

Solano Transportation
Authority

**North Connector
Corridor Transportation
for Livable
Communities Concept
Plan**

Concept Plan

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July 2008

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It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party

Job number 131544

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1 Background

The Solano Transportation Authority (STA) initiated the North Connector Corridor Transportation for Livable Communities (TLC) Concept Plan, in partnership with staff at Solano County and the City of Fairfield, to comprehensively address the multi-modal opportunities along the North Connector corridor by identifying improvements to bicycle, pedestrian, and transit facilities. Using the planned North Connector roadway project as a catalyst, the Concept Plan examined the North Connector from a corridor-wide perspective, including existing roadways, existing multi-modal (bicycle, pedestrian, transit) networks, and future land uses in addition to the proposed roadway project. This approach helped STA and stakeholder agencies look beyond jurisdictional boundaries to create a cohesive vision for the corridor as represented in this Concept Plan. To help support and illustrate the vision, this Concept Plan contains a set of potential projects. The projects are conceptual; each project needs further study into such factors as alignment, detailed design, and cost before it can be implemented.

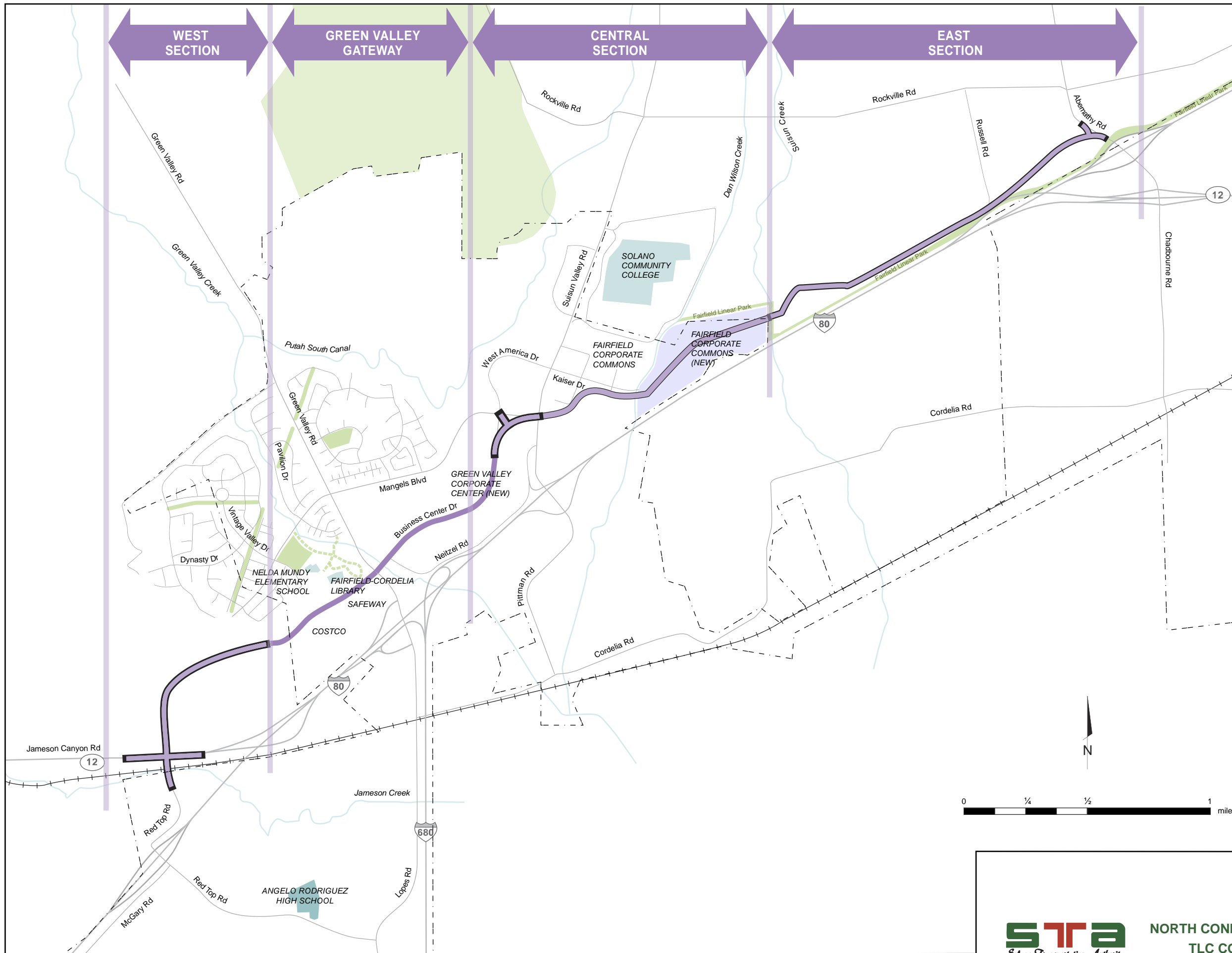
1.1 Corridor Description

The North Connector TLC Corridor (Corridor) is generally bounded by Interstate 80 (I-80) and State Route 12 along the south, Rockville Road to the north, Abernathy Road to the east, and Red Top Road to the west. The Corridor covers existing roadways, paths, and transit routes and the future North Connector.

The North Connector Corridor is comprised of four segments: the East Section, Central Section, Green Valley Gateway, and the West Section.

- The East Section starts at the intersection of Abernathy Road and the Fairfield Linear Park (bikeway) just north of I-80, and ends at Suisun Creek;
- The Central Section picks up at Suisun Creek and continues west just past the intersection of Business Center Drive and Mangels Boulevard;
- The Green Valley Gateway continues west from near the intersection of Mangels Boulevard and Business Center Drive to the existing terminus of Business Center Drive west of Green Valley Road; and
- The West section starts near the existing western terminus of Business Center Drive and continues to the intersection of State Route 12 and Red Top Road.

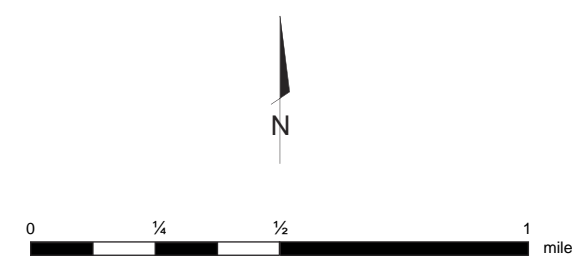
The following figure provides an overview of the Corridor and shows how it is divided into four segments.



WEST SECTION GREEN VALLEY GATEWAY CENTRAL SECTION EAST SECTION

Legend

- Freeway/Highway
- Arterial Street
- Collector Street
- Proposed North Connector
- Existing North Connector
- Creeks
- Parks
- Railways
- City/County Boundary



Corridor Overview



NORTH CONNECTOR CORRIDOR
TLC CONCEPT PLAN



Relationship to the North Connector Roadway Project

From a regional perspective, major road and rail corridors crisscross Solano County, connecting Solano County and the San Francisco Bay Area to points in the east. Within Solano County, state and federal highways/freeways serve as a primary local artery while also serving the needs of commuters, regional through-traffic, goods movement, and intercity and recreational travel. One of the most important interchanges in the county is at the junction of State Route 12, Interstate 80, and Interstate 680. Traffic volumes at this junction exceed available capacity, and few local road alternatives exist to provide relief or other alternatives to the Solano County community.

Separate North Connector roadway projects are currently in various stages of completion and act as a catalyst for examining the multi-modal opportunities in the North Connector Corridor. The roadway projects are intended to provide congestion relief at this junction and give residents a local travel alternative between downtown Fairfield, Suisun, Suisun Valley, and Green Valley, other than using I-80 for these local trips. The roadway project consists of three discrete segments between Abernathy Road in the east and Red Top Road in the west. These segments would link with the existing segment of Business Center Drive in Fairfield to create a continuous local through route parallel to I-80. The projects have undergone preliminary engineering and are currently in the environmental clearance process or under construction.

As part of the comprehensive planning approach taken to develop the North Connector Corridor TLC Concept Plan, the potential opportunities presented by the North Connector roadway project are included in this plan. However, other multi-modal projects in the wider study area have also been recommended that are not contingent upon construction of the roadway project.

1.2 Goals and Objectives

Goals are broad-reaching, inspirational statements setting the overall tone and direction of the project. Objectives are listed under each goal. Objectives are specific actions intended to support each goal and help measure performance of the Concept Plan in achieving the goals. The following goals and objectives were developed with input from STA, Solano County, the City of Fairfield, citizen advisory stakeholder committees, the Bicycle Advisory Committee and the Pedestrian Advisory Committee.

1. Develop a unifying but flexible design theme for the corridor.
 - Define common elements across all corridor segments but also identify attributes unique to each by considering existing and future land uses, character of the built environment, and function throughout the corridor;
 - Develop streetscape concepts appropriate to each segment, incorporating signage, lighting, wayfinding elements, and landscaping recommendations; and
 - Identify suitable locations for gateways.
2. Engage the community in a meaningful dialogue about design, access, and connectivity opportunities along the North Connector.
 - Host community-based workshops to discuss design opportunities;
 - Listen and learn from community feedback; and
 - Incorporate community feedback into design approach.

3. Enhance the multi-modal function of the corridor.

- Improve existing and future connections between neighborhoods and bicycle, pedestrian, and transit networks linked to the corridor;
- Enhance intersections to improve bicycle and pedestrian crossing safety, comfort and convenience;
- Develop pedestrian and bicycle networks suitable for different types of users;
- Identify locations for local bus transit, intercity bus transit stops and supporting facilities; and
- Enhance site plans to facilitate circulation along the corridor.

2 Project Process and Community Involvement

The Concept Plan process was intentionally collaborative, structured around participation by two STA committees, staff from three agencies, and community members. Specifically, the major steps in the planning process are outlined below:

- December, 2006: Held project kick-off meeting with Agency Working Group;
- January, 2007: Developed goals and objectives;
- February, March, April 2007: Bicycle Advisory Committee, Pedestrian Advisory Committee, Agency Working Group reviewed existing conditions, goals and objectives, and project opportunities;
- May 2007: Held Public Input Workshop at Nelda Mundy Elementary School;
- June 2007: Developed Draft Concept Plan;
- July, August 2007: Agency Working Group, Bicycle Advisory Committee, Pedestrian Advisory Committee, STA Technical Advisory Committee reviewed draft plan;
- September 2007: Draft Concept Plan presented to STA Board; and
- October 2007: STA Board adopts Final Concept Plan.

The following sections describe the stakeholder groups that contributed to the formulation of the Concept Plan.

2.1 Agency Working Group

The Agency Working Group consisted of planning, public works and transit staff members from each of three agencies:

- Solano Transportation Authority (STA);
- Solano County; and
- City of Fairfield.

STA was the lead agency. This Agency Working Group met three times from the inception of the project, providing advice and input at key points during the planning process.

2.2 STA Bicycle Advisory Committee and Pedestrian Advisory Committee

STA convened a special joint meeting of the Bicycle Advisory Committee (BAC) and Pedestrian Advisory Committee (PAC) on March 8, 2007 to review the work to date on the project. The STA BAC and PAC each consist of residents, community leaders and advocacy groups from each city and the county of Solano. At the joint meeting, corridor opportunities and constraints and potential project opportunities were presented to the joint committees for feedback and direction. In addition to providing input about the multimodal corridor opportunities and constraints, the joint BAC/PAC also provided input on design features that could be applied to improve conditions in the North Connector corridor.

2.3 Public Input Workshop

A Public Workshop was held on May 10, 2007 at Nelda Mundy School in the City of Fairfield, where opportunities and constraints for bicycling, walking, and transit were presented and project proposals were shared with local community members and concerned residents. The number of attending community members was small enough where staff could facilitate a group discussion focused around the series of poster boards illustrating the project proposals.

2.4 Input and Review of Draft Concept Plan

The final step in the planning process involved the development of the North Connector Corridor TLC Concept Plan. This Concept Plan summarized the work to date and posited a set of project recommendations. At the time of writing, a final round of review was planned before adoption of the Concept Plan by the STA Board. These reviews included:

- Agency Working Group: late June 2007
- Bicycle Advisory Committee: July 2007
- Pedestrian Advisory Committee: July 2007
- Solano County Planning Director: August 2007
- STA Technical Advisory Committee: August 2007

The Draft Concept Plan was refined at several points during the final round of reviews. The result was the Final Concept Plan submitted for adoption by the STA Board in October 2007.

3 Existing Conditions

In the initial stage of plan development, an assessment was made of each of the four defined corridor segments. The assessment described each segment in terms of existing land uses, roadways, transit service, and bicycle and pedestrian facilities. The corridor was also examined for specific constraints and opportunities that could affect multi-modal transportation within each segment. Many of the opportunities became the basis for the projects recommended later in this plan. The four sections below present the information from the assessment for each corridor segment.

3.1 East Section Conditions

This chapter describes the East Section and discusses opportunities and constraints that have been identified to date.

3.1.1 Section Description

Land Uses

The East Section, defined as the area north of I-80 between Abernathy Road and Suisun Creek, is largely comprised of land in agricultural production and, with a number of parcels under Williamson Act contracts, will remain so for the foreseeable future.

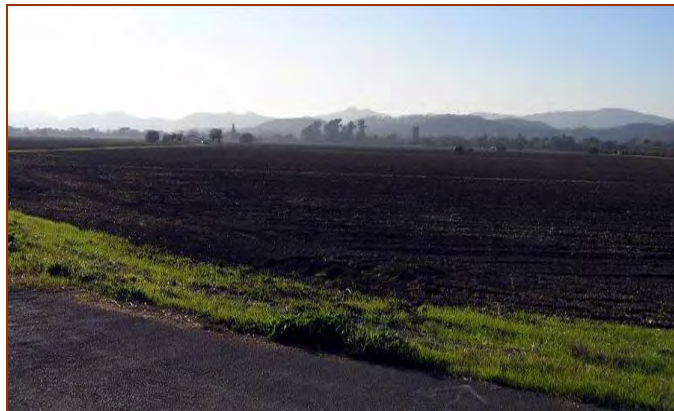


Photo: Agricultural land near Russell Road

Roadways

Abernathy Road is the primary north-south road in the area, and it intersects with Rockville Road to the north at a traffic circle, crosses south over I-80, and then crosses under SR-12. Abernathy Road has on-ramps and off-ramps to and from I-80 in both directions as well as access to and from SR-12 in both directions. Rockville Road is the primary existing east-west local route north of I-80 and starts from West Texas Street in Fairfield, goes west past Abernathy Road and Suisun Valley Road, and ends past Green Valley Road.



Photo: Abernathy Road

Transit Service

The Fairfield Transportation Center (FTC) is located near the intersection of West Texas Street and I-80 and is a major hub for intercity and local transit routes. Fairfield and Suisun Transit (FAST) Route 7 traverses through the area. After stopping at the FTC and traveling through the Solano Business Park, Route 7 travels north on Abernathy Road past SR-12 and I-80, and turns west onto Rockville Road to Suisun Valley Road to serve Solano Community College. Intercity bus routes serving Vallejo, El Cerrito, Benicia, and Pleasant Hill / Walnut Creek use I-80 to get to the FTC but do not stop within the East Section.

Bicycle and Pedestrian Facilities

The Fairfield Linear Park is a corridor with a paved trail that is parallel and adjacent to I-80 through the East Section. The Linear Park starts in northeast Fairfield, traverses downtown, and joins I-80 near Rockville Road. It passes underneath Abernathy Road, parallels I-80, then turns north off of I-80 to parallel Suisun Creek, after which it goes west to connect to Solano Community College, where it ends. There is an access point to the Linear Park at Russell Road; otherwise it is separated from other roadways by elevation or by fencing.

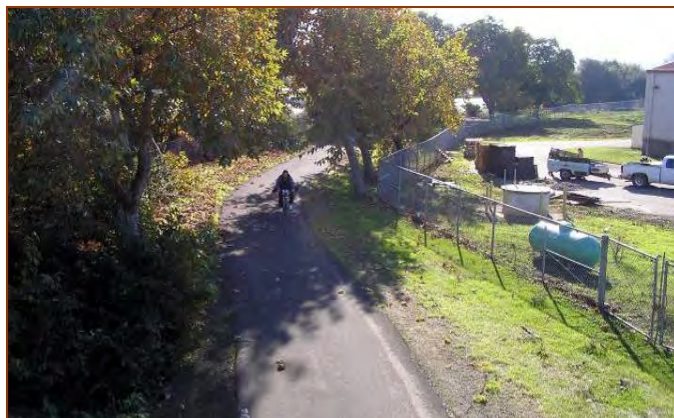


Photo: Fairfield Linear Park

3.1.2 Opportunities

This section lists specific opportunities that have been identified to date based on plan reviews, conversations with stakeholders, site visits, and public comments.

- The multi-use trail between Abernathy Road and Suisun Creek will be relocated to the north side of the proposed North Connector project in this section. The multi-use trail will cross Suisun Creek on the new bridge constructed as part of the North Connector project;
- The Abernathy Road intersection will likely have a traffic signal, providing a crossing opportunity;
- Limited retail/produce/wine land use is allowed near intersection of North Connector project and Abernathy Road; and
- There may be enough space in the North Connector alignment to allow for bicyclists on the roadway shoulders in addition to one multi-use path.

3.1.3 Constraints

This section lists specific constraints that have been identified to date based on plan reviews, conversations with stakeholders, site visits, and public comments.

- There do not appear to be any major constraints in this section.

3.2 Central Section Conditions

This chapter describes the Central Section and discusses opportunities and constraints that have been identified to date.

3.2.1 Section Description

Land Uses

The Central Section, bounded by Suisun Creek in the east, the intersection of Mangels Boulevard and Business Center Drive to the west, and I-80 to the south and Rockville Road to the north is an area seeing substantial development. The primary existing land uses include Solano Community College (SCC) and the Fairfield Corporate Commons business park which are both adjacent to the east side of Suisun Valley Road. West of SCC across Green Valley Road is a new 136-unit residential subdivision under construction called Turnstone. South of SCC and east to Suisun Creek, Fairfield Corporate Commons is being expanded to include a mixed-use development. Already approved by the City of Fairfield, this development will include an extension of Business Center Drive, as part of the North Connector from Suisun Valley Road to Suisun Creek. South of the new roadway will be corporate office buildings; north of the roadway will be attached single-family residential dwellings. The Fairfield Linear Park multi-use path abuts the property on its east and north sides.



Photo: Solano Community College

Roadways

Suisun Valley Road is the primary north-south road in this section. It intersects Rockville Road in the north, and, provides access to Solano Community College, Fairfield Corporate Commons (Kaiser Drive) and West America Drive to the south. It also intersects Mangels Boulevard / Business Center Drive, Neitzel Road, and finally crosses over I-80. Road characteristics are as follows:

- Suisun Valley Road has connecting off-ramps from I-80 and has an on-ramp in the eastbound direction; it lacks a westbound on-ramp to I-80;
- West America Drive is an extension of Kaiser Drive west of Suisun Valley Road; it loops to the west and south to intersect with Mangels Boulevard. On the south side of Mangels Boulevard, West America Drive becomes Business Center Drive;
- Mangels Boulevard is an east-west arterial-sized roadway that connects from Suisun Valley Road west to Green Valley Road and beyond;
- Business Center Drive intersects Mangels Boulevard west of Suisun Valley Road. As part of the North Connector project it will be realigned to connect to Suisun Valley Road at the Mangels Boulevard intersection. Mangels Boulevard will also be realigned to a “Tee” intersection with West America Drive; and
- Neitzel Road is an east-west frontage road that connects from Suisun Valley Road west to the existing segment of Business Center Drive.

Transit Service

Fairfield and Suisun Transit (FAST) Route 7 continues from the East Section into the Central Section from Rockville Road. It turns south onto Suisun Valley Road and serves Solano Community College. Solano Community College and the Green Valley Road/Business Center Drive intersection are stops for intercity Route 85, operated by Vallejo Transit, which serves a limited number of stops between the Vallejo Ferry Terminal and the Solano Mall past downtown Fairfield. Route 85, through a timed transfer / fare sharing arrangement with FAST, also serves the Fairfield-Cordelia Library (discussed more in the Green Valley Gateway section below). A total of four bus stops have been incorporated into the Fairfield Corporate Commons conditions of approval along the new segment of Business Center Drive.

Bicycle and Pedestrian Facilities

The Fairfield Linear Park connects to the southeast corner of Solano Community College, near an oval track and baseball field. A wide bridge crosses Dan Wilson Creek to connect the path to the loop road that surrounds the main campus. There are two crosswalks across the loop road to connect to the Fairfield Corporate Commons, though the gated entrances to the business park are reportedly locked on a regular basis.

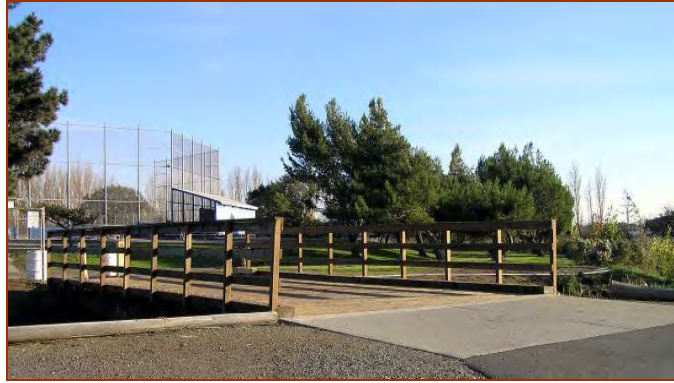


Photo: Bridge over Dan Wilson Creek at Solano Community College

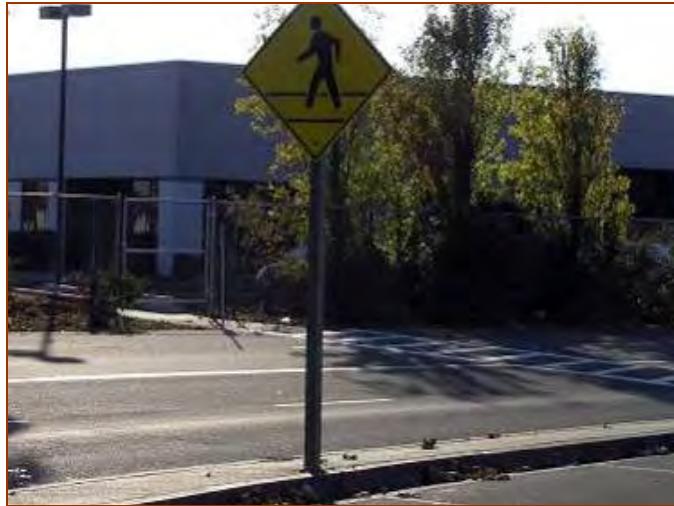


Photo: Pedestrian crossing and gate between Fairfield Commons and Solano Community College

3.2.2 Opportunities

This section lists specific opportunities that have been identified to date based on plan reviews, conversations with stakeholders, site visits, and public comments.

- Homes in the new residential portion of the Fairfield Corporate Commons will potentially have direct access to the Fairfield Linear Park which is adjacent to the site;
- New and existing segments of Business Center Drive have a meandering, 6.5-foot-wide sidewalk along both sides;
- Provided West America Drive has adequate width, it could be restriped to provide Class II bike lanes; and

- Mangels Boulevard is overbuilt / underused and could be restriped to provide Class II bike lanes; Average Daily Trips = 8,000 vehicles.

3.2.3 Constraints

This section lists specific constraints that have been identified to date based on plan reviews, conversations with stakeholders, site visits, and public comments.

- The new development approved by the City of Fairfield lacks Class II bike lanes along Business Center Drive (the rightmost lane on each side is 14 feet wide);
- Mangels Boulevard does not have bike lanes; and
- Suisun Valley Road does not have an on-ramp to westbound I-80, thereby funneling local traffic onto Mangels Boulevard and Business Center Drive.

3.3 Green Valley Gateway Conditions

This chapter describes the Green Valley Gateway section and discusses opportunities and constraints that have been identified to date.

3.3.1 Section Description

Land Uses

The Green Valley Gateway section continues west from the intersection of Business Center Drive and Mangels Boulevard to the western terminus of Business Center Drive. The land is divided generally into single-family houses north of Mangels Boulevard and business parks south of Mangels Boulevard, including the Green Valley Corporate Center under development. Business Center Drive west of Green Valley Road provides access to commercial uses, including the Green Valley Office Park, which includes the new Fairfield-Cordelia Library; the Green Valley Crossings shopping center (with anchor tenants Safeway and Costco) south of Business Center Drive; another business park to the west of Costco; and vacant land owned by the Fairfield Redevelopment Agency west of the Green Valley Office Park. Nelda Mundy Elementary School, which is south of Mangels Boulevard and abuts the Fairfield-Cordelia Library, serves the new residential subdivisions to the west, north, and east. Rockville Park is a popular mountain biking destination known for its off-road trails. It is bounded on the north by Rockville Road between Suisun Valley Road and Green Valley Road.



Photo: Fairfield-Cordelia Library



Photo: Nelda Mundy School



Photo: Green Valley Crossings Shopping Center

Roadways

Green Valley Road is the primary north-south roadway in this section. From the hills in the north, the road extends south to intersect with Eastridge Drive, Westlake Drive, Mangels Boulevard, and Business Center Drive before it crosses over I-80 and becomes Lopes Road, which continues to Benicia. Detailed road characteristics are as follows:

- Green Valley Road has on-ramps to I-80 in both directions but lacks an off-ramp in the westbound direction. The westbound on-ramp features a 63-space Park-and-Ride lot;
- Mangels Boulevard is one of two major east-west routes, the other being Business Center Drive. Though it was built to serve as a major arterial roadway, with two to three lanes in each direction, Mangels Boulevard currently does not experience such high traffic volumes; and
- Business Center Drive is the other major east-west roadway, and its western terminus now forms the starting point for the extension of the North Connector to

Red Top Road. The roadway is generally two lanes wide in each direction, and has additional turning lanes near intersections. Business Center Drive intersects with Green Valley Road, continues east and north past Neitzel Road, and intersects with Mangels Boulevard just west of Suisun Valley Road. The North Connector project will alter the alignment of the intersection of Mangels Boulevard and Business Center Drive.

Transit Service

FAST currently serves the area via Route 7L to the Fairfield-Cordelia Library. FAST Route 7L consists of a timed transfer / shared fare arrangement with Vallejo Transit, which operates intercity Route 85. Passengers on Route 7 wishing to reach the library transfer to and from a Route 85 / 7L bus at Solano Community College. Route 85 primarily serves intercity passengers between central Fairfield and Vallejo but has stops at the Fairfield-Cordelia Library, Green Valley Road, and Business Center Drive.

Bicycle and Pedestrian Facilities

A number of linear parks grace the Green Valley Gateway. One linear park with a meandering multi-use path appears to follow a utility (PG&E) corridor from Rockville Park in the north, across the Putah South Canal, and through a residential subdivision to intersect with Green Valley Road at Westlake Drive. On the other side of Green Valley Road, the linear park continues in the same diagonal direction, southwest to Baroque Drive. From there, the multi-use path is unpaved as it crosses over Green Valley Creek on a footbridge. At Dynasty Drive, on the other side of the creek, the linear park resumes southwest with a meandering path roughly parallel to Mangels Boulevard. It crosses Vintage Valley Drive and Venus Drive, which are the primary access roads intersecting Mangels Boulevard, and currently terminates near Mangels Boulevard. North of Eastridge Drive, a multi-use path constructed by Solano County runs parallel to Green Valley Road. Between Eastridge Drive and Business Center Drive, Green Valley Road features meandering sidewalks along both sides. When adjacent to residential subdivisions, Mangels Boulevard also has meandering sidewalks along both sides (at time of writing, some gaps with vacant land are still present). South of Mangels Boulevard and just east of Vintage Green Valley Park, an unpaved path connects Mangels Boulevard to the Fairfield-Cordelia Library along the outside perimeter of Nelda Mundy School; this path also connects to a footbridge which leads to homes at the southern end of Baroque Drive.

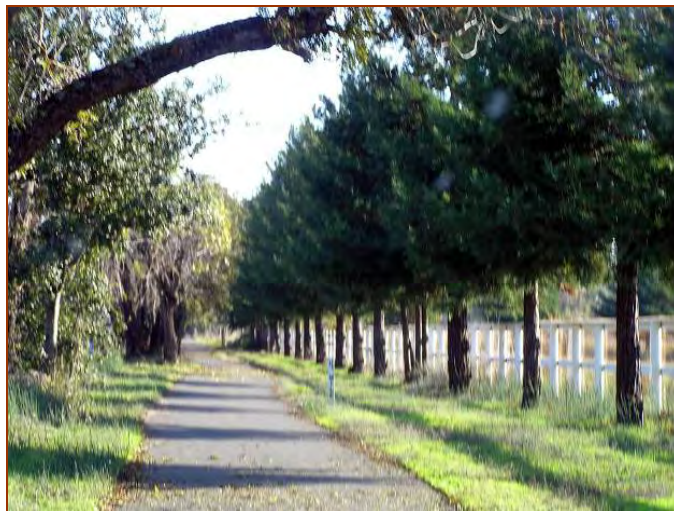


Photo: Paved trail along Green Valley Road

3.3.2 Opportunities

This section lists specific opportunities that have been identified to date based on plan reviews, conversations with stakeholders, site visits, and public comments.

- Green Valley Road north of Business Center Drive has a meandering sidewalk on both sides;
- There is vacant land at the existing terminus of Business Center that could incorporate a path connecting Business Center Drive to the neighborhoods along Mangels Boulevard;
- The newly-constructed gate between Nelda Mundy School and the Fairfield-Cordelia Library provides limited pedestrian and bicycle access between Mangels Boulevard and Business Center Drive;
- Business Center drive is built with a meandering 6-foot-wide sidewalk along both sides; and
- Mangels Boulevard could be restriped to provide Class II bike lanes.

3.3.3 Constraints

This section lists specific constraints that have been identified to date based on plan reviews, conversations with stakeholders, site visits, and public comments.

- Green Valley Road north of Business Center Drive is not wide enough to accommodate bike lanes;
- The Green Valley Road overpass at I-80 is narrow and unsuitable for pedestrian access;
- The busy intersection at Green Valley Road and Business Center Drive requires significant amounts of time to cross;
- The City of Fairfield is investigating widening Business Center Drive to accommodate the amount of traffic congestion at the intersection with Green Valley Road; however, that may further increase the crossing time required for pedestrians; and
- In the area west of Green Valley Road, there are insufficient connections between Mangels Boulevard and Business Center Drive – only one was recently created between the Fairfield-Cordelia Library and Nelda Mundy Elementary School (and access through the school appears to be controlled).

3.4 West Section Conditions

This chapter describes the West Section and discusses opportunities and constraints that have been identified to date.

3.4.1 Section Description

Land Uses

West and south of the existing terminus of Business Center Drive in the West Section, the existing and future land uses are generally agricultural. West of the current City of Fairfield city limits but within the Solano County Urban Growth Boundary, the Fairfield General Plan does allow a mix of land uses along each side of the North Connector alignment, including very low intensity residential development, highway-related commercial uses, and open space (combination of recreational and conservation lands).



Photo: View of land west of the terminus of Business Center Drive

Roadways

The proposed North Connector west segment would extend west from the existing terminus of Business Center Drive and curve south to meet SR-12 at the intersection of Red Top Road, which would be signalized. From there, Red Top Road would continue on its current alignment south and west to cross under I-80. Red Top Road currently has access to and from I-80 in both directions. Just south of I-80, Red Top Road intersects McGary Road, which is a two-lane road that has historically provided a regional bicycle link to Vallejo. It has been closed for several years due to landslides. Red Top Road continues east past the relatively new Rodriguez High School and intersects with Lopes Road.



Photo: Posted speed limit on SR-12 at Red Top Road



Photo: Intersection of Red Top Road, I-80, and McGary Road

Transit Service

FAST Route 7 is the local route providing service within the West Section, but only south of I-80. Connecting from Suisun Valley Road, the route loops west and south to Cordelia Road, where it crosses underneath I-680 to Lopes Road. It proceeds to serve the residential neighborhoods and schools south of Red Top Road.

Bicycle and Pedestrian Facilities

One paved trail (Class I bicycle facility) is present in this section. The trail starts at the westbound on-ramp to I-80 at Green Valley Road, runs parallel to I-80 and then follows SR-12 as it separates from I-80 towards Napa County, and ends at the intersection of SR-12 and Red Top Road.



Photo: Terminus of Frontage Trail at intersection of Red Top Road and SR-12

3.4.2 Opportunities

This section lists specific opportunities that have been identified to date based on plan reviews, conversations with stakeholders, site visits, and public comments.

- The opening of McGary Road will provide a regional pedestrian and bicycle link to the Bay Area Ridge Trail, Lynch Canyon Regional Park, and Vallejo;

- An improved Red Top Road intersection will allow a regional bicycle connection to McGary Road;
- A new Park-and-Ride lot is planned on Red Top Road near the intersection of SR-12;
- Funds permitting, a portion of the Bay Area Ridge Trail could be constructed in coordination with the North Connector; and
- The paved trail parallel to I-80 between Green Valley Road and Red Top Road may be improved or replaced in conjunction with the planned I-80 / I-680 / SR-12 interchange reconstruction.

3.4.3 Constraints

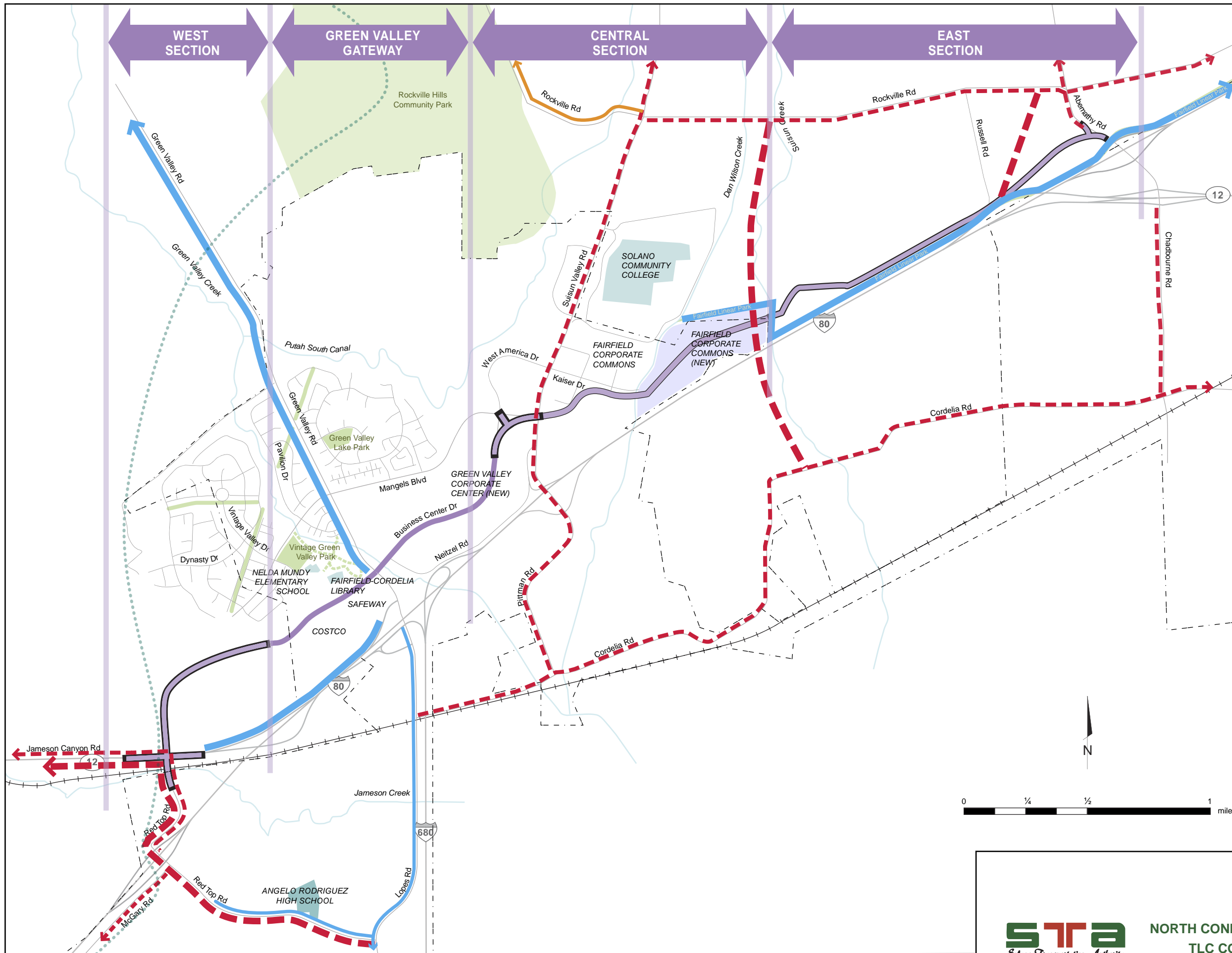
This section lists specific constraints that have been identified to date based on plan reviews, conversations with stakeholders, site visits, and public comments.

- The paved trail within State right-of-way between Green Valley Road and Red Top Road is in a state of disrepair, and the east and west ends are difficult to access;
- There are no signals or other safety measures in place to allow a safe crossing across SR-12 from the paved trail to Red Top Road;
- The Caltrans interim truck climbing lanes project on SR-12 at Red Top Road will result in widening SR-12 a number of years before a grade-separated intersection can be built; and
- Business Center Drive lacks Class II bike lanes.

3.5 Existing Bicycle and Transit Networks

The two diagrams on the following pages display:

- A summary of the existing bicycle and pedestrian network in the Corridor, and includes facilities proposed in the Countywide Bicycle Plan; and
- A summary of the existing transit routes serving the North Connector Corridor.



Legend

Existing Bicycle Facilities
Source: Solano County Bicycle Plan, 2004

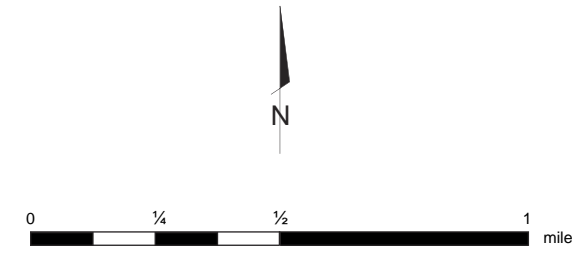
- Class I (Paved Trail)
- Class II (Bicycle Lanes)
- Class III (Bicycle Route)

Proposed Bicycle Facilities
Source: Solano County Bicycle Plan, 2004

- Class I (Paved Trail)
- Class II (Bicycle Lanes)
- Class III (Bicycle Route)

Bay Area Ridge Trail
Proposed Concept
Source: Bay Area Ridge Trail Council

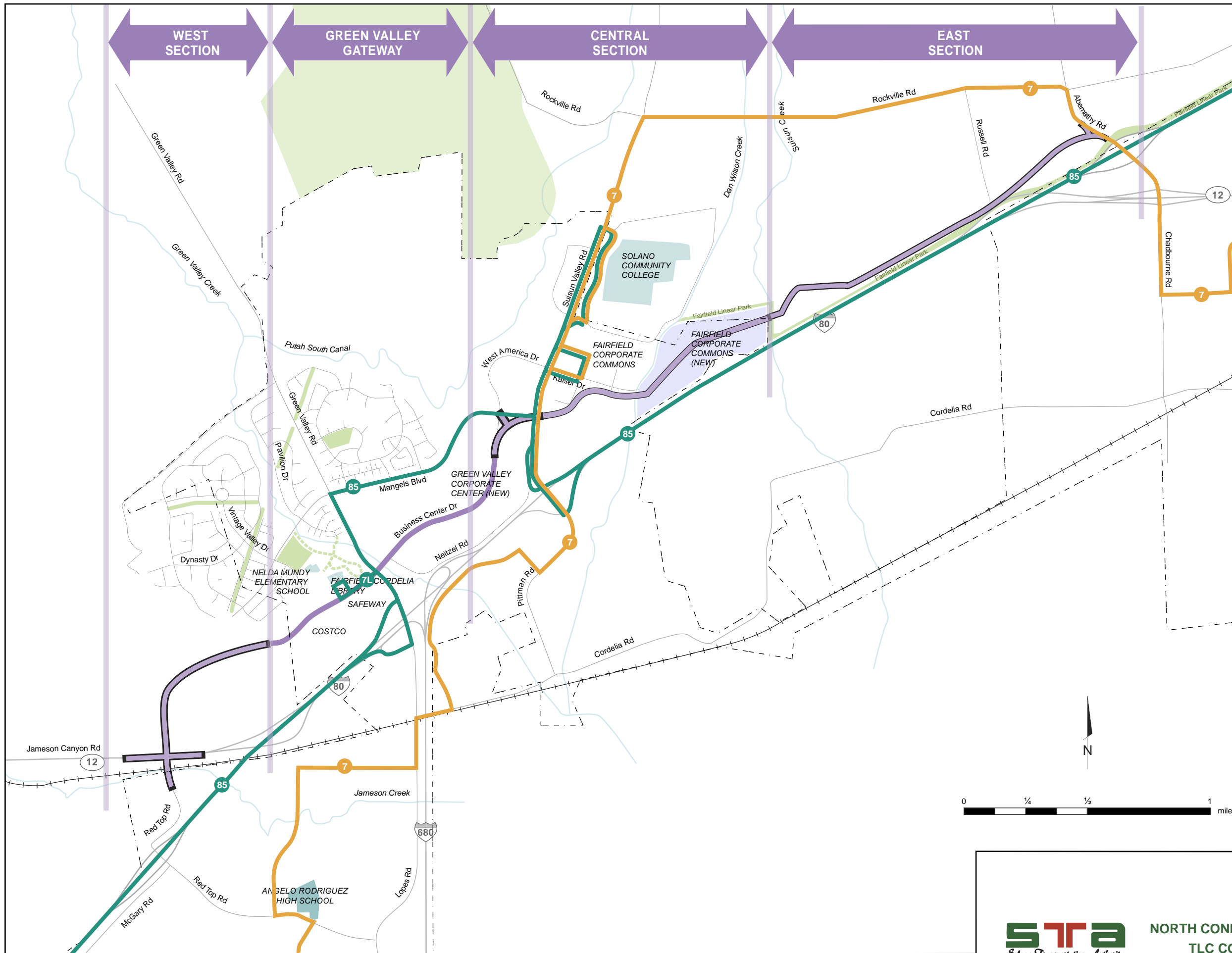
- Freeway/Highway
- Arterial Street
- Collector Street
- Proposed North Connector
- Existing North Connector
- Creeks
- Parks
- Railways
- City/County Boundary



NORTH CONNECTOR CORRIDOR
TLC CONCEPT PLAN



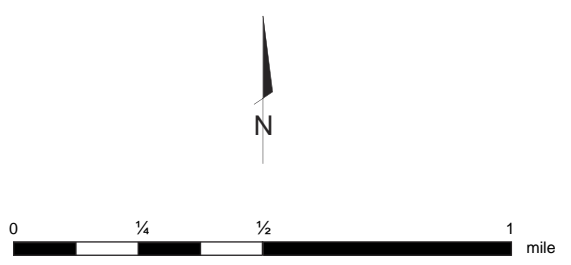
Bicycle Network



WEST SECTION GREEN VALLEY GATEWAY CENTRAL SECTION EAST SECTION

Legend

- Baylink Intercity Route (also serves as FAST Route 7L between Solano Community College and Fairfield-Cordelia Library)
- Fairfield and Suisun Transit (FAST) Local Route
- Freeway/Highway
- Arterial Street
- Collector Street
- Proposed North Connector
- Existing North Connector
- Creeks
- Parks
- Railways
- City/County Boundary



Existing Transit Network



NORTH CONNECTOR CORRIDOR
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4 Overview of Project Components

This chapter describes various improvement strategies, called components, which can be combined in different ways to solve a problem and fulfill a particular need. Including examples from Solano County, the Bay Area, and other parts of the United States, this particular list of components was developed for the North Connector Corridor based on the conditions and opportunities listed in the previous chapter, and refined with input from the Agency Working Group and Pedestrian and Bicycle Advisory Committees. Later in this chapter, different types of corridor users such as commuter bicyclists and transit riders are also discussed, as they have different needs and benefit from different components.

4.1 Signage and Wayfinding

Signage and wayfinding provide roadway users information on safety, transit stops, route information, and trailheads. Signage is particularly important at larger intersections where different transportation modes interact. Clearly identified bicycle lanes, pedestrian routes, and vehicle lanes reduce interaction between users by providing better guidance for mode separation and increase efficiency by limiting conflicts by different modes.



Photo: An example of wayfinding signage

4.2 Community Gateways

Community gateways provide a visual connection for different communities along the corridor. It can reflect the individual nature of the community, as well as provide a welcoming structure to the area.



Photo: Gateway feature in the Jepson Parkway Corridor

4.3 Sidewalks

Sidewalks are paved walkways built alongside a roadway. Sidewalks help separate pedestrians from automobile traffic by means of a raised curb and sometimes a landscape strip. They vary in width but are generally built at least several feet wide according to the standards set by the local agency. They are commonly found in urban areas and modern neighborhoods and commercial areas, but are not as common on rural roads.

Locally, some sidewalks in Fairfield are wider (up to 6 or 8 feet wide) along arterial roads and may serve mixed pedestrian traffic and bicycle traffic, as is the case with Green Valley Road. They take on the characteristics of paved trails, described below.



Photo: Wider sidewalk in Fairfield

4.4 Paved Trails

Paved trails provide a dedicated right-of-way for bicyclists and pedestrians. Often called "Class I" facilities, paved trails are not limited to running alongside roadways and can be built along former railroad corridors, creeks, or other features. Paved trails are built to widths ranging from 6 feet to 10 feet, providing sufficient width for pedestrians and

bicyclists to pass in opposite directions. The Fairfield Linear Park is a local example of a paved trail. Sometimes softer materials such as crushed granite are also provided alongside the pavement to give joggers a more comfortable surface on which to run.

Paved trails provide the most safety from automobile traffic, and they can be built to offer additional amenities such as drinking fountains, restrooms, benches, and interpretive signage.

As paved trails accommodate both pedestrian and bicycle travel, care must be taken to ensure that conflicts between the groups are minimized. In terms of design, stripes may be painted on the trail to separate modes and directions. Signs may also be provided to caution users or to remind them of common trail courtesy and rights-of-way.



Photo: Typical paved trail

4.5 Bicycle Lanes and Bicycle Routes

Bicycle lanes, also known as “Class II” facilities, are portions of roadways reserved for bicycle travel. Usually at least 5 feet in width, bicycle lanes are designated by stripes and other markings painted on the roadway, and can be accompanied by signage. They are located between the roadway shoulder and the right-most vehicle traffic lane, except at intersections (see below for discussion of intersection treatments). Bicycle lanes provide an efficient mode of travel for bicyclists and improve safety by separating bicyclists from motorized traffic and parked vehicles, but do not provide the same level of safety as do paved trails.



Photo: Blue bicycle lane marking and signage

Bicycle routes, or “Class III” facilities, are designated roadway segments which facilitate bicycle travel but do not have sufficient space to accommodate a dedicated bicycle lane. This situation may occur on both rural roads and urban roads. Bicycle routes are designated by signage. In addition to a simple sign saying, “Bike Route,” additional signs may include a route number marker, or cautionary signs such as, “Share the Road.” Bicycle routes provide the least level of safety of the three categories of bicycle facilities (Paved Trail, Bicycle Lane, Bicycle Route), and as such are used only when necessary to complete an essential part of a bicycle network. However, they are still better than non-marked routes as they do alert motorists to the presence of bicyclists using the roadway.

4.6 Intersection Improvements

Intersections combine a wide range of transportation elements that work to provide efficient movements of people, bicycles, and vehicles. Improving various elements within the intersection increase the safety of all users and make them visually appealing. Intersection improvement elements include:

Pedestrian Crossings

Higher-visibility crosswalk designs are available to alert motorists to look out for crossing pedestrians. One common design, the “ladder” crosswalk, replaces the standard two-parallel-stripe design with wide alternating stripes. These designs may be used at locations that require increased motorist attention, such as around schools or at busy intersections.



Photo: "Ladder" crossing (also with different pavement material)

Countdown Signals

Countdown signals replace standard pedestrian signals. In addition to the white "walk" and flashing red "don't walk" indicators, the signal counts down the number of seconds remaining during the "don't walk" phase. This additional information allows pedestrians to make more informed choices about whether they should cross given the time allotted.



Photo: Pedestrian countdown signal

Bicycle Lanes / Marking / Signals

A variety of markings are used to improve intersection safety for bicyclists. New styles of roadway markings and signage alert motorists to look out for bicyclists. In areas with high bicycle traffic volume, traffic signals can provide a dedicated phase for bicyclists. Some signals can also be activated by bicycles using the same detection technology that is used to detect cars. Placing additional crosswalk signal buttons near the roadside is a technique that makes it easier for bicyclists to activate a crosswalk signal.



Photo: Bicycle lane markings across an intersection



Photo: Bicycle detector at an intersection



Photo: Signal designated for bicycles

4.7 Transit Shelters

Transit shelters offer transit users protection from the elements and also serve as identifying markers along transit routes.



Photo: Stylized transit shelter

4.8 Rest Stops

Rest stops offer a place for runners, walkers, and bicyclists to take a break off to the side of a street or trail without obstructing other people. Rest stops can include street furniture such as benches, a water fountain, a garbage can, a trail map, or an interpretive display. Landscaping can be designed to be attractive as well as to provide strategic shade cover. Lighting can help improve personal safety at night time. Rest stops can be placed to offer views of natural features and scenery.



Photo: Elements of a rest stop on Business Center Drive

4.9 Types of Users

The wide range of projects benefits different users along the North Connector Corridor. The differing transportation modes also utilize the corridor in different ways. For example, bicycle commuters prefer short, direct routes that take them to destinations in the most efficient way and shortest amount of time, while recreational users often prefer meandering routes that adjoin natural landscapes away from roadways and vehicle. Described below is a short description of the different users and the benefits they gain from the project components discussed above.

Experienced Bicyclists

People who regularly commute to work by bicycle or ride frequently for exercise tend to be fairly experienced and are comfortable traveling at high speed and in mixed traffic. Bicycle commuters are interested in routes that bring them to their destinations in the most expedient and efficient way possible. Bicyclists who ride for exercise often choose long continuous routes on which they can ride at a challenging pace. Roads are most suitable for these bicyclists because they provide faster travel speeds and are more direct compared to meandering paved trails or sidewalks that are appropriate for lower speeds. Experienced bicyclists will benefit from roads marked with bicycle lanes, or even signed bicycle routes. This provides them the same direct routes for bicycle travel as those provided for automobiles, while affording some safety by warning motorists to share the road with bicyclists.

Bicyclists of Varying Abilities

The occasional or novice rider will have different skills and abilities when compared to regular cyclists who either commute or ride frequently for exercise. The novice is often more interested in their experience during their trip than simply getting to a destination. They may be willing to spend more time and travel at slower speeds than more experienced bicyclists. They may choose to travel at different times of day, such as evening, or on weekends, when conditions are pleasant and there is less traffic. Their level of experience may be lower, or they may have lesser physical ability because of age (either young or old), which makes travel on on-street bicycle routes or lanes inappropriate for this group of bicyclists.

Pleasant, paved trails are ideal for occasional or novice cyclists. Rest stops are beneficial to these users, who may be interested in stopping at a place where they can enjoy views of the landscape, pause to take a break, or learn more about the history along their route. Finally, because recreational users may only use the trails occasionally, wayfinding signs are of particular benefit.

Transit Riders

Transit riders rely on buses to be able to travel to different stops in and around the Corridor. Strategically-placed stops serve key destinations such as schools, community facilities, and workplaces. They also collect people at certain locations such as park-and-ride lots to serve long-distance commutes. Transit riders benefit most from direct transit routes as well as visually appealing and functional street furniture. Examples of street furniture include transit shelters to protect against the elements, benches, landscaping, and street lights. The street lights are an important benefit due to the safety enhancement it provides for riders waiting for transit at night. Transit riders can also be bicyclists – buses equipped with bicycle racks can help fill gaps in the bicycle network or transport bicyclists over major obstacles.

Pedestrians

Pedestrians use the corridor both for commuting and recreation. The pedestrian experience should combine features both for safety and experience. For safety, elements such as countdown signals, raised and/or reflective crosswalks, street lamps, and wide sidewalks help to protect pedestrians from cars driving by. Enhancing the pedestrian experience can be achieved with beautifying the street landscape and putting in street furniture.

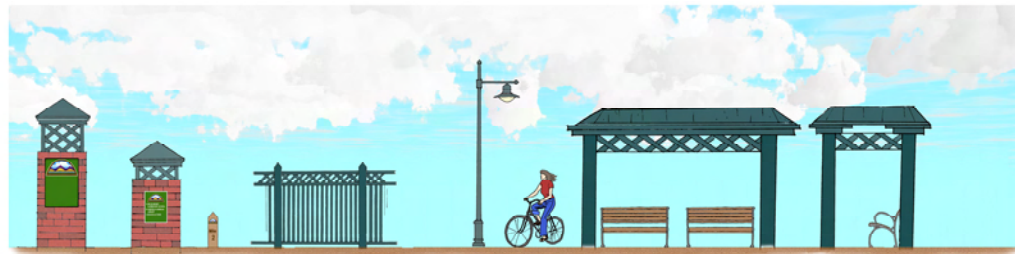
5 Corridor Design Theme

One of the goals of the Concept Plan is to develop a design theme that can be used consistently throughout the North Connector Corridor. Three potential themes have been developed for consideration. Each theme illustrates how a material or set of materials could be used in the composition of common streetscape elements as a way to help unify the look and feel of the North Connector Corridor. The themes feature the following materials:

- Theme 1 – masonry and steel
- Theme 2 – stone and wood
- Theme 3 – wood

The streetscape elements illustrated in each theme include the following, from left to right:

- Gateway feature
- Wayfinding sign
- Mile post marker
- Fence
- Light standard
- Transit shelter (front view)
- Transit shelter (side view)



Although the themes have been presented to the community for feedback, a particular preference has not been expressed on the part of the community. It is recommended that further public feedback be solicited and that one theme be selected in cooperation with STA, the City of Fairfield, and Solano County.

6 Recommended Projects

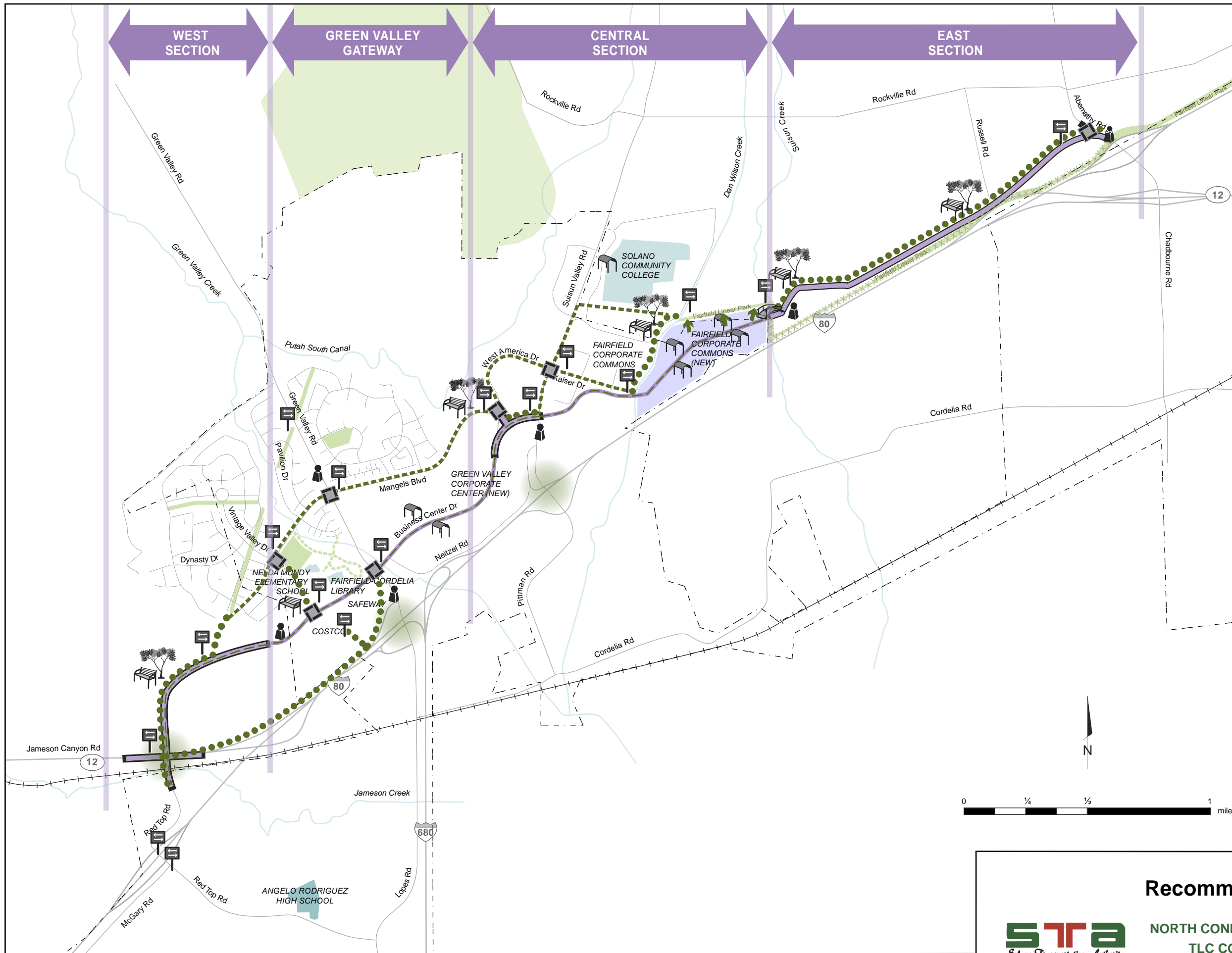
This chapter describes the conceptual projects recommended by the Concept Plan. Each project has been developed as a package of components that together attempt to address a particular issue. Projects have also been packaged so that the lead agency for each project is clear (though usually in coordination with other agencies). This allows projects to be pursued separately as agency timelines and budgets allow. Further analysis is required for each project to determine alignment, detailed design, cost, and implementation hurdles.

The subsections below include:

- Project Components Diagram: a diagram showing all recommended components, before being packaged into projects;
- Timing and Implementation: a discussion of the recommended time frames and project implementation;
- Project Summary Table: a table listing each project; and
- Project Descriptions: a description of each project, including: title; sponsor agency; participating agencies; recommended time frame; approximate cost; location; specific project components; implementation discussion; and project map and any supporting images.

6.1 Project Components Diagram

The diagram on the following page shows all project components recommended in the Concept Plan. Please note that at this stage, all project components are conceptual. Further consensus among coordinating agencies, detailed design and engineering, and cost estimating will be needed before any project is constructed.



Legend

Potential Projects

- Signage and Wayfinding
- Gateways
- Improved Crossings
- Stylized Transit Shelters
- Rest Stop
- Bridge

Proposed Bicycle Facilities

- Paved Trail
- Bike Lanes
- Bike Route

Other Features

- Fairfield Linear Park Segment proposed to be relocated
- Proposed North Connector Segment
- Existing or Approved North Connector Segment
- Area of Future Major Investment

Infrastructure

- Freeway/Highway
- Arterial Street
- Collector Street
- Creeks
- Parks
- Railways
- City/County Boundary

Recommended Project Components



NORTH CONNECTOR CORRIDOR
TLC CONCEPT PLAN



6.2 Timing and Implementation

In the current climate of limited transportation funding, project implementation requires an efficient and balanced use of resources. To accommodate this reality, every project includes a recommended time frame. The time frame, listed as “short-term”, “mid-term”, and “long-term”, attempts to balance a number of factors, including:

- Project scale / complexity;
- Project benefits;
- Project costs;
- Sources of funding; and
- Coordination with / acknowledgement of related projects and timelines.

Generally, short-term projects can be thought of as “quick fixes” that can be accomplished within five years. They are simple, have immediate impact, don’t cost a lot and therefore can be funded relatively quickly. They may be included within development projects.

The mid-term projects may be more complex or costly, and can be completed as part of a larger project such as a roadway reconfiguration, intersection reconstruction, or larger development project. These projects would likely take 5 to 10 years to implement because appropriate sources of funding may need to be identified, but these projects can also have greater impact.

Long-term projects are usually contingent upon timelines and funding of larger projects, usually large capital roadway projects such as highway interchange reconstructions or new roadways that provide supplemental funding for alternative transportation modes. Though costly, these kinds of projects have the ability to effect major changes, such as creating new segments in the pedestrian, bicycle, or transit network, or provide other long-lasting solutions.

As with all other project aspects, the time frames of all the projects were reviewed by and reflect feedback from the Agency Working Group, BAC, PAC, and Technical Advisory Committee.

6.3 Project Summary Table

The table below lists all of the projects recommended in the Concept Plan.

Project #	Project Title	Sponsor Agency	Project Cost	Time Frame
A	Corridor Gateways	STA, Solano County	< \$1 million	Short-term
B	Corridor Transit Shelters	City of Fairfield	< \$1 million	Mid-term
C	East Section Linear Park Improvements	STA	\$1 - \$5 million	Mid-term
D	Linear Park Extension Along Dan Wilson Creek	City of Fairfield	\$1 - \$5 million	Mid-term

Project #	Project Title	Sponsor Agency	Project Cost	Time Frame
E	Central Section Bicycle Lane Network	City of Fairfield	< \$1 million	Short-term
F	Mangels Boulevard Bicycle and Pedestrian Improvements	City of Fairfield	< \$1 million	Short-term
G	Mangels Boulevard Bicycle and Pedestrian Optional Enhancements	City of Fairfield	\$1 - \$5 million	Mid-term
H	Nelda Mundy School to Business Center Drive Connector	City of Fairfield	< \$1 million	Short-term
I	Green Valley Road / Business Center Drive / I-80 Paved Trail Connector	City of Fairfield	\$1 - \$5 million	Mid-term
J	Business Center Drive Bicycle Route	City of Fairfield	< \$1 million	Short-term
K	North Connector West Segment Pedestrian and Bicycle Facilities	Solano County	\$1 - \$5 million	Long-term
L	Interstate 80 / SR 12 Paved Trail Improvements	STA	< \$1 million	Mid-term
M	Suisun Valley Road / I-80 Intersection Reconstruction	STA	> \$5 million	Long-term
N	Green Valley Road / I-80 / I-680 Intersection Reconstruction	STA	> \$5 million	Long-term
O	SR 12 / Red Top Road Intersection Reconstruction	STA	> \$5 million	Long-term

6.4 Project Descriptions

This section contains descriptions of each of the conceptual projects recommended in the Concept Plan. Note that further consensus among coordinating agencies, detailed design and engineering, and cost estimating will be needed before any project is constructed.

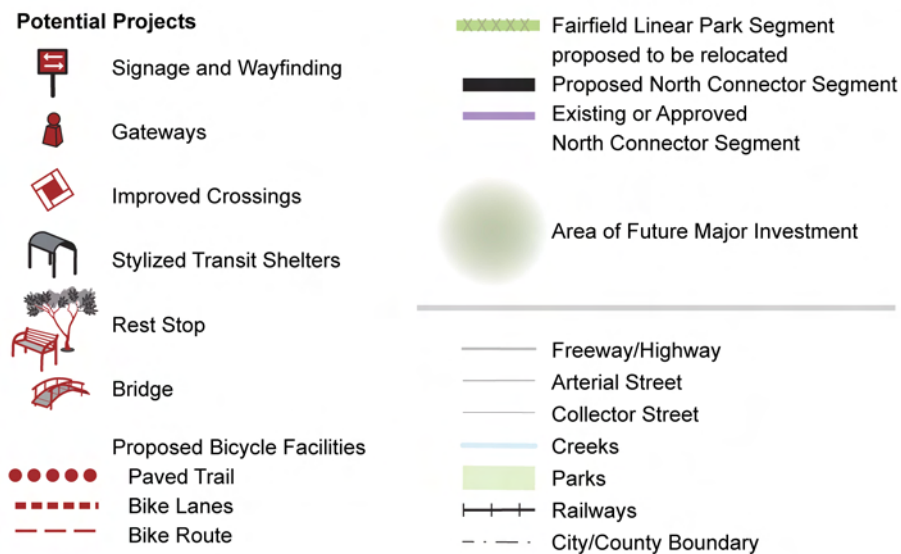
Each description includes the following information for the project:

- Project Name – a descriptive name;
- Project # (Number) – an identifying letter (no prioritization is implied);
- Time Frame – an indication of when the project might be completed: short-term (within 5 years); mid-term (5-10 years); or long-term (more than 10 years);
- Location – approximate location in relation to the Corridor, including: Corridor Wide; East Section; Central Section; Green Valley Gateway; or West Section;
- Sponsoring Agency – which agency would have jurisdiction over implementing the project;
- Partner Agencies – which agencies would likely participate in project development or implementation;

- Approximate Cost – a rough categorization of a project's cost (more analysis is needed);
- Map and/or Images – as appropriate to illustrate the project; and
- Description – a description of the project including individual components (in general, bulleted items) and discussion of the implementation of the project.

Diagram Legend

Project descriptions starting with project “C” are accompanied by a diagram. The diagram highlights the project components that comprise the project. The components shown in red are the elements that are associated with that project; all other elements are greyed out and are grouped with a different project. Below is a legend of the project components that appear in the diagrams:



Project Name: Corridor Gateways		
Project #: A	Time Frame: Short-term	Location: Corridor Wide
Sponsoring Agency: STA, Solano County		Approximate Cost: < \$1 million
Partner Agencies: City of Fairfield		
<p>Description: Design and install gateway monuments throughout the corridor, welcoming visitors to the corridor, at the following locations:</p> <ul style="list-style-type: none"> • Abernathy Road just north of I-80 • North Connector at Suisun Creek (contingent upon North Connector project) • Suisun Valley Road south of Business Center Drive • Green Valley Road south of Business Center Drive • Green Valley Road north of Mangels Boulevard • Existing western terminus of Business Center Drive (contingent upon North Connector project) 		

Project Name: Corridor Transit Shelters		
Project #: B	Time Frame: Mid-term	Location: Corridor Wide
Sponsoring Agency: City of Fairfield		Approximate Cost: < \$1 million
Partner Agencies: STA, Solano Community College, Developer of Fairfield Corporate Commons, Developer of Green Valley Corporate Center		
<p>Description: Design and install transit shelters throughout the corridor, at the following locations:</p> <ul style="list-style-type: none"> • Along Business Center Drive at Fairfield Corporate Commons • Solano Community College • Along Business Center Drive at Green Valley Corporate Center <p>Coordination will be needed with the City of Fairfield's Short Range Transit Plan, as well as ensuring that new development plans allow space for transit shelters at these locations.</p>		

Project Name: East Section Linear Park Improvements

Project #: C

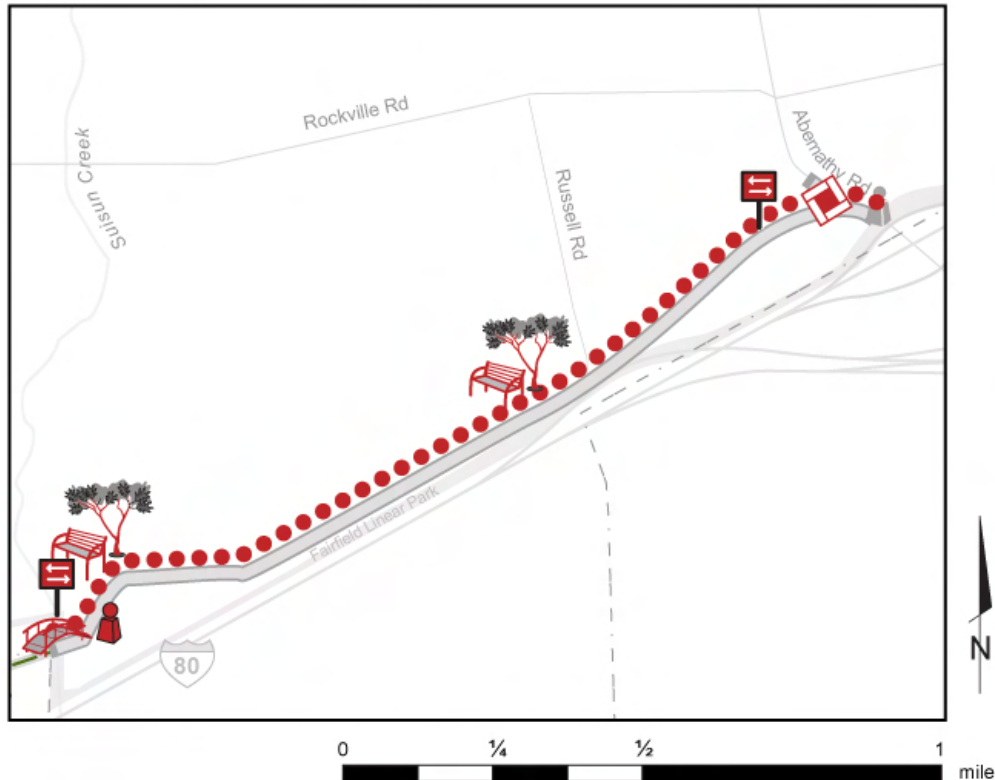
Time Frame: Mid-term

Location: East Section

Sponsoring Agency: STA

Approximate Cost: \$1 - \$5 million

Partner Agencies: Solano County, City of Fairfield



Description: This project incorporates the design proposal included in the current North Connector project. This would include:

- Wayfinding signage near Abernathy Road
- New paved trail along the north edge of the North Connector project to potentially relocate the existing multi-use trail
- Improved crossing at Abernathy Road, including bicycle-activated traffic signal and countdown signals
- Rest Stop along paved trail at a point between Abernathy Road and Suisun Creek
- Rest Stop and wayfinding signage near Suisun Creek
- Gateway on the North Connector project near Suisun Creek
- New auto and bike/pedestrian bridge crossing over Suisun Creek (with accommodation for the 2-way paved trail)

Corridor travelers would benefit from signage notifying them of major destinations, distances, and routes to take through the corridor. In addition, rest stops would provide convenient locations to enjoy the views of the Rockville Hills and Suisun Creek. These improvements are assumed to be included in the cost of the construction of the North Connector in the East Section. One technical detail needs to be further studied: how bicyclists traveling east on Business Center Drive would cross over to the paved trail on the north side of the North Connector.

Project Name: Linear Park Extension Along Dan Wilson Creek

Project #: D

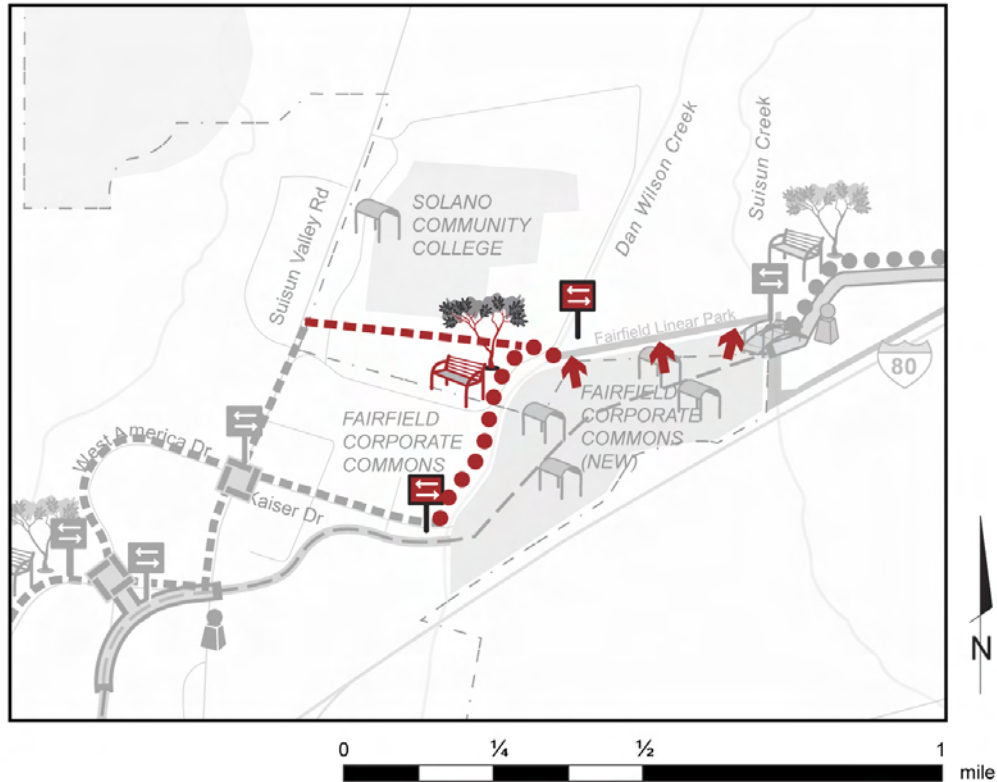
Time Frame: Mid-term

Location: Central Section

Sponsoring Agency: City of Fairfield

Approximate Cost: \$1 - \$5 million

Partner Agencies: Solano Community College, Solano County, STA



Description: Extension of the existing Linear Park through Solano Community College to provide improved access into the SCC campus as well as to link to Kaiser Drive and Business Center Drive. Specific improvements include:

- Wayfinding signage on the Linear Park at Solano Community College
- New paved trail from the existing terminus of the Linear Park, along Dan Wilson Creek, to the new segment of Business Center Drive, with direct connections to bike lanes on Kaiser Drive and sidewalk on Business Center Drive
- Rest Stop near Solano Community College
- Bicycle lanes through Solano Community College between Dan Wilson Creek and Suisun Valley Road (feasibility will need to be investigated)
- Wayfinding signage near Kaiser Drive and Business Center Drive
- Links from the new residential Fairfield Corporate Commons project to connect to the existing Fairfield Linear Park

This is a critical linkage within the North Connector corridor, providing a continuous off-street walking and biking route from Abernathy Road to the sidewalks available on Kaiser Drive and Business Center Drive, offering an alternate bicycle connection to Suisun Valley Road. Eventually, corridor cyclists will also be able to use this link to connect to the expanded bicycle lane network starting on Kaiser Drive as identified in this Concept Plan. Locally, residents of the new Corporate Commons development will be able to directly access the Linear Park.

Project Name: Central Section Bicycle Lane Network

Project #: E

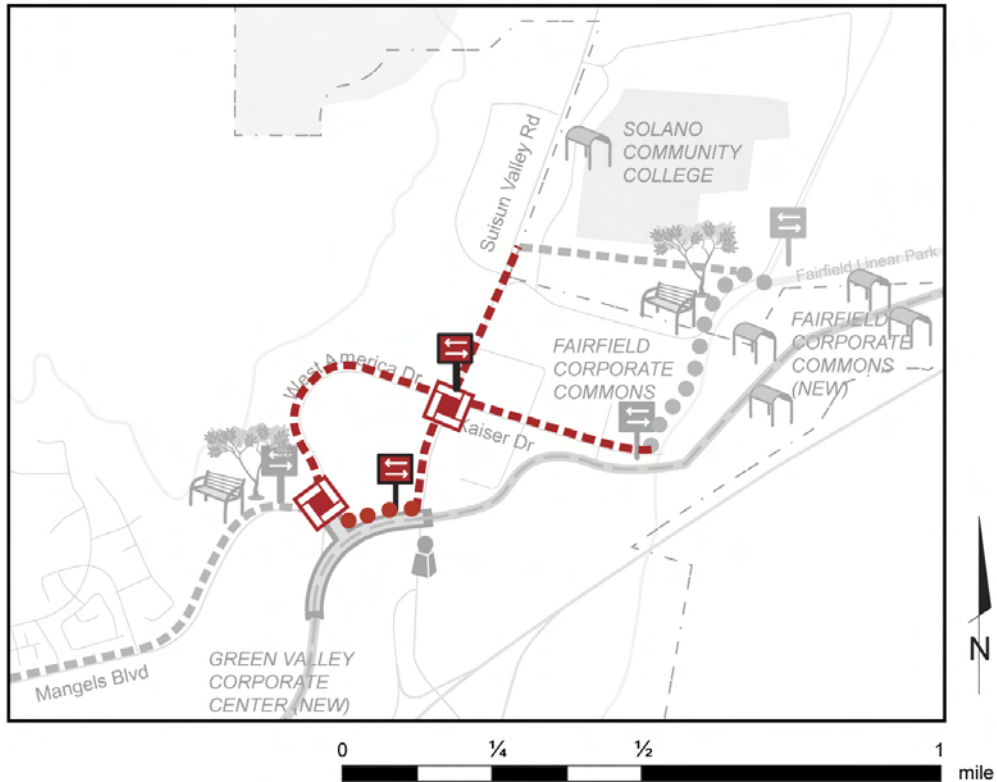
Time Frame: Short-term

Location: Central Section

Sponsoring Agency: City of Fairfield

Approximate Cost: < \$1 million

Partner Agencies: STA



Description: Restripe several streets in the Central Section to accommodate bicycle lanes, approximately from Dan Wilson Creek to the intersection of Mangels Boulevard and Business Center Drive. Specific improvements include:

- Verify adequate width to provide bicycle lanes on Kaiser Drive from Dan Wilson Creek to Suisun Valley Road
- Improved crossing at Kaiser Drive and Suisun Valley Road, including countdown signals and bicyclist-accessible signal activation buttons
- Wayfinding signage at Kaiser Drive and Suisun Valley Road
- Verify adequate width to provide bicycle lanes on West America Drive from Suisun Valley Road to Mangels Boulevard
- Verify adequate width to provide bicycle lanes on Suisun Valley Road between Solano Community College and West America Drive
- Verify adequate width to provide bicycle lanes on Suisun Valley Road between West America Drive and Business Center Drive
- Improved crossing at Mangels Boulevard and West America Drive, including countdown signals and bicyclist-accessible signal activation buttons
- Widened sidewalk or paved trail linking the intersection of Mangels Boulevard / West America Drive and the intersection of Business Center Drive / Suisun Valley Road
- Wayfinding signage at Business Center Drive and Suisun Valley Road

This series of bicycle network improvements provides important bicycle connectivity between the neighborhoods in Green Valley with Solano Community College and the businesses in and around Fairfield Corporate Commons. While casual and novice users will benefit from the improved crossings and wayfinding, the recommended bicycle lanes provide experienced bicyclists with faster, more direct and well-marked travel routes, providing an incentive for residents to make more trips via bicycle.

Project Name: Mangels Boulevard Bicycle and Pedestrian Improvements

Project #: F

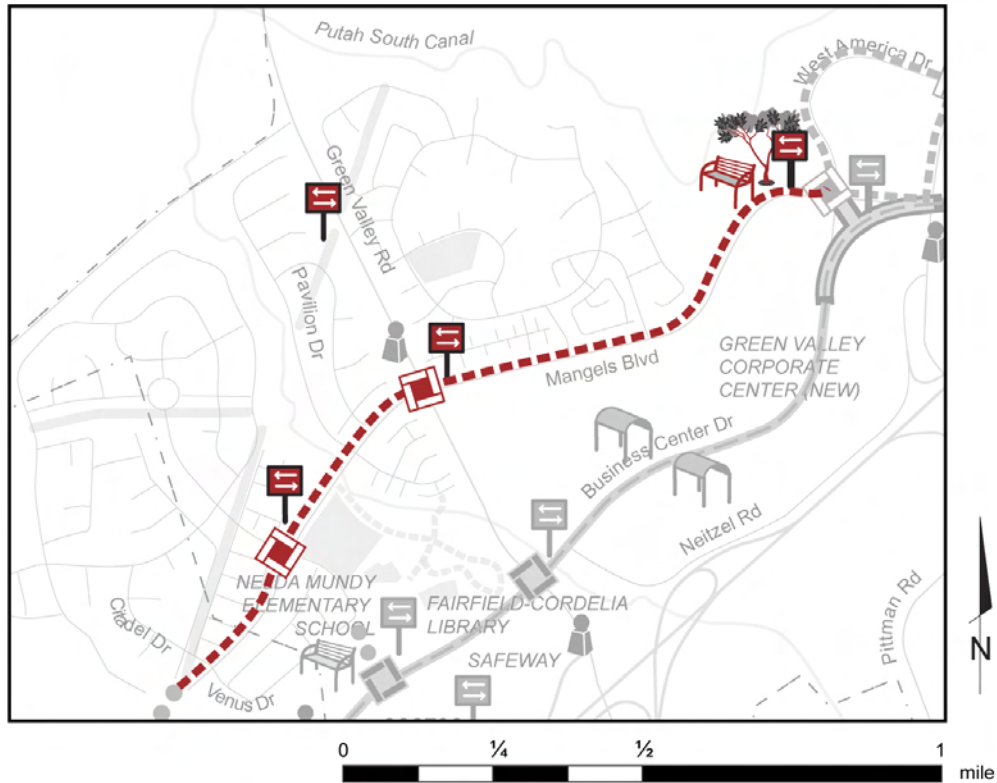
Time Frame: Short-term

**Location:
Green Valley Gateway**

Sponsoring Agency: City of Fairfield

Approximate Cost: < \$1 million

Partner Agencies: STA



Description: This would restripe Mangels Boulevard to include bike lanes west of West America Drive, and implement other low-cost improvements. Specific improvements include:

- Wayfinding signage and rest stop on Mangels Boulevard near West America Drive
- Bicycle lanes between West America Drive and the western terminus of Mangels Boulevard (near Citadel Drive and Venus Drive)
- Wayfinding signage near Mangels Boulevard and Green Valley Road
- Improved crossing at Mangels Boulevard and Green Valley Road, including countdown signals and bicyclist-accessible signal activation buttons
- Improved crossing at Mangels Boulevard and Vintage Valley Drive, including countdown signals
- Wayfinding signage at Mangels Boulevard and Vintage Valley Drive
- Wayfinding signage near Green Valley Road and utility corridor / linear park

Mangels Boulevard is an ideal candidate for bicycle lanes because of its: width; low traffic volume; and excess roadway capacity compared to Business Center Drive. Traffic volumes are higher on Business Center Drive, making it less attractive as a bicycle facility. Bicycle lanes on Mangels Boulevard offer a more pleasant alternative

for providing a through route through this section of the North Connector corridor. It is also more neighborhood-serving, with closer proximity to residences. Providing bicycle lanes on Mangels Boulevard is a convenient way to separate bicyclists from pedestrians using the sidewalks. Some intersection improvements will help bicyclists and pedestrians navigate the wide arterials more safely and with more confidence that they can cross them in time. Ultimately the bike lanes can link to a paved trail that could connect to the West section of the North Connector.

Project Name: Mangels Boulevard Bicycle and Pedestrian Optional Enhancements

Project #: G

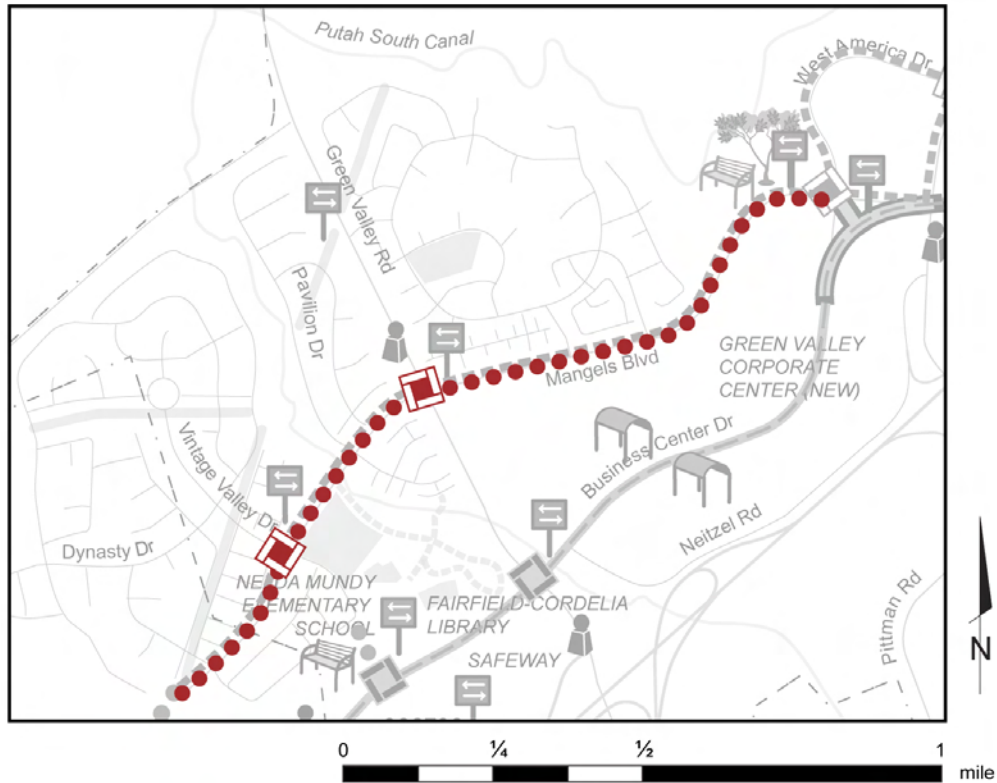
Time Frame: Mid-term

**Location:
Green Valley Gateway**

Sponsoring Agency: City of Fairfield

Approximate Cost: \$1 - \$5 million

Partner Agencies: STA



Description: Should additional funding be available for enhancements along this corridor, a wider paved trail and additional intersection treatments are proposed. Specific improvements include:

- Wider paved trails (12 feet) along Mangels Boulevard between West America Drive and the western terminus of Mangels Boulevard in addition to bicycle lanes
- Improved crossing at Mangels Boulevard and Green Valley Road, including reduced crossing distance and/or median pedestrian refuges
- Improved crossing at Mangels Boulevard and Vintage Valley Drive, including reduced crossing distance

The purpose of these optional enhancements is to help transform the character of Mangels Boulevard from a major arterial street into a neighborhood-serving collector street with a parkway-like pedestrian and bicycle environment. A traffic model could be used to help re-evaluate roadway space, possibly allowing for a reduction in auxiliary lanes, turn lanes, and reduction in lane widths to meet current city standards (12-foot-wide travel lanes, 14-foot-wide curb lanes), while maintaining appropriate roadway capacity for automobiles. The reallocated roadway space could be used to provide bicycle lanes to serve experienced bicyclists, while providing enhanced paved trails and

reduced intersection crossing distances for pedestrians and bicyclists of varying abilities. This endeavor would likely require significant design and construction. The simulations below illustrate conceptually how the intersection of Mangels Boulevard and Green Valley Road could be modified to provide an enhanced bicycle and pedestrian environment.



Illustration: Existing intersection at Mangels Boulevard and Green Valley Road



Illustration: Basic Pedestrian and Bicycle Improvements (Concept)

The figure above illustrates improvements such as: a bike lane; high-visibility crosswalk; and pedestrian countdown signal.



Illustration: Enhanced Pedestrian and Bicycle Improvements (Concept)

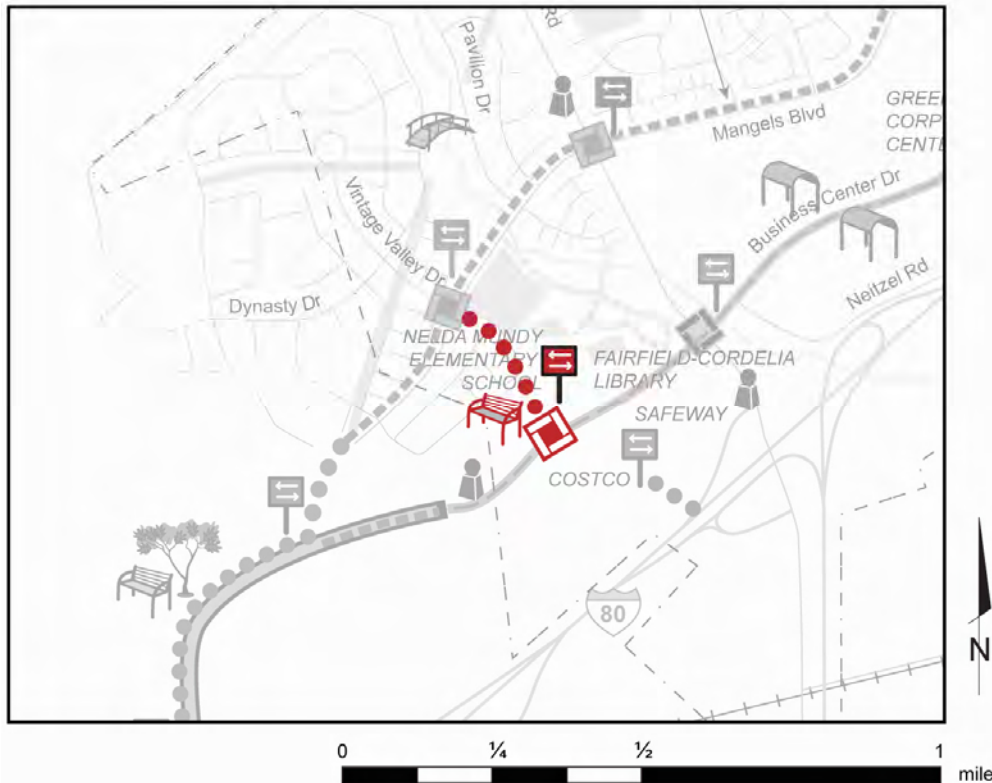
This figure illustrates additional improvements, including: a widened median with pedestrian refuge; standard-width traffic lanes; and additional landscaping and widened path on the side.

Project Name: Nelda Mundy School to Business Center Drive Connector

Project #: H	Time Frame: Short-term	Location: Green Valley Gateway
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Sponsoring Agency: City of Fairfield	Approximate Cost: < \$1 million
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Partner Agencies: STA, Fairfield Suisun Unified School District



Description: Create a direct, paved path and corridor linking the neighborhoods near Nelda Mundy School to the Green Valley Crossing (Safeway / Costco) shopping center at Business Center Drive, as an alternative to the existing unpaved path between Mangels Boulevard and the Fairfield-Cordelia Library. Specific improvements include:

- Paved trail starting at Mangels Boulevard along Vintage Valley Drive, traversing through the Nelda Mundy School parking lot, through a new fence opening and through currently vacant land held by the City of Fairfield Redevelopment Agency, linking to the developed segments north of Business Center Drive
- Wayfinding signage and rest stop near Nelda Mundy School
- Improved crossing at Business Center Drive including countdown signal

This project is an excellent opportunity to improve neighborhood connectivity and has strong potential to reduce automobile trips. Currently there is limited pedestrian and bicycle access between the neighborhoods near Nelda Mundy School / Mangels Boulevard and the Green Valley Crossing shopping center. While the unpaved path connects Mangels Boulevard to the library along the outside perimeter of Nelda Mundy School, the recommended path is more direct for neighborhoods located along and west of Vintage Valley Drive; leads to an established, signalized intersection at

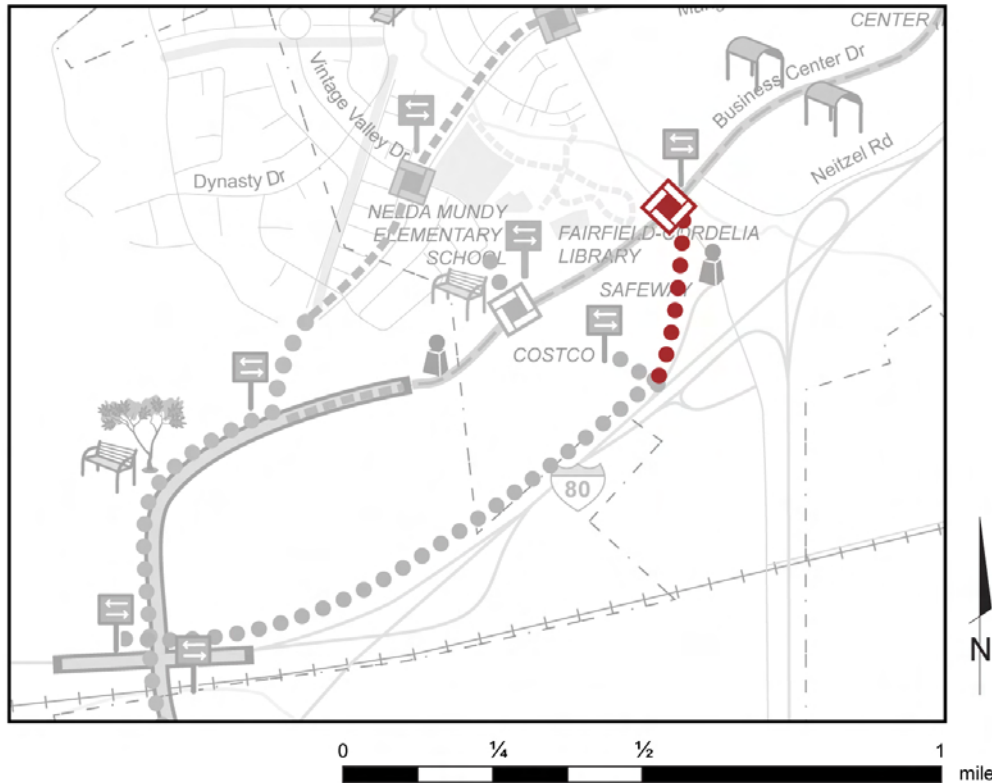
Business Center Drive; and provides convenient neighborhood access to both the shopping center as well as to the Fairfield-Cordelia library. This project will require close collaboration with the Fairfield Suisun Unified School District to reconfigure the school parking lot to provide a path, and with the City of Fairfield which controls the vacant land to the south of the school.

Project Name: Green Valley Road / Business Center Drive / I-80 Paved Trail Connector

Project #: I	Time Frame: Mid-term	Location: Green Valley Gateway
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Sponsoring Agency: City of Fairfield	Approximate Cost: \$1 - \$5 million
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Partner Agencies: STA, Caltrans

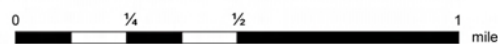
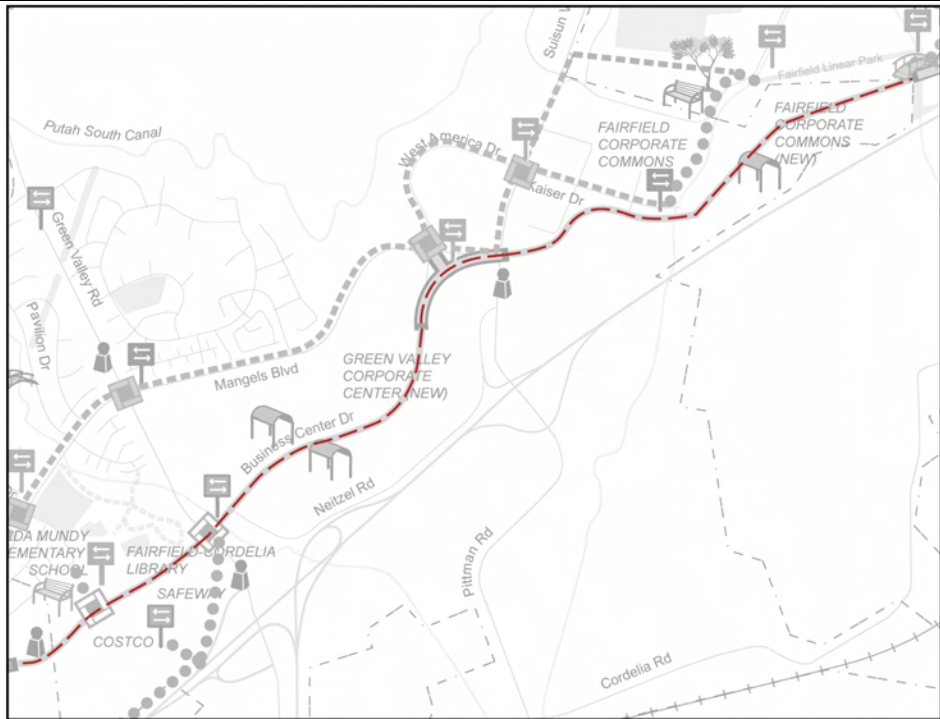


Description: Improve Green Valley Road / Business Center Drive intersection for pedestrian crossing and construct new paved trail linking Business Center Drive to the existing eastern terminus of the I-80 Paved Trail behind Green Valley Crossings shopping center. Specific improvements include:

- Improved crossing at Green Valley Road and Business Center Drive, including pedestrian refuges / islands and countdown signals
- Paved trail from the intersection of Green Valley Road and Business Center Drive, along Green Valley Road, parallel to the I-80 westbound on-ramp, to connect to the existing eastern terminus of the I-80 Paved Trail

This project is contingent upon a negotiation with property owners to obtain access along their site. The City of Fairfield has stated its intention to reconstruct the intersection of Green Valley Road and Business Center Drive, and possibly the segment of Green Valley Drive between Business Center Drive and the westbound I-80 on-ramp. This project should be coordinated with those design efforts to improve both pedestrian crossing safety and connection to the I-80 Paved Trail, which is also recommended to be improved as a short-term measure.

Project Name: Business Center Drive Bicycle Route		
Project #: J	Time Frame: Short-term	Location: Green Valley Gateway and Central Section
Sponsoring Agency: City of Fairfield		Approximate Cost: < \$1 million
Partner Agencies: STA		



Description: Designate Business Center Drive as a bicycle route (Class 3 bicycle facility) and post route markers, safety signage, and wayfinding signage at points along Business Center Drive between Suisun Creek and the existing western terminus of Business Center Drive.

Business Center Drive's status as a busy thoroughfare does not deter experienced bicyclists from using it as the most direct route through the North Connector corridor. These bicyclists are experienced at riding on city streets along with traffic. By designating Business Center Drive as a route and by providing appropriate signage, this project would help to improve bicyclist safety by warning motorists to watch out for bicyclists. It would also inform bicyclists of opportunities at key points to use alternate, safer routes through the corridor, such as Mangels Boulevard.

Project Name: North Connector West Segment Pedestrian and Bicycle Facilities

Project #: K

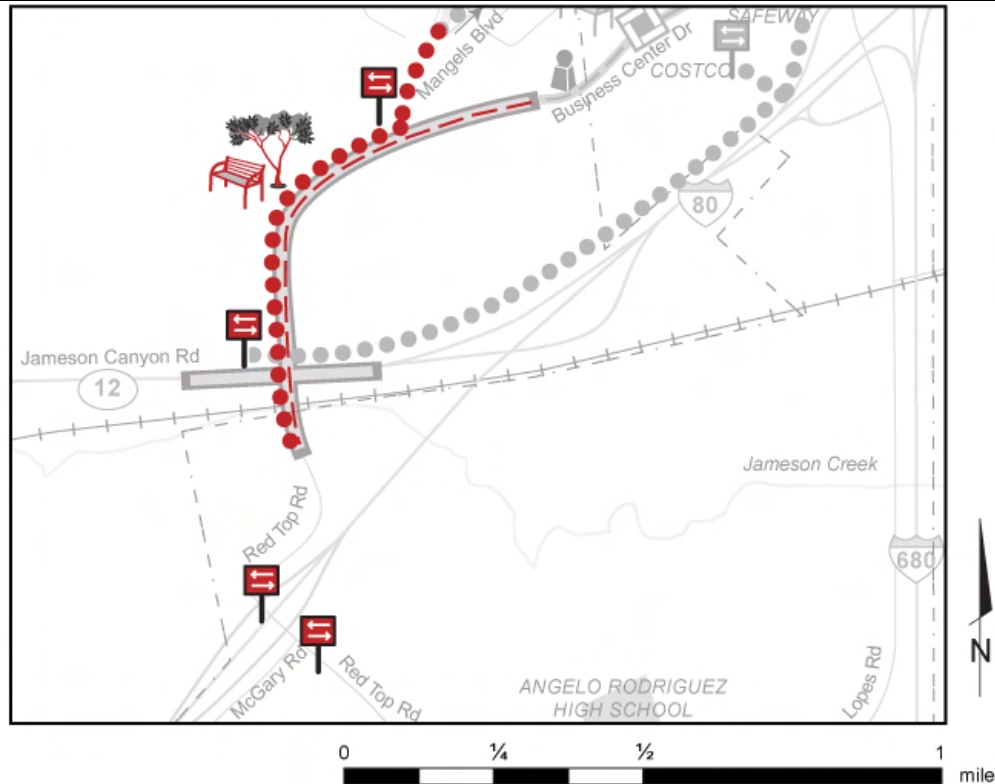
Time Frame: Long-term

Location: West Section

Sponsoring Agency: Solano County

Approximate Cost: \$1 - \$5 million

Partner Agencies: STA, City of Fairfield



Description: This project is contingent upon the construction of the west segment of the proposed North Connector. This Concept Plan recommends that a paved multi-use trail be provided to connect from Mangels Boulevard to Red Top Road. Specific improvements include:

- Paved trail from the existing terminus of Mangels Boulevard, to a point where it joins the west segment of the North Connector, then along the North Connector west and south past SR 12 along Red Top Road
- Designated bicycle route from the existing terminus of Business Center Drive west to Red Top Road
- Wayfinding signage at the intersection of the paved trail from Mangels Boulevard and Business Center Drive
- Rest stop at some point along the west segment
- Wayfinding signage at the intersection of SR 12 and Red Top Road
- Wayfinding signage along Red Top Road and at the intersection of Red Top Road and McGary Road

This project is part of a long-term solution for providing regional access. It would allow the North Connector corridor to link Vallejo and Napa to downtown Fairfield using a combination of bicycle lanes and paved trails. The Bay Area Ridge Trail would also be

extended from this portion to the existing trail segment at Rockville Park. In concert with an improved intersection at SR 12 and Red Top Road, the trail along Interstate 80 with its awkward accessibility and unpleasant environment could be bypassed.

Project Name: Interstate 80 / SR 12 Paved Trail Improvements

Project #: L

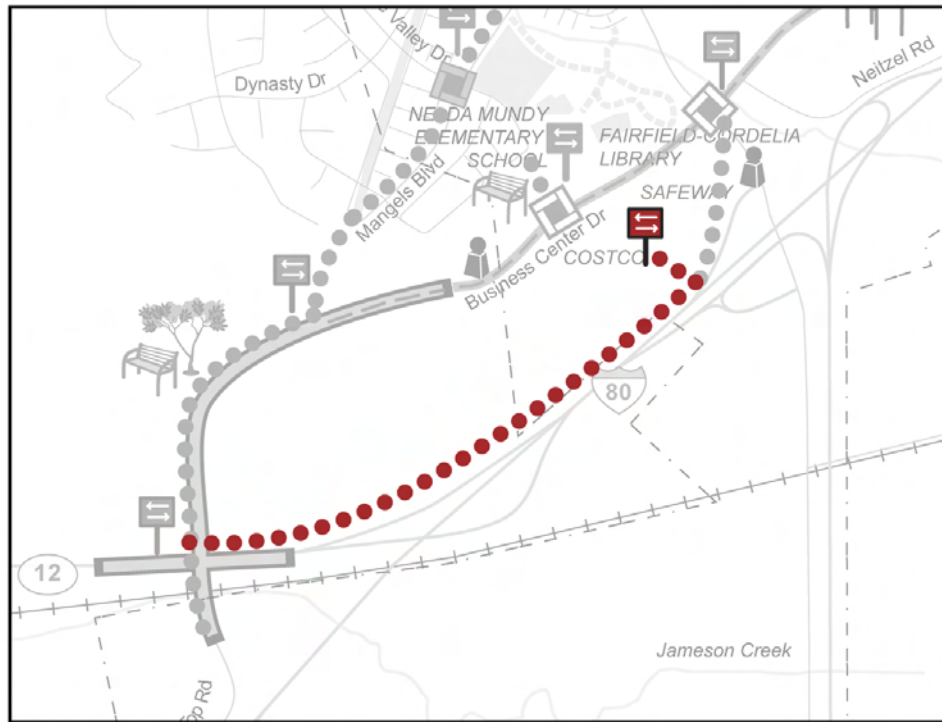
Time Frame: Mid-term

Location: West Section

Sponsoring Agency: STA

Approximate Cost: < \$1 million

Partner Agencies: Caltrans, Green Valley Crossing shopping center, City of Fairfield



Description: Repair and improve access to the paved trail parallel to Interstate 80 / SR 12 from the I-80 westbound on-ramp at Green Valley Road to the intersection of SR 12 and Red Top Road. Specific improvements include:

- Repair existing Class I path trail pavement to remove cracks and bumps
- Paved trail between the Green Valley Crossing shopping center and the existing eastern terminus of the existing trail
- Wayfinding signage within the Green Valley Crossings shopping center
- Pave existing gravel western terminus up to intersection of SR 12 and Red Top Road

This project is a temporary stopgap measure designed to maintain a basic regional connection between Napa, Vallejo, and Fairfield using the existing paved trail parallel to I-80 and SR 12. The trail is in a state of disrepair and its ends are difficult to access. Improvement of this trail and its accessibility at each end would allow regional recreational users to avoid taking a circuitous route along Red Top Road south to Lopes Road before navigating across I-80 on the narrow Green Valley Road overcrossing. However, the unprotected intersection of SR 12 and Red Top Road is still a concern.

Coordination with the Green Valley Crossing shopping center is recommended to investigate offering a connection through the shopping center parking lot and paving a

short segment to the eastern terminus of the frontage trail. This could involve minimal effort such as striping a crossing or two through the parking lot and adding some directional signage. This would allow bicyclists to avoid the complicated and busy westbound I-80 on-ramp from Green Valley Road, which is recommended to be improved as part of a longer-term Concept Plan project.

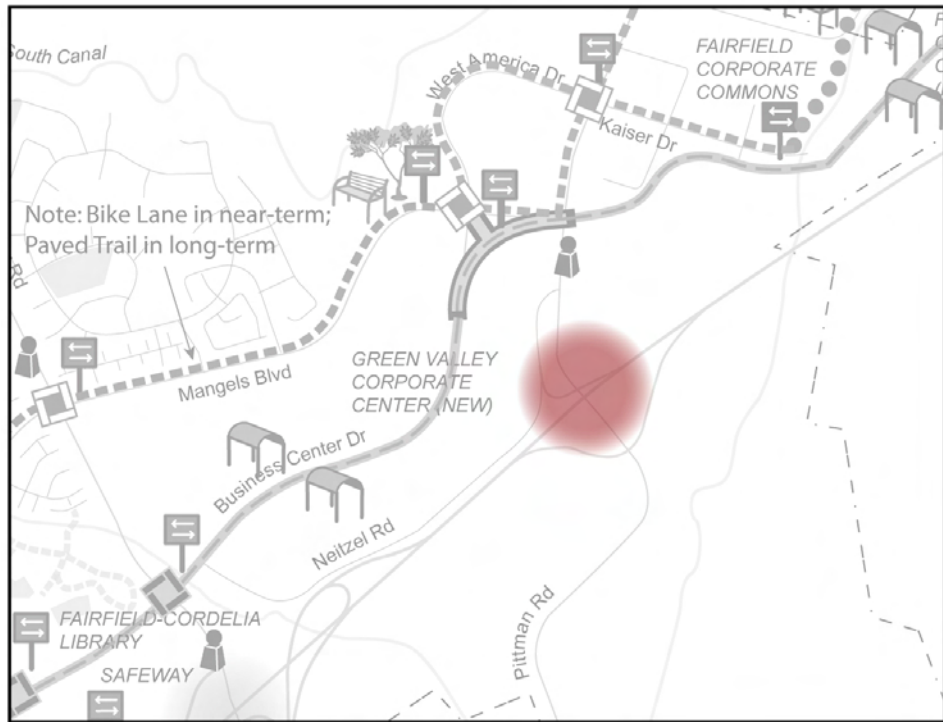
Project Name: Suisun Valley Road / I-80 Intersection Reconstruction

Project #: M Time Frame: Long-term Location: Central Section

Sponsoring Agency: STA

Approximate Cost: > \$5 million

Partner Agencies: Caltrans, City of Fairfield



Description: As a project identified for future major investment, the reconstruction of the Suisun Valley Road overcrossing to modern standards would include width to allow for pedestrian and bicycle access across Interstate 80 between Fairfield and Cordelia. Residents in Cordelia would be able to ride their bicycles to offices and Solano Community College and use the Linear Park to ride to downtown Fairfield. Residents of Fairfield would be able to access jobs in Cordelia.

Project Name: Green Valley Road / I-80 / I-680 Intersection Reconstruction		
Project #: N	Time Frame: Long-term	Location: Green Valley Gateway
Sponsoring Agency: STA		Approximate Cost: > \$5 million
Partner Agencies: Caltrans, City of Fairfield		
<p>Description: As a project identified for future major investment, the reconstruction of the Green Valley Road overcrossing to current standards would include width to allow for pedestrian and bicycle access across Interstate 80 between Fairfield and Cordelia. Coupled with improvements along Green Valley Road north of the interchange, this project would allow middle- and high-school students in Fairfield to safely bicycle to their schools (Green Valley Middle School or Angelo Rodriguez High School) south of Interstate 80. Conversely, residents in Cordelia would be able to safely shop at Green Valley Commons shopping center or to bicycle to the Fairfield-Cordelia Library.</p>		

Project Name: SR 12 / Red Top Road Intersection Reconstruction

Project #: O

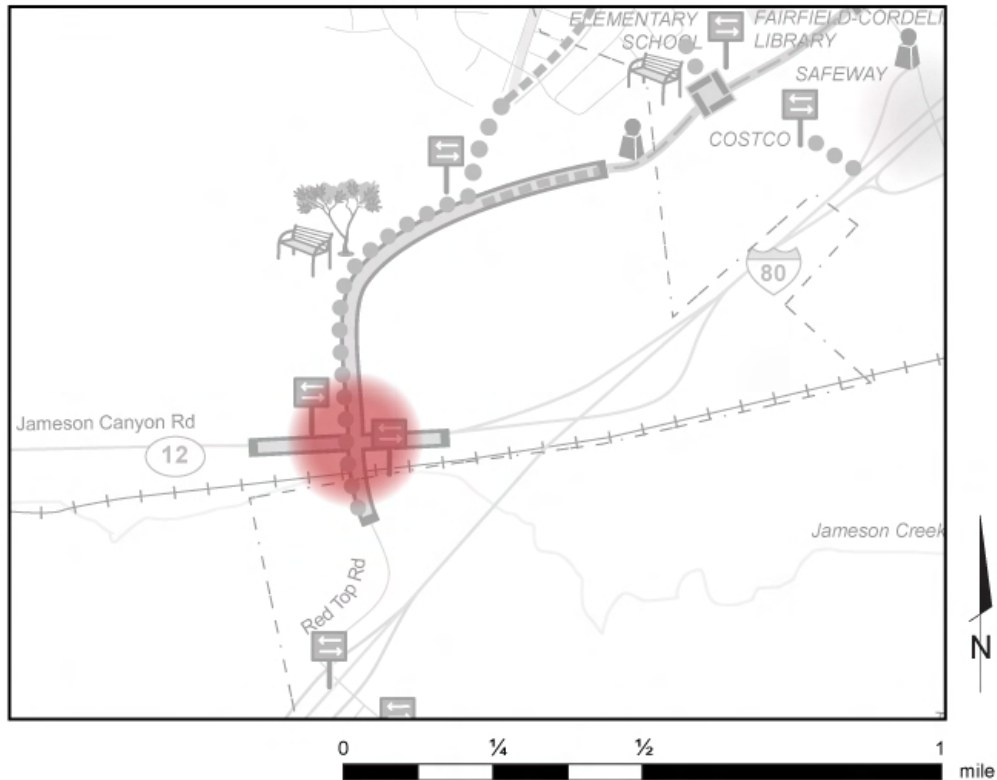
Time Frame: Long-term

Location: West Section

Sponsoring Agency: STA

Approximate Cost: > \$5 million

Partner Agencies: Caltrans



Description: Intersection improvements at Red Top Road and SR 12 are currently being considered as part of the North Connector Project and the I-80 / I-680 / SR 12 Interchange Project. From a regional perspective, to get to Fairfield, bicyclists from Vallejo or Napa currently would need to cross either SR 12 at Red Top Road or I-80 at Green Valley Road. Accommodating bicycle and pedestrian safety improvements as part of the North Connector and I-80/I- 680/SR 12 Interchange at the Red Top Road / SR 12 intersection would help complete this important regional bicycle and pedestrian transportation corridor.

7 Next Steps

Implementation of the concepts presented in this plan would need to include the following steps:

1. Obtain agreement and support from elected officials in the City of Fairfield and Solano County;
2. Confirm lead agencies and participating agencies;
3. Refine cost estimates and perform preliminary design;
4. Identify funding sources for projects and incorporate into STA funding priorities for bike, pedestrian, and TLC programs;
5. Develop detailed designs and undergo environmental impact analysis; and
6. Build it!