
Chapter 3

Bikeway Projects Planning Methodology

This chapter outlines the methodology used to identify bicycle projects that have regional or countywide significance. By its very nature, the Countywide Bicycle Plan (CBP) will not present as fine-grained networks and projects as Member Agency bicycle plans. To meet the criteria of having regional or countywide significance, the CBP focuses on identifying bikeway projects in the following categories:

- On the Cross County Bicycle Corridor (CCBC) network
- Safe bike routes to major transit stations and centers (SR2T)
- A nonmotorized crossing of a major barrier, i.e. freeway, railroad or waterway: Across Barrier Connection (ABC)

The benefits of identifying specific capital projects within the Countywide Bicycle Plan include:

- Helps define the projects for inclusion in the BEP and VTP. More information on this topic is presented in Chapter 4;
- Projects included in the CBP are in a better position for future state or outside funding sources;
- Aids VTA in more accurately identifying the current countywide funding shortfall for bicycle and pedestrian mobility projects;
- Aids Member Agencies in transportation and land use planning, both internally and across city limits and in conditioning developers to provide pedestrian and bicycle infrastructure.

ATTRACTORS AND GENERATORS

The regional trip attractors and generators in Santa Clara County were identified by discussions with city staff, from city web sites and the RIDES' Marketing Database. They include all high schools, junior colleges, colleges and universities, hospitals, regional shopping centers, central business districts, civic centers, major employment sites, and Caltrain, ACE, Amtrak and light rail stations and other major transit centers and interface areas. These sites were important in determining the alignments of the Cross County Bicycle Corridors and locations of needed Across Barrier Connections.

Major employment sites were defined as a single location with 500 or more employees. Since one bicycle planning goal is to serve the high density areas, it is the concentration of employees that is of interest, not mere number of employees of a particular business. Each downtown area is assumed to be a major attractor in and of itself, since it has a concentration of employees from numerous businesses and it is a destination for many other trip purposes. Appendix C1 presents a list of the major employment sites in Santa Clara County.

TYPES OF BIKEWAYS

The following are brief descriptions of the three general classes of bikeways. For more details, please see the VTA *Bicycle Technical Guidelines* and the *Caltrans Highway Design Manual (HDM) Chapter 1000*, (italicized text is from the HDM).

Class I Bicycle Path

A completely separated right of way for the exclusive use of bicycles and pedestrians with crossflow minimized.

Class II Bicycle Lane

A striped lane (optimally 5 feet or more wide) for one-way bike travel on a street.

Class III Bicycle Route

Provides for shared use with pedestrian or motor vehicle traffic. Typically marked by signage, Class III bicycle routes may be found on a wide range of roadways, from busy arterials with narrow lanes to quiet to low volume residential streets.

- **Bicycle Boulevards**

Bicycle boulevards are a distinct type of bike route designed to provide convenient and efficient through passage for bicycles on low volume streets (typically residential). This is accomplished by orienting stop signs to provide right-of-way to bicycles on the boulevard. Traffic calming measures and restrictions are also implemented to discourage through motor traffic. Bicycle boulevards have been adopted and implemented by the City of Palo Alto and have been included on the adopted bike plans of Cupertino and Mountain View in Santa Clara County as well as Berkeley in Alameda County and the City and County of San Francisco.

- **Shoulders**

Shoulders are another subset of bike routes, often not signed, that are provided in specific circumstances, including:

- Expressways and other high volume roads where bike lanes are not desirable for many reasons, but wide shoulders are present;
- Rural roads where a narrow shoulder is all that is feasible due to topography or all that is practical due to low traffic volumes.

DEVELOPMENT OF THE BICYCLE PROJECT

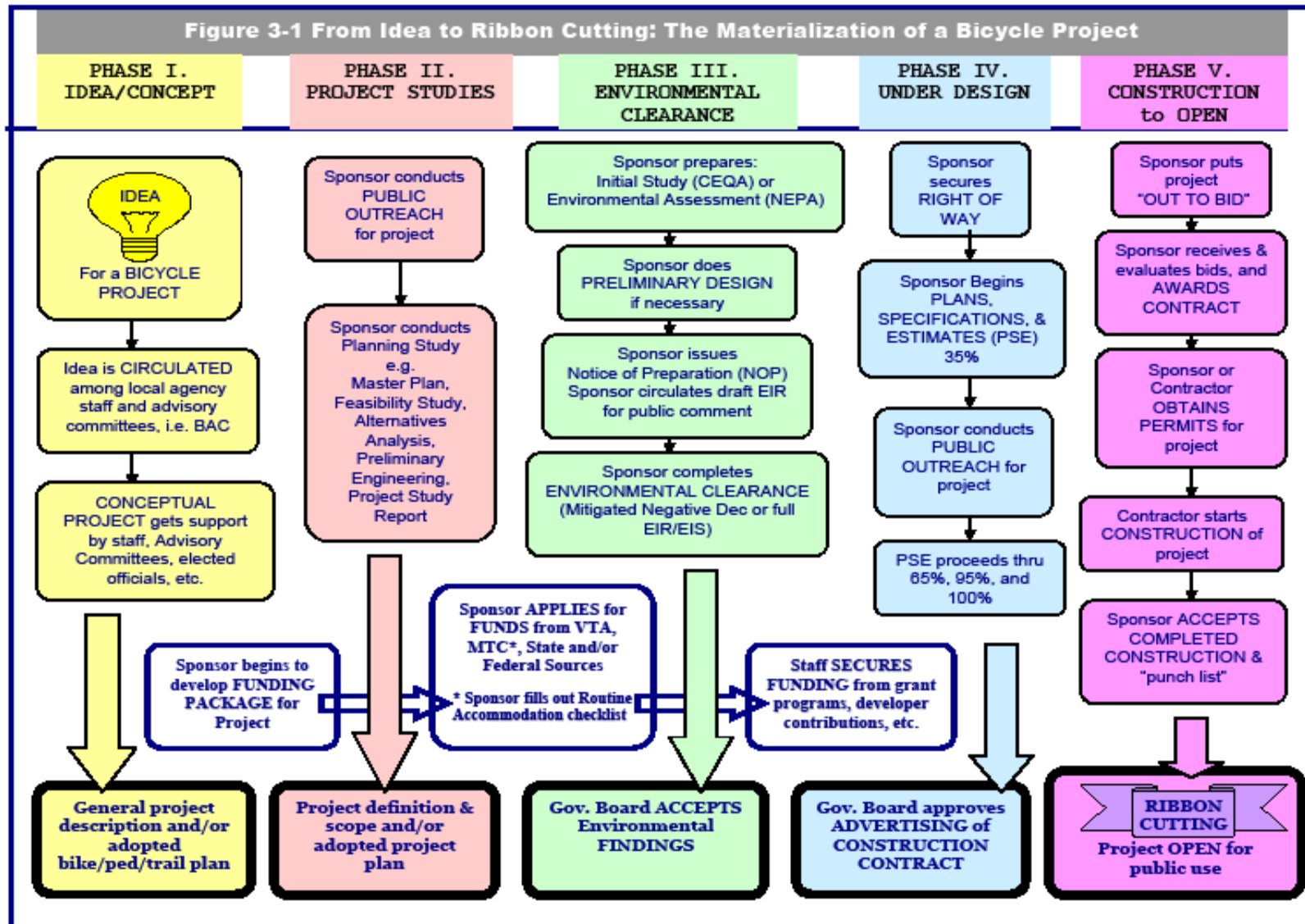
The general process by which a bicycle project evolves from an idea to an actual constructed and rideable facility is shown in the chart in Figure 3-1. The chart shows five main phases that proceed sequentially. These are:

- I. Idea/Concept**
(Often but not always from a bicycle plan, master plan or specific plan)
- II. Project Studies**
(Varies: feasibility studies, alternatives analyses, master plans, preliminary engineering, etc.)
- III. Environmental Clearance**
(CEQA requirements are a categorical exemption or an Initial Study leading to the preparation of a negative declaration, a mitigated negative declaration or an Environmental Impact Report. If federal funds are involved, then NEPA requirements must also be met.)
- IV. Design**
(Preparation of the PSE's: Plans -design drawings; Specifications –written instructions for the contractor; and Estimates – quantities and cost estimates to build the project.)
- V. Construction**

Figure 3-1 lists some of the many steps within each phase that culminate in the phase product and ultimately a built project. In reality, there are many interim optional steps, variations in the sequence of some of the steps and the first three or even four phases may overlap. There also may be other required elements depending on the complexity of the project, the approvals needed, the type of funding and available staffing resources. This chart is meant to be an informational tool, not a checklist.

In addition, concurrently over several phases, the project gathers supporters and advocates and develops a funding package. In the absence of either of these two components, the project remains just an idea.

This document is the idea / concept stage for many of the projects listed in this plan; while some projects have appeared in other plans, others appear here for the first time. Still other projects are well beyond the concept phase and some segments of them are even completed. Common examples of a project built in segments are the creek trails, since individual segments are usable while building an entire trail with many undercrossings is expensive.



CROSS COUNTY BICYCLE CORRIDORS

Purpose of the Cross County Bicycle Corridors

The purpose of the Cross County Bicycle Corridors network is to provide continuous connections between Santa Clara county jurisdictions and to adjacent counties, and to serve the major regional trip-attractors in the County. The network fulfills the *planning of a bicycle network* portion of Policy A1 of the CBP first adopted in the Policy Framework of the 2000 Bike Plan. Projects located on CCBC's are by definition regional bike projects which can be funded through the VTA's Bicycle Expenditure Plan (BEP) projects, and may receive priority for future (yet-to-be-developed) funding sources. Ultimately a coordinated route-numbering and signing system will be developed in conjunction with the local jurisdictions. The signage will provide bicyclists (and other users) with the route number and/or name and the major destinations served by the routes.

While neither roads nor trails nor expressways on their own appeal to all types of bicyclists all the time, collectively they serve virtually all bicyclists all the time. For example, bike paths are frequently unattractive to bicyclists who ride fast and/or are concerned about travel time; this is particularly true when the trails are crowded with non-cyclists such as joggers, dog walkers and children. But at other times, when there are few walkers and joggers, bike paths can be preferred by these same bicyclists for their low-stress experience, away from the noise and fumes of automobile traffic. Such is often the case during commute peak hours, since many trails' peak use periods are on weekends and spring/summer evenings. There are also bicyclists who would never ride on busy roadways or expressways and will always prefer trails.

Cross County Bicycle Corridor Alignments

The 2000 Countywide Bicycle Plan identified 16 Cross-County Bicycle Corridors. Over the past eight years, various agencies and bicyclists have expressed a desire for more corridors to fully cover the County. The VTA BPAC and each jurisdiction in the County were asked to nominate additional routes for the cross county bicycle corridor system and /or to extend an existing corridor. For the most part, the corridors use city streets, ranging from major arterials to quiet residential streets. There are now 24 roadway routes plus all trails of regional significance as discussed in Chapter 1 and all County expressways. The cross county bicycle corridors are shown in Figure 3-2 and the primarily roadway corridors are listed in Table 3-1. The total length of the roadway network once completed will be about 500 miles. In addition, for serious cyclists there is the 62-mile expressway system, consisting of the seven expressways listed in Table 3-2. For cyclists of all ages, there are 17 trails; these are listed in Table 3-3.

Appendix C2 contains a segment-by-segment description of the entire CCBC network. In many cases, roadways chosen for inclusion in the countywide bicycle network are existing bikeways or planned facilities included in the respective local bicycle plan. In

other cases, the roadway might not be included in the city plan, but was chosen because it provides the most logical connection between segments and/or directly serves popular regional destinations.

Table 3-1: Cross County Bicycle Corridors (Roadways)

| <i>Route No</i> | <i>Name</i> | <i>Limits</i> |
|-----------------|--|--|
| 01 | U.S. 101 Corridor | San Mateo Cnty to San Benito Cnty |
| 02 | Alma Street/Caltrain Corridor | San Mateo Cnty to Santa Clara |
| 03 | Dumbarton - East-West Connector Corridor | North Palo Alto to Los Altos |
| 04 | El Camino -Grand Blvd Corridor | San Mateo Cnty - Downtown San Jose |
| 05 | Shoreline-Miramonte/El Monte Corridor | Mountain View to Los Altos |
| 06 | Tasman/ Alum Rock Light Rail Corridor | Mountain View to East San Jose |
| 07 | Old Highway 9 Corridor | No. Sunnyvale to Los Gatos |
| 08 | Homestead/Hostetter/Brokaw Corridor | So. Los Altos to Northeast San Jose |
| 09 | Wolfe Rd /Borregas Corridor | Sunnyvale to Saratoga |
| 10 | North of I-280/Stevens Creek Blvd Corridor | Cupertino to Northern East San Jose |
| 11 | Calabazas Creek/Winchester Corridor | Sunnyvale - Los Gatos |
| 12 | South of I-280 Corridor | Cupertino to Hillview, east San Jose |
| 13 | Bowers / Kiely/ Saratoga Corridor | No. Santa Clara to Skyline Blvd. |
| 14 | Campbell/Curtner/Tully Corridor | Cupertino/Saratoga to Eastridge |
| 15 | Valley Fair to Santa Teresa Corridor | Downtown Santa Clara to San Benito Cnty |
| 16 | Blossom Hill Rd. Corridor | Saratoga to Southeast. San Jose |
| 17 | I-880/I-680 Corridor | Alameda County to Los Gatos |
| 18 | San Martin east-west route | Uvas Road to east side |
| 19 | I-880 Corridor | Alameda Cnty to Downtown San Jose |
| 20 | Coyote Valley/ Uvas Reservoir Corridor | South Cnty to SR 152 |
| 21 | I-680 Corridor to Silver Creek | Alameda Cnty to South San Jose |
| 22 | Hwy 152 Corridor | Santa Cruz Cnty line to Merced Cnty line |
| 23 | Eastern South Valley Corridor | Morgan Hill, San Martin, Gilroy |
| 24 | Ridge Line Corridor | Los Gatos to Mt. Madonna |

Figure 3-2 Cross County Bicycle Corridors - Northwest County

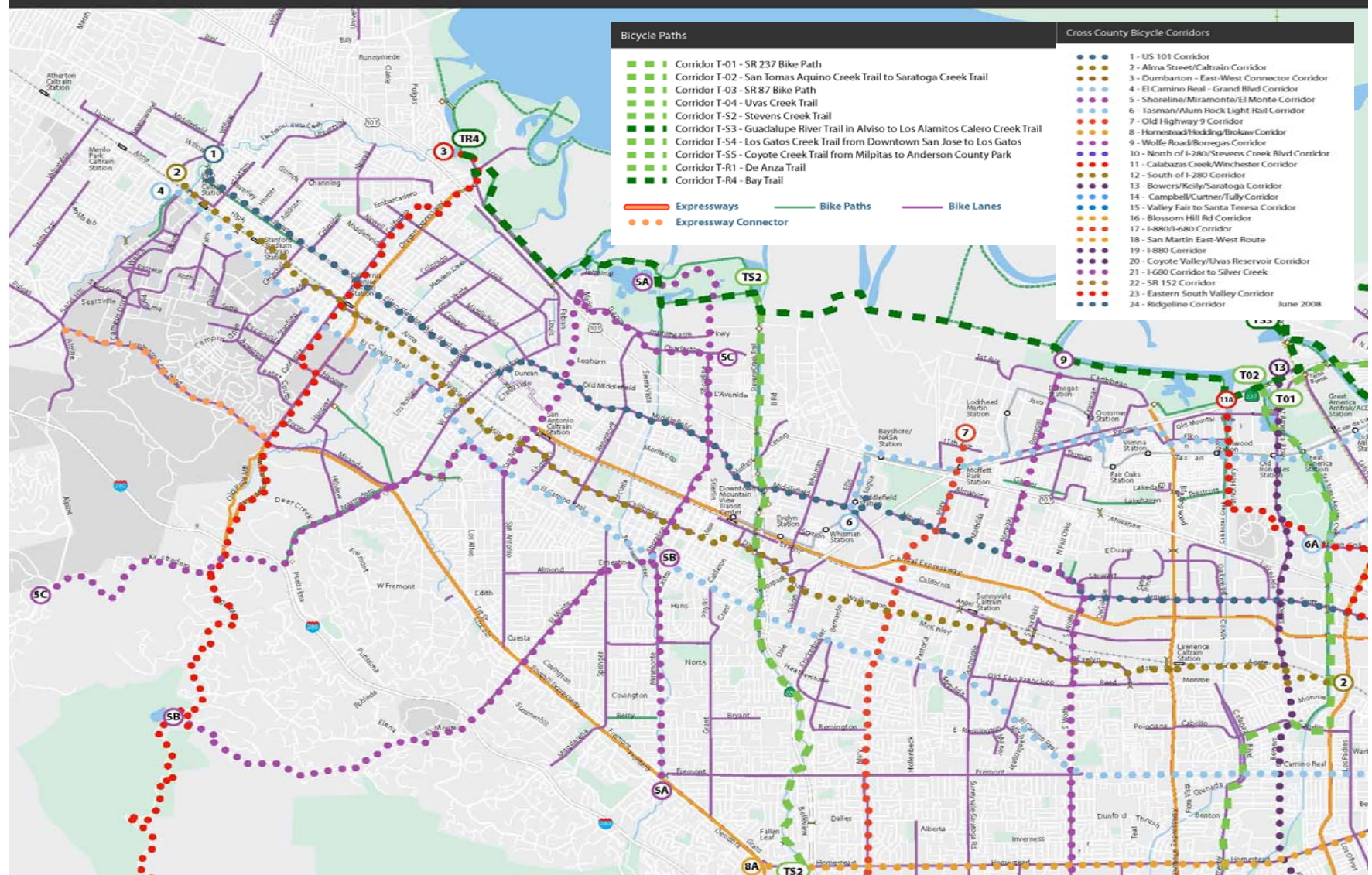


Figure 3-2 Cross County Bicycle Corridors - Northeast County

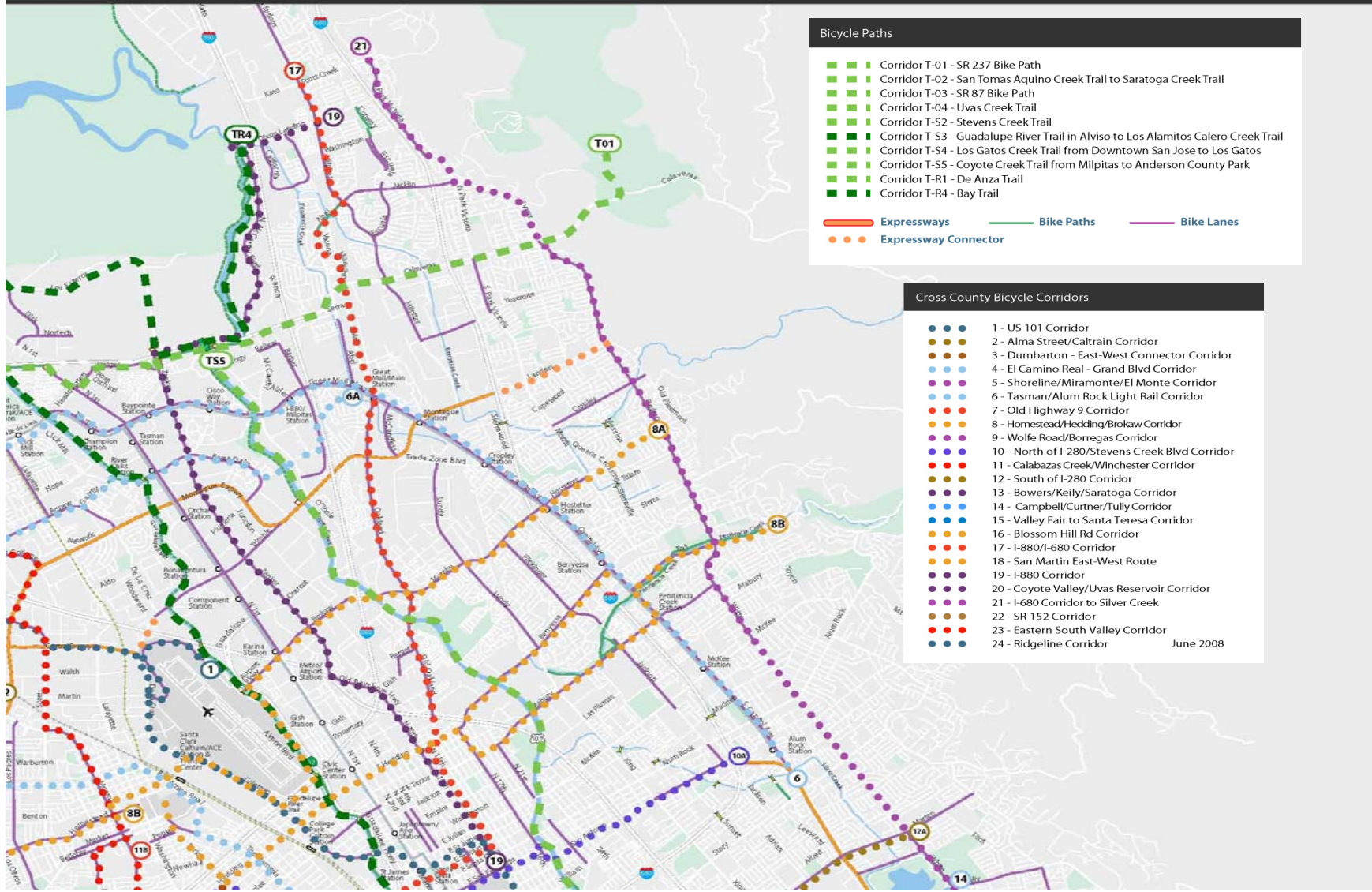
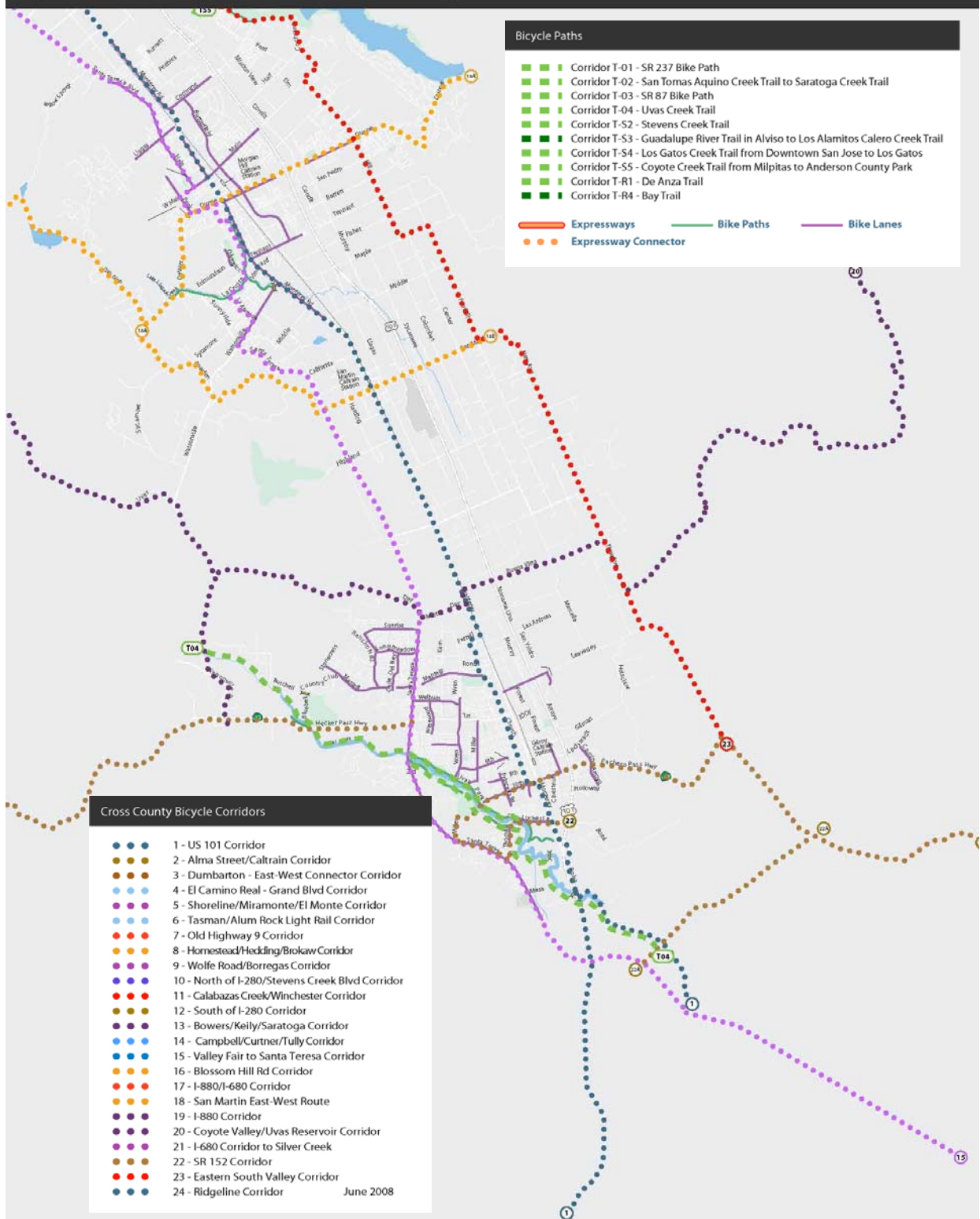


Figure 3-2 Cross County Bicycle Corridors - South County



BIKEWAY PROJECTS PLANNING METHODOLOGY

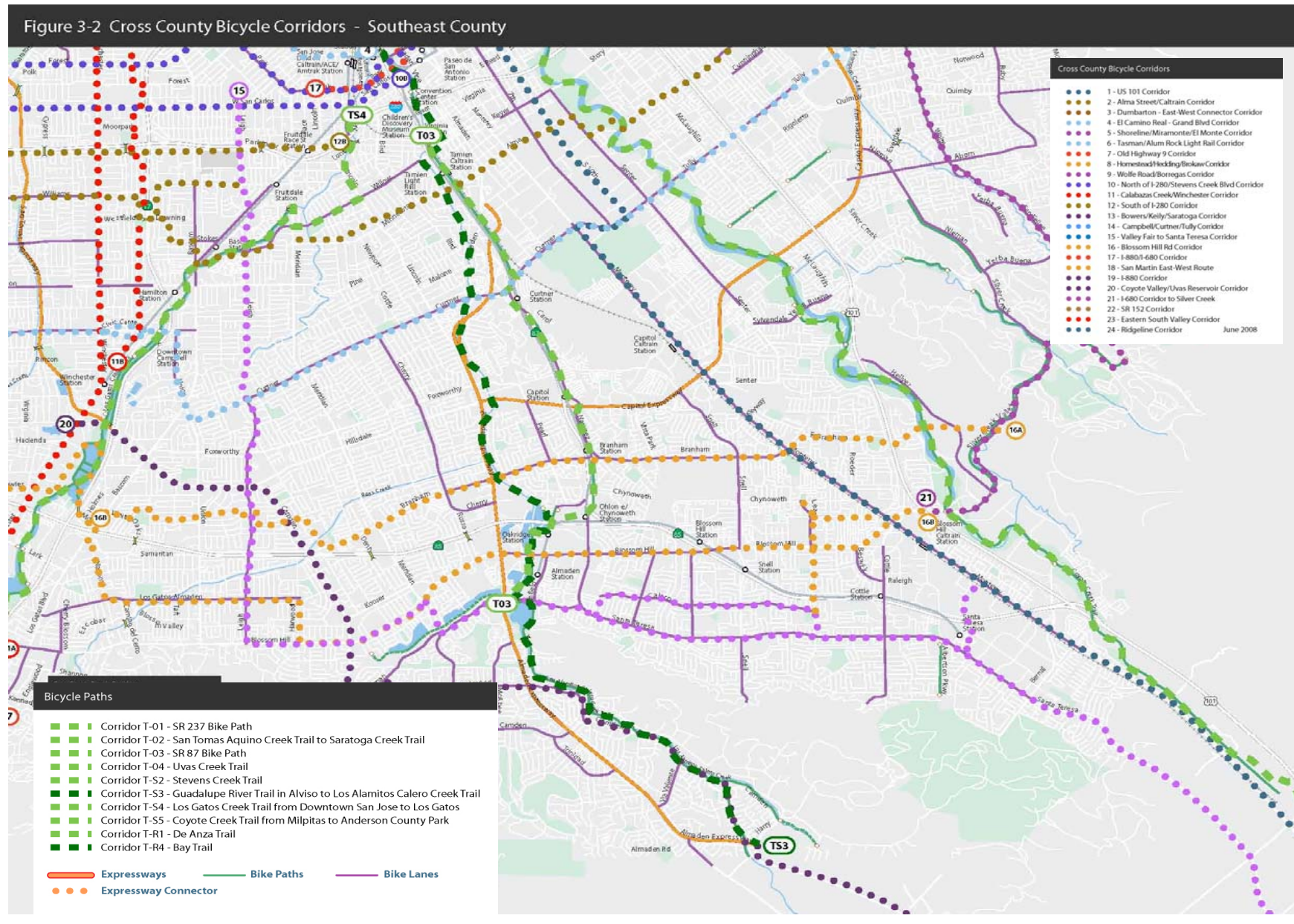
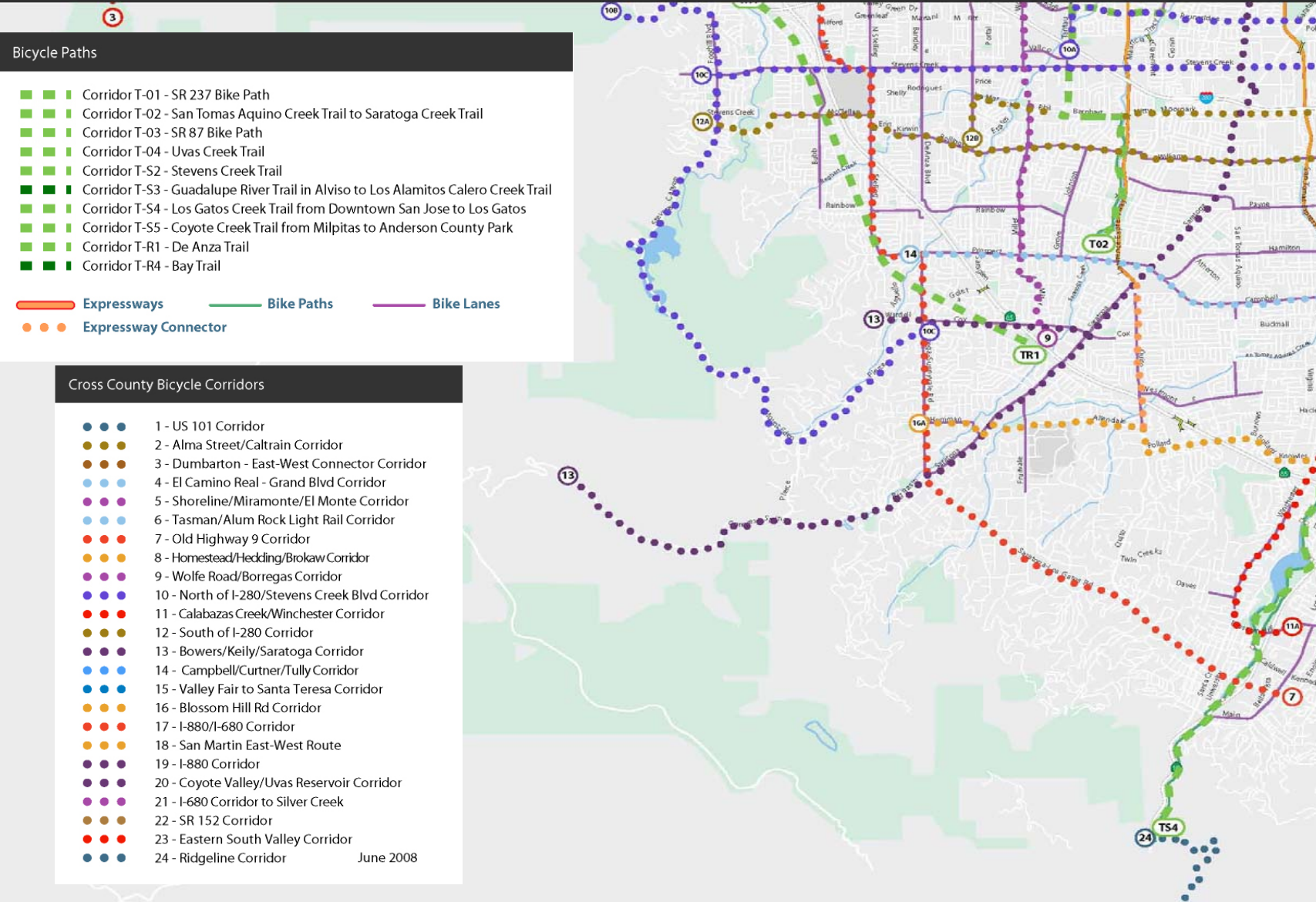


Figure 3-2 Cross County Bicycle Corridors - Southwest County



Cross County Bicycle Corridors and the County Expressway System

The CCBC incorporates the entire County expressway system. The expressways are attractive to some bicyclists for the same reason that expressways provide better service to motorists: they are direct and continuous, have very few driveways and intersections are spaced widely apart, reducing over all travel time. In addition, they almost all have 8-foot shoulders, which are very suitable for experienced bicyclists. Sometimes expressways end abruptly from a bicyclist's point of view. So in most cases, we have included a local roadway as a connector road to and from the expressways from other CCBC's to provide better connectivity for bicyclists. The expressways are depicted in Figure 3-2 as solid lines, while the connector roadways are indicated in dotted lines of the same color.

Table 3-2: Cross County Bicycle Corridors –
County Expressway System

| Number | Name of Expressway | Roadway Connector |
|---|-------------------------------|--------------------------|
| X-G02 | Lawrence Expressway | Quito Road |
| X-G03 | Oregon/Page Mill Expressway | Page Mill Road |
| X-G04 | Montague/San Tomas Expressway | Landess Avenue |
| X-G05 | Foothill Expressway | Junipero Serra |
| X-G06 | Central Expressway | De La Cruz Blvd. |
| X-G08 | Almaden Expressway | Vine St /Almaden Av |
| X-G21 | Capitol Expressway | E. San Antonio St. |
| Note: The number beginning with G is the official County route number used by the Santa Clara County Roads and Airports Department. | | |

Cross County Bicycle Corridors and Regional Trails

Regional trails, those that cross city and/or county lines or serve major destinations, provide significant transportation benefits to bicyclists. When trails have no or few at-grade crossings with roads, they function almost as bicycle freeways where travel is uninterrupted by stop signs and traffic signals.

The CCBC incorporates all 13 trails from the County's Trails Master Plan(CTMP) that are designated regional and subregional; most of the significant trails planned and constructed in the last decade, whether by the County or by cities, fall into one of these categories. The CCBC's also include four other bike paths of regional significance including two trails in freeway rights-of-way.

The CTMP's trails include both trails within urban / developed area of the County and in the hills surrounding the valley. It should be recognized that the CTMP is a very long range document; some trails are at a very conceptual stage and do not even have an identified alignment. These are mostly the trails in the unincorporated and undeveloped parts of the county where due to topography and grade, the trail would typically not be constructed as a class 1 Bike Path but as a single track trail on which bikes are allowed, They are cited here since they are contained the County Parks Trails Master Plan, but the alignment is not indicated on Figure 3-2.

As shown in Table 3-3, the trails cross jurisdictional lines and the same trail may have many different managers. The many trail operators involved in the management and operation of these trails have resulted in inconsistent “hours of operation” for bike paths; the same trail can have up to four different “operating hours” as it traverses four different agencies’ boundaries. This is counterproductive to the role that bike paths play in the transportation network. VTA views bike paths as part of an integrated, multimodal, countywide and regional transportation system consistent with the TEA-21 federal mandate “to develop transportation facilities that will function as an intermodal transportation system”. As such, VTA is committed to working with trail managers in order to provide a consistent operation policy countywide so that bicycle commuters will be able to use bike paths as freely as they can bike lanes and bike routes. For more discussion, see VTA’s *Bicycle Technical Guidelines*, Chapter 9.

Table 3-3: Cross County Bicycle Corridors – Bike Paths/Trails
(Existing and/or Proposed)

| Number | Trail Name | Responsible Agency | Phase Status |
|----------|---|--|---|
| T01 | Highway 237 Trail | Caltrans / City of San Jose | Open |
| T02/T-C5 | San Tomas Aquino Creek Trail | Santa Clara, San Jose, Cupertino | Varies from Open to under design |
| T03 | Highway 87 Trail | Caltrans/ City of San Jose | Open |
| T04 | Uvas Creek Trail | Gilroy, Santa Clara County | Open to Under Design |
| T-R1 | Anza National Historic Trail (Planning assistance from the National Park Service) | To be determined (City of Saratoga’s De Anza Trail on PGE right of way could be added as a segment of this trail). | Open: 99 miles; Conceptual project: 113 miles |
| T-R2 | Monterey-Yosemite State* Trail | Santa Clara County, San Benito County | Conceptual project (30 miles) |
| T-R3 | Benito-Clara Trail * | Morgan Hill, Santa Clara County, Gilroy, CA State Parks | Conceptual project (59 miles) |
| T-R4 | Bay Trail (Planning assistance from ABAG) | Palo Alto, Mt View, Sunnyvale, CalTrans, USFWS, San Jose, Milpitas | Varies from Open to Conceptual project |
| T-R5 | Bay Area Ridge Trail* | To be determined | Open 74 miles; Conceptual project: 121 miles |
| T-S1 | Matadero Creek/Page Mill Trail * | Palo Alto, Los Altos Hills, Stanford University, MROSD | varies from Open to Conceptual project (11.5 miles) |
| T-S2 | Stevens Creek Trail | Mountain View, Sunnyvale, Los Altos, Cupertino, MROSD, Santa Clara County | Varies from Open to under design |
| T-S3 | Guadalupe River/Los Alamitos Creek/Calero Creek Trail System | San Jose, Santa Clara, Santa Clara County | Varies from Open to Conceptual project |
| T-S4 | Los Gatos Creek Trail | San Jose, Campbell, Los Gatos, County | Varies from Open to Conceptual project |

| Number | Trail Name | Responsible Agency | Phase Status |
|--|---------------------------------------|--|--|
| T-S5 | Coyote Creek Trail/Llagas Creek Trail | Milpitas, San Jose, Gilroy, Santa Clara County, Morgan Hill, SCVWD | Varies from Open to Conceptual project |
| T-S6 | West Valley Trail* | Gilroy, City of San Jose, Santa Clara County | Varies from Open to Conceptual project |
| T-S7 | Morgan Hill Cross-Valley Trail * | Santa Clara County, Morgan Hill | Conceptual project (11 miles) |
| T-S8 | San Martin Cross-Valley Trail* | Santa Clara County | Conceptual project (2.6 miles) |
| <p>*Trail alignment not shown on Figure 3-2 Trail numbers with an R, S or C reflect the trail number in the Santa Clara County Parks and Recreation Department <i>Trails Master Plan</i>, 1995 Phase Status - see Figure 3-1 for an explanation of these terms</p> | | | |

CROSS COUNTY BICYCLE CORRIDOR PROJECTS

The general types of projects needed to fully complete the CCBC network have been categorized as follows; the specific projects by location are presented in Chapter 4.

1. New Bike Path Construction or paving of existing gravel path
2. Across Barrier Connection (ABC) for bicycles and pedestrians. These can be either bridges/overcrossings or tunnels/undercrossings (or, at railroad tracks, at-grade crossings).
3. Bike Lanes, ideally.
4. Redesign Freeway Interchange to be bike- friendly.
5. New road with bike lanes.
6. Improvement needed for existing facility – exact improvement varies. These may include any or all of the bike-friendly treatments described in the VTA Bicycle Technical Guidelines Chapters 3, 5 and 6 such as restriping for wider curb lanes, signal timing and detection, and right-turn modifications.
7. Signing as bike route; traffic calming if necessary.
8. Bicycle Boulevard, improvements vary; see VTA Bicycle Technical Guidelines Chapter 8.
9. Shoulders - widening and/or restriping to two feet in width
10. Shoulders - widening and/or restriping to four to eight feet in width
11. Expressway, exact improvement varies; see Santa Clara County Expressway Master Plan, Bicycle Element.

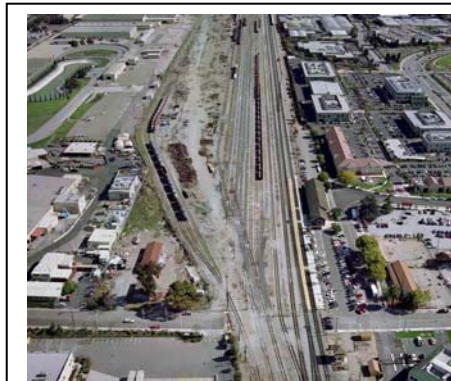
TRANSIT STATION ACCESS PROJECTS

Since the 2000 Countywide Bicycle Plan, there has been an emphasis on Safe Routes to Transit and Livable Communities in transportation funding priorities. Since VTA is the County's transit operator, it makes good planning sense for VTA to help plan for safe and convenient routes to the major transit centers it operates. Projects are potentially eligible for the Safe Routes to Transit grants managed by MTC on behalf of Regional Measure 2. A ready list of projects will put VTA and Member Agencies in a better position to apply to future Call for Projects. The projects that improve bike access to

VTA transit centers; Caltrain, ACE or Amtrak stations; and/or light rail stations that were submitted by Member Agencies are presented in Chapter 4.

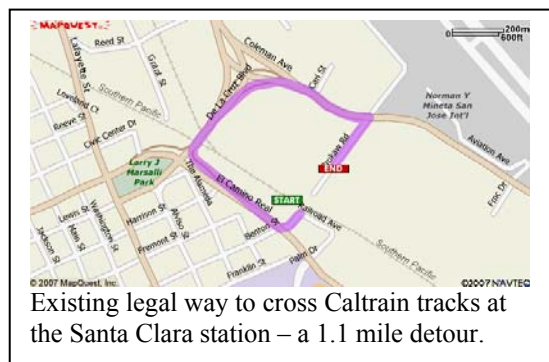
ACROSS BARRIER CONNECTIONS (ABC'S) AND ROADWAY CROSSINGS INVENTORY

One of the concepts of Livable Communities is to de-emphasize travel by auto in favor of quieter, less polluting modes such as walking and biking. Chapter 2 described and Figure 2-1 illustrated how freeways, rivers, creeks and railroad tracks crisscross the county creating impermeable barriers for pedestrians and bicyclists. Even when roadways cross these barriers, they are often inadequate or have no accommodations for bicycles (bike lanes or shoulders) and/or pedestrians (sidewalks).



Discontinuous Brokaw Rd resulting in 1.6 miles between crossings of the train tracks.

By providing connections across the major barriers in the county, walking and biking distances can be reduced dramatically, thereby increasing their feasibility for more types of trips. Fully one-fourth of the bicycle-project-wish-list compiled by the Silicon Valley Bicycle Coalition is comprised of overcrossings (bridges) or undercrossings (tunnels). To assess the extent to which these barriers restrict nonmotorized mobility, VTA and Member Agencies conducted an inventory of every



Existing legal way to cross Caltrain tracks at the Santa Clara station – a 1.1 mile detour.

freeway, waterway and railroad crossing in the developed parts of the County i.e. all bridges, tunnels and at-grade rail crossings for both motor vehicles and for nonmotorized users. The inventory consisted of jurisdiction, location, spacing, width, and if a roadway crossing, presence of bike lanes or shoulders between crossings. The non motorized crossings are referred to collectively as Across Barrier Connections (ABCs).

Phase 1 - Inventory of Bike/Pedestrian Across Barrier Connections (ABC's)

There are currently 92 ABC's in Santa Clara County: 32 at freeways, 16 bike/ped crossings of Caltrain or UPRR tracks, (of which 13 are grade-separated and three are at-grade), and 44 ped/bike bridges over creeks and rivers. The 32 freeway ABC's includes the three that are currently under construction at 280/Mary Ave, 101/ Borregas and 237/Borregas. Of these 92, two are considered obsolete and need replacing, both in Palo Alto: the Caltrain tracks undercrossing at California Ave which does not meet

ADA accessibility guidelines, and the US 101 under-crossing near Adobe Creek, which is closed due to flooding in the winter. This data is summarized in Table 3-4.

Phase 2 - Inventory of Roadway Crossings

The presence or absence of bike lanes, shoulders and sidewalks on the arterial and collector roadways was identified with the help of city staff and BPAC members. If an arterial or collector roadway has a bike lane or wide shoulder (4 ft. or wider), it was considered to have adequate bicycle provisions. If it did not, it was rated as having inadequate bike provisions. All local roadways (i.e. not an arterial or collector), all pedestrian/bike-only bridges/tunnels, and all pedestrian/bike-only at-grade crossings were considered adequate by definition. As presented in Table 3-4, there are 44 adequate roadway crossings of freeways, 127 adequate roadway crossings of railroad tracks, and 259 adequate roadway crossings of creeks. Of the 197 inadequate roadway crossings i.e. without bike lanes or shoulders, 94 are roadway crossings of freeways (both at and not at interchanges), 32 are roadway crossings of railroad tracks (both at-grade and grade-separated) and 71 are roadway bridges over creeks. These are discussed further as potential projects in Chapter 4.

Existing Railroad At-grade Crossings

In 2007 as a separate effort under the rail program, VTA conducted a study of all existing roadway and pedestrian at-grade crossings of the Caltrain tracks in Santa Clara County. This analysis identified short-term feasible pedestrian and bike safety improvements; these projects are being funded over the next five years (2008-2013) under a separate VTA program.

Phase 3 - Identification of Gaps

The third phase of the inventory was to identify gaps of a mile or more between existing crossings (adequate and inadequate). Those segments that lack adjacent land uses of sufficient density (either existing or planned) and therefore have low potential for latent demand for crossing were filtered out, (for example across I-280 in Los Altos Hills). All remaining locations were considered potential crossing locations, and indeed many of these are the sites of ABCs in some level of project development. A summary of these 109 locations is presented in Table 3-4, and specific project locations are discussed further in Chapter 4.

Table 3-4: Summary of Bike Access Across Major Barriers

| Barrier | # of Existing ABC's | Roadway Crossings (includes freeway interchanges) | | # of Planned or Potential ABC's | |
|-------------------------------|---|--|------------------------------------|---------------------------------|----------------|
| | | # of Existing Adequate Crossings | # of Existing Inadequate Crossings | # of Gaps | Other |
| I-280 | 5 (includes Mary Ave under construction) | 12 | 17 | 4 | |
| I-680 | 4 | 2 | 7 | 2 | |
| I-880 | 1 | 0 | 10 | 4 | |
| SR 17 | 4 | 2 | 4 | 3 | |
| SR 237 | 1 (includes Borregas Ave under construction) | 4 | 5 | 4 | |
| SR 85 | 10 | 9 | 10 | 4 | |
| SR 87 | 0 | 4 | 17 | 1 | |
| US 101 | 7 ¹ (includes Borregas Ave under construction) | 11 | 22 | 20 | 1 ¹ |
| SUBTOTAL (freeways) | 32 | 44 | 94 | 42 | 1 |
| Caltrain tracks | 14 ¹ | 44 | 21 | 20 | 2 ¹ |
| UP/ ACE Tracks | 2 | 83 | 11 | 8 | |
| SUBTOTAL (rail tracks) | 16 | 127 | 32 | 28 | 2 |
| Coyote Creek | 3 | 6 | 5 | 8 | |
| Guadalupe River | 2 | 18 | 4 | 3 | |
| Saratoga Creek | 2 | 15 | 6 | 0 | |
| Los Gatos Creek | 5 | 15 | 9 | 3 | |
| San Tomas Aquino Creek | 7 | 18 | 4 | 1 | |
| Stevens Creek | 3 | 6 | 0 | 3 | |
| Llagas Creek | 0 | 7 | 1 | 8 | |
| Uvas Creek | 0 | 1 | 5 | 6 | |
| Other Creeks ² | 22 | 173 | 37 | 7 | |
| SUBTOTAL (creeks) | 44 | 259 | 71 | 39 | 0 |
| TOTAL | 92 | 430 | 197 | 109 | 3 |

Table 3-4: Summary of Bike Access Across Major Barriers

NOTES :

ABC = Across Barrier Connection: a bike/ped only bridge/ tunnel of a freeway, creek or railroad, or an at-grade pedestrian crossing of railroad tracks.

Roadway Crossing = that portion of a roadway that crosses over or under a freeway, railroad or waterway, (i.e. the grade-separated part of the roadway); or the at-grade crossing of railroad tracks.

Adequate Roadway Crossing = a roadway is considered to provide adequate bike access if it is a collector or arterial roadway and it has bike lanes or wide shoulders or it is a local road with traffic low volumes.

Inadequate Roadway Crossing = a roadway is considered to provide inadequate bike access if it is a collector or arterial and does not have bike lane or wide shoulders.

Planned or Potential ABC = Large Gap (≥ 0.9 mile) between existing barrier crossings

Note ¹: Includes one existing ABC that is obsolete and needs replacing; See discussion on page 3-15.

Note ²: Includes: Adobe Creek, Berryessa Creek, Calabazas Creek, Calera Creek, Hale Creek, Little Llagas Creek, Los Alamos Creek, Matadero Creek, Penitencia Creek, Permanente Creek, Ross Creek, San Francisquito Creek, Silver Creek, and Thompson Creek



**Homer Avenue Undercrossing of Caltrain in Palo Alto
Opened 2005**