas, and as needed, conduct associated field work and project identification for up to five additional Focus Areas.

*Responsible party: VTA Bicycle & Pedestrian Program;  
Timeframe: five years*

# Appendix A: Survey Instruments

To understand the VTA customer experience of walking to transit stops, VTA developed and distributed a survey. The customer survey was designed in both short and long versions. The long version was published online and in hard copies, and provided in English and Spanish. The short version of the survey was printed as a prepaid postcard and was placed inside buses that serve popular bus lines in the Focus Areas. It was provided in English, Spanish, and Vietnamese.

The short and long survey instruments are shown on the next several pages.

The short version of the survey was printed as a prepaid postcard and placed inside buses that serve popular bus lines in the Focus Areas: lines 22, 23, 25, and community routes 14 and 19 in Gilroy. It consisted of three open-ended questions, and was printed in English, Spanish, and Vietnamese. It also included a link to an online version of the long survey. One thousand short form postcard surveys were distributed.

The long version was published online and in hard copies, and advertised through VTA's social media accounts, distributed at VTA's customer service center in downtown San Jose, and provided to the VTA/County Bicycle and Pedestrian Advisory Committee.

VTA advertised the survey for two months during the summer of 2015. VTA received 475 responses. Out of these 475 responses, 371 identified specific locations in Santa Clara County that need improvement. The remaining 104 responses were general comments about transit stop facilities and access to stops. **Figure A-1** maps the locations where specific concerns were identified.

VTA provided the raw survey responses and Geographic Information System (GIS) files used to make the map in **Figure A-1** to Member Agency staff so they can incorporate the information into local planning efforts.

# Appendix A: Survey Instruments

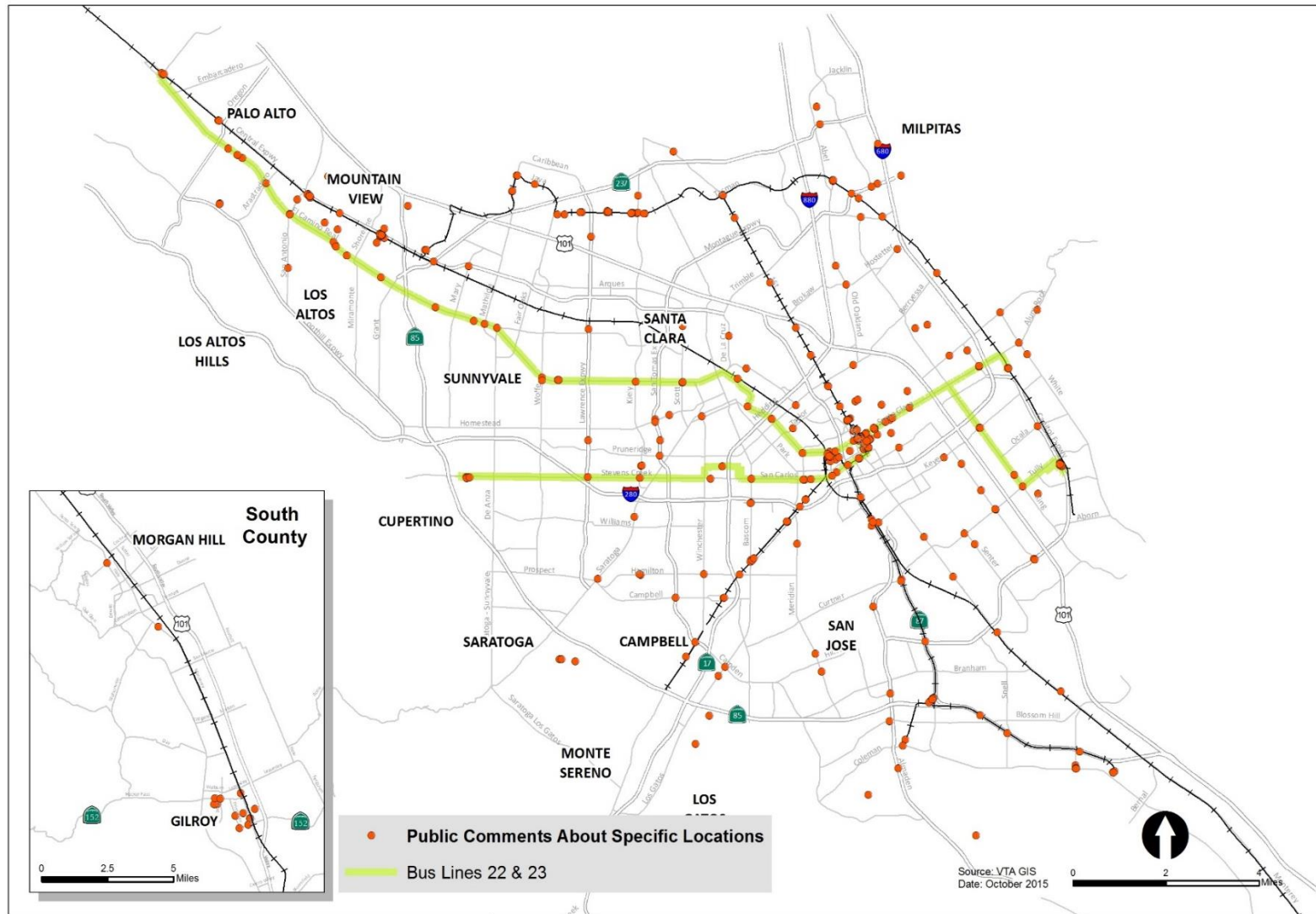


Figure A-1: Locations in Santa Clara County identified by survey respondents as needing pedestrian improvements

## Long Form Survey Instrument

**VTA would like to enhance your experience walking to bus stops and train stations.**



Most people who take VTA walk to their bus stop or train station. VTA would like to learn how your walk to the bus stop or train station could be improved. Your answers will help VTA create a **Pedestrian Access to Transit Plan**.

VTA will use this plan to work with cities to improve pedestrian access to bus stops and train stations.

Deadline to submit your responses is August 21, 2015





**Part 1: We'd like to know what your walk to the bus stop or train station is like.**

1. Think about a bus stop or train station where you would like to see improvements made for pedestrians. Where is the location of this stop or station that you like to tell us about?

Route number \_\_\_\_\_ Stop or station \_\_\_\_\_

2. When you walk to and from this bus stop or train station, is there a sidewalk the entire way?

- Yes, there is a paved sidewalk the entire way
- No, there are sections where the sidewalk is missing
- No, there is no sidewalk the entire way

3. Think about your walk to or from this bus stop or train station. How true are these sentences for you?

	Always	Sometimes	Never	N/A
It is easy to cross streets on my way to the bus stop or train station.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There are crosswalks where I need them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There are traffic signals where I need them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I only wait for a short time before the walk signal turns on for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have enough time to cross the street before the "Don't Walk" signal turns on for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have to walk a long way before I get to a crosswalk.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cars will stop and let me cross the street.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Do you feel safe from cars when you walk to and from this bus stop or train station?

- Almost Always     Sometimes     Never

5. Do you feel safe from crime when you walk to and from this bus stop or train station?

- Almost Always     Sometimes     Never

**Part 2: Let us know how your walk to this bus stop or train station can be improved.**

6. If you could change THREE THINGS about your walk to and from the bus stop or train station what would you change? (*Check only three.*)

- |                                                                                 |                                                                                                  |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Nothing, the walk is fine                              | <input type="checkbox"/> Fewer cars                                                              |
| <input type="checkbox"/> Build a sidewalk where there is none                   | <input type="checkbox"/> Install shade at the station or stop that protects me from rain and sun |
| <input type="checkbox"/> Wider sidewalk                                         | <input type="checkbox"/> Better lighting                                                         |
| <input type="checkbox"/> Install bench or seat along the way that I can rest on | <input type="checkbox"/> Cleaner streets                                                         |
| <input type="checkbox"/> Ramps at corners for wheelchairs and strollers         | <input type="checkbox"/> Less crime                                                              |
| <input type="checkbox"/> The walk signal gives more time to cross the street    | <input type="checkbox"/> More people and activities on the street                                |
| <input type="checkbox"/> Less time waiting at traffic lights                    | <input type="checkbox"/> More places to visit/shop on the way                                    |
| <input type="checkbox"/> New crosswalk to cross the street                      | <input type="checkbox"/> Other: _____                                                            |
| <input type="checkbox"/> Safer street crossings                                 | _____                                                                                            |
| <input type="checkbox"/> Slower cars                                            | _____                                                                                            |

7. Are there specific locations that you would like to see improved for walking to the bus stop or train station? What would you like to see changed?

- No
- Yes (please include location, problem, and any solutions):
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

(continued)

**Part 3: Please tell us about yourself. These questions are optional.**

8. Do you have a disability that affects your ability to get to or use transit? *(You may choose more than one.)*

- No
- Yes, I am deaf or have serious difficulty hearing
- Yes, I am blind or have serious difficulty seeing, even when wearing glasses
- Yes, I have serious difficulty walking or climbing stairs
- Yes, I have a cognitive disability
- Yes, I have another disability that is not listed here
- Prefer not to answer

9. I identify my gender as:

- Male  Other (please specify) \_\_\_\_\_
- Female  Prefer not to answer

10. What is your age?

- 13 and under  25-34  55-64
- 14-17  35-44  65 or older
- 18-24  45-54  Prefer not to answer

11. What is your race/ethnicity? *(You may choose more than one.)*

- Hispanic/Latino  Native Indian or Alaska Native
- African American/Black  Racially mixed
- Asian  Prefer not to answer
- White/Caucasian
- Native Hawaiian or Pacific Islander

***If you would like to tell us about another bus stop or train station you can fill in more than one survey.***

# Appendix A: Survey Instruments

## Short Form Survey Instrument

### Pedestrian Access to Transit Plan

Most people who take VTA walk to their bus stop or train station. VTA would like to learn how your walk to the bus stop or train could be improved. Your answers will help VTA create a Pedestrian Access to Transit Plan. VTA will use this plan to work with cities to improve pedestrian access to bus stops and train stations.

### Plan de Tránsito para Acceso de Peatonos

La mayor parte de las personas que toman VTA caminan a su parada de autobuses o estación de tren. VTA desearía saber cómo puede hacer que mejor su caminata hacia la parada de autobús es o estación de tren. Sus respuestas ayudarán a VTA a crear un Plan de Tránsito para Acceso de Peatonos. VTA usará este plan para trabajar con las ciudades y mejorar el acceso peatonal a las paradas de autobuses y las estaciones de tren.

Đường vào khu vực vận chuyển của người đi bộ Hầu hết những người sử dụng VTA đi bộ đến trạm xe buýt hay xe điện. VTA muốn tìm cách có thể cải thiện việc đi bộ của bạn đến trạm xe buýt hay xe điện. Câu trả lời của bạn sẽ giúp VTA xây dựng đường vào khu vực vận chuyển của người đi bộ. VTA sẽ sử dụng chương trình này để làm việc với các thành phố nhằm cải thiện cách đi bộ đến các trạm xe buýt và xe điện của hành khách.




### VTA Would Like To Enhance Your Experience Walking to Bus Stops and Train Stations




You can fill in a longer version of the survey at this address: [www.surveymonkey.com/r/VTApedPlan](http://www.surveymonkey.com/r/VTApedPlan)

For more information visit: [www.vta.org/pedestrian-plan](http://www.vta.org/pedestrian-plan)




**BUSINESS REPLY MAIL**  
FIRST-CLASS MAIL PERMIT NO. 1009 SAN JOSE CA

POSTAGE WILL BE PAID BY ADDRESSEE




SANTA CLARA  
**Valley Transportation Authority**

ATTN COMMUNITY OUTREACH  
3331 NORTH FIRST STREET BUILDING B  
SAN JOSE CA 95134-9954



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES



**WE WANT YOUR INPUT**

If you could change anything about your walk to and from your bus stop or train station what would you change?

\_\_\_\_\_

\_\_\_\_\_

Where is the location of this bus stop or train station that you like to tell us about?

Route \_\_\_\_\_ Station \_\_\_\_\_

*Deadline to submit your responses is August 21, 2015*

Si usted pudiera cambiar cualquier cosa sobre su caminata hacia y desde su parada de autobuses o estación de tren, ¿qué cambiaría?

\_\_\_\_\_

\_\_\_\_\_

¿Dónde está la ubicación de esta parada de autobuses o estación de tren de la que desearía comentarnos?

Ruta \_\_\_\_\_ Estación \_\_\_\_\_

*El plazo para enviar sus respuestas es el 21 de Agosto de 2015*

Nếu bạn có thể thay đổi bất cứ điều gì về việc đi bộ của bạn đến và từ trạm xe buýt hoặc xe điện của bạn, những gì bạn sẽ thay đổi?

\_\_\_\_\_

\_\_\_\_\_

Đâu là vị trí của trạm xe buýt hoặc xe điện mà bạn muốn nói với chúng tôi?

Lộ trình \_\_\_\_\_ Trạm \_\_\_\_\_

Hạn chót để gửi phản hồi của bạn là ngày 21 tháng 8 năm 2015

1504186



A comfortable and safe pedestrian environment includes the following design elements and design characteristics:

- Sidewalks sized and designed to accommodate:
  - Expected pedestrian volumes for through travel;
  - Transit stop amenities and space for boarding and alighting;
  - Space for other activities (i.e. cafés, seating; shopping etc.);
  - Space for elements needed for buffering pedestrians from adjacent moving traffic (i.e. consistent rows of street trees, landscape strips or planters); and,
  - Space for potentially desired green infrastructure elements for the management of stormwater runoff from public rights-of-way.
- Number and width of driveways reduced as feasible;
- Sidewalk-adjacent parking lots buffered and screened with low walls, greened fences and/or landscaping;
- General and pedestrian-scale lighting for well-lit sidewalks and access routes to bus stops;
- Crosswalks at intersections and mid-block locations provided at convenient intervals;
- Crosswalks designed according to current best practices, including crosswalks at freeway off ramps;
- Designed with adjacent built context in mind (buildings with active frontages along sidewalk edge, buildings with deep setbacks, parking lots, landscaping/parks) and,
- Designed to accommodate passengers of all ages and abilities.

For any specific location, the final sidewalk width and design depend on balancing a number of factors, including pedestrian volumes, sidewalk-adjacent (ground floor) land use and spatial needs for buffering elements, green infrastructure, and pedestrian and transit amenities. See the *VTA Pedestrian Technical Guidelines*, the *VTA Community Design & Transportation Manual* and

local Complete Streets design guidelines for recommendations for details on the design of pedestrian-friendly streets.

At bus stops, a comfortable and safe transit passenger environment includes the following design elements and design characteristics:

- Waiting space/passenger pad sized to accommodate expected passenger volumes and recommended amenity range;
- Circulation space dimensioned to accommodate passenger circulation in, out and past the bus stop area (pedestrian through movement);
- Stop amenities for seating, shade and shelter, transit and context information, trash collection of a range recommended for Basic, Core and Major stops;<sup>1</sup>
- A well-lit bus stop area; and,
- Design that accommodates passengers of all ages and abilities.

The VTA *Transit Passenger Environment Plan* recommends bus stop amenities and provides design guidelines for the layout of bus stops for a broad range of conditions.

The following table describes pedestrian improvements that can improve the safety, comfort, and convenience of people walking to and from transit. These types of improvements were recommended throughout the Focus Areas identified in Pedestrian Access to Transit Plan. Example photos are provided for some of the items following the table.

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<sup>1</sup> Based on the *Transit Passenger Environment Plan*, “Basic stops” defines as those with fewer than 40 weekday boardings, “Core stops” defines as those with 40 to 199 weekday boardings and “Major stops” defines as those with 200 or more weekday boardings.

# Appendix B: Pedestrian Improvement Measures Toolkit

Measure	Description	Benefits	Application	Photo
<b>Traffic Control Countermeasures</b>				
Pedestrian Hybrid Beacon or PHB (Also known as High Intensity Activated Crosswalk, or HAWK Signal)	Pedestrian Hybrid Beacons (PHB's) are pedestrian-actuated signals that combine a beacon flasher and a traffic control signal. A PHB is darker until a pedestrian actuates it to stop traffic so the pedestrian can cross the street. When actuated, the PHB displays a yellow warning followed by a solid red light. During pedestrian clearance, the PHB shows a flashing red "wig-wag" pattern until the clearance interval has ended and the signal goes dark.	Reduces pedestrian-vehicle conflicts. Can be combined with curb extensions where parking lanes are present.	Useful in areas where it is difficult for pedestrians to find gaps in automobile traffic to cross safely, but where normal signal warrants are not satisfied. Appropriate for roads with multiple lanes in each direction with daily vehicle traffic over 10,000.	1
Rectangular Rapid Flash Beacon or RRFB (Stutter Flash)	Rapid flashing yellow LED lamps are installed on overhead signs, in advance of the crosswalk or at the entrance to the crosswalk. The beacons may be push-button activated or activated with pedestrian detection. When activated the shutter pattern is reminiscent of an emergency vehicle flash.	Initial studies suggest the stutter flash is very effective in increasing driver yielding behavior. Solar panels reduce energy costs associated with the device.	Appropriate for roads with multiple lanes in each direction.	2
High-Visibility Signs and Crosswalks	High-visibility markings include a family of crosswalk striping styles including the "ladder" style. High-visibility fluorescent yellow-green signs may be posted at uncontrolled crossings to increase driver awareness of pedestrian.	Multi-stripe treatments provide greater visibility than traditional crosswalks	Beneficial in areas with high pedestrian activity, as near schools, and in areas where travel speeds are high and/or visibility is low.	3
In-Street Pedestrian Crossing Signs	This measure involves posting regulatory pedestrian signage on lane edge lines and road centerlines. The in-street pedestrian crossing sign may be used to remind road users of laws regarding right of way at an unsignalized pedestrian crossing. The legend YIELD TO may be used in conjunction with the pedestrian crossing symbol.	This measure is highly visible to motorists and has a positive impact on pedestrian safety at crosswalks.	Mid-block crosswalks, unsignalized intersections, low-speed areas, and two-lane roadways are ideal for this pedestrian treatment.	
Advanced Yield Lines	Standard white yield limit lines and "shark's teeth" are placed in advance of marked, uncontrolled crosswalks.	This measure increases the pedestrian's visibility to motorists, reduces the number of vehicles encroaching on the crosswalk, and improves general pedestrian conditions on multiple lanes in each direction roadways. It is also an affordable option.	Useful in areas where pedestrian visibility is low and in areas with aggressive drivers, as advance limit lines will help prevent drivers from encroaching on the crosswalk. Addresses the multiple-threat collision on roads with multiple lanes in each direction.	

Measure	Description	Benefits	Application	Photo
<b>Geometric Treatments</b>				
Road Diet (aka Lane Reduction)	The number of travel lanes are reduced and replaced with a combination of wider sidewalks, bicycle lanes, vehicle parking, or converting parallel parking to angled or perpendicular parking.	This is a good traffic calming and pedestrian safety tool, particularly when combined with curb extensions and/or raised median islands. By reducing the number of lanes a pedestrian must cross, this measure reduces the number of potential vehicle-pedestrian conflicts. Road diets can also slow speeds, reducing the severity of pedestrian collisions. Wider sidewalks can be used to improve comfort and quality of the pedestrian realm by accommodating trees, landscape buffers, and potential street furnishings.	Roadways with surplus roadway capacity (typically those with multiple lanes in each direction with less than 15,000 to 20,000 ADT: Average Daily Traffic) and high bicycle volumes, and roadways that would benefit from traffic calming measures.	
Median Refuge Island	Raised islands are placed in the center of a roadway, separating opposing lanes of traffic. Median refuge islands have cutouts for accessibility along the pedestrian path.	This measure allows pedestrians to focus attention on each direction of traffic separately. It provides pedestrians with a better view of oncoming traffic and allows drivers to see pedestrians more easily. It can also act as a supplement to additional pedestrian tools.	Recommended for roads with multiple lanes in each direction wide enough to accommodate an ADA-accessible median. VTA's <i>Pedestrian Technical Guidelines</i> provide additional design specifications.	
Curb Extension	Also known as a pedestrian bulb-out, this traffic-calming measure is meant to slow traffic and increase driver awareness of pedestrians. It consists of an extension of the curb into the street, making the pedestrian space (sidewalk) wider.	Curb extensions narrow the distance that a pedestrian has to cross and increase the sidewalk space at corners and mid-block crossings. The additional space can be used for landscaping, seating, or bicycle parking. Curb extensions also encourage drivers to turn more slowly.	Due to the high cost of installation, this tool would be most suitable on streets with high pedestrian activity, on-street parking, and infrequent (or no) curb-edge transit service. It is often used in combination with crosswalks or other markings. VTA's <i>Pedestrian Technical Guidelines</i> provide additional design specifications. Curb extensions must be designed so as not to impede bicycle travel.	4
Reduced Curb Radii	The radius of a curb can be reduced to require motorists to make a tighter turn.	Smaller curb radii at street corners narrow the distance that pedestrians have to cross and increase space available to pedestrians and streetscape elements. Like curb extensions, reduced curb radii reduce traffic speeds and increase driver awareness, but can be less difficult and less expensive to implement.	This measure is beneficial on streets with high pedestrian activity and on-street parking. It is more suitable for wider roadways and roadways with low volumes of heavy truck traffic. VTA's <i>Pedestrian Technical Guidelines</i> provide additional design specifications.	

Measure	Description	Benefits	Application	Photo
Curb Ramps	ADA compliant curb ramps are sloped ramps that are constructed at the edge of a curb (normally at intersections) as a transition between the sidewalk and a crosswalk. Truncated domes shall be included whenever curb ramps are added or rebuilt.	Curb ramps provide easy access between the sidewalk and roadway for people using wheelchairs, strollers, walkers, crutches, handcarts, bicycles, and also for pedestrians with mobility impairments who have trouble stepping up and down high curbs.	Curb ramps must be installed at all intersections and mid-block locations where pedestrian crossings exist, as mandated by federal legislation (1973 Rehabilitation Act and 1990 Americans with Disabilities Act and the California Building Code-Title 24). Where feasible, separate directional curb ramps for each crosswalk at an intersection should be provided rather than having a single ramp at a corner for both crosswalks.	
Raised Crosswalk	A crosswalk whose surface is elevated above the travel lanes.	Raised crosswalks attract drivers' attention; encourage lower travel speeds by providing visual and tactile feedback when approaching the crosswalk and crossing the street.	Appropriate for roadways with multiple lanes in each direction, roadways with lower speed limits, and roadways with high levels of pedestrian activity, such as near schools, shopping malls, etc. Local fire and police departments should be consulted to determine if raised crosswalks are compatible with emergency response times.	
Improved Right-Turn Slip-Lane Design	Right-turn slip lanes (aka channelized right-turn lanes) are separated from the rest of the travel lanes by a porkchop-shaped striped area. This measure separates right-turning traffic and streamlines right-turning movements. Improved right-turn slip lanes provide pedestrian crossing islands within the intersection and are designed to optimize the right-turning motorist's view of the pedestrian and of vehicles to his or her left.	This measure increases pedestrian safety by reducing pedestrians' crossing distance and turning vehicle speeds.	Appropriate for intersections with high volumes of right-turning vehicles. VTA <i>Bicycle Technical Guidelines</i> provides additional design specifications.	
<b>Pedestrian Access and Amenities</b>				
Marked Crosswalk	Marked crosswalks should be installed to provide designated pedestrian crossings at major pedestrian generators, crossings with significant pedestrian volumes (at least 15 per hour, per California MUTCD), crossings with high vehicle-pedestrian collisions, and other areas based on engineering judgment.	Marked crosswalks provide a designated crossing, which may improve walkability and reduce jaywalking.	On roads with multiple lanes in each direction and more than 10,000 vehicles per day, marked crosswalks should be installed in conjunction with enhanced crosswalk treatments such as bulb outs, raised medians, RRFB's, or Pedestrian Hybrid Beacons.	



## Appendix B: Pedestrian Improvement Measures Toolkit

Measure	Description	Benefits	Application	Photo
Contrasting or Special Paving Materials	Pavers and colored concrete treatments or patterned thermoplastic asphalt inlays can be constructed to create a contrasting or patterned pedestrian crosswalk that is visually conspicuous to drivers and pedestrians alike.	Highly visible to motorists, this measure provides a visual cue to motorists and creates a clearly delineated space for pedestrians. It also aesthetically enhances the streetscape and can be used to create local identity.	Appropriate for areas with high volumes of pedestrian traffic and roadways with low visibility and/or narrow travel ways, as in downtown areas, commercial districts, main streets and the centers of smaller cities.	
Accessibility Upgrades	Treatments such as audible pedestrian signals and accessible push buttons should be installed at crossings to accommodate disabled pedestrians. To comply with ADA requirements, truncated domes should also be included whenever curb ramps are added or rebuilt.	Improves accessibility of pedestrian facilities for all users.	Accessibility upgrades should be provided for all pedestrian facilities per local ADA programs.	
Pedestrian Countdown Signal	Displays a “countdown” of the number of seconds remaining for the pedestrian crossing interval. In some jurisdictions the countdown includes the walk phase. In other jurisdictions, the countdown is only displayed during the flashing don’t walk phase.	Increases pedestrian awareness and allows people the ability to make a safer decision about entering or walking through a crosswalk.	The 2014 California MUTCD (Revision 1) requires that new signals include a pedestrian countdown phase. When upgrading existing facilities with countdown signals, new signals should be prioritized for areas with pedestrian activity, roadways with high volumes of vehicular traffic, roadways with multiple lanes in each direction, and areas with elderly or disabled persons (who may walk slower than other pedestrians).	5
Pedestrian Access through Commercial Parking Lots	Dedicated pedestrian paths through landscaping and parking lots at commercial areas	Designated pedestrian walkways through parking lots improve safety and comfort by separating pedestrians from vehicles using site driveways. Walkways are made more legible and parking lots more sustainable if they are accompanied by tree planting and other landscaping.	Appropriate for existing commercial development where destinations are separated from sidewalk by parking lots and accessed via driveways.	6
Pedestrian Adaptive Signal	Pedestrian adaptive signals extend the walk phase when a pedestrian is detected in the crosswalk.	Allows longer crossing time for pedestrians entering during the walk phase or countdown phase. It reduces motor vehicle delay when pedestrians are not present.	Appropriate for crosswalks where pedestrians must cross long distances across roadways with high traffic volume and multiple lanes in each direction.  Santa Clara County Roads and Airports Department has installed pedestrian adaptive signals at some intersections within County jurisdiction. More information and an informational video about Santa Clara County’s project is available at <a href="http://www.sccgov.org/sites/RDA">www.sccgov.org/sites/RDA</a> .	

# Appendix B: Pedestrian Improvement Measures Toolkit

Measure	Description	Benefits	Application	Photo
Pedestrian-Scale Lighting	Pedestrian-scale light fixtures range in height between 12 and 18 feet (to light source) and can be stand-alone or attached to taller roadway light fixtures (ideally of the same style).	Pedestrian-scale light fixtures provide light to areas of the pedestrian realm otherwise left underlit by standard roadway lighting. They also enhance streetscape aesthetics and community identity, and encourage the nighttime usage of sidewalks, restaurants and other businesses as well as transit.	Along routes used for access to transit, safe routes to school, and along other routes or at nodes with high volumes of pedestrians, such as main streets and commercial districts.	
<b>Streetscape Improvements</b>				
Landscaped Buffer/ Rows of Trees	Planting strip, preferably including a row of shade trees, between the clear walking space of sidewalks and vehicle travel lanes.	Provides a physical separation between the pedestrians and moving traffic and increases pedestrian comfort. Trees provide additional comfort by providing shade on hot days.	Landscaped buffers and rows of trees are especially beneficial on streets with high vehicle volumes and high traffic speeds.	
<b>Special Cases</b>				
Pedestrian Access at Interchanges	Best practices for pedestrian access at interchanges include high-visibility crosswalk striping and pedestrian crossing signage, advance yield lines, pedestrian-scale lighting, designing ramp geometries to encourage slower vehicle speeds at crosswalks, and orienting on-and off-ramps at right angles to local streets.	Enhanced pedestrian access at freeway on- and off-ramps improves pedestrian safety and comfort at interchanges.	Appropriate at freeway on- and off-ramps on streets with existing pedestrian facilities.  In 2009, VTA Board of Directors adopted a policy for multi-modal design approach on all future roadway improvement projects as feasible, including projects within the State right of way. This policy was modeled on the Tully Rd/US 101 interchange redesign project.	
Pedestrian Access at Rail Crossings	Best practices for pedestrian access at rail crossings include visual and audible warnings, swing gates and crosswalks, fencing along the tracks to restrict pedestrian access and safe refuge areas at wide crossings.	Formalizing and channeling pedestrian access at rail crossings reduces the risk of collision and makes walking more comfortable.	These treatments can be adapted for use at light rail and heavy rail tracks.	7
Tactical/ Interim Design Treatments	Design interventions that can be implemented in little time and at low cost. Examples: moveable planters, parklets, and roadway striping.	Tactical or interim design treatments allow communities to test streetscape and roadway improvements and make design changes before committing substantial funds to the project.	Appropriate for streetscape improvements, some unsignalized crossings, road diets, curb extensions and minor intersection improvements.	
Public Art	Public art (sculptures, murals, light installations, and visual interest added to street furniture such as planters, benches, etc.) can be incorporated into pedestrian and streetscape improvements.	Public art can add visual interest and human scale to spaces used by pedestrians and act as landmarks that define locations in the public realm.	Public art can be integrated into street-adjacent open spaces, paving materials, parklets, freeway underpasses and overpasses, traffic circles, roundabouts and medians.	

### Measure

Wayfinding

### Description

Wayfinding improvements include both active wayfinding elements, such as signs and maps, and passive wayfinding elements, which are design elements (paths, landscaping, etc.) that help orient users toward destinations.

### Benefits

Wayfinding improvements help pedestrians to orient themselves in new spaces and find their destinations quickly, improving the pedestrian experience and making walking more attractive.

### Application

Wayfinding is especially appropriate in complex environments and around transit hubs.

### Photo



1



Pedestrian Hybrid Beacon (High Intensity Actuated Crosswalk, or HAWK Signal)

2



Rectangular Rapid Flash Beacon (Stutter Flash)

3



High-Visibility and Crosswalk

4



Curb Extension



5



Pedestrian Countdown Signal

6



Pedestrian Access to Commercial Parking Lots

7



Pedestrian Access at Rail Crossings, Credit: ZGF, VTA Light Rail Enhancement Best Practices draft memorandum, November 2015.

## Appendix C: List of potential funding sources for identified projects

Funding Program or Source	Eligible Projects	Grantor/Administrator	Timing/Cycle & Example of Available Amount	VTA Staff Notes
Active Transportation Program State and Regional (ATP)	Bicycle and pedestrian infrastructure and non-infrastructure projects that reduce greenhouse gas, increase safety, enhance public health, focus on disadvantaged communities	Caltrans (state) MTC (regional)	Annual program (three cycles have been released since 2014) \$360 M in 2014 \$350 M in 2015 \$240 M in 2016	High priority for disadvantaged communities so not very competitive for most jurisdictions in Santa Clara County. Particularly true for the State program. The median income level in Santa Clara County is higher than the median level in State.
Highway Safety Improvement Program (HSIP)	Projects that reduce traffic fatalities and serious injuries	Federal Highway Administration	Annually \$2.3 B in 2013, nationwide \$2.4 B in 2014, nationwide \$1,017,600,000, FY 2016-2020, Statewide	
Priority Development Area (PDA) Planning Grants	Preliminary or advance planning for projects within Priority Development Areas	Federal Highway Administration VTA is the program coordinator	Every 4 to 5 years FY 2012-13 to FY 2015-16: \$5.3 M for Santa Clara County FY 2018-19 to FY 2021-22: \$2 M for Santa Clara County	Projects must serve an adopted Priority Development Area.

For more info visit: [www.dot.ca.gov/hq/LocalPrograms/atp/](http://www.dot.ca.gov/hq/LocalPrograms/atp/)

For more info visit: <https://safety.fhwa.dot.gov/hsip/>

For more info visit: [www.vta.org/projects-and-programs/call-for-projects](http://www.vta.org/projects-and-programs/call-for-projects)

# Appendix C

Funding Program or Source	Eligible Projects	Grantor/Administrator	Timing/Cycle & Example of Available Amount	VTA Staff Notes
One Bay Area Grant (OBAG): Surface Transportation Block Grant Program (STBGP), Congestion Mitigation and Air Quality Improvement (CMAQ) Program	Bicycle and pedestrian projects, ITS, transportation demand management, multi-modal transportation investment	Federal Highway Administration VTA is the program coordinator	Every 4 to 5 years FY 2018-19 to FY 2021-22: \$45 M for Santa Clara County	Projects must serve an adopted Priority Development Area.
For more info visit: <a href="http://www.vta.org/projects-and-programs/call-for-projects">www.vta.org/projects-and-programs/call-for-projects</a>				
Transportation Fund for Clean Air (TFCA) Regional/County Programs	Bicycle and pedestrian projects, trip reduction projects, clean air vehicles and infrastructure	Bay Area Air Quality Management District/VTA	Annually \$2.4 M FY 2014-15 for Santa Clara County \$2.2M FY 2015-16 for Santa Clara County \$2.2 M FY 2016-17 for Santa Clara County	Funds capital implementation phase only. Projects must be shovel-ready and able to be delivered in 2 to 3 years.
For more info visit: <a href="http://www.vta.org/projects-and-programs/call-for-projects">www.vta.org/projects-and-programs/call-for-projects</a> or <a href="http://www.baaqmd.gov/grant-funding/public-agencies/regional-fund">www.baaqmd.gov/grant-funding/public-agencies/regional-fund</a>				
Sustainable Transportation Planning Grant Program	Transportation planning related activities with focus on sustainability, preservation, mobility, safety, innovation, economy, health, and equity	Caltrans	Annually \$8.4 M FY 2016-17, statewide \$9.3 M FY 2017-18, statewide	Maximum funding request is \$500,000.

For more info visit: [www.dot.ca.gov/hq/tpp/grants.html](http://www.dot.ca.gov/hq/tpp/grants.html)



# Appendix C

Funding Program or Source	Eligible Projects	Grantor/Administrator	Timing/Cycle & Example of Available Amount	VTA Staff Notes
Vehicle Emissions Reductions Based at Schools (VERBS)	Infrastructure projects; bicycle and pedestrian facilities, bicycle storage, traffic calming measures.	Federal Highway Administration VTA is the program coordinator	Every 4 to 5 years FY 2012-13 to FY 2015-16: \$5.38 M for Santa Clara County FY 2018-19 to FY 2021-22: \$6.8 M for Santa Clara County	Specific to safe routes to school.
For more info visit: <a href="http://www.vta.org/projects-and-programs/call-for-projects">www.vta.org/projects-and-programs/call-for-projects</a>				
Transportation Development Act Article 3	Construction or engineering of a bicycle or pedestrian capital project. Maintenance of a multi-purpose path that is closed to traffic. Bicycle safety education. Development of comprehensive bike/ped plans. Restriping bike lanes.	Caltrans, VTA is the program coordinators	Annual. FY 2014/15 \$532,019 competitive for BEP program.	75% of TDA funds are distributed to Member Agencies by formula based on their population, with funding priorities set by Member Agencies.  VTA dedicates 25% of TDA3 countywide funding to development of the countywide Bicycle Expenditure Program.  An additional \$150,000 annually funds pedestrian projects on the County Expressways
For more info visit: <a href="http://www.vta.org/projects-and-programs/call-for-projects">http://www.vta.org/projects-and-programs/call-for-projects</a>				
Community Development Block Grants (CDBG)	Some public facilities improvements such as sidewalks	Department of Housing and Community Development	Not less than 70 percent of CDBG funds must be used for activities that benefit low- and moderate-income persons.	

For more info visit: [https://portal.hud.gov/hudportal/HUD?src=/program\\_offices/comm\\_planning/communitydevelopment/programs](https://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs)



# Appendix C

Funding Program or Source	Eligible Projects	Grantor/Administrator	Timing/Cycle & Example of Available Amount	VTA Staff Notes
Developer or Business Contribution	Multi-modal transportation projects	Member Agencies or VTA		Depending on circumstances, legal nexus requirements may limit locations of improvements; some contributions may be subject to time limits per Assembly Bill 1600.
Development Impact Fee	Multi-modal transportation projects	Member Agencies or VTA		Depending on circumstances, legal nexus requirements may limit locations of improvements; some contributions may be subject to time limits per Assembly Bill 1600.
2016 Measure B	Multi-modal transportation projects	VTA	Assumed \$6.5 B revenue in 2016 dollars for the next 30 years. The bicycle and pedestrian allocation for 30 years is \$250 M in 2016 dollars.  <i>Pedestrian Access to Transit Plan</i> is eligible to compete for the 2016 Measure B.	Measure B passed in November 2016. Funding program to be developed as of September 2017.
For more info visit: <a href="http://www.vta.org/measure-b-2016">www.vta.org/measure-b-2016</a>				
Lifeline Transportation Program	Mobility and accessibility improvement projects in low-income communities; project examples: transit stop improvements, pedestrian and bicycle access improvements, transportation services for	VTA is the program administrator	In Bay Area, 224 projects funded during the first three cycles of the Lifeline program for the total value of \$190 million dollars. For Cycle 4 (FY 2013-14 through FY 2015-16), \$1,937,427 from Job Access and Reverse	Minimum local match for capital projects is 20%.

# Appendix C

Funding Program or Source	Eligible Projects	Grantor/Administrator	Timing/Cycle & Example of Available Amount	VTA Staff Notes
	seniors and children, community shuttles, etc.		Commute (JARC) and \$6,771,361 from State Transit Assistance (STA) programs funds were available.	
Local /Capital Improvement Programs (may include developer or business contribution and development impact fee)	Bicycle, pedestrian, streetscape, roadway improvements, etc.	Member Agencies	Varies based on Member Agency's available budget and local priorities.	

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