

Chapter 1 **Proposed Project**

1.1 Introduction

The Solano Transportation Authority (STA), in conjunction with the Cities of Fairfield, Suisun City, and Vacaville; and Solano County, proposes roadway improvements in mid-Solano County between Interstate 80 (I-80) in Vacaville to the north and State Route (SR) 12 in Suisun City to the south. The approximately 12-mile corridor, referred to as the Jepson Corridor, is located within the jurisdictions of the Cities of Suisun City, Fairfield, and Vacaville, and unincorporated portions of central Solano County (Figure 1-1).

The project is subject to federal as well as State environmental review requirements because STA proposes the use of federal funds from the Federal Highway Administration (FHWA) and/or the project requires a FHWA approval action. Project documentation, therefore, has been prepared in compliance with the National Environmental Policy Act (NEPA). STA is the project proponent and the lead agency under CEQA. FHWA's responsibility for environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being carried out by Caltrans under its assumption of responsibility pursuant to the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (23 USC 327).

The Jepson Parkway Project (project) would upgrade and link a series of existing local two- and four-lane roadways (as well as construct an extension of an existing roadway under one alternative) to provide a four- to six-lane north-south travel route for motorists who face increasing congestion when traveling between jurisdictions in central Solano County. Roadways proposed for improvements in the corridor could include Peabody Road, Leisure Town Road, Vanden Road, Cement Hill Road, Huntington Drive, Air Base Parkway, and/or Walters Road, including a possible extension of Walters Road north of its existing terminus. These existing roadway segments are depicted on Figure 1-2. The project also includes safety improvements such as the provision of roadway medians, traffic signals, shoulders, separate turn lanes, railroad grade separations, and separate bike lanes/pedestrian paths, and landscaping.

The Jepson Parkway Project is named for Willis Linn Jepson, born August 19, 1867, in Little Oak, near Vacaville. Jepson was one of America's greatest regional botanists and the principal interpreter of California flora. A passionate conservationist, Jepson founded the California Botanical Society. During his fruitful career, he wrote more than 200 scientific papers and eight books, including *Flora of Western Middle California* (1901), *Silva of California* (1910), and *A Manual of the Flowering Plants of California* (1923–1925). This manual, familiarly known as the "Jepson Manual," is the outstanding work on regional flora produced in this country.

The corridor has logical termini and is of sufficient length to meet the purpose and need for the project, as described in this section. Each of the four build alternatives described in Chapter 2, Project Alternatives, has independent utility, meaning that proposed roadway improvements can be implemented for any alternative and that completion of other projects would not be required in order to realize the operational benefits of the specific alternative. In addition, the four build alternatives have been designed to complement future planned transportation projects. None of the four build alternatives would restrict consideration of these future projects.

Funding is currently being provided by segment with funds programmed to complete improvements of the narrow rural segments connecting Vacaville and Fairfield first, followed immediately by upgrading urban segments in each city. The project would be constructed by segment until completion beginning in 2013. Assuming availability of funding, project construction would last 12 to 24 months on each segment, over a total duration of approximately 48 to 60 months. Project costs range from \$122,558,000 to \$136,752,000, depending on the alternative.

1.1.1 Project History

In 2000, STA, Solano County, and the Cities of Vacaville, Fairfield, and Suisun City completed the *Jepson Parkway Concept Plan* (Concept Plan). The Concept Plan was developed to address intra-county mobility for Solano County residents. It focused on a comprehensive, innovative, and coordinated strategy for developing what has become known as the Jepson Parkway corridor. Completed after a process of extensive community input, the Concept Plan provided a coordinated strategy for developing a multimodal corridor that would link land use and transportation decisions, support the use of alternative modes of transportation, and minimize impacts on existing and future residential neighborhoods. The plan also identified improvements to the corridor that would provide intra-county mobility for central Solano County residents. The corridor improvements were designed to relieve existing and future congestion, address existing safety issues, and facilitate the use of alternative travel modes.

Planning efforts leading to development of the Concept Plan began in the late 1980s. The following is a summary of the planning activities and decisions leading up to the development of this project.

- **1989:** The Metropolitan Transportation Commission (MTC) and the Sacramento Area Council of Governments (SACOG) completed a joint study of the I-80 corridor, titled the *Strategic Transportation Planning Study*. The study forecasted long-term congestion on I-80 and showed that use of I-80 by local traffic in Solano County would be a major contributing factor to that congestion.
- **1990:** MTC completed the *Bay Area Freeway Reliever Routes Phase II Evaluation Report*. One of the four routes evaluated in the report included improvements to Walters Road, Peabody Road, Vanden Road, and Leisure Town Road in Solano County as reliever routes for I-80. The report concluded that the projects “in all four of the corridors will be beneficial elements of an overall program for corridor traffic management” for the San Francisco Bay Area and that they should proceed.

- **1996:** MTC completed the *Interstate 80 Corridor Study*, which advanced a long-term multimodal strategy and investment plan for improving mobility in the I-80 corridor. Recommended plan elements included an I-80 reliever route in Solano County.
- **1997:** STA completed the Phase 1 Report, addressing a 12-mile segment of the route identified in the MTC 1990 study. This report outlined a concept for a continuous four-lane roadway from the I-80/Leisure Town Road interchange in Vacaville to the SR 12/Walters Road intersection in Suisun City. The Phase 1 Report recommended a modification in the alignment along a 1.5-mile segment in the central portion of the route. In lieu of improvements to Air Base Parkway and Peabody Road, the Phase 1 Report recommended improvements to parallel facilities involving an extension of Walters Road north to Cement Hill Road, and a widening of Cement Hill Road between the Walters Road Extension and Peabody Road. The purpose of the modified alignment is to facilitate the construction of a grade separation of the Union Pacific Railroad (UPRR) tracks on the Walters Road Extension as a means to mitigate safety and capacity constraints at the existing two-lane at-grade crossing of the railroad on Peabody Road.
- **2000:** The Federal Highway Administration (FHWA), Caltrans, and STA began the scoping process in anticipation of the preparation of an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for improvements to the Jepson Parkway corridor as outlined in the Concept Plan. The three agencies also agreed to initiate the National Environmental Policy Act (NEPA)/Clean Water Act (CWA) Section 404 integration process (generally referred to as “NEPA/404”).

The NEPA/404 integration process is a formal effort to coordinate the review and approval of key EIR/EIS elements and how these elements address impacts to waters of the United States and associated sensitive species. The integration process is supported by a memorandum of understanding (MOU) between FHWA, the Federal Transit Administration (FTA), the U.S. Army Corps of Engineers (Corps), the U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NOAA Fisheries), and Caltrans.

Members of the NEPA/404 group for the Jepson Parkway Project include the above-listed agencies (with the exception of FTA); the San Francisco Bay Regional Water Quality Control Board (RWQCB); California Department of Fish and Game; Solano County; STA; and the Cities of Fairfield, Vacaville, and Suisun City.

- **2001:** The NEPA/404 group agreed on the project purpose and need, as well as the four build alternatives subject to environmental analysis in this EIS. The purpose and need for the project is described below. The project alternatives, and the screening process for identifying and selecting these alternatives, are described in Chapter 2, Project Alternatives.

STA has identified the project as a priority undertaking for Solano County. The project would provide a four- to six-lane parkway between I-80 in Vacaville and SR 12 in Suisun City, consistent with adopted local plans. The project is also included in the Transportation 2035 Plan for the San Francisco Bay Area in the MTC Regional Transportation Plan (RTP). The RTP identifies the total project cost as \$194 million.

The project is also included in the Solano Comprehensive Transportation Plan (CTP 2030).¹ The CTP 2030 estimates the total cost of the improvements as \$143 million. In addition to the three above-listed projects already constructed, the CTP identifies the following segment of the corridor as fully funded:

- Cement Hill Road: Walters Extension to Peabody Road.

The CTP identifies the following two partially-funded segments of the corridor:

- Walters Road Extension (Fairfield); and
- Vanden Road: Peabody Road to Leisure Town Road (Solano County).

1.2 Purpose and Need

1.2.1 Project Purpose

The project is designed to meet the objectives of the Concept Plan. These objectives include: safety improvements at various locations and along various road segments; relief from existing and anticipated traffic congestion on north-south routes in central Solano County; improved and new transit, bicycle, and pedestrian facilities; and a crossing of the UPRR tracks. The Concept Plan also proposes advisory guidelines that address visual continuity along the roadway for design elements such as landscaping and signage. The project design is consistent with these guidelines.

Implementation of the project would meet the objectives of the Concept Plan, and would assist STA in meeting the following specific purposes, each of which is described in more detail in the sections that follow:

- Provide an integrated and continuous route for local north-south trips between Vacaville, Fairfield, Suisun City, and unincorporated areas of central Solano County as an alternative to using I-80.
- Provide local traffic a safe, convenient route between Vacaville, Fairfield, Suisun City, and unincorporated areas of central Solano County using existing roadways when feasible.
- Enhance multimodal transportation options for local trips in central Solano County, including providing a safe, convenient bicycle and pedestrian path and options for transit use in the area.

1.2.1.1 Provide an Integrated and Continuous Route for Local North-South Trips as an Alternative to Using Interstate 80

One purpose of the project is to provide a continuous route for local north-south trips as an alternative to using I-80. The *I-80 Reliever Route Implementation Plan, Phase 1* (Phase 1 Report), initially outlined the concept of a continuous four-lane roadway from the I-80/Leisure Town Road interchange in Vacaville to SR 12 in Suisun City.² Further planning subsequent to the Phase 1 Report resulted in the Concept Plan.³ Completion of the project would fulfill STA's integrated planning effort to enhance

¹ Solano Transportation Authority. 2005. Solano Comprehensive Transportation Plan (CTP 2030). Adopted by the STA Board of Directors June 8, 2005. Suisun City, CA.

² Korve Engineering. 1997. I-80 Reliever Route Implementation Plan Phase I.

³ Moore Iacofano Goltsman, Inc (MIG). 2000. Jepson Parkway Concept Plan. Berkeley, CA. Prepared for the Solano Transportation Authority, Suisun City, CA.

facilities for all modes of transportation in the region. The project would create a direct route between I-80 and SR 12, benefiting local traffic and providing an alternative to using I-80.

1.2.1.2 Provide Local Traffic a Safe, Convenient Route Using Existing Roadways when Feasible

Another purpose of the project is to provide a safe, convenient route for local north-south traffic in central Solano County. According to the *Solano Travel Safety Plan*, four intersections within the corridor were among the top 40 most accident-prone locations in Solano County.⁴ Additionally, the existing at-grade UPRR crossing on Peabody Road is a safety hazard in an area that can become congested during peak hours. Improvements to the corridor, which is conveniently located for central Solano County residents, would improve roadway safety for area residents. In 2005, the *Solano Travel Safety Plan* was updated, and these intersections were still among the top 40 most accident-prone intersections in the County.

The project would also improve existing roadways when feasible, rather than constructing new facilities. As currently defined, the project would consist primarily of improvements to existing roadways, as shown in Figure 1-2. Such an approach will result in fewer environmental impacts than construction of new roadways on undeveloped parcels. Additionally, the use of existing roadways would result in cost savings that would not be realized if new roadways were constructed.

1.2.1.3 Enhance Multimodal Transportation Options for Local Trips

Another purpose of the project is to enhance multimodal transportation options for local trips in central Solano County by providing a safe, convenient bicycle and pedestrian path and options for transit use in the area. Although a number of transit routes cross the Jepson Parkway corridor, there are no transit routes along the corridor. As the population increases along the corridor, transit needs will also increase. The project would enhance transit options along the corridor. Through the Jepson Parkway, STA would provide a continuous pedestrian and bicycle corridor in central Solano County and links to existing corridors in Vacaville, Fairfield, and Suisun City. These improvements would enhance multimodal options for local trips.

1.2.2 Project Need

The project is needed to:

- Address existing and future traffic congestion for north-south mobility in central Solano County.
- Improve existing and future roadway safety along the corridor.
- Accommodate traffic associated with future planned growth, as identified in the following adopted local and regional plans:
 - California Transportation Plan 2030;
 - MTC Regional Transportation Plan (RTP);

⁴ Solano Travel Safety Plan, 1998.

- City of Vacaville General Plan;
 - City of Fairfield General Plan;
 - City of Suisun City General Plan; and
 - Solano County General Plan.
- Relieve existing and future (2030) traffic congestion on I-80.
 - Support future multimodal transit options and bicycle and pedestrian use.

Each of these needs is described in more detail below.

1.2.2.1 Address Existing and Future Congestion for North-South Mobility

Studies to date indicate that traffic volumes in the corridor will increase to the point that volumes will exceed the capacity of existing roadways. This lack of capacity will result in added travel delays. A review of studies conducted for the study corridor since 1989, including recent information summarized below, demonstrates the need for the project.

An evaluation of 11 freeway segments along I-80, between SR 12 and I-505, indicates that six of these segments operated at unacceptable Levels of Service (LOS), i.e., below LOS D, during the PM peak hour in 2005; four of these segments operated at LOS E and two of these segments operated at LOS F.⁵ Between 2005 and 2030, conditions at these freeway segments will continue to deteriorate. In 2030, six of the 11 freeway segments are projected to operate at LOS F and one segment is projected to operate at LOS E.

An evaluation of 21 intersections in the corridor indicated that during the PM peak hour in 2005, four of these intersections operated at unacceptable levels of service: three operated at LOS F and one at LOS E. The number of corridor intersections operating at unacceptable levels would double to eight during the PM peak hour in 2030, with seven intersections projected to operate at LOS F and one intersection projected to operate at LOS E.

1.2.2.2 Improve Existing and Future Roadway Safety

The project is needed to improve traffic safety in the corridor. In 1998, STA prepared the *Solano Travel Safety Plan* (STA 1998; updated 2005) to identify travel safety deficiencies in Solano County and to recommend a program of cost-effective travel safety improvements and projects. Four intersections in the corridor were among the top 40 most accident-prone local intersections throughout the County:

- Walters Road and Air Base Parkway (ranked 23rd in 1998 and 30th in 2005),
- Peabody Road and Vanden Road (ranked 33rd in 1998 and 15th in 2005),

⁵ LOS is a qualitative description of an intersection and roadway's operation, ranging from LOS A to LOS F. LOS A represents free flow uncongested traffic conditions. LOS F represents highly congested traffic conditions with unacceptable delay to vehicles on the road segments and at intersections.

- Peabody Road and Cement Hill Road (ranked 40th in 1998)⁶, and
- Vanden Road and Canon Road (ranked 29th in 1998 and 41st in 2005).

Traffic on Peabody Road currently crosses directly over the UPRR tracks, creating a potential conflict between trains and automobiles. The existing two-lane, at-grade crossing is close to a heavily used intersection (Peabody Road and Cement Hill Road/Vanden Road) and an access road to a local high school (Markley Lane). Over the three-year study period used for the safety plan, the segment of Peabody Road that represents the approaches to the crossing (between Vanden Road and Markley Lane) was the site of an average of seven accidents per year. The project would improve the safety and capacity of the crossing by providing an improved at-grade crossing or an above-grade crossing. An above-grade crossing would separate the auto traffic from the trains by elevating the roadway over the railroad.

1.2.2.3 Accommodate Traffic Associated with Planned Growth

The project is needed to accommodate traffic associated with future planned growth. Growth outlined in approved local plans is expected to increase traffic congestion along the corridor. The following discussion highlights some of the approved components of these various plans.

1.2.2.4 City of Suisun City General Plan

The City of Suisun City's adopted General Plan (1992) shows Walters Road as a four-lane arterial with a median and 104-foot right-of-way, which includes Class I (separated) bicycle and pedestrian facilities. Walters Road is currently a four-lane arterial with Class I bicycle and pedestrian facilities between SR 12 and East Tabor Avenue. A 1996 Environmental Impact Report (EIR) on the 153-acre Petersen Ranch single-family residential development, which was recently constructed in the area adjacent to Walters Road between Bella Vista Drive and East Tabor Avenue, indicated that four lanes were needed to accommodate traffic generated by the planned residential uses, parks, and schools.

1.2.2.5 City of Fairfield General Plan

The City of Fairfield's adopted General Plan (2002) identifies improvements planned along the Jepson Parkway corridor. The General Plan conceptually shows that both Vanden Road and Peabody Road need "roadway improvements" to accommodate planned growth. Vanden Road travels through an area designated in the general plan for an 800-acre technology park, an area to be reserved for expansion of Travis Air Force Base, and open space/agricultural uses. Peabody Road travels through areas identified for open space/agricultural uses and technology, as well as residential and commercial areas and stream crossings identified as conservation areas. Huntington Drive, an industrial service road with multiple driveways, travels through a business and industrial park. Additional road improvements identified in the General Plan include widening Walters Road to four lanes with a median and bike lanes from East Tabor Avenue to the UPRR crossing, constructing a new four-lane Walters Road extension from the UPRR crossing to Cement Hill Road, widening Peabody Road to four lanes from Air Base Parkway to the city limits, and widening Vanden Road to four lanes from Peabody Road to the city limits.

⁶ The intersection of Peabody Road and Cement Hill Road/Vanden Road was realigned in 2000.

The City of Fairfield's 1994 *Peabody-Walters Master Plan*⁷ also identifies improvements planned for the Jepson Parkway corridor. The master plan diagram shows Walters Road extended north as a six-lane facility in an alignment east of the McCoy detention basin, as well as a widening of Cement Hill Road to four lanes. Currently the City of Fairfield is preparing a Specific Plan for the Fairfield-Vacaville Multimodal Train Station Area and upon adoption of the Specific Plan and previous planning efforts, the Peabody-Walters Master Plan will be effectively repealed and superseded by the Specific Plan. The Specific Plan will reflect the 2002 General Plan, which has designated some of the nearby land for transit-supportive uses and calls for Walters Road to be constructed as a four-lane facility between the UPRR crossing and Cement Hill Road.

1.2.2.6 City of Vacaville General Plan

The City of Vacaville's adopted General Plan (2007) indicates that Leisure Town Road should be widened from two to four lanes between I-80 and Alamo Drive. This widening is scheduled to meet existing traffic demands and potential growth in the area. The General Plan also shows the extension of Leisure Town Road to Vanden Road so that it aligns with the proposed extension of Foxboro Parkway.

1.2.2.7 Solano County General Plan

According to the Land Use and Circulation Element of Solano County's adopted General Plan (1980), rapid growth in the County over the past four decades has been enhanced by accessibility to the San Francisco and Sacramento metropolitan areas, the location of government employment centers such as Travis AFB, and moderate housing costs. The General Plan anticipates that Solano County will continue to grow in the future.

1.2.2.8 Relieve Existing and Future Traffic Congestion on Interstate 80

The 1989 *Strategic Traffic Planning Study*⁸ indicated that the project is needed to help alleviate current and future congestion on I-80 by diverting and providing an alternative route for local traffic in Solano County. Although it is an east-west route, I-80 is aligned generally north-south in this segment of Solano County (Figure 1-1). The study showed that local Solano County traffic is a major factor contributing to congestion on I-80, and that resulting delays on I-80 will escalate as the County grows and regional traffic increases. The study recommended improving local arterial roadways to serve local trips along a continuous route from the I-80/Leisure Town Road interchange in Vacaville to I-680. According to STA's Phase 1 Report, I-80 between the I-80/Leisure Town Road interchange and I-680 included the most congested segments of the freeway in central Solano County.⁹

⁷ City of Fairfield. 1994. *Peabody-Walters Master Plan*, prepared by Creegan & D'Angelo Consulting Engineers, September 6, 1994.

⁸ Metropolitan Transportation Commission and Sacramento Area Council of Governments. 1989. *Strategic Traffic Planning Study*. Suisun City, CA.

⁹ Korve Engineering. 1997. *I-80 Reliever Route Implementation Plan Phase I*.

1.2.2.9 Support Future Multimodal Travel Options

The project is needed to support future multimodal transit options in central Solano County. As a separate project being planned in coordination with the Jepson Parkway Project, the Fairfield-Vacaville Multimodal Train Station would be a multimodal transportation hub for the Capitol Corridor intercity passenger train service and for feeder bus systems serving the train station. The Multimodal Train Station was identified in the *1995 Solano Rail Facilities Plan* as one of three priority station projects. This rail station would be located at the southeast corner of the intersection of Peabody Road and Cement Hill Road/Vanden Road, a major intersection within the corridor (Figure 1-2). The Jepson Parkway Project has been designed to accommodate the proposed train station and enhance access to the station site.

In 1994, the *Fairfield/Suisun Short-Range Transit Plan* projected that an additional bus route to the northern part of Fairfield would be needed by 2004. Two bus routes are proposed along the corridor to link major residential and employment centers and to reduce travel times between major destination points, such as Travis Air Force Base, the Vacaville Business Park, the Fairfield Industrial Park, downtown Suisun City, and the I-80/West Texas interchange area, as well as the planned Fairfield-Vacaville Multimodal Train Station and other transfer centers.

The project is also needed to meet the planning goals of the countywide bicycle plan. In the corridor, this plan shows a continuous bicycle path along Leisure Town Road, Vanden Road, Cement Hill Road, and Walters Road. The updated Solano Countywide Bicycle Plan (STA 2004) describes bikeways along the entire corridor as countywide priority projects. The Alternatives Modes Element of STA's CTP 2030 describes the Jepson Parkway Bikeway as a multi-jurisdictional project being developed by Suisun City, Fairfield, Vacaville, and the County of Solano. The Jepson Parkway Project would provide a 10-foot wide bike path along most of the entire (12-mile) length of the planned Jepson Parkway.

1.2.2.10 Related Projects

The following projects are in the planning stages or have recently been completed in the corridor or corridor vicinity.

- I-80/Leisure Town Road Overcrossing and Interchange, City of Vacaville.
- Al Patch Park, City of Vacaville: a 34.3-acre sports complex at the northwest corner of Peabody Road and California Drive.
- Elmira Road Widening from Peabody Road to Allison Drive, City of Vacaville.
- Fairfield-Vacaville Multimodal Train Station, City of Fairfield.
- Technology Park, City of Fairfield: an 800-acre technology park designated in the City of Fairfield General Plan.
- Travis Air Force Base Expansion, City of Fairfield.
- Petersen Ranch, City of Suisun City: a 153-acre residential development adjacent to Walters Road between Bella Vista Drive and East Tabor Avenue.

- Villages at Fairfield Residential Development, City of Fairfield: 440 acres with 2,400 housing units, a commercial shopping center, an elementary school, two neighborhood parks, a portion of the Fairfield Linear Park, and associated public facilities, roadways and utilities. Located north of Air Base Parkway between Claybank Road and Peabody Road.
- Solano Countywide Bicycle Plan, STA.
- Improvements to I-80/I-505 Interchange.
- High-Occupancy Vehicle Lane on I-80.
- General Plan Amendment for Peabody Road: a General Plan amendment to designate Peabody Road as a four-lane arterial street was approved in 2004.
- I-80/North Texas Street Interchange and Manuel Campos Parkway Extension, City of Fairfield.
- Realignment of Peabody Road and Vanden Road/Cement Hill Road intersection, City of Fairfield.