State Route 12

Corridor System Management Plan

December 2010

csmp

CALTRANS DISTRICT 4

corridor system management plans

Caltrans

state route 12
corridor system management plan

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I accept this Corridor System Management Plan for State Route 12 (SR-12) as a document informing the regional transportation planning process.

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stakeholder acknowledgment

District 4 wishes to acknowledge the time and contributions of stakeholder/partner agencies. Current and continuing Corridor System Management Plan (CSMP) development is dependent upon the close participation and cooperation of all major stakeholders. This CSMP represents a cooperative commitment to develop a corridor management vision for the SR-12 Corridor. The strategies evaluated have the potential to impact the local arterial system and the regional and local planning agencies that have the corridor within their jurisdiction. These representatives provided essential information, advice and feedback for the preparation of this CSMP. The stakeholders/partners include:

- Metropolitan Transportation Commission (MTC)
- Solano Transportation Authority (STA)
- Napa County Transportation and Planning Agency (NCTPA)

A website, www.corridormobility.org has been created to support the development of the CSMPs and to provide stakeholders and the public with more information and an opportunity to provide input and review documents.

Disclaimer: The information, opinions, commitments, policies and strategies detailed in this document are those of Caltrans District 4 and do not necessarily represent the information, opinions, commitments, policies and strategies of partner agencies or other organizations identified in this document.

dedication

To Patricia “Pat” Weston (1951-2009)

Caltrans District 4 Planners dedicate this Corridor System Management Plan (CSMP) to the memory of Pat Weston, Chief, Caltrans Office of Advance System Planning, whose seemingly limitless energy and passion for transportation system planning in California has been an inspiration to countless transportation planners and engineers within Caltrans and its partner agencies. Pat's efforts elevated the importance of corridor-based system planning, performance measurement for system monitoring, and the blending of long-range planning with near-term operational strategies. This has resulted in stronger planning partnerships with Traffic Operations in Caltrans and led directly to the requirement to conduct comprehensive corridor planning through CSMP documents. This is but one of a long list of major achievements in Pat's lengthy Caltrans career. She generously shared her knowledge, wisdom and guidance with us over the years. She will be sorely missed as a planner, mentor and friend.

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executive summary

State Route 12 (SR-12) is an east-west route that connects the Bay Area to the San Joaquin Valley. The route segment requiring a CSMP is located in Napa and Solano counties. Population along the SR-12 corridor is projected to steadily increase in both Solano County and Napa County. In 2035, Solano County will have experienced the highest population growth rate in the Bay Area region, by almost 40 percent (Association of Bay Area Governments [ABAG] 2007 Projections). By 2035, Napa County population growth is projected to increase by 16 percent (ABAG 2007 Projections).

Corridor System Management Plans (CSMP) provide for integrated management of travel modes and roadways to facilitate the efficient and effective movement of people and goods within California's most congested transportation corridors. A CSMP is a transportation planning document that analyzes existing and future traffic conditions and proposes traffic management strategies and capital improvements to maintain and enhance mobility within each corridor. CSMPs satisfy requirements to qualify projects for funding of highway improvements under the Corridor Mobility Improvement Account (CMIA) established after the passage of Proposition 1B in 2006. CSMPs support the Governor's Strategic Growth Plan (SGP), which calls for an infrastructure improvement program that includes a major transportation component (GoCalifornia). Development of this CSMP for SR-12 is required to fulfill the California Transportation Commission's (CTC) CMIA requirements and Caltrans' need to develop a Corridor Plan for SR-12. Government Code 65086 requires Caltrans to conduct long-range planning to identify future highway improvements and new transportation corridors in cooperation with its planning partners as SR-12 is a rural corridor. Full operational analysis was not available for this CSMP. Therefore, this CSMP has been developed by Caltrans to meet the requirements of the CMIA Program and establish the route concept under Caltrans System Planning guidelines. It describes the current land use, transit, bicycle/pedestrian facilities, and the most recent policy initiatives designed to meet the requirements of Assembly Bill (AB) 32 and Senate Bill (SB) 375 on GHG emissions reduction. These are provided as context to future development in the corridor.

SR-12 is mostly rural and located in an environmentally sensitive area that contains wetlands, which are crucial to many endangered species. Recent concerns surrounding rising sea levels by the Delta Protection Commission are causing Caltrans to take this issue into account for the safety and viability of the corridor.

This two- to four-lane route provides for interregional movement of goods and people. SR-12 is used to transport agricultural products from the Napa Valley, Solano County and the Delta region. SR-12 is a major route for weekday commuters from their residence to place of work in Napa, as lower housing costs have contributed to the growth of outlying bedroom communities in Solano, Sacramento, and Yolo Counties. The CMIA project to widen SR-12 in Jameson Canyon will facilitate this commute. SR-12 is also a popular route for recreational travelers destined for Napa and Sonoma wineries, as well as to the Delta for fishing, swimming, and boating. Few parallel arterials serve as alternatives to the highway due to the topography, but a local bypass (North Connector) is being constructed to preclude local traffic having to use I-80 between the eastern and western halves of SR-12.

Figure 1 CSMP SR -12 Overview Map

SR-12 CORRIDOR FACT SHEET

The SR-12 CSMP Corridor begins at Jameson Canyon in Napa County and travels eastward to the Solano/Sacramento county line.

Corridor Description: The SR-12 CSMP Corridor is an east/west route starting at SR-29 and ending at the Solano/Sacramento county line. SR-12 is a conventional highway (Segment A) between SR-29 and I-80, where it becomes a freeway for a short distance as it shares its right-of-way (ROW) with I-80. East of I-80 (Segment B) SR-12 is an expressway until it becomes a two-lane conventional road (Segment C). The corridor length is 30 miles and intersects SR-29, I-80, SR-113, SR-84, and SR-160 from West to East. SR-12 is a major interregional corridor and also carries local traffic. The corridor is used for commuting and goods movement. Park and Ride lots connect directly to some transit as well as rideshare.

Corridor Concept (2035): TBD

Corridor Concept (2025): Widen to four lanes between Suisun City to Rio Vista. (Source: Caltrans 2002 Draft TCCR)

Route Designation and Regional Setting

Functional Classification	Urban/Rural Principal Arterial Expressway and Conventional Highway
Trucking Designation	• Surface Transportation Assistance Act-Yes • Terminal Access Route-No • State Highway Extra Legal Load-No • State Life Line Route-Yes
Other Designations	Freeway & Expressway (F&E)-Yes
Scenic Highway	Yes
Interregional Road System	Yes
Life Line	Yes, partially from US 101 in Petaluma through Napa to I-80 in Solano County
MPO	Metropolitan Transportation Commission
Air Quality District	Bay Area Air Quality Management District and Yolo/Solano Air Quality Management District
Mode Split	75.4% SOV, 14.4% Rideshare, 2.2% Transit, 2.2% Walk, 5.8% Other
National Highway System (NHS)	From the intersection of I-80 and SR-12 to Solano/Sacramento County Line.

Multi-modal Service

Primary providers of bus and rail are:

Fairfield/Suisun Transit System, Greyhound and Rio Vista Breeze. The AMTRAK station located in Suisun City serves the Capital Corridor that stops in Sacramento, Oakland, and San Jose.

Park and ride lots are located in the following cities: Cordelia, Fairfield (Fairfield Transportation Center has 640 parking spaces), Rio Vista (20 spaces), and Suisun City (250 spaces).

Interregional Significance: SR-12 starts in Sonoma County and ends in the San Joaquin Valley. It is a significant corridor for recreational, commuting, with significant goods movement. It also serves as a major corridor for weekday commuters, particularly into the Napa Valley. SR-12 has potential as a key interregional goods movement corridor because of its direct access to the San Joaquin Valley, California's primary agricultural area.

Corridor Specific Issues:

- Inter-regional route between San Joaquin Valley and the Bay Area
- Congestion during peak commute times
- High recreational use at times
- Environmental and climate change concerns
- Infrastructure and operational constraints imposed by river bridges

Corridor Objectives:

- Reduce variation of travel time.
- Improve connectivity between all modes as alternatives to single occupant vehicles.
- Reduce accident and injury rate.
- Efficient goods movement.
- Improve air quality.

Performance Measures

Goal	Performance Measure
Mobility	Travel time
Reliability	Travel Time
Access	Mode Split
System Preservation	Pavement Condition Data
Safety	TASAS Data
Productivity	Equivalent lost lane miles
Clean Air	Number of days exceeding Fed/State ozone standards

Current Performance

Top Congested Locations—Intersections:

- SR-12/SR-29
- SR-12/North Kelly Road
- SR-12/Red Top Road
- SR-12/Pennsylvania Avenue

Roadways: From SR-12/SR-29 to SR-12/I-80

Corridor Concept (2025)

Segment	Segment Description	25-year Concept
Segment A PM 0.0 – R2.794	SR-12/SR-29 Napa to SR-12/I-80 Junction	4C
Segment B PM L1.801–7.635	East of SR-12/I-80 Junction to Walters Rd.	4F/4E
Segment C PM 7.635–26.409	Walters Road to Solano/ Sacramento county line	2/3C

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State Route 12

Section 1—CSMP Overview

1.1 CSMP Overview

1.2 Planning and Policy Framework

1.3 First and Second Generation CSMPs

1.4 Consistency with Strategic Growth Plan

1.5 SR-12 and the CSMP Process

1.6 Relationship to Other Plans, Studies and Policies

1.1 CSMP OVERVIEW

This Corridor System Management Plan (CSMP) represents a commitment to develop a corridor vision for the SR-12 Corridor in Napa and Solano Counties. The CSMP for SR-12 is an effort of Caltrans in cooperation with the Solano Transportation Authority (STA), the Napa County Transportation and Planning Agency (NCTPA) and the Metropolitan Transportation Commission (MTC). The goal is to propose sustainable strategies to achieve mobility benefits to travelers across all jurisdictions and modes.

1.2 PLANNING AND POLICY FRAMEWORK

Since passage of the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act, known as Proposition 1B, in November 2006, Caltrans has implemented the CSMP process statewide for all corridors with projects funded by the CMIA Program. The CTC requires that all corridors with a CMIA-funded project have a CSMP that is developed with regional and local partners. The CSMP recommends how the congestion-reduction gains from the CMIA projects will be maintained with supporting system management strategies. The CTC has also provided guidance in the 2008 Regional Transportation Plan (RTP) Guidelines that the CSMPs are an important input to the development of the RTP.

In the San Francisco Bay Area, Caltrans is completing ten CSMPs. This SR-12 CSMP reflects data and projects from MTC's current RTP, *Change in Motion, Transportation 2035 Plan*, adopted April 2009. The CSMP recommends strategies that could potentially become projects through the regional transportation project development and prioritization process. In the San Francisco Bay Area, the CSMP process has taken place in coordination with MTC's Freeway Performance Initiative (FPI), a commitment to invest $1.6 billion over 25 years to deploy technology to manage congestion on the freeway system. The FPI has provided the technical freeway performance analyses for the CSMPs, but as SR-12 is a rural corridor this analysis was not available for this CSMP. Therefore, this CSMP has been developed by Caltrans to meet the requirements of the CMIA Program and establish the route concept under Caltrans System Planning guidelines. It describes the current land use, transit, bicycle/pedestrian facilities, and the most recent policy initiatives designed to meet the requirements of AB 32 and SB 375 on GHG emissions reduction. These are provided as context to future development in the corridor.

1.3 FIRST AND SECOND GENERATION CSMPS

The first generation of CSMPs has been used to identify corridor management strategies, applied on a network wide basis, to support the CMIA projects within their corridors. The selected strategies address existing and forecasted mobility, lost productivity, bottlenecks and reliability problems. The CSMPs recognize that transit services and goods movement are also adversely affected by the same problems, and link to the recommendations of the Countywide Plan and the MTC 2009 RTP (T2035). Since Caltrans and the Regions launched this first cycle of corridor system management planning in 2007 (called *first generation CSMPs*), the statewide planning policy context has evolved significantly. AB 32 policy on reducing GHG emissions has moved into implementation with passage of SB 375, landmark legislation requiring the regions to meet state-designated GHG emissions reduction targets. The CTC has developed guidance on how the regions will develop Sustainable Community Strategies (SCS) in their next RTP cycle; MTC's next RTP is slated for completion in 2013. The SCS will promote strategies to reduce green house gas emissions through more efficient land use patterns, reduce vehicle travel, support transit, bicycle and pedestrian mode choices, and improve supply and affordability of housing within the Bay Area to reduce commuting into the region. The Second Generation CSMPs will reflect the SCS and the 2013 RTP, and will grapple with the issue of providing mobility and reducing highway congestion within the context of a new regional planning framework. The second generation CSMP scope will expand to include integrated land use and transportation analysis and a more comprehensive look at transit and non-motorized travel strategies and options.

The limits of each CSMP were determined by identifying the key travel corridor in which CMIA-funded projects

were located in collaboration with MTC. In most cases the limits from District 4's Transportation Corridor Concept Reports (TCCRs) were used, as well as corridor limits used in the FPI.

Defining the CSMP transportation network includes, but is not limited to, State Highways, major arterials, intercity and regional rail service, regional transit services, and regional bicycle facilities.

A corridor performance assessment uses current travel conditions and facilities data. Modeling is also used to forecast future travel conditions along the corridor. This serves to evaluate existing system management practices and the causes of performance problems along the corridor using a set of common performance metrics.

Rio Vista Bridge across the Sacramento River and shipping channel.

For the San Francisco Bay Area (Caltrans District 4), 10 CSMPs are being developed.

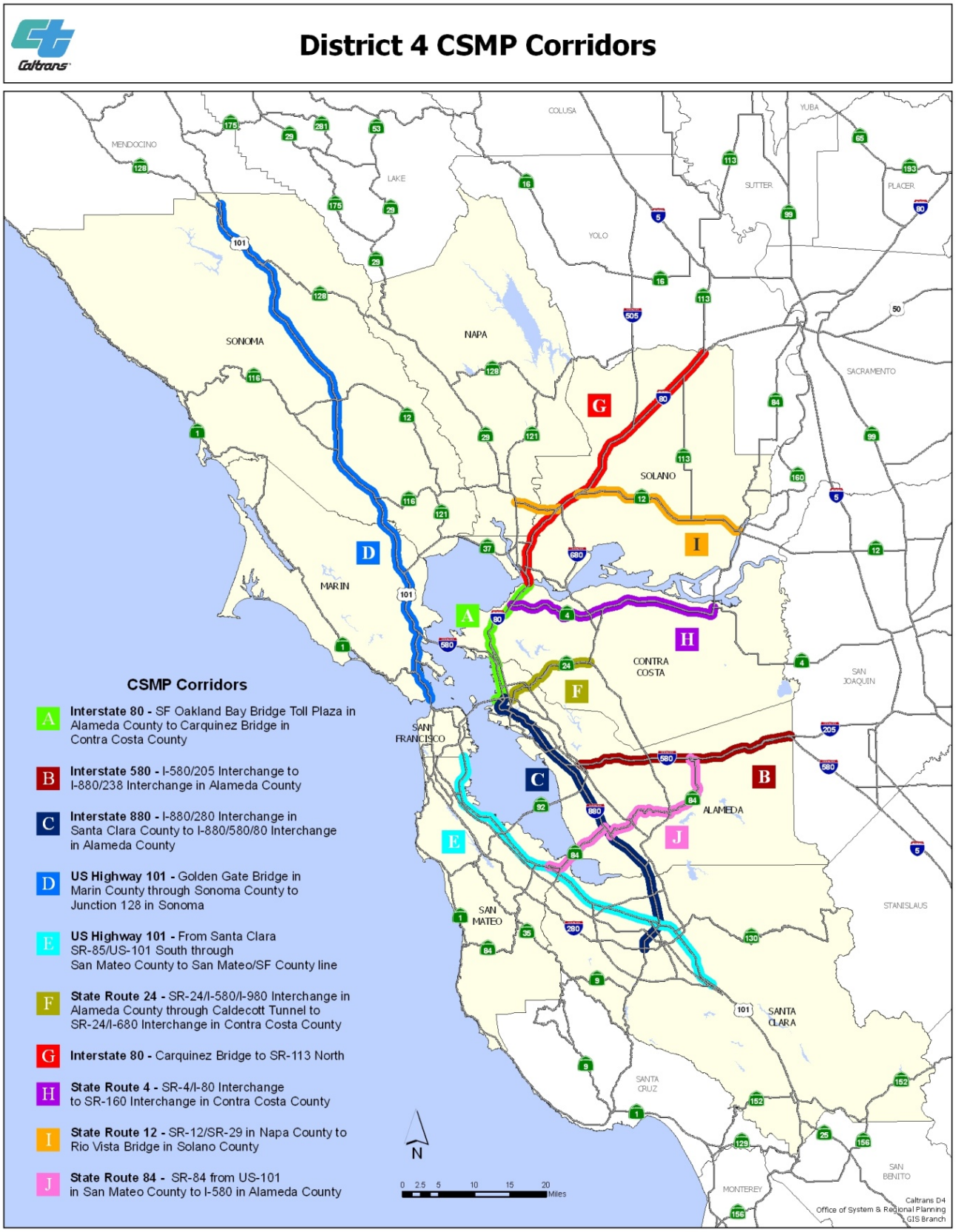


Figure 1.3.1. Caltrans District 4 CSMP Corridors Map.

1.4 CONSISTENCY WITH STRATEGIC GROWTH PLAN

CSMPs are meant to support the Governor's Strategic Growth Plan (SGP), which calls for an infrastructure improvement program that includes a major transportation component (GoCalifornia). The CMIA and other elements of the November 2006 transportation infrastructure bond are meant as a down payment toward funding the most important of these infrastructure needs. The objectives of these investments are to decrease congestion, improve travel times and safety, and accommodate expected growth in the population and economy. The SGP is based on the premise that investments in mobility throughout the system will yield significant improvements in congestion relief.

1.5 SR-12 AND THE CSMP PROCESS

As mentioned above, SR-12 was not included in the MTC's FPI and therefore has no operational analysis associated with the corridor as a whole. The CMIA project to widen Jameson Canyon (from two lanes to four lanes) between I-80 and SR-29 is the reason for this CSMP, however, this project is isolated from the rest of the corridor, and in most ways acts independently from the section of SR-12 east of I-80. In addition, the eastern section of SR-12 is currently subject to evaluation in a multi-jurisdictional study (the SR-12 Comprehensive Corridor Evaluation and Management Plan) extending from I-80 east to I-5. Therefore, the two halves of the corridor have been treated somewhat differently. The western section (Jameson Canyon) will use analysis from the CMIA project to show projected growth and the benefits of widening SR-12 in this area from two lanes to four lanes. For the eastern section (east of I-80) the CSMP will attempt to define parameters to guide the concurrent SR-12 Comprehensive Corridor Evaluation and Management Plan (see below), which will eventually provide detailed analysis for this section.

The North Connector project parallels I-80. SR-12 will provide conventional roadway connectivity between the east and west sections of SR-12. It will serve local traffic, cyclists, and pedestrians.

I-80 East CSMP

The SR-12 CSMP Corridor is split into two sections, divided by a portion of I-80. This section of I-80 is not included in this CSMP, but is covered by the I-80 East CSMP. The I-80 East CSMP was developed to support the following CMIA projects on I-80:

- High Occupancy Vehicle (HOV) lanes in Fairfield from I-680 to Putah Creek
- WB I-80 to SR-12 (west) Connector and Green Valley Road Interchange Improvements

SR-12 Comprehensive Corridor Evaluation and Management Plan

This study aims to conduct a coordinated, comprehensive evaluation of the SR-12 corridor and to develop a multi-jurisdictional corridor management plan that includes stakeholder input and consensus on a set of prioritized improvements for SR-12. The study limits are from I-5 (San Joaquin) to SR-29 (Napa). These limits were set to include the CMIA project in Jameson Canyon, but for practical purposes the study will use the existing data and analysis from the Jameson Canyon project. Therefore, the study, which will be completed in early 2011, will concentrate its data collection on the I-80 to I-5 section of the corridor so as not to duplicate research done for the Jameson Canyon CMIA project.

The plan will build upon and update previous studies for the SR-12 corridor and incorporate the most recent transportation forecasts based upon current land use plans for each of the counties located along the corridor. Key issues to be addressed are delay and capacity constraints caused by moveable bridge operations at Rio Vista over the Sacramento River, Mokelumne River and Potato Slough, safety issues related to existing roadway geometry and operations on SR-12.

The plan is being conducted with three Caltrans Districts (District 4—Bay Area, District 10—Stockton and District 3—Marysville) and four transportation planning agencies (STA—Solano, SJCOG—San Joaquin, SACOG—Sacramento, and MTC—Bay Area). Caltrans is contributing $700,000 in grants ($500,000 SPR Special Studies and $200,000 Public Participation support), while another $500,000 is being supplied by the participating counties and MTC.

More detailed information on this plan can be obtained online at: http://www.corridormobility.org/Content/10085/Moving_SR12_Forward.html

1.6 RELATIONSHIP TO OTHER PLANS, STUDIES AND POLICIES

This chapter outlines other documents and studies that have a bearing on the corridor.

Plans

There are a number of planning documents that have been used as the foundation for the preparation of this CSMP. The system planning documents prepared by Caltrans include the 2005 California Transportation Plan (CTP), the 1998 Interregional Transportation Strategic Plan (ITSP), the Metropolitan Transportation Commission 2009 Regional Transportation Plan (T2035), and several Caltrans District 4 documents that include the preliminary draft Transportation Corridor Concept Report (TCCR) for I-80 dated May 20, 2002, and the draft 2003 Corridor Plan for I-80.

In addition to the above-described planning documents, there are also a number of related Caltrans system management documents that have been utilized in the development of this CSMP. These documents include the 2006 Strategic Growth Plan (SGP), 2004 Transportation Management System Master Plan (TMSMP), and 2004 California ITS Architecture and System Plan (SWITSA).

Studies

The corridor has been subject to a number of studies

- *Highway 12 Major Investment Study* (2001) identified physical improvements and management practices to accommodate future travel demand from the SR-12 area between Interstate 80 and the Rio Vista Bridge.
- *State Route 12 Transit Corridor Study* (2001) looked specifically at getting transit service from Fairfield/Suisun City to Napa with a future extension to Rio Vista.
- *State Route (SR-12) Comprehensive Transportation Corridor Study Rio Vista Bridge to SR-99* (2006) identified conceptual physical improvements and management practices to appropriately serve existing and future travel demand.
- *State Route 12 Jameson Canyon Road Widening and State Routes 29/12 Interchange Project* (2007) examined potential environmental impacts to widen SR-12 through Jameson Canyon and convert SR-29 and SR-12 intersection into an interchange.
- *Wine Country Interregional Partnership Study* (2007)—a four-county study (Sonoma, Napa, Lake and Mendocino) looking at transportation solutions to the jobs/housing imbalance in the region.
- *Draft Rio Vista Bridge Study* (2010) looked at a number of options for replacing the existing bridge at Rio Vista used by SR-12. The options varied in cost from $1.4 to $2.3 billion.

Policies and Legislation

Regional Blueprint Planning Program:

The Regional Blueprint Planning Program supports the smart growth element of the Strategic Growth Plan by promoting smart land use choices at the regional and local levels. The Regional Blueprint Planning Program was a grant program that supported Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs) to conduct comprehensive scenario planning. Using consensus-building and a broad-based visioning approach its goal was to envision future land use patterns and their potential impacts on a region's transportation system, housing supply, jobs/housing balance, resource management and other protections. The Blueprint planning effort in the San Francisco Bay Area is the Focus Our Vision (FOCUS) program, which is led by ABAG and MTC with support from the Bay Area Air Quality Management District (BAAQMD), the Bay Conservation and Development Commission (BCDC), and Caltrans. These agencies and local governments participated in the Regional Blueprint Planning Program since the program's inception in 2005, receiving grants for all four years, and now carry on regional blueprint goals through the FOCUS program.

Priority Development Areas

FOCUS seeks to work with local governments and others in the Bay Area to collaboratively address issues such as high housing costs, traffic congestion, and protection of natural resources. The primary goal of FOCUS is to encourage future growth near transit and in the existing communities that surround the San Francisco Bay, while enhancing existing neighborhoods and providing housing and transportation choices for all residents.

In the summer of 2007, local governments in the Bay Area were invited to apply for regional designation of an area within their community as a Priority Development Area (PDA). PDAs are infill development opportunities within existing communities. These communities welcome more residents; they are committed to creating more housing choices in locations easily accessible to transit, jobs, shopping and services. To be eligible to become a PDA, an area had to be within an existing community, near existing or planned fixed transit or served by comparable bus service, and planned for more housing.

A 2010 Survey indicated that Planned PDAs in the Bay Area expect to add approximately 209,000 housing units and 607,000 jobs over the next 25 years. As a result, in 2035 there are anticipated to be nearly 579,000 housing units and 1.6 million jobs in the region's Planned PDAs. These numbers indicate that, while the 92 Planned PDAs included in this assessment account for a little over one percent of the land area of the Bay Area, they are planning to accommodate 32 percent of the housing growth and 37 percent of the job growth forecasted in ABAG's *Projections and Priorities 2009: Building Momentum*. However, it is expected that the majority of this growth will take place in the inner Bay Area counties, if only because the majority of PDAs are found in these areas.

PDAs along the SR-12 CSMP Corridor in Solano County are listed in the table below.

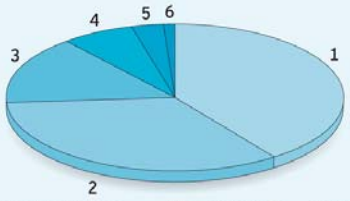
PDA	Designation
Fairfield, Downtown South, Jefferson Street/ Union Avenue	Planned
Suisun City, Downtown Waterfront Dist.	Planned
Fairfield, Fairfield/Vacaville Train Station	Potential
Fairfield, West Texas Street Gateway	Planned
Fairfield, North Texas Street Core	Potential
SR-29 Corridor American Canyon	Potential

Source: FOCUS: http://www.bayareavision.org

Assembly Bill 32: California Global Warming Solutions Act

The California Global Warming Solutions Act, a groundbreaking law signed by Governor Schwarzenegger in 2006, requires reduction of statewide GHG emissions to 1990 levels by the year 2020. Reducing GHG emissions to 1990 levels means cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 15 percent from today's levels. On July 28, 2010, the MTC approved a set of "Bay Area Principles for Establishing Regional Greenhouse Gas Reduction Targets" (Resolution 3970). The principles propose, among other things, per-capita GHG reductions of 7 percent by 2020 and 15 percent by 2035.

CO_2-Equivalent Emissions in the Bay Area, by Major Categories



	Pollution Source	CO_2-Equivalent	Percent
1	Transportation	42	40%
2	Industrial/Commercial	35	34%
3	Electricity/Co-Generation	15	15%
4	Residential Fuel Usage	7	7%
5	Off-Road Equipment	3	3%
6	Agriculture	1	1%
	Total	103	100%

Source: BAAQMD, 2007 Source Inventory of Greenhouse Gas Emissions
Emissions in million metric tons/year; data is for 2007

Senate Bill 375:

Signed into law in 2008, SB 375 establishes a process for the California Air Resource Board (CARB) to implement AB 32 by requiring the Board to adopt, by September 30, 2010, regional GHG targets for emissions associated with the automobile and light truck sector. Metropolitan planning organizations such as MTC are required to develop an SCS element in their long-range plans to strive to reach the GHG reduction targets. The SCS adds three new elements to the plan: 1) a land-use component; 2) a resource and farmland protection component; and 3) a demonstration of how the development pattern and the transportation network can work together to reduce GHG emissions. In the Bay Area, the provisions of SB 375 will apply to the successor plan to T2035, scheduled for adoption in 2013.

Current Developing Planning Processes

The following planning processes are newly developed or being undertaken during the planning horizon of this CSMP.

One Bay Area:

SB 375 (2008) aims to reduce GHG emissions through development of a Sustainable Communities Strategy. "One Bay Area" is the Bay Area implementation of this strategy. MTC must adopt the SCS as part of its next RTP for the Bay Area, which is due in 2013. Because state and federal law require everything in the plan to be consistent, the RTP's investments must be consistent with the Strategy and must be judged to be realistically achievable in the RTP's 25-year planning horizon. This also means the Strategy must be in sync with local land-use plans.

California Interregional Blueprint (CIB):

This CIB is a State initiative which will aggregate planned interregional highway, transit, rail (including high-speed and intercity rail), intelligent transportation system, goods movement, and other State project concepts and strategies to complement the projects already included in RTPs. It will also serve to expand the understanding of the interactions between land use and transportation investments in meeting critical strategic growth and sustainability goals. It will enhance the scope of the existing California Transportation Plan (CTP) by analyzing the benefits of multi-modal, interregional projects on the transportation system.

Smart Mobility Framework:

Smart Mobility 2010: A Call to Action for the New Decade is a handbook that acts as an overarching basis for policy and action, coordinating many of Caltrans' existing activities and the activities of other public and private organizations. It provides new tools and techniques to improve transportation by using performance-based measures to achieve sustainable outcomes. Smart Mobility works to move people and freight while enhancing California's economy, environment and human resources. It emphasizes convenient and safe multi-modal travel, speed suitability, accessibility, management of the circulation network, and efficient use of land.

Location Efficiency is a concept being introduced for the first time: it refers to the fit between the physical environment and the transportation system that can lead to Smart Mobility benefits. Location-efficient community design elements contribute to development patterns and transportation systems at the neighborhood and district scale that combine to support convenience, non-motorized travel, and efficient vehicle trips.

Section 2—Corridor Description

2.1 Corridor Limits/Route Designations

2.2 Configuration and Setting

2.3 Demographics

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2.7 Trip Information

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2.1 CORRIDOR LIMITS/ROUTE DESIGNATIONS

SR-12 is an east-west route from the Sierra Foothills to Sebastopol in Sonoma County, and includes Napa, Solano, Sacramento, San Joaquin, and Calaveras Counties. The CSMP SR-12 Corridor begins at the intersection of SR-29 and SR-12 (west of I-80) in Napa County and ends at the Rio Vista Bridge at the Solano/Sacramento county line and the transfer of the route to Caltrans District 3. The CSMP includes the Rio Vista Bridge as it falls within the study limits and is operated and maintained by Caltrans District 4. The CSMP SR-12 route is 30 miles long and used for local and interregional travel. The corridor is a route into the Bay Area from the Central Valley and is also a major route for access to Napa and Sonoma counties from the east. It also has a significant goods movement function and provides a gateway to the Delta.

2.2 CONFIGURATION AND SETTING

Specific alignment and terrain information for SR-12 is described below (east to west; mileage is approximate):

Table 2.2.1 SR-12 Highway Configuration and Setting

County and Post Mile (PM)	Highway Facility	Setting
Napa-PM 0 to Sol-PM R2.75	2-lane, (1+1) Conventional	Rural
Sol-PM L1.8 to PM 7.64	4-lane, (2+2) (L1.8–2.94) Freeway (L2.95—4.12) Conventional (R4.27—4.70) Freeway (R4.79—6.47) Conventional (6.93—7.64) Expressway	Suburban
Sol-PM 7.64 to PM 26.43	(7.64—7.80) 4-lane (2+2) Expressway (7.86—12.94) 2-lane (1+1) Expressway (13.55—17.81) 2-lane (1+1) Conventional (17.93—18.38) 4-lane (2+2) Conventional (18.46—19.85) 2-lane (1+1) Conventional (19.91—20.49) 4-lane (2+2) Conventional (20.57—26.24) 2-lane (1+1) Conventional	Agricultural

Table 2.3.1 Bay Area Demographic Data Projections

County	Population		# Households		#Jobs		Mean Household Income	
	2005	2035	2005	2035	2005	2035	2005	2035
Alameda	1,505,300	1,938,600	543,790	700,090	730,270	1,099,550	$88,800	$121,800
Contra Costa	1,023,400	1,300,600	368,310	485,240	379,030	591,650	$98,400	$135,100
Marin	252,600	283,100	103,180	116,800	135,370	165,180	$121,600	$166,800
Napa	133,700	155,700	49,270	59,650	70,690	98,570	$85,900	$117,900
San Francisco	795,800	956,800	338,920	396,310	553,090	832,860	$97,400	$133,600
San Mateo	721,900	861,600	260,070	312,030	337,350	522,000	$121,700	$167,000
Santa Clara	1,763,000	2,380,400	595,700	806,210	872,860	1,365,810	$97,900	$134,300
Solano	421,600	585,800	142,040	196,220	150,520	227,870	$84,400	$113,400
Sonoma	478,800	568,900	181,800	219,980	220,460	344,290	$82,600	$113,300
Total	**7,096,100**	**9,031,500**	**2,583,080**	**3,292,530**	**3,449,640**	**5,247,780**	**$97,400**	**$133,100**

Source: ABAG 2007 Projection. For more information, please see Association of Bay Area Governments. Projections 2007 Forecasts for the San Francisco Bay Area to the Year 2035. Association of Bay Area Governments, Oakland, CA 2006.

2.3 DEMOGRAPHICS

Currently, Solano County has one of the highest growth rates in the Bay Area and which is expected to continue. Solano County's population is anticipated to grow by nearly 40 percent by 2035—the most rapid growth rate of the nine Bay Area counties. According to the Solano County Travel Demand Model that is used to develop traffic forecasts for the year 2025, there will be significant land use changes in the area. Since the 1850s Fairfield has been the county seat. In 1950 the population of Fairfield was 3,100 today; by 2009 it was 106,000. The population of Suisun City (2009) is 28,962. Rio Vista currently has a population of just over 7,000 (2009) and with the current housing market and policy changes will probably see only incremental growth in the next 10 years. High housing costs in other Bay Area counties have largely contributed to growth in Solano County, where housing is relatively affordable. Lodi, at the eastern end of SR-12, has a population of 70,000, and nearby Stockton has 280,000 residents. Napa County is the least populous Bay Area county with a 2006 population estimated at 133,500 (ABAG, 2000 Census projection). According to ABAG 2007 Projections, Napa County population growth is projected to increase 16 percent by 2035.

2.4 LAND USE/MAJOR TRAFFIC GENERATORS

Agriculture and grazing are the main land uses in Jameson Canyon. Adjacent to the SR-12/SR-29 intersection there are industrial parks which continue on the west side of SR-29 in the direction of the airport. There is a privately owned golf course in close proximity to this intersection. The Napa County Airport, a general aviation facility, is one-half mile west of SR-29.

Employment and economic activity in the Napa Valley is dominated by the wine industry and its associated employment. Robert Mondavi Winery (1,000 employees) is one of the largest, but Napa State Hospital (1,778 employees), Cultured Stone (1,500) and Napa County (1,400 employees) are other large employers.

In Solano, where SR-12 runs through the cities of Fairfield and Suisun City, the adjoining land uses are a mix of suburban residential, industrial park and retail. Some areas are undeveloped, either pending future development or are a part of the Suisun Marsh and therefore permanent open space. In unincorporated Solano County, the land around SR-12 is zoned primarily for extensive agricultural uses. The Lambie Industrial Park is located north of SR-12 off of Lambie Road, and the Potrero Hills Landfill is located south of SR-12 and east of Suisun City. Landfill access is from SR-12, and the operator is interested in expanding from 320 acres to 580 acres.

Some of the largest employers are in the SR-12/I-80/I-680 area of the corridor. Major trip generators influencing the corridor include Travis Air Force Base (15,000 military and civilian employees), County of Solano (1,900 employees), Fairfield-Suisun Unified School District (3,500 employees) and Anheuser-Busch (526 employees).

2.5 ENVIRONMENTAL CHARACTERISTICS/ CONSTRAINTS

Environmental Considerations

It is important to note that the CSMP is general in concept. Potential environmental issues affecting soil and air characteristics, storm water drainages, sensitive habitats (such as designated creeks, wetlands, coastal and delta areas, as well as cultural resources) and species would need more detailed scoping and coordination at the project level. Consultation with regulatory and permitting agencies may be required. These agencies can include, but are not limited to, the US Army Corps of Engineers, US Fish and Wildlife Service, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, California Department of Fish and Game, BCDC and the California Coastal Commission. Specific projects and strategies will need to be aware of community impacts, including environmental justice, relocations, growth-inducing indirect effects and cumulative impacts.

Caltrans and partner agencies will need to consider evolving state policy on assumed Sea Level Rise as an impact of global climate change. The Caltrans Office of Planning and Research, Technical Advisory dated June 19, 2008 provides guidance to California Environmental Quality Act (CEQA) lead agencies by suggesting they identify potential GHG emissions, assess any potential impacts, identify appropriate and feasible alternatives and recommend mitigation where appropriate.

Environmental Setting

Both Napa and Solano County have a strong agricultural industry along much of the SR-12 corridor. Napa County is known for its scenic beauty, in relation to wine production, and longstanding commitments to agricultural preservation (Measure J). Current policies address agriculture, watershed, and open space issues, including urban-centered growth; residential, commercial, industrial and public-institutional uses; growth management; and inter-agency cooperation. Policies contributing to Napa County preservation are allowing large lot sizes, directing growth within cities, and limiting nonagricultural development.

In Solano County, the County Orderly Growth Ordinance requires all urban development to take place in incorporated cities. The law has been in place since the mid-1980s, and was extended for another 25 years in 2008 by voter action. As a result, Solano has more than 95 percent of its population in the incorporated cities. The ecologically sensitive Suisun Marsh consists of 84,000 acres, and the Solano County General Plan has policies to avoid significant adverse impacts upon the marsh as a whole.

Air Quality

SR-12 is located in both the San Francisco Bay Area Air Basin (SFBAAB) that includes Napa County and southwest Solano County and the Sacramento Valley Air Basin (SVAB) that includes northeast Solano County. Therefore, the Bay Area Air Quality Management District (BAAQMD) monitors the SR-12 corridor (from the intersection of SR-29 and SR-12 to Olsen Road—1 mile west of SR-113) and the Yolo/Solano Air Quality Management District (YSAQMD) monitors the rest of SR-12 corridor in Solano County.

Rising Sea Level

SR-12's low elevation areas face the greatest threat from rising sea level. The SR-12 corridor south of Travis Air Force base and north of Suisun marsh is in a low-lying area. The corridor is largely constructed on a filled causeway; culverts under the highway allow water to drain to the south into Hill Slough and Nurse Slough watersheds. The highway alignment through the low-lying area has standard paved shoulders and concrete dikes to control highway runoff. The section of SR-12 east of the Rio Vista Bridge (to I-5) is nearly all below sea level, contained by levees. It is not yet clear what the future of this levee system is or its vulnerability to increased sea level rises.

There are increasing concerns surrounding rising sea level due to global climate change. The Delta Vision Blue Ribbon Task Force (appointed by Governor Schwarzenegger) is concerned with developing a sustainable long-term management of the Sacramento – San Joaquin Delta. Consulting with local governments and technical and scientific advisors, the task force forecasts that the sea level will rise by 55 inches in 2100. In the next forty years (2050), the task force predicts that the sea level will increase by 16.1 inches (almost one-third of the amount forecasted in 2100). This sea level rise could result in a strain on Delta levees and threaten the water supply to millions of Californians. The Delta Protection Commission raised concerns to Caltrans on April 9, 2008 about the safety and viability of the corridor. The task force was particularly interested in understanding the mitigation factors and assumptions Caltrans implemented in SR-12. The potential impacts of sea level rise are specifically included in the concurrent SR-12 Corridor Study (using the predicted rises above) and will take this into account in any recommendations.

Wetlands and Biological Issues

Wetlands are located throughout SR-12 in areas underlaid by a restrictive soil layer that results in a seasonally-perched water table. The following wetland community types are present throughout SR-12: riparian, seasonal (ephemeral pool), perennial (marsh), ponds, ditches and intermittent drainages, many of which function to convey roadside runoff.

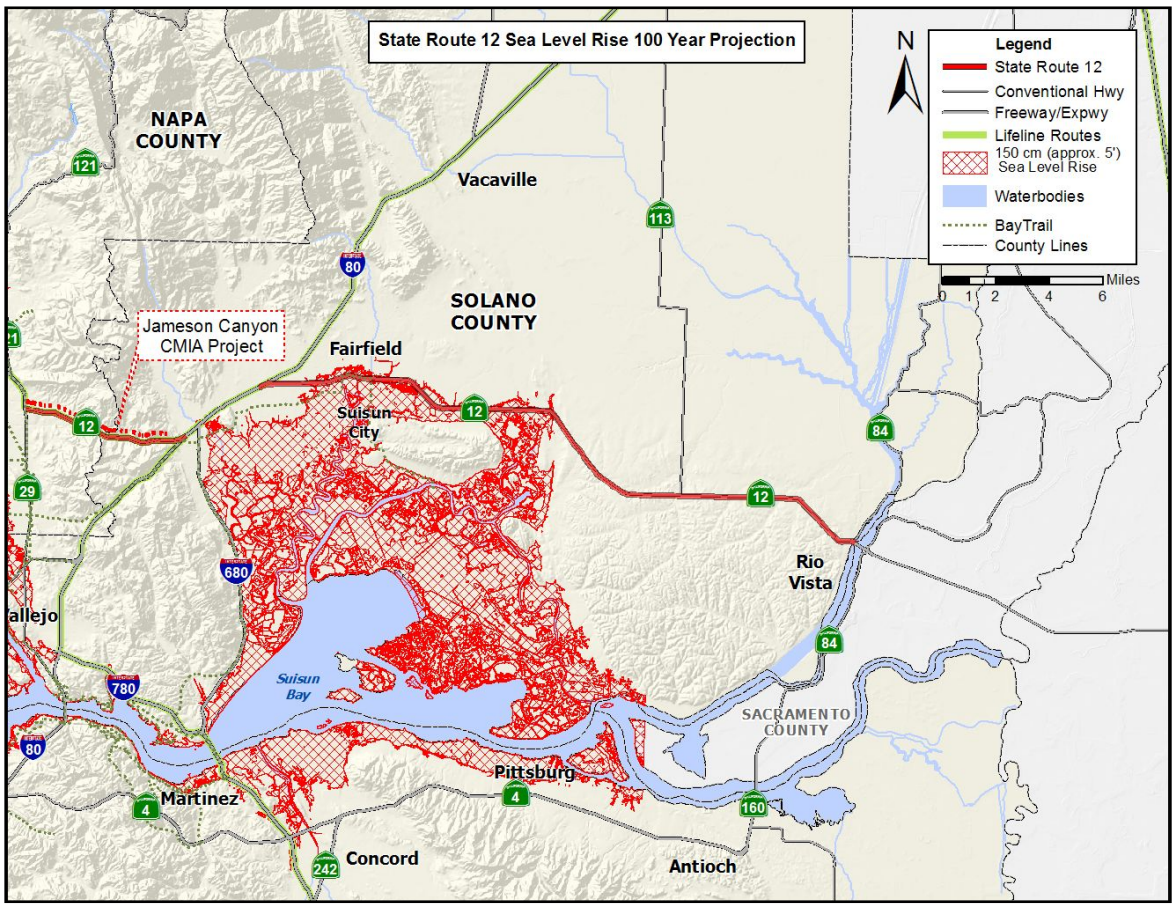


Figure 2.5.1. State Route 12 Sea Level Rise 100-Year Projection Map.

SR-12 in Solano County runs along the northern edge of the Suisun marshlands towards the Delta at Rio Vista. However, from Shiloh Road the roadway is on the northern edge of the Montezuma Hills, and the habitat type changes from seasonally wet grasslands to cultivated grasslands. West of I-80 the habitat is grazing and viticulture.

Historic and Cultural

In the study area, SR-12 passes through only two communities: the contiguous cities of Fairfield and Suisun, and Rio Vista. The highway divides Fairfield from Suisun and the historic waterfront. Fairfield' downtown dates from the 1930s downtown and a number of buildings associated with its role as the county seat. Suisun City's downtown, though largely more modern, has a number of older brick buildings. Rio Vista is an historic river town with an extant downtown. The Rio Vista Bridge was constructed in 1944, but was significantly reconstructed in 1960 to facilitate river traffic. In Segment C, between Fairfield and Rio Vista, SR-12 crosses the route of the Sacramento Northern inter-urban railroad. A segment of the line is preserved and there is a small museum.

Parks and Recreation

In Napa County and Solano County there are no publicly owned parks, recreation areas, or wildlife refuges that border or are in the SR-12 corridor. Rockville Hills Regional Park (Fairfield) is accessible via SR-12. Alan Witt Park (Fairfield) and the Suisun City Sports Complex are accessible using Walters Road. The Bay Area Ridge Trail is a recreational trail currently being developed. The trail will be over 550 miles and circle the San Francisco Bay. The Bay Area Ridge Trail Council has plans to acquire, build, and promote a crossing of SR-12 in Jameson Canyon. The Jameson Canyon CMIA project has a stormwater culvert that is large enough to accommodate the Bay Area Ridge Trail. Bay Area Ridge Trail planners hope to be able to connect the trail to this crossing.

Environmental Characteristics/Constraints

The Environmental Constraints map identifies locations of environmental concern in the corridor. These may include the presence of hazardous materials or facilities, habitats of threatened or potentially threatened species, fragile wetlands, and/or the presence of historic structures. This information needs to be taken into consideration when proposing any improvements or modifications to State facilities within the corridor.

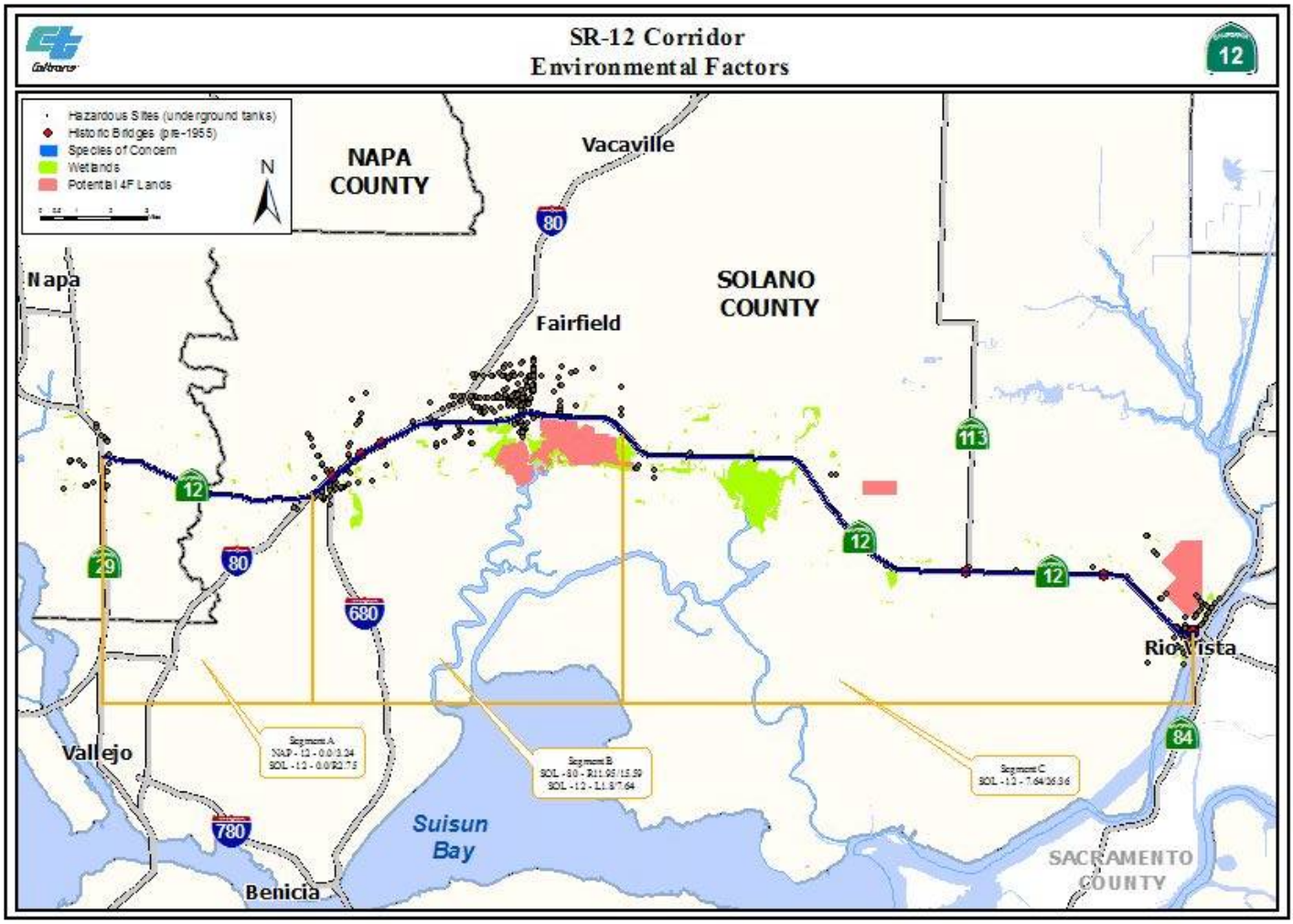


Figure 2.5.2. Environmental Factors within SR -12 CSMP Corridor.

2.6 ROUTE DESIGNATIONS

Table 2.6.1 Route Designations

Functional Classification	Minor Arterial (Nap PM 0.0-Sol PM R2.75); Expressway (Sol PM L1.8-R5.04) Principal Arterial (PM R5.04-26.43)
Trucking Designations	STAA Route (Surface Transportation Assistance Act)
Trucking Facilities	None
National Highway System	I-80 to SR-88
Strategic Highway Network (STRAHNET)	No
Scenic Highway	No
Lifeline Corridor	Yes
Traffic Operations System (TOS) facilities	No
Interregional Road System (IRRS)	Yes, all
MPO/RTPA/CMA	MPO/RTPA: Metropolitan Transportation Commission (MTC), CMA: Napa County Transportation and Planning Agency (NCTPA), Solano Transportation Authority (STA)

2.7 TRIP INFORMATION

Commuting and General Traffic

The two sections of the route, on either side of I-80, largely serve different markets. The western section of SR-12 (west of I-80) provides an essential eastern access route to/from Napa Valley, via Jameson Canyon, to I-80. It is very important for access to Napa County from the East Bay Counties, the Central Valley and I-80. Traffic includes Napa County tourism and bi-directional commuting. Agricultural preservation in Napa County restricts growth in housing and development, especially in the Napa Valley, so there is increasing commuting from more affordable and plentiful housing in Solano, Yolo and Sacramento counties.

East of I-80, SR-12 is used by commuters from Fairfield/Suisun to other Bay Area job markets. There is also interregional traffic to and from the Central Valley.

Goods Movement

SR-12 is part of the federal Surface Transportation Assistance Act (STAA) highway network; classified STAA highway network routes can accommodate trucks that are longer than the California legal standard. The nearest east-west corridor in the Delta is SR-4, which is not a STAA highway for its entire length, and therefore cannot fully accommodate trucks longer than the California Legal Standard. The highest percentage (almost 80 percent Annual Average Daily Truck Traffic 2007) of trucks (usually categorized as five or more axles) hauling goods on SR-12 can be found around the SR-113 and I-5 intersections.

Truck traffic on SR-12 is strongly related to the movement of agricultural goods. Jameson Canyon is one of the two main routes in and out of the Napa Valley (SR-29 is the other). The highest truck volumes on the eastern section of SR-12 serve Delta farming interests. Potrero Hills Landfill also generates significant truck traffic. Interregional truck traffic between the Bay Area and the Central Valley sometimes uses SR-12.

SR-12 is also a major Department of Defense (DOD) Truck Route. It is a key corridor for shipments in and out of Travis Air Force Base (AFB), a vital DOD link to the Pacific. It is used daily for high priority shipments from the Defense Logistics Agency Distribution Center in Tracy to Travis AFB.

Recreational

SR-12 is a popular route to the Delta for water activities such as boating, fishing, and swimming. Therefore, two-axle trucks are the second most common type used mostly for towing boats on SR-12. The route also provides direct access to the Bay Area for Central Valley residents in the Lodi/Stockton area wanting to avoid SR-4, which is a slower route through the Delta.

2.8 TRAFFIC INFORMATION

Traffic on SR-12

The table below shows typical Average Annual Daily Traffic (AADT) numbers for each segment of the corridor (See Section 5: *Corridor Segmentation* for information on the segmentation process).

Table 2.8.1 Route Segment AADT

	Post Miles	Description	Typical High AADT
Segment A	NAP12 0.0—SOL12 R2.75	SR-29 to I-80	31,000
Segment B	SOL12 L1.8—7.64	I-80 to Walters Rd.	44,000
Segment C	SOL 12 7.64—26.43	Walters Road to Rio Vista Bridge	15,000

Segment A has a high AADT (31,000) for the type of facility, which is fairly consistent year round, with a peak month AADT of just 33,000. For an expressway Segment B has a moderate AADT and is used as an alternative access to the suburbs of Fairfield/Suisun (only 34 percent of traffic continues past Fairfield) from I-80. Segment C has a low AADT which drops to 11,500 before SR-113. From there on traffic increases from local Rio Vista trips. Trucks represent 5 to 17.5 percent of traffic in this segment, with a County average of almost 9 percent. Five or more axle trucks are significant on SR-12.

Traffic East of Rio Vista

After traversing the Rio Vista Bridge, SR-12 crosses SR-160 (Antioch to Sacramento) and continues as a two-lane facility to I-5. On this section of SR-12 AADT is consistently higher than that west of Rio Vista (17,000 AADT).

Rio Vista Bridge

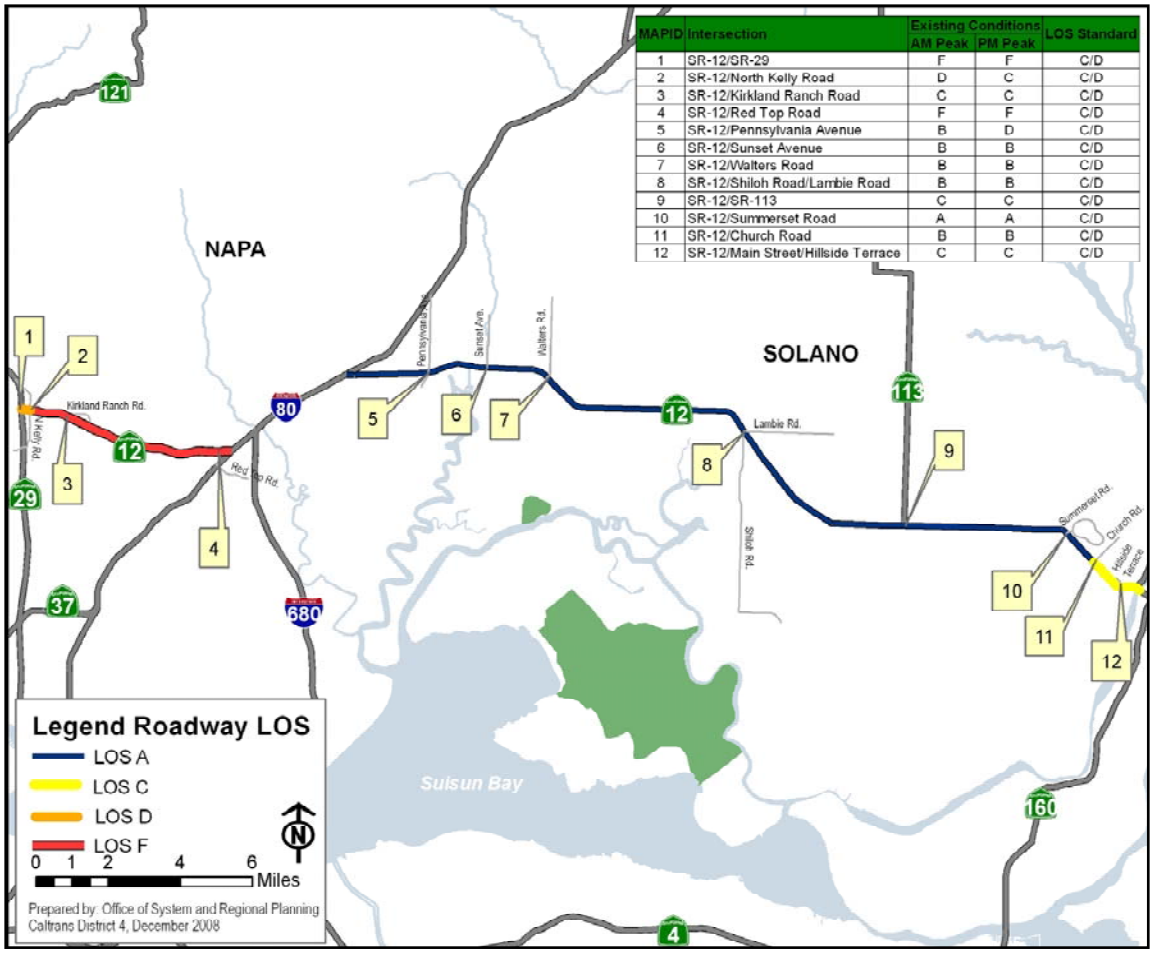
The Rio Vista Bridge is a “lifting bridge” over the Sacramento River and Shipping Channel (these are contiguous at this point). The roadway deck of the bridge is narrow and low above the level of the water. All commercial and some recreational water traffic requires the bridge to be lifted. No traffic, vehicular or pedestrian, can cross the bridge while it is raised. The Rio Vista Bridge Study (2010) notes that larger ships can result in 25 minutes of road traffic delay. Smaller leisure craft can result in delays of 10 minutes. In 2009 the AADT for this 2-lane section of SR-12 was 21,000 vehicles per day.

Local Traffic

For the majority of the corridor there are no parallel roads to SR-12, other than in the urban areas of Fairfield/Suisun and Rio Vista. However, Montezuma Hills (Segment B) has a network of small farm roads, many unpaved.

The road pattern in Rio Vista is that of a traditional small town. The exception is the “Trilogy” over-55 development; this is almost three miles west of Rio Vista and has a suburban development pattern with all access via a signalized intersection on SR-12.

Both Fairfield and Suisun City have largely a post-war suburban structure with local access by a grid of signalized multi-lane arterial roads, arterial feeders and collectors. The cities are separated by the Union Pacific Railroad corridor which has few crossing points. The main connectors are SR-12 and Walters Road/Jepson Parkway. SR-12 divides the commercial from the residential districts of Suisun City and is heavily used by both AM and PM commuters. Signalized intersections on SR-12 provide connections between the two segments of the city. There is direct access to both I-80 and SR-12 at a number of locations along both routes. Currently under construction is the North Connector road linking the two discontinuous sections of the SR-12 corridor (Segment A and Segment B) and which is covered by the I-80 East CSMP. This will eventually provide a local traffic alternative to using I-80. On the east end, the North Connector will provide access to SR-12 when it is opened in October 2010. However, while access to SR-12 at Red Top Road is planned for the western end, no construction date for that connection has been set.



MAPID	Intersection	Existing Conditions AM Peak	Existing Conditions PM Peak	LOS Standard
1	SR-12/SR-29	F	F	C/D
2	SR-12/North Kelly Road	D	C	C/D
3	SR-12/Kirkland Ranch Road	C	C	C/D
4	SR-12/Red Top Road	F	F	C/D
5	SR-12/Pennsylvania Avenue	B	D	C/D
6	SR-12/Sunset Avenue	B	B	C/D
7	SR-12/Walters Road	B	B	C/D
8	SR-12/Shiloh Road/Lambie Road	B	B	C/D
9	SR-12/SR-113	C	C	C/D
10	SR-12/Summerset Road	A	A	C/D
11	SR-12/Church Road	B	B	C/D
12	SR-12/Main Street/Hillside Terrace	C	C	C/D

Figure 2.9.1. SR-12 Level of Service Map.

2.9 CURRENT PERFORMANCE AND SAFETY

Although SR-12 is considered a rural corridor, it serves regional through trips, goods movement, and weekend travelers. On weekdays, there is peak commute traffic with Segment A attracting traffic between Napa and Sacramento while Segment B serves commuters from Fairfield/Suisun traveling to Oakland or San Francisco. SR-12 has a significant number of five-axle trucks hauling goods. In the past decade, traffic accidents have increased.

Caltrans evaluated the Level of Service (LOS) on the SR-12 Jameson Canyon corridor based on the 2000 *Highway Capacity Manual*. The following intersections were examined:

- SR-12/SR-29
- SR-12/North Kelly Road
- SR-12/Red Top Road
- SR-12/Kirkland Ranch Road

The map table above shows those intersections with levels ranging from LOS C to F depending on time of day and direction of travel.

SR-12 roadway travel was also examined (see map legend): I-80 to Red Top Road; Red Top Road to North Kelly Road; North Kelly Road to SR-29. The segment between North Kelly Road and I-80 (including the Red Top Road/I-80 segment) was LOS F. The LOS between the North Kelly Road and SR-29 intersections is acceptable but operates at LOS D during the AM peak hours.

Korve Engineering conducted a study in September 2000 on SR-12 between I-80 and the Rio Vista Bridge to ascertain the level of service. The study examined the following intersections: SR-12/Pennsylvania Avenue; SR-12/Sunset Avenue; SR-12/Walters Road; SR-12/Lambie Road/Shiloh Road; SR-12/SR-113; SR-12/Summerset Road; SR-12/Church Road; and SR-12/Hillside Terrace. Peak morning hour operating conditions had a range from LOS A to LOS C. LOS C was reported at the intersections of SR-113 and Main Street/Hillside Terrace. Peak afternoon hour operating conditions had a range from LOS A to D. LOS D was reported at the intersection of Pennsylvania Avenue.

Table 2.9.1 Segment Safety Data

SR-12 Mainline	Actual/million vehicle miles			Statewide Average			Total Accidents
PM	FAT	F+I	TOTAL	FAT	F+I	TOTAL	
Segment A Napa/Solano	0.00	0.42	1.03	0.029	0.55	1.21	219
Segment B Solano	0.004	0.57	1.44	0.013	0.47	1.22	343
Segment C Solano	0.022	0.23	0.61	0.024	0.37	0.85	194

FAT-Fatalities
F+I- Fatalities and Injuries

Safety

The accident rates (from November 1, 2005 to October 31, 2008) for the SR-12 corridor are shown in Table 2.9.1 above.

A total of 756 accidents were recorded during the three year period. The highest total accident rate was in Solano County (Segment B), higher than the average rate for similar facilities statewide. The Traffic Accident Surveillance and Analysis System (TASAS) reported that speeding was the primary collision factor on the SR-12 corridor. The speed limit from Suisun City to Rio Vista is 55 mph.

Caltrans TASAS data shows that rear end collisions are the most frequent collision type throughout the corridor. Through the Montezuma Hills (where proportionally majority of accidents occur), SR-12 has occasional sharp curves and steep rolling grades that can present safety hazards. Current Caltrans projects will attempt to reduce traffic accidents by conducting vertical adjustments to the roadway profile grade, curving realignment for part of the corridor, and constructing shoulders where none are present.

Figure 2.9.3 on the following page indicates the proportion of accidents related to the typical AADT of each segment. This shows that, relative to traffic volumes, Segment C has a disproportionate number of all types of accidents.

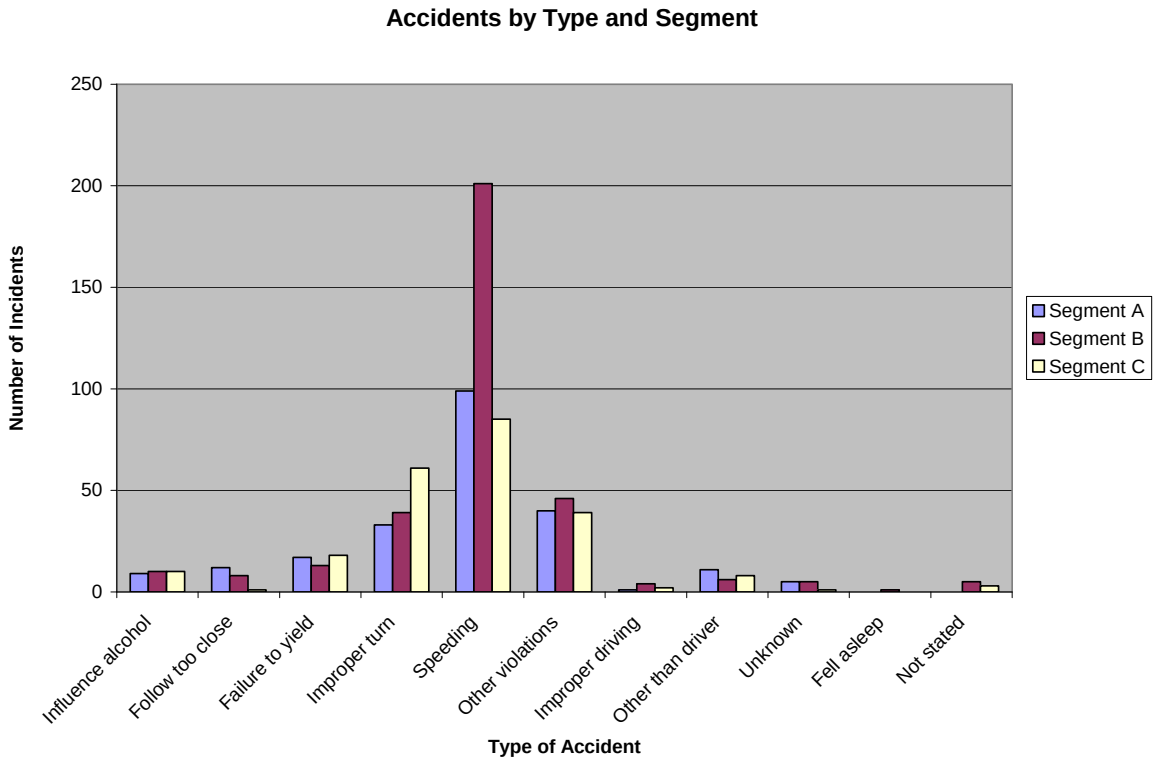


Figure 2.9.2. Accident Types.

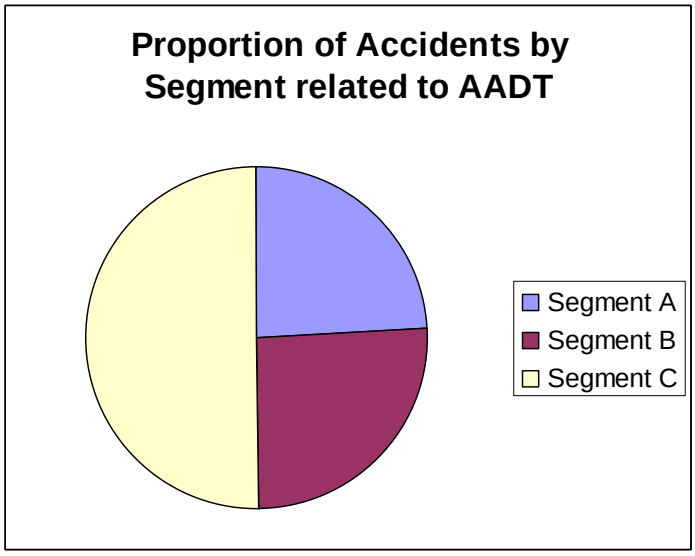


Figure 2.9.3 Accidents and AADT.

SR-12 Highway Safety Project

Due to a number of fatal accidents on SR-12 between I-80 and I-5, which is a mainly twp-lane highway, STA-sponsored AB 112 (Wolk) created a Safety Enhancement Double Fine Zone (DFZ). At the same time Caltrans undertook a number of State Highway Operation and Protection Program (SHOPP) projects to improve the sight distances and prevent passing. Furthermore, the California Highway Patrol and local law enforcement agencies have increased enforcement on this segment through a State Office of Traffic Safety grant.

2.10 TRANSIT SERVICE

Transit on SR-12

There are few regular transit services on most portions of SR-12. In particular, there is no service linking Solano and Napa despite the growth in demand in the part of the corridor in response to lower price housing in Solano for Napa workers. Limited local services use SR-12 in Fairfield, but the main service is the bus connecting Fairfield/Suisun to the El Cerrito BART station. East of Fairfield there is only limited service to Rio Vista and other Delta communities. There are no through bus services between Fairfield and Lodi/Stockton in the Central Valley, however a limited service from Lodi runs on SR-12 as far as the Rio Vista Bridge before continuing north on SR-160.

Local Transit Services

Fairfield and Suisun Transit

Fairfield and Suisun Transit (FAST) has intercity fixed routes and has plans to develop larger infrastructure to accommodate a growing Solano County population. FAST operates fixed route transit service within the cities of Fairfield and Suisun City. FAST operates local dial-a-ride transit (DART) that provides complimentary para-transit service for local fixed route service.

FAST has plans in the next few years to build a new transit hub in the vicinity of North Texas Street to replace the Solano Mall (the major local transfer location). There are also plans to expand the Fairfield Transportation Center by replacing a surface lot with a 600-space parking structure.

Rio Vista Delta Breeze

Delta Breeze operates a regular but infrequent service (fewer than five runs per day) between Rio Vista and Fairfield/Suisun. This service continues to Isleton providing connections with South County Transit/LINK services to Galt and Lodi (two scheduled trips per day or fewer).

Rio Vista Transit operates general public, dial-a-ride service within Rio Vista for regional destinations such as Fairfield, Antioch, Lodi, and Vacaville. In addition, Delta Breeze has a limited (five buses/day) service to the Pittsburg-Bay Point BART station via SR-160. One-way local fare is $1.50. Intercity one-way fare to Antioch, Pittsburg-Bay Point BART Station, Lodi, Suisun City or Fairfield is $5.00. When passengers require a route deviation and/or dial-a-ride, reservations can be made in advance.

NAPA VINE

VINE is the county bus service in Napa running buses along SR-29 from Vallejo to Calistoga; however they have no service along SR-12 in Jameson Canyon. Connections to VINE services from the corridor have to be made at Vallejo (Baylink bus #85 from Fairfield).

Intercity Transit Services

Solano Comprehensive Transportation Plan–June 2005

Within its Transit Element this plan proposes the establishment of a new transit link between Napa and Fairfield and Suisun via SR-12. The goal would be a fixed schedule transit service between both counties. STA is pursuing funding to initiate the startup of this service as the Jameson Canyon project proceeds.

AMTRAK

An AMTRAK station (Fairfield/Suisun) is located in the corridor in Suisun City. The AMTRAK station serves the Capital Corridor, which stops at stations between Auburn/Sacramento, Oakland, and San Jose, with a connecting bus service to San Francisco. Public bus routes in Rio Vista and Fairfield are routed to this transportation destination. Expansion plans have been delayed due to constraints on funding for new rolling-stock; however a new Fairfield/Vacaville station is planned for 2014.

At the other end of the corridor (outside the CSMP area), Lodi has an AMTRAK station served by two daily trains to Bakersfield, with bus connections to Los Angeles. There are also connecting AMTRAK throughway bus connections. AMTRAK runs a parallel service along the SR-4 corridor with four daily services from Oakland to Bakersfield, calling at Martinez (I-680) and Antioch (SR-160).

Greyhound

Solano is also served by Greyhound Bus service, which still offers state and nation-wide connections. Three stations are located in the corridor at Suisun City, Rio Vista and Lodi. While Suisun City has a frequent service from the Bay Area to Sacramento, Rio Vista and Lodi have just three services daily—the Rio Vista bus also calls at the Trinity development and the Railroad museum outside of Rio Vista. There is no service on SR-12 between Rio Vista and Lodi, and Greyhound does not serve Napa County.

2.11 BICYCLE AND PEDESTRIAN FACILITIES

The western section of the corridor in Jameson Canyon provides convenient access to the Napa Valley a popular bicycle destination. Presently, limited shoulders on this busy stretch of SR-12 do not make for easy bicycling. However, the CMIA project to widen the highway in Jameson Canyon will provide consistently wide shoulders that will be designated as Class 2 bike lanes. At I-80 this section (Segment A) of the corridor links to both the Fairfield Linear Park (following the old Sacramento Northern track bed) and McGary Road newly, re-opened along I-80 to Vallejo.

East of I-80 the Central County Bikeway extends from the Amtrak station east to Walters Road on the north side of SR-12, but ends at the edge of Fairfield. East from here SR-12 will eventually have continuous shoulders, but present construction work and a central safety barrier make things difficult for cyclists. The 25 miles from Rio Vista to Fairfield make bike commuting impractical, but local roads in the Montezuma Hills provide a scenic alternative for touring bicyclists. At Rio Vista the ferry connection to SR-84 provides a traffic free gateway to the Delta area. Both Solano Transportation Authority and Napa County Transportation and Planning Agency produce useful bike maps of their respective counties.

Section 3: Jameson Canyon Project

3.1 Project Description

3.2 Background

3.3 Purpose and Need

3.4 Safety

3.5 Transportation Plans Including Jameson Canyon

3.6 Existing Travel Time and Peak Period

3.7 Pedestrian and Bicycle Facilities

Figure 3.1.1. Jameson Canyon Road Widening and the State Routes 29 and 12 Interchange Project.

This section specifically describes the CMIA project to widen Jameson Canyon between I-80 and SR-29.

3.1 PROJECT DESCRIPTION

Caltrans will widen the two-lane conventional highway SR-12 (Jameson Canyon) to a four-lane conventional highway. The initial project will add two lanes and a center barrier thus increasing automobile capacity and safety. This project traverses part of both Napa and Solano Counties.

A second (unfunded) phase will increase the capacity of the intersection at State Routes 29 and 12 by replacing the signalized intersection with a grade-separated interchange. The signalized intersection does not meet current standards. Caltrans has proposed to replace it with either a single point interchange or tight diamond interchange. Both would be grade-separated.

This second phase of the Jameson Canyon Widening project was included in the "Initial Study with Proposed Mitigated Negative Declaration (CEQA) and Environmental Assessment (NEPA)" prepared by Caltrans in 2007. The need for this improvement was shown in the initial study which stated that "in the AM and PM hours, the heavy volume of vehicles converging at the junction results in queues and delay times of approximately 80 seconds per vehicle before vehicles pass through or turn at the intersection." The source of funding for the conversion is still to be determined.

3.2 BACKGROUND

SR-12 is an east-west highway that traverses Calaveras, San Joaquin, Sacramento, Solano, Napa and Sonoma Counties. It carries interregional as well as local traffic and intersects I-5 (in San Joaquin County), I-80 (in Solano County), and US Route 101 (in Sonoma County). Jameson Canyon is the westernmost segment of the SR-12 CSMP corridor.

AADT in this area is 31,000 automobiles per day in either direction. Many of the motorists using this portion of SR-12 live in Solano, Contra Costa or other counties and are employed in Napa County. A higher number of Napa County residents commute to major Solano County em-

ployers such as Travis Air Force Base, Contra-Costa county employers or BART stations in Contra Costa County. As more jobs have been established in Napa County and more residences built in Solano County, traffic volumes, congestion, and travel times have increased on this portion of SR-12. Napa County is burdened by a serious jobs/housing imbalance. Since many of the jobs are in the service or agriculture industries, significant numbers of workers cannot afford the more expensive housing in Napa County.

The rolling terrain on either side of SR-12 is open space or being used for agricultural purposes. The few residences along SR-12 are part of large ranches. The junction of SR-29, SR-12 and Airport Boulevard is generally flat and in a light industrial area that quickly becomes agricultural east of the intersection. SR-12 becomes Airport Boulevard on the west side of SR-12, and is the main access to the Napa County Airport.

3.3 PURPOSE AND NEED

The MTC notes in the North Bay Corridor Study (March 1998) that population and job growth is expected to continue to intensify along SR-29, US 101, I-680, and I-80, leading to increased east-west travel demand across SR-12, SR-116, and SR-121. Travel demand is diverse and includes weekday commuting, seasonal tourism, and goods movement vehicles from agricultural operations, light industry, and the Napa County Airport.

According to MTC's 2009 Regional Transportation Plan, T2035, daily person trips from year 2000 to year 2035 between Napa and Solano Counties on SR-12 and SR-29 are projected to increase 68 percent, which is exceeded in the Bay Area only by trips between San Benito/Monterey/Merced-Santa Clara at 120 percent, Lake/Colusa-Napa at 102 percent, and Mendocino/Sonoma at 83 percent. In the year 2035, the ADT volume for SR-12 is projected to be 62,200. The ADT for SR-29 is projected to be 109,400. In the year 2035, the operations of SR-12 and SR-29 are projected to remain at LOS "F" during the AM and PM peak hours. The operations of the SR-29/SR-12 intersection will also remain at LOS "F" in both the AM and PM peak hours. The delay times at the junction of SR-29/SR-12 are expected to increase from the current 1-2 minutes to 5-6 minutes.

3.4 SAFETY

The accident rates (from January 1, 2003 to December 31, 2005) for SR-12 through Jameson Canyon are comparable to the statewide average for similar facilities. The accident rates for SR-29 and SR-12 at the SR-29/SR-12 intersection are two to four times the statewide average for similar facilities and intersections. The higher than average rate of accidents at the intersection indicates a potential need to consider safety improvements such as separating vehicle movements between the two routes.

3.5 TRANSPORTATION PLANS INCLUDING JAMESON CANYON

The need for safety improvements and congestion mitigation has long been recognized as evidenced by its inclusion in the following plans:

Napa County Transportation Planning Agency Strategic Transportation Plan (1999): This Plan includes SR-12 from SR-29 to the Solano County line, and the SR-12/SR-29 intersection in its East/West Corridor 2. One of the Corridor 2 objectives is: “Enhance road and intersection capacities to accommodate travel demand for commuter, visitor, and freight related trips.” To accomplish this objective, the Plan proposed the widening of SR-12 to four lanes and the improvement of the 12/29 /Airport Boulevard intersection. Thus, the project is consistent with the NCTPA Strategic Transportation Plan.

Traffic Congestion Relief Program (TCRP): The TCRP was a five-year state transportation investment plan passed by the California Legislature and signed into law by Governor Gray Davis in 2000. This plan provided funding for environmental and design work for this project.

Solano Comprehensive Transportation Plan, June 2005: This Plan envisions, directs, and prioritizes the transportation needs for Solano County through the year 2030. The Arterials, Highways, and Freeways Element of this Plan lists the needs on routes of regional significance. One of these needs was the improvement of SR-12 West

from 1-80 to SR-29. The Plan discusses the improvements to SR-12 such as widening it from two to four lanes and the provision of a median to separate westbound and eastbound traffic.

Transportation Improvement Program (TIP): The widening of SR-12, Jameson Canyon Road, is listed in the Transportation Improvement Plan, which was adopted by the Metropolitan Transportation Commission on July 12, 2006, and the Federal Highway Administration and Federal Transit Administration (FTA) on October 2, 2006, as TIP ID NAP-01-0008. The conversion of the SR-29/SR-12 intersection to an interchange was amended into the TIP as TIP ID NAP-01-0001. The project is consistent with the TIP.

Corridor Mobility Improvement Account (CMIA): California voters passed Proposition 1-B, The Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006. This Bond Act deposits $4.5 billion into a Corridor Mobility Improvement Account (CMIA). On March 15, 2007, the California Transportation Commission adopted a program of projects to be funded from the CMIA. The program includes $73,990,000 for the widening of Jameson Canyon Road.

Regional Transportation Plan (RTP): The widening of this portion of SR-12 is listed in the MTC's Transportation 2035, Change in Motion (April 2009) as Reference Numbers 94074 and 94152. The phase II conversion of the SR-29/SR-12 intersection to an interchange is listed as Reference Number 94075.

3.6 EXISTING TRAVEL TIME AND PEAK PERIOD PERFORMANCE

AM and PM peak period performance for SR-12 at the intersections of SR-29, North Kelly Road, Kirkland Ranch Road, and Red Top Road operate at LOS E or F during one or both AM and PM peak periods with the exception of SR-12/North Kelly Road, which operates at LOS D during the AM peak hour and LOS C during the PM peak hour, and SR-12/Kirkland Ranch Road, which operates at LOS B during the AM peak period and LOS A during the PM peak period. The longest delays, about two minutes, occur at the SR-29/SR-12 intersection.

Under 2035 No Build conditions:

Delay is expected to increase significantly at the intersection of SR-29/SR-12. The delay at the intersection of SR-12/Kirkland Ranch Road also increases significantly in the AM peak period due to the increase in traffic along SR-12.

In 2035, some intersections under No Build conditions are expected to experience queuing problems:

SR-29/SR-12: the northbound, eastbound, and westbound left turn storage bays do not provide sufficient storage.

SR-12 /North Kelly Road: the westbound left turn (into South Kelly Road) and right turn (into North Kelly) storage bays do not provide sufficient storage. Vehicles are anticipated to overfill the turn lanes and impede through traffic beyond the intersection of SR-12 and North/South Kelly Roads.

SR-12/Kirkland Road: while the queue on the westbound approach does not extend past the upstream intersection, the queue is excessive.

Under Build Conditions: Delay is expected to decrease significantly at the intersection of SR-29/SR-12 and Jameson Canyon Road.

With the widening of SR-12, in 2035:

- The intersection of SR-12 and Red Top Road and SR-12/Kirkland Ranch Road will operate at either LOS B or C.
- The operations of SR-12 are LOS D between Red Top Road and North Kelly Road for both the AM and PM peak hours. Only the short segment of SR-12 between Red Top Road and I-80 will operate acceptably at LOS C.
- The SR-29/SR-12 Tight Diamond interchange configuration alternative, the intersections of SR-12/SR-29 southbound ramps, SR-12/SR-29 NB ramps, and SR-12/North Kelly Road will all perform at an acceptable LOS A to C in the AM and PM peak hours, except at SR-12/SR-29 southbound ramps in the PM peak hour, and SR-12 North Kelly Road in the AM peak hour.

3.7 PEDESTRIAN AND BICYCLE FACILITIES

The proposed CMIA project would be constructed in phases to match available funding. The completed project provides a 2.4 m (8 ft.) outside shoulder along both directions of the highway which will be signed and striped for Class II bike lanes.

STA is leading a study to develop a coordinated trail plan in Jameson Canyon. Involved stakeholders include NCTPA, Napa County, Solano County, the Bay Area Ridge Trail and other local trail advocates and users. Regarding the unused railway tracks just south of SR-12, the feasibility of both commuter rail and a parallel Class I bike/pedestrian path is being considered. This railroad is also identified for future passenger and freight use in MTC's Regional Rail Plan.

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Section 4: Other Issues

Discussion Points for the SR-12 CSMP

DISCUSSION POINTS FOR THE SR-12 CSMP

The points below are issues that would merit further study and analysis in the current *State Route 12 Comprehensive Corridor Evaluation and Management Plan* study. (See Section 1.5).

Safety: This is clearly an important issue, with "two-lane" sections being seen as the most dangerous. However, the figures in the CSMP show below-average accident rates in Segments A and C and higher-than-average in Segment B (the short freeway/expressway section).

Growth of Rio Vista: Until recently there were plans for significant growth, but these have been impacted by the recession. Also, there was criticism that this potential growth would be highly autocentric (like the Trinity development almost three miles out of town) and dependent upon SR-12 being widened in the near future. Rio Vista has some attributes for further growth (river front, existing downtown), but is regionally seen as being on the periphery of the Bay Area. Present policies by ABAG and MTC in relation to SB 375 would not make Rio Vista a regional priority for future significant growth.

Rio Vista Bridge: The options in the Rio Vista Bridge Study vary in cost from around $1.4 billion to $2.3 billion. These figures exclude any additional cost for the associated widening of SR-12 between I-80 and I-5. At this level, the costs for this project would represent a significant investment for the Bay Area and the State of California.

SR-12 East of Rio Vista: SR-12 east of Rio Vista has higher traffic volumes than west. Also, Lodi is the preferred destination for Rio Vista residents with the 2001 SR-12 Transit Corridor Study showing that twice the number of out of town trips were made towards Lodi rather than Fairfield. It also has the highest truck traffic. However, this section of SR-12 has the greatest issues regarding expansion and improvement. The roadway, being on the bottom of a number of "tracts" where soils are compacting due to water extraction from farming, is difficult to expand. Any new alignment would probably need to be built on a causeway for environmental and potential flooding reasons, significantly increasing the cost. The bridges are another impediment to widening to four lanes. All three bridges (Rio Vista, Mokelume and Potato Slough) are two lanes and structurally are not in immediate need of replacement. There are, however, a number of operational/mechanical improvements that could be made to the bridges to improve reliability and reduce the impact to road traffic. Caltrans District 10 has a provisional concept for a four-lane facility on SR-12 between Rio Vista and I-5. There is also a "smart corridor" project under development between Caltrans District 10 and SJCOG, leading to the implementation of an Advanced Traveler Information Systems (ATIS). Its principal function is to identify and notify travelers of problems on SR-12 west of I-5 through Rio Vista.

River Traffic: Increased maritime shipping on the Sacramento River, as proposed by the Port of Sacramento, could present a conflict with the existing Rio Vista Bridge. The potential for further expansion of the Port of Sacramento is proposed to reduce overall truck miles, GHG emissions, air pollutants, and traffic to and from the Port of Oakland. Currently, there is minimal commercial ship traffic to the Port of Sacramento, but future development of this port could result in multiple shipping movements per day. Funding for this would be from the recently approved federal Transportation Investment Generating Econcomic Recovery (TIGER) grant for the California Green Trade Corridor/Marine Highway Project representing the Ports of Oakland, Sacramento and Stockton (www.dot.gov/documents/finaltigergrantinfo.pdf). Additional traffic could be a mix freighters (requiring high bridge clearance) or barges towed by tugs (still requiring bridge lifting for shorter durations) could result in an additional 10-15 weekly bridge lifts per week (from the one-two per week at present). Recreational boat traffic at the Mokelume Swing Bridge (east of Rio Vista) will represent a far greater number of bridge raises/openings than commercial vessels at either bridge.

Goods Movement: SR-12 has a high proportion of truck use, and could have increased potential as an interregional corridor for freight. SR-12 provides access for produce movement between the counties along the corridor and the Central Valley. It also is the main access for Travis Air Force Base, the county's largest employer.

SR-12 is an important, though lesser used east/west truck route which parallels I-580 and is partially contiguous or parallel with I-80—the Bay Area's main interregional truck route. Its current Truck AADT is 2800 near Rio Vista. There have been reports (with no supporting data available) that overweight trucks use SR-12/160 to avoid the I-80/Cordelia truck scales. The SR-12 Corridor Study should include data about goods movement on the corridor.

Section 5: Corridor Segmentation

Segment Data A

Segment Data B

Segment Data C

A segmentation view allows the reader to examine more specific corridor features and conditions. Segment views also allow a closer examination of traffic data and multi-modal features such as park-and-ride lots or rail easements.

The segmentation of SR-12 follows suggested segmentation guidelines. These guidelines indicate specific "events" or changes in the facility that may affect traffic flow, multi-modal mobility, or jurisdiction changes, such as county or town limits.

Using these criteria, SR-12 has been divided into three segments (with a break between Segment A and B) which disproportionately divide the 30 miles of this State Highway traversing District 4.

SR-12 Segmentation Matrix

Table 5.1.1 Segmentation Matrix

SR-12: Segment	County	PM From	PM To	Description
A	Napa and Solano	Nap 0.0	Sol R2.75	SR-29 to I/C I 80
B	Solano	Sol L1.8	Sol 7.64	I-80 to Walters Road
C	Solano	Sol 7.64	Sol 26.43	Walters to Sacramento County line

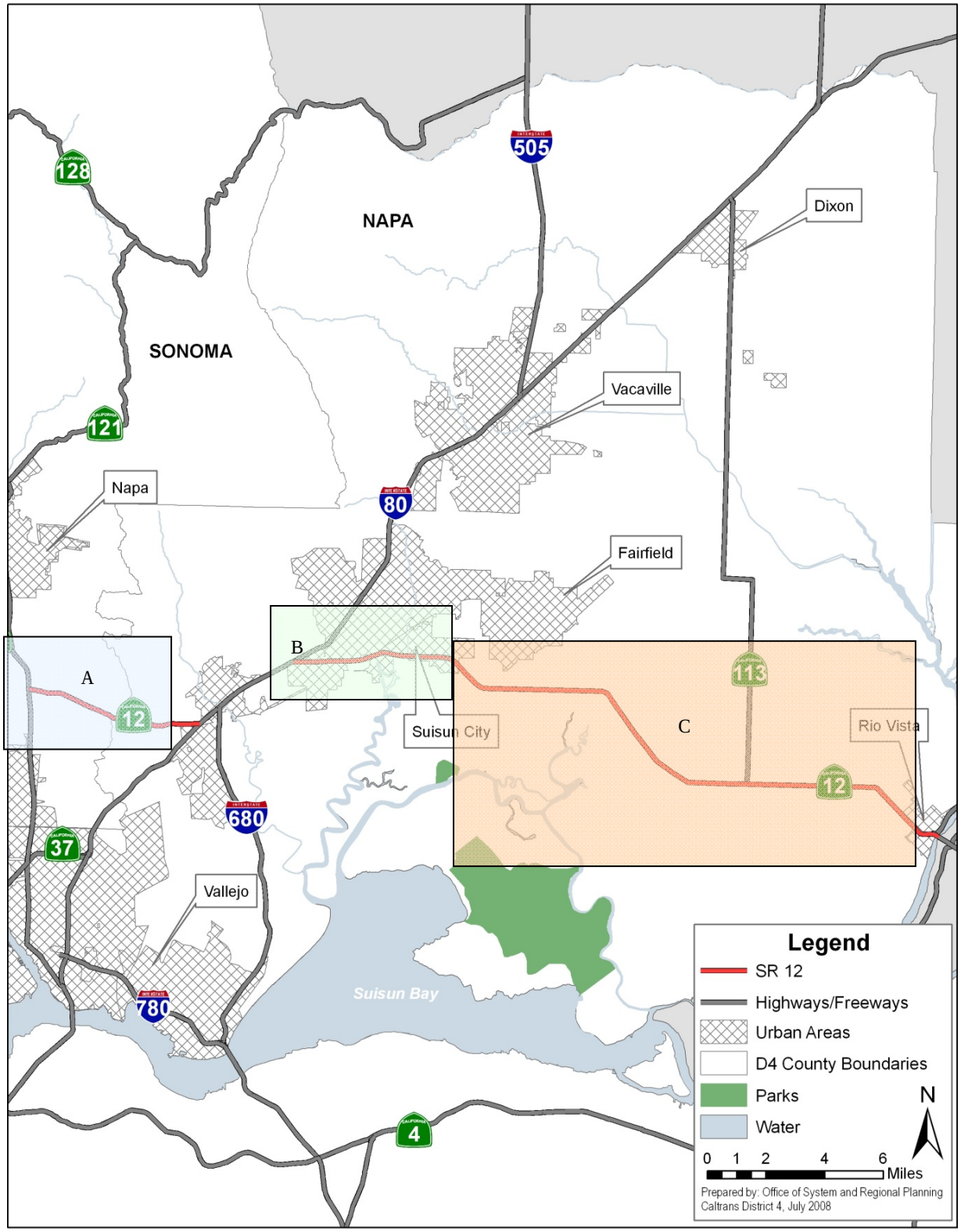

Figure 5.1.1. State Route 12 Corridor Segmentation Map.

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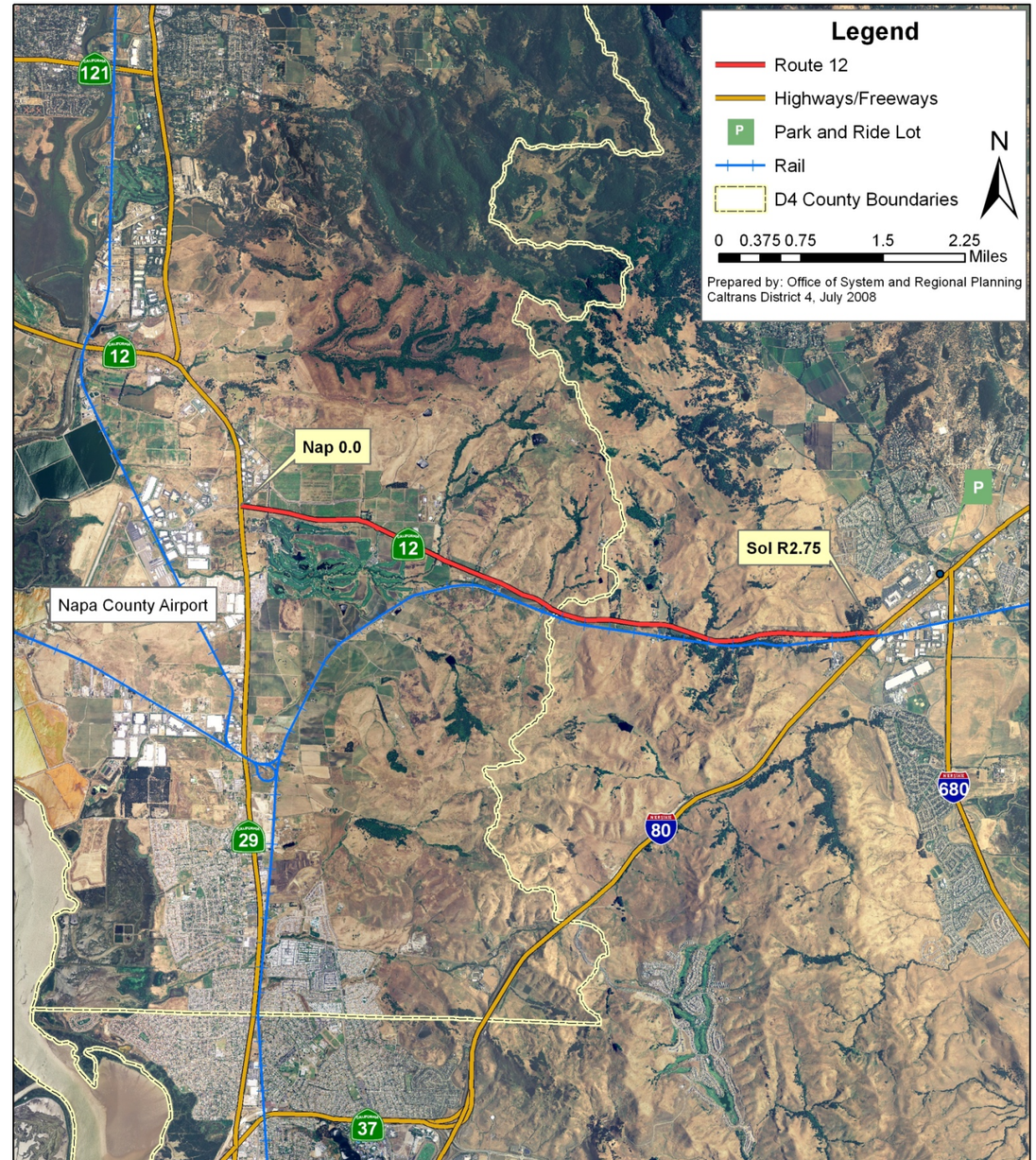
SR-12 **SEGMENT A** DATA	
TITLE	**DATA**
Features	**Data**
County, City	Napa and Solano County
Facility type	Conventional Highway
Existing Facility	3C/2C
2035 Year Concept	4C
Segment Characteristics	
Segment Limits	SR-29 to intersection of I-80 freeway.
Begin/ End Post Mile	NAP 12 0.0/SOL12 R2.75
Length	6.07
Terrain	Rolling
Land Use	Rural
Grade % (Postmile to Postmile)	<3% (91%); 3%-6% (9%)
HOV lanes	No
Parallel Arterials	None
Scenic Highway	No
Assembly District	Napa: District 7; Solano: District 8
Senate District	Napa & Solano: 2nd Senate District
Multi Modal	
Bikeways/Bike lanes	None
Transit Provider	No transit servicies
Rail Station(s)	None
Park and Ride	Informal at Red Top Road
Traffic Information	
Actual Fatality + Injury Rate this segment (3-yr period)	0.38 (1 accidents w/fatality; 81 accidents w/injuries)
Statewide Fatality + Injury Rate	0.59
Actual Total Accident Rate this segment (3-yr period)	1.07
Statewide Total Accident Rate	1.23
AADT 2005	EB 16,000 - WB 16,100
AADT 2035	EB 21,700 – WB 36,600
Vehicle Hours of Delay	N/A
(EB) Volumes 2005	AM 1,290 - PM 1,020
(WB) Volumes 2005	AM 1,230 - PM 1,010
(EB) Volumes 2035	AM 1,460 - PM 2,910
(WB) Volumes 2035	AM 3,100 - PM 1,520
Truck Volumes 2006	7.95
Truck Traffic: Truck percentage of AADT (range)	7.2-7.95
5+ Axle Truck Percentage of Truck AADT (range)	51.86-55.11

Napa County SR 12 PM 0.0 - Solano County SR 12 PM R2.75

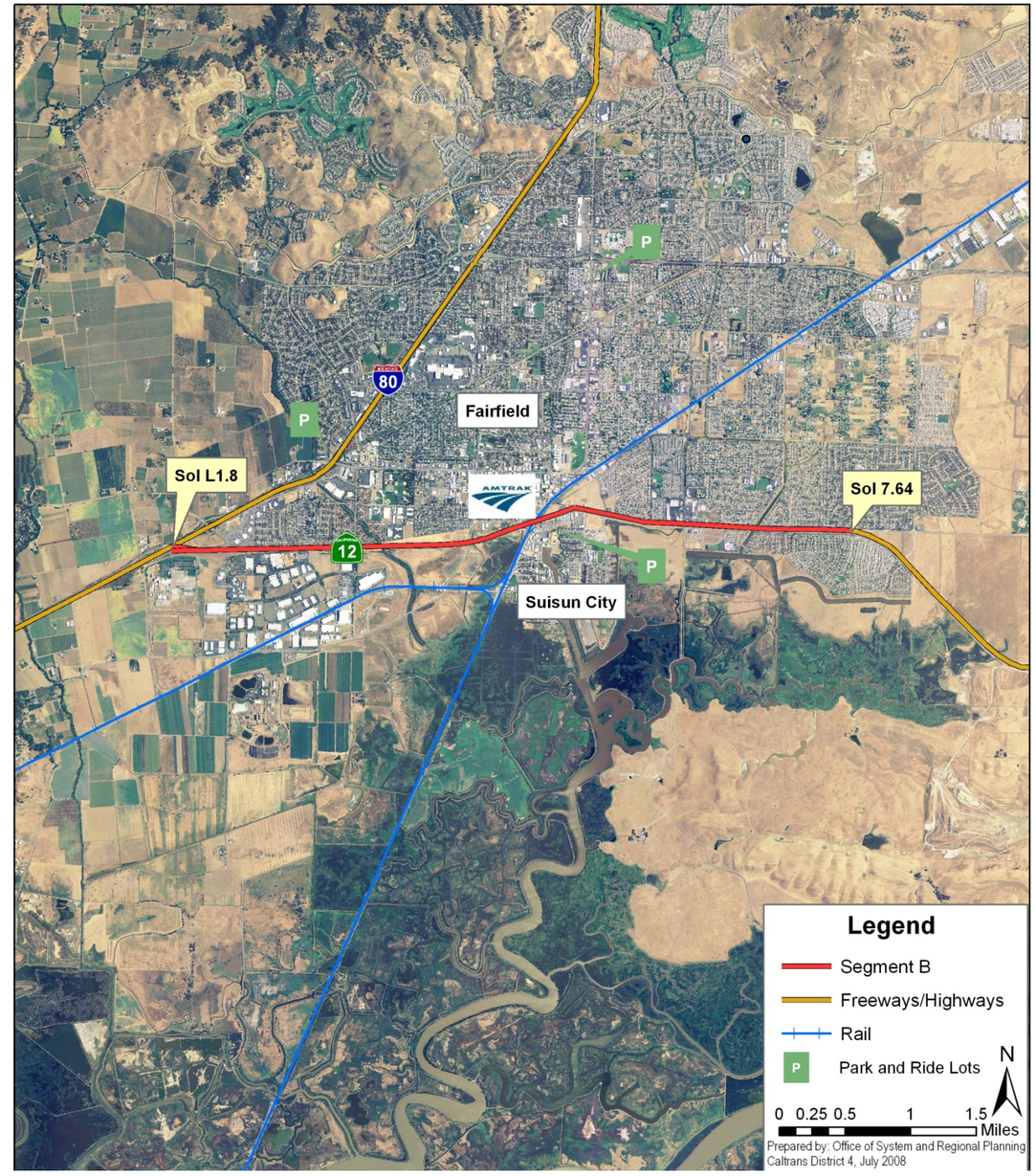
Segment A



SR-12 **SEGMENT B** DATA	
TITLE	**DATA**
Features	**Data**
County, City	Solano County, City of Fairfield and City of Suisun City
Facility type	Conventional Highway
Existing Facility	4F/4E
2035 Year Concept	4F/4E
Segment Characteristics	
Segment Limits	I-80 junction to Walters Road
Begin/ End Post Mile	SOL 12 L1.8/7.64
Length	7.93
Terrain	Rolling
Land Use	Rural
Grade % (Postmile to Postmile)	<3% (72%); 3-6% (28%)
HOV lanes	No
Parallel Arterials	Cordelia Road; Pennsylvania Avenue; Mankas Corner Road; Waterman Boulevard; Air Base Parkway; Old Cordellia Road, East Tabor Avenue, Suisun Parkway/Business Center Drive.
Scenic Highway	No
Assembly District	Napa: District 7; Solano: District 8
Senate District	Napa & Solano: 2nd Senate District
Multi Modal	
Bikeways/Bike lanes	None
Transit Provider	FAST; Rio Vista Delta Breeze, Greyhound
Rail Station(s)	Amtrak Fairfield/Suisun
Park and Ride	Fairfield (55 spaces); Main St at Route 12, Suisun City (78 spaces).
Traffic Information	
Actual Fatality + Injury Rate this segment (3-yr period)	0.67 (1 accidents w/fatality; 156 accidents w/injuries)
Statewide Fatality + Injury Rate	0.62
Actual Total Accident Rate this segment (3-yr period)	1.38
Statewide Total Accident Rate	1.42
AADT 2005	18,500-20,200
AADT 2035	36,000-36,100
Vehicle Hours of Delay	N/A
(EB) Volumes 2005	AM 760 - PM 1,960
(WB) Volumes 2005	AM 2,240 - PM 1,360
(EB) Volumes 2035	AM 1,390 - PM 3,740
(WB) Volumes 2035	AM 3,990 - PM 2,040
Truck Volumes 2006	9.66
Truck Traffic: Truck percentage of AADT (range)	5.09-9.66
5+ Axle Truck Percentage of Truck AADT (range)	53.96-64.22

Solano County SR 12 PM L1.8 - PM 7.64

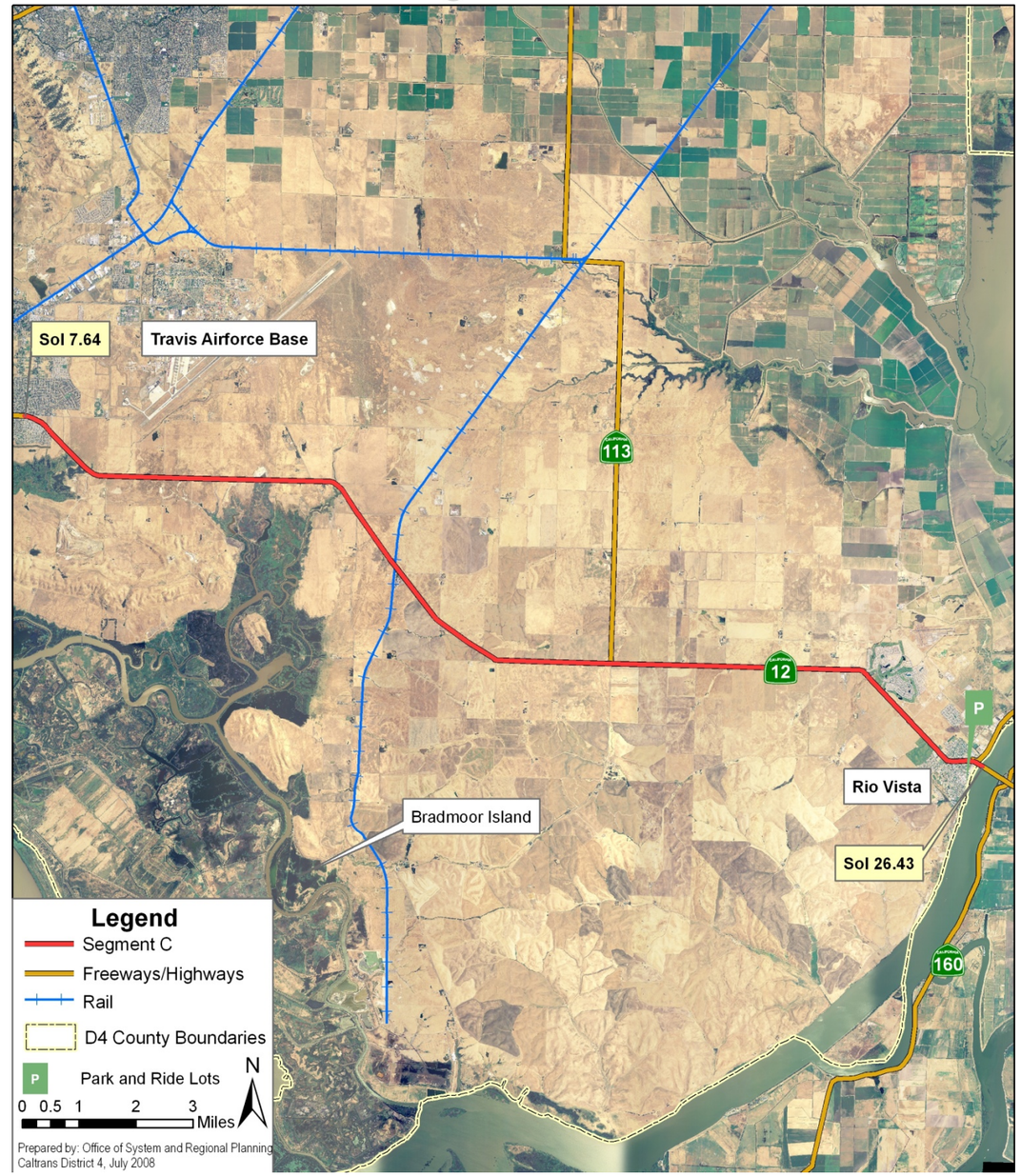
Segment B



SR-12 **SEGMENT C** DATA	
TITLE	**DATA**
Features	**Data**
County, City	Solano County, City of Rio Vista
Facility type	Conventional Highway
Existing Facility	2C
2035 Year Concept	2/3C
Segment Characteristics	
Segment Limits	Walters to Solano/Sacramento County Line
Begin/ End Post Mile	SOL 12 7.64/26.43
Length	7.93
Terrain	Rolling
Land Use	Rural
Grade % (Postmile to Postmile)	<3% (72%); 3-6% (28%)
HOV lanes	No
Parallel Arterials	Creed Road; McCormack Road; and Airport Road.
Scenic Highway	No
Assembly District	Napa: District 7; Solano: District 8
Senate District	Napa & Solano: 2nd Senate District
Multi Modal	
Bikeways/Bike lanes	None
Transit Provider	Rio Vista Delta Breeze, Greyhound
Rail Station(s)	
Park and Ride	Main St & Front St, Rio Vista, (10 Spaces)
Traffic Information	
Actual Fatality + Injury Rate this segment (3-yr period)	0.30 (9 accidents w/fatality; 89 accidents w/injuries)
Statewide Fatality + Injury Rate	0.43
Actual Total Accident Rate this segment (3-yr period)	0.81
Statewide Total Accident Rate	0.9
AADT 2007	9,400-10,400
AADT 2035	19,700-25,900
Vehicle Hours of Delay	N/A
(EB) Volumes 2005	AM 520 - PM 650
(WB) Volumes 2005	AM 610 - PM 630
(EB) Volumes 2035	AM 1,160 - PM 1,490
(WB) Volumes 2035	AM 1,490 - PM 1,110
Truck Volumes 2006	17.56
Truck Traffic: Truck percentage of AADT (range)	8.94-17.56
5+ Axle Truck Percentage of Truck AADT (range)	57.32-79.63

Solano County SR 12 PM 7.64 - PM 26.43

Segment C



Section 6: Corridor Concept Development

6.1 Concept Rationale

6.2 Corridor Project List

Table 6.1.1 Highway Facility Concept

Segment	County	Segment Description	Existing Facility	25-yr Concept
Segment A PM 0.0 – R2.794	NAP – SOL	SR-12/SR-29 Napa to SR-12/I-80 Junction	2C	4C
Segment B PM L1.801 – 7.635	SOL	East of SR-12/I-80 Junction to Walters Road	4F/4E	4F/4E
Segment C PM 7.635 – 26.409	SOL	Walters Road to Solano/Sacramento county line	2C	2/3C

C=Conventional Highway
E = Expressway
F = Freeway
PM = Post Mile

The Corridor Concept conveys Caltrans' vision for a route with respect to corridor capacity and operations for a 25-year planning horizon. The concept takes into account factors that create interregional, regional, and local travel demand, including commuting, freight movement, recreational needs, and nearby land use. Table 4.1.1 outlines the SR-12 CSMP facility concept.

The route concept is derived from:

- Examination of facility "route concepts" established in 1980s Route Concept Reports (RCRs)
- Examination of facility and operational concepts established in Transportation Corridor Concept Reports (TCCRs) for 24 main corridors conducted by D4 Planning and Operations in 2001-02
- Information contained in current approved planning documents and operations plans
- Local and regional input
- Review of Freeway Agreements

6.1 CONCEPT RATIONALE

In Segment A the concept reflects Caltrans' planned CMIA project to improve the Jameson Canyon segment of the SR-12 corridor by increasing the corridor from a two-lane conventional highway to a four-lane highway, including a median barrier. The adoption of capacity improvements to the intersection at SR-12 and SR-29 will be required to fully reap all the capacity benefits of the CMIA project, but analysis shows that there will be significant benefits accrued without it.

In Segment B no change to the facility type is proposed because the increase in traffic volumes forecast for 2035 can still be accommodated by the current facilities capacity. However, a higher-than-average incidence of accidents (non-fatal) may require some remedial action.

In Segment C Caltrans and its partners are currently working on various safety and enforcement issues in certain areas. Local and regional stakeholders are particularly concerned about safety. The Solano Transportation Authority received a grant from the Office of Traffic Safety (OTS) in 2001 that funded a safety education and awareness campaign. Caltrans has also implemented various safety improvements within the SR-12 corridor. Although these efforts have reduced the number of accidents and fatalities on certain areas of the corridor, additional safety improvements are planned. The concept of C2/3 represents an acknowledgment that there may be benefits to a change in facility type (from C2) in this segment rather than a specific strategy. A strategy will be determined when the results from the current SR-12 Comprehensive Corridor Evaluation and Management Plan are available in 2011.

The SR-12 Comprehensive Corridor Evaluation and Management Plan is being developed to identify additional safety, operational and mobility improvements to the corridor. This and future studies will examine the benefits and costs associated with proposed improvements in this ecologically sensitive ecological corridor.

6.2 CORRIDOR PROJECT LIST

Table 6.2.1 below is a list of projects that are forecasted to improve or maintain the SR-12 corridor.

Table 6.2.1 Corridor Highway Project List.

County	Begin PM	End PM	Source	EA
NAP/SOL	0.00	R2.794	**SR-12 Jameson Canyon (and SR-12/SR-29 intersection) Project -** This project includes a major reconstruction and widening of SR-12 between SR-29 and Red Top Road to a four-lane conventional highway with a median concrete barrier and full width shoulders. The reconstruction will include horizontal and vertical alignment changes to meet a 55-mph design speed. This project will widen and improve at grade intersections at Kelly Road, Kirkland Ranch Road, and Lynch Road. Additionally, an intersection for u-turns will be provided in the middle section of the project. This project will be advertised for construction in the spring of 2011 and is scheduled for delivery in August of 2013 as per Caltrans Project Management.	**Napa EA 04-264134, Solano EA 04-264144**
SOL	20.0	23.75	**SR-12 Roadway Rehabilitation Project (West of Currie Road to Liberty Island Road) -** This SHOPP project ties into the current SHOPP project near Currie Road and extends the rehabilitation and widening east to Liberty Island Road. The scope of the project includes rehabilitation of the pavement, widening of shoulders to a full eight feet outside width, and intersection widening and left turn channelization at Currie Road, McCloskey Road, and Azevedo Road. The project also includes improving three non-standard vertical curves to meet a 55-mph design speed. Center line channelizers and rumble strips on the outside shoulders are included in the improvements. This project is currently in design and is scheduled to begin construction in 2012 and should be completed in 2014.	**Solano EA 04-2A6200**
SOL	Various		**I-80/I-680/SR-12 Interchange Project–**This project, currently in the project approval/environmental document (PA/ED) phase, is analyzing and developing improvement alternatives for the interchange complex of I-80/I-680/SR-12 (east and west along I-80). Two build alternatives were presented in the Draft Environmental Document and both include work along SR-12. Both build alternatives include the reconstruction of the SR-12 (West) and I-80 interchange, but with different configurations. Work at the SR-12 (East) and I-80 interchange is different between the two alternatives and extends east to near Pennsylvania Avenue. One alternative proposes a single interchange on SR-12 to access Beck Avenue and Pennsylvania Avenue. The other alternative includes two interchanges to provide access to Beck Avenue and Pennsylvania Avenue and eliminates access to SR-12 from Jackson and Webster Streets. This project is still in the PA/ED phase with final design anticipated to start in 2011.	**Solano EA 04-0A5300**

	Projects that support future concept

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State Route 12

Appendices

A. SR-12 Freeway Agreements

B. Additional Documents

APPENDIX A—SR-12 FREEWAY AGREEMENTS

The Freeway Agreement documents the understanding between Caltrans and the local agency relating to the planned traffic circulation features of the proposed facility. It does not bind the State to construct on a particular schedule or staging. In the event that the freeway is fully constructed, it shows which streets may be closed or connected to the freeway; it shows which streets and roads may be separated from the freeway; it shows the location of frontage roads; and it shows how streets may be relocated, extended or otherwise modified to maintain traffic circulation in relation to the freeway. Locations of railroad and pedestrian structures, as well as those for other non-motorized facilities, should also be shown. Agreements are often executed many years before construction is anticipated and they form the basis for future planning, not only by Caltrans but by public and private interests in the community.

The California Freeway and Expressway System have a large financial investment in access control to insure safety and operational integrity of the highways. The legislative intent for requiring Freeway Agreements is to obtain the local agency's support of local road closures and changes to the local circulation system to protect property rights, and to assure adequate service to the community. Access control is necessary on the freeway or expressway so that current and future traffic safety and operations are not compromised.

The following is a list of current Freeway Agreements along the SR-12 CSMP Corridor.

Table A.1 Freeway Agreements List for SR-12 CSMP Corridor.

County	Route	Post Mile	Agreement #	Approval Date	Agreement(s) With
NAP	12	0	3533	07/19/94	County of Napa
SOL	12	1.8/R3.6	1328	01/17/84	City of Fairfield
SOL	12	R3.6/R4.5	1329	02/06/79	County of Solano
SOL	12	R4.5/R5.0	1330	12/15/81	City of Suisun City
SOL	12	4.9/7.7	1331	12/7/99	City of Suisun City
SOL	12	7.7/12.7	1332	02/06/57	County of Solano
SOL	12	12.7/26.4	1333	07/21/60	County of Solano
SOL	80	8.0/12.0	1357	07/25/66	County of Solano
SOL	680	2.6/12.0	1342	05/07/63	County of Solano
SOL	80	12.3/13.0	1358	07/21/60	County of Solano
SOL	80	13.0/13.8	1359	07/25/66	City of Fairfield
SOL	80	13.8/16.3	1360	04/03/84	County of Solano
SOL	80	15.6/17	1361	01/17/84	City of Fairfield

APPENDIX B—ADDITIONAL DOCUMENTS

NC TPA NV TA

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December 29, 2010

Lee Taubeneck
Deputy District Director, Trans. Planning/Local Asst.
Caltrans, District 4, System Planning
111 Grand Ave.
Oakland, CA 94612

RE: SR-12 Corridor System Management Plan

Dear Mr. Taubeneck:

This letter is in regards to Caltrans SR-12 Corridor System Management Plan dated November 05, 2010. On December 29, 2010, the Chair of the NCTPA Technical Advisory Committee, NCTPA staff and Caltrans D4 Systems Planning Staff met to review the document resulting in the identification of several changes which need to be incorporated into the final version of the SR-12 Corridor System Management Plan before the NCTPA Executive Director will sign off on the agreement. NCTPA anticipates formal acceptance of this document at its upcoming January 19, 2011 Board of Directors meeting contingent upon Caltrans incorporating all of the identified changes.

Please feel free to call me at (707) 259-8636 or Eliot Hurwitz at (707) 259-8782 should you have any questions or concerns.

Sincerely,

Diana E. Vargas
Deputy Executive Director

cc: Katie Benouar, Caltrans, District 4, System Planning
Paul W. Price, NCTPA, Executive Director
Eliot Hurwitz, NCTPA, Manager of Transportation, Land Use, and Climate

Member Agencies: Calistoga, St. Helena, Yountville, City of Napa, American Canyon, County of Napa
Napa County Transportation & Planning Agency
Napa Valley Transportation Authority