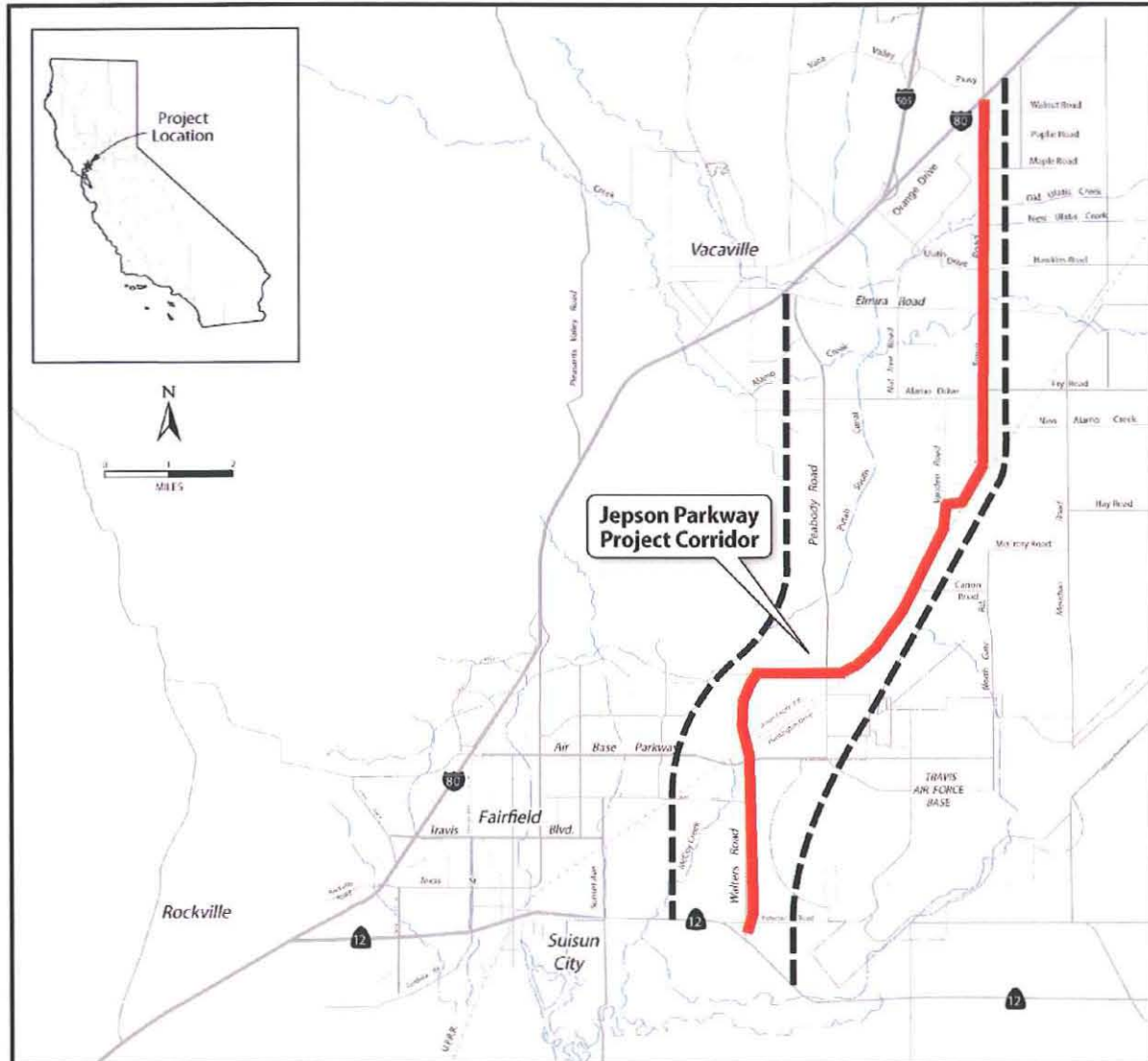


# PROJECT TECHNICAL REPORT

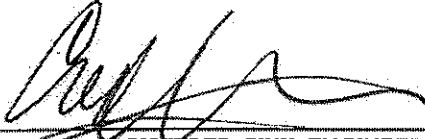


## **Jepson Parkway Project** (State Route 12 to Interstate 80) *Walters Road, Walters Road extension, Cement Hill Road, Vanden Road, and Leisure Town Road*

**Solano County Transportation Authority**  
City of Suisun City, City of Fairfield, City of Vacaville, Solano County

February 2009

This Project Technical Report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

  
REGISTERED CIVIL ENGINEER

02/19/09  
DATE



## 1. INTRODUCTION

This Project Technical Report proposes the Jepson Parkway Project (Project) consisting of upgrading existing roadways (Walters Road, Cement Hill Road, Vanden Road, Leisure Town Road) and constructing one new section (Walters Road extension). The 12-mile Jepson Parkway corridor is located in Solano County (County), California, within the cities of Suisun City, Fairfield, Vacaville, and unincorporated Solano County. The Project area is located between Interstate 80 (I-80), which is a major west-east regional freeway connecting the San Francisco Bay Area with Sacramento and points east, and State Route 12 (SR 12), which is a major east-west regional highway between Napa, Solano, Sacramento and San Joaquin County.

The proposed Jepson Parkway Project would provide a four-lane divided arterial for the entire length of the corridor and includes improvements to (from south to north) Walters Road, Cement Hill Road, Vanden Road, and Leisure Town Road. The Project components include the widening of existing Project roadways; construction of a northern extension of Walters Road between Cement Hill Road and the intersection of Huntington Drive; a grade separation (overcrossing) of the UPRR mainline tracks as part of the Walters Road extension; improvements at the Leisure Town Road crossings of Alamo Creek and New Alamo Creek; improvements at the Vanden Road crossing of Union Creek; a new crossing of McCoy Creek and Strassberger detention basin; bicycle and pedestrian paths; landscaping; and utilities relocation.

This Project begins in Suisun City at the intersection of SR12 and Walters Road. It extends north along Walters Road into Fairfield, crossing Air Base Parkway to Huntington Drive. It continues north along a new alignment (Walters Road extension) to the intersection of Walters Road and Cement Hill Road. It continues east along Cement Hill Road to its intersection with Peabody Road/Vanden Road. It then extends northeast along Vanden Road to the intersection of Vanden Road/Leisure Town Road in Vacaville. It extends northeast and north along Leisure Town Road, ending at the intersection of Leisure Town Road and Orange Drive just south of the I-80 and Leisure Town Road interchange.

The Jepson Parkway project is estimated to cost \$155,478,200 based on current prices, including \$13,701,500 for right of way and utilities, and \$141,776,700 for construction. The total project cost including support cost is \$186,669,000. The Project is proposed to be funded 50% STA (STIP, federal appropriations earmarks) and 50% local funds beginning in FY 2010/11.

	<b>Project Costs</b>
Roadway Items	\$101,137,700
Structure Items	\$40,639,000
Right of way and Utilities	\$13,701,500
<b>Total Construction Costs</b>	<b>\$155,478,200</b>

## 2. RECOMMENDATION

This project is in partnership with the affected local agencies including the cities of Suisun City, Fairfield, and Vacaville and Solano County. These local agencies have supported the development and are in concurrence with the approval of this project.

It is recommended that this Project Technical Report be approved.

## 3. BACKGROUND

- 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 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 the 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.

**1989-1996:** The Metropolitan Transportation Commission (MTC) completed several studies of the I-80 corridor, which showed that a major contributing factor to future congestion would be local traffic in Solano County. The *Bay Area Freeway Reliever Routes Phase II Evaluation Report* identified an I-80 reliever route in the vicinity of the Jepson Parkway Project.

**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.

**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/S) 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/S 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.

NEPA requires that a Notice of Intent (NOI) to prepare an EIS be filed with the Environmental Protection Agency (EPA) and appear in the Federal Register. The NOI for the project was published in the Federal Register on August 4, 2000, and the NOP was released on July 14, 2000. CEQA also specifically requires that when one or more State agencies will be a responsible or trustee agency, a Notice of Preparation (NOP) must be filed with the State Clearinghouse. A NOP for the project was received by the State Clearinghouse on July 17, 2000. The State Clearinghouse number for the project is 2000072051.

**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 EIR/S. The purpose and need for the project is described below.

- **Community Interaction**

The Solano Transportation Authority, City of Suisun City, City of Fairfield, Solano County and City of Vacaville support the proposed project. STA and the local agencies held several project scoping/briefings (including a public hearing) meetings throughout the project development process. There were periodic briefings/presentations to the STA board and city council members of the local cities and Solano County. In addition, STA periodically prepared and circulated newsletters to local residents and businesses to keep them informed about project developments. STA has also met with impacted property owners to discuss the Project.

**Public Meetings/Briefings**

**Public Scoping Meeting:** A public scoping meeting for the project was held on August 9, 2000, at the Suisun City Hall, at 701 Civic Center Boulevard in Suisun City. Maps and graphics were available for viewing and there was a formal presentation of the project.

**Project Briefings:** Several Project briefings were made between 2000 and 2008 to stakeholders. These briefings included regular updates at both the policy level (STA Board members/local politicians) and technical level (local public works and planning directors).

**Public Hearing:** A public hearing on the project was held on Tuesday, June 24, 2008 at the Callison Elementary School, 6261 Vanden Road in Vacaville. The public hearing was an open house format meeting featuring a looping video

presentation and display boards containing project information, during which attendees could circulate freely and ask questions or give comments directly to members of the project team. A court reporter also was on hand to record comments. Approximately 30 people signed in their attendance at this meeting, and there were a few additional attendees who did not sign in. Fifteen people provided comments through the court reporter.

**Affected Properties Right of Way Meeting:** A property owner meeting was held on Thursday, July 17, 2008. Approximately 100 property owners whose property may require a temporary construction easement or a permanent right of way acquisition on one or more of the proposed alternatives were invited to view project exhibits and discuss the project with the project team. Eight people attended the meeting.

#### **Website/Newsletter**

Project activities and the current status of the Jepson Parkway project were continuously updated on the STA website ([www.solanolinks.com](http://www.solanolinks.com)). A double-sided, one-page newsletter announcing release of the Draft EIR/S was circulated on May 28, 2008. This newsletter was directly mailed to approximately 7000 people, including all those who resided within 200 feet of any of the project alternatives as well as to other interested parties including any groups or individuals who had requested to be notified of the availability of the environmental document. The newsletter provided project information including project sponsors, project goals, an overview of project alternatives, and the date, time, and location of the public hearing as well as contact information for submitting comments.

#### **Draft Environmental Impact Report/Environmental Impact Statement (EIR/S)**

Availability of the Draft EIS was published in the Federal Register on June 6, 2008 and the Draft EIR/S was circulated for public review and comment; a 60-day public review period was provided until August 6, 2008. The Draft EIR/S was made available for review online at [www.solanolinks.com](http://www.solanolinks.com) and print copies of the environmental document and supporting technical reports were provided for review at STA offices at One Harbor Center, Suite 130 in Suisun City; the City of Fairfield Civic Center Library at 1150 Kentucky Street in Fairfield; the Suisun City Public Library at 333 Sunset Avenue, Suite 280 in Suisun City; and the City of Vacaville Public Library/Cultural Center at 102 Ulatis Drive in Vacaville.

Thirty-seven comment letters, including a petition with 67 signatories and 15 comments recorded at the public hearing were received. Copies of these comment letters, the petition and the court reporter's transcript are provided with responses to each comment in Volume II of this Final EIR/S.

- **Existing Facilities**

The Jepson Parkway will intersect existing state routes (SR 12 on the south, I-80 on the north) at either end. At its south terminus, the Jepson Parkway will connect at the existing SR-12 West/Walters Road intersection. At its northern terminus, the Jepson Parkway will end at the Leisure Town Road Overcrossing Interchange with I-80. The Jepson Parkway project will utilize Walters Road, Cement Hill Road, Vanden Road, and Leisure Town Road. These roadways will not be renamed, but the entire corridor from SR 12 to I-80 will be referred to as the Jepson Parkway.

Existing facilities at both ends of the Project are described as follows:

- **I-80/Leisure Town Road Overcrossing and Interchange**  
The recently upgraded Leisure Town/VacaValley Parkway Overcrossing and Interchange is the ending point of the Jepson Parkway project. The recent improvements to this interchange extend to the intersection of Leisure Town Road and Orange Drive and constructed the improvements (laneage, width, etc.) required for the Jepson Parkway project. Physical improvements for Jepson Parkway will end at the Orange Drive intersection.
- **SR 12/Walters Road**  
The existing SR 12 and Walters Road intersection was recently upgraded to include the required four lane divided arterial section on Walters Road north of SR 12. The Jepson Parkway project will restripe (to add an additional left turn lane) the northern Walters Road leg of this intersection and tie into the existing curb ramps in the northwest corner.

The existing local roadways that are affected by the Jepson Parkway project are as follows:

- **Walters Road (2.3 miles in Suisun City and Fairfield)**  
Walters Road is a north-south arterial beginning at SR 12 in Suisun City and terminating at Huntington Drive in Fairfield. The majority of Walters Road is already a four lane roadway. Recent improvements between SR 12 and Petersen Road, and Bella Vista Drive and Tabor Avenue were completed in advance of the Jepson Parkway project and constructed the necessary improvements for the project. As part of the Jepson Parkway project Walters Road will be extended from Huntington Drive across/over the Union Pacific Railroad (UPRR) tracks to Cement Hill Road, connecting with a recently constructed Walters Road segment constructed north of Cement Hill Road.
- **@ Petersen Road**  
Petersen Road is a two lane collector road that crosses Walters Road north of SR 12. Petersen Road east of Walters Road connects to the South Gate of Travis Air Force Base. The existing Petersen Road and Walters Road intersection is signalized and will not be modified as part of the project.
- **@ East Tabor Avenue**  
East Tabor Avenue is an east-west minor arterial on the Suisun City/Fairfield border, that crosses Walters Road south of Air Base Parkway. Although it crosses Walters Road, East Tabor Avenue ends just east of Walters Road. Physical improvements on

Walters Road begin just north of the East Tabor Avenue intersection.

- @ Air Base Parkway  
Air Base Parkway is a major east-west arterial in Fairfield that provides a direct connection between I-80 and Travis Air Force Base (main gate). Air Base Parkway crosses Jepson Parkway at Walters Road and is a four lane divided arterial. The existing Walters Road and Air Base Parkway intersection is signalized.
- Cement Hill Road (0.96 miles in Fairfield)  
Cement Hill Road is currently a narrow two lane roadway that will be upgraded from the Walters Road extension to the Peabody Road/Vanden Road/Cement Hill Road intersection, to a divided four lane arterial as part of the Jepson Parkway. To the west of the Jepson Parkway, Cement Hill Road will be upgraded to a four lane roadway and referred to as the Manuel Campos Parkway.
- @ Peabody Road (at Cement Hill Road/Vanden Road)  
Peabody Road is currently a north-south major arterial that begins at Air Base Parkway in Fairfield and ends at Elmira Road in Vacaville. Peabody Road crosses the Jepson Parkway at the Cement Hill Road/Vanden Road intersection. This intersection was recently upgraded and is wide enough to accommodate the Jepson Parkway in the near term, but in the 20-year planning horizon will need additional turn lanes at the intersection.
- Vanden Road (2.84 miles in unincorporated Solano County between Fairfield and Vacaville)  
Most of Vanden Road is currently a narrow two lane county road that will be upgraded from the Cement Hill Road/Peabody Road/Vanden Road intersection to the Leisure Town Road/Vanden Road intersection. Most of Vanden Road runs parallel to the Union Pacific Railroad tracks. The Vanden Road section of the proposed Jepson Parkway will maintain the rural characteristics of the surrounding area. Vanden Road crosses Union Creek northwest of the Canon Road intersection.
- @ Canon Road  
Canon Road is a narrow two lane roadway that tees into Vanden Road. Canon Road ties into Northgate Road, which connects to the north gate of Travis Air Force Base. Canon Road connects with a tee intersection at Vanden Road. The intersection with Vanden Road includes an at-grade crossing of the UPRR tracks.
- Leisure Town Road (5.0 miles in Solano County & Vacaville)  
Leisure Town Road is a two and four lane north-south arterial in Vacaville that extends from the Leisure Town Road/Vanden Road



intersection to I-80 at the Leisure Town Road Interchange. Leisure Town Road is the eastern limits of the City of Vacaville and generally has residential land uses on the west side and agricultural land uses on the east side. Leisure Town Road will be widened to a four lane divided arterial section and the segment between Alamo Drive and Ulatis Creek will be realigned further east. Leisure Town Road crosses New Alamo Creek, Old Alamo Creek, Old Ulatis Creek, New Ulatis Creek, and Horse Creek.

- **@ Alamo Drive**  
Alamo Drive is an east-west major arterial in Vacaville that ties into Leisure Town Road and becomes Fry Road on the east side of Leisure Town Road, north of New Alamo Creek. The existing intersection of Leisure Town Road and Alamo Drive is signalized.
- **@ Elmira Road**  
Elmira Road is an east-west arterial in Vacaville that crosses Leisure Town Road at Old Alamo Creek. The existing Elmira Road and Leisure Town Road intersection is signalized.
- **@ Orange Drive**  
Orange Drive is a minor arterial that parallels I-80 in Vacaville before connecting to Leisure Town Road, just south of the I-80/Leisure Town Road Interchange. The existing Orange Drive/Leisure Town Road intersection is signalized and recent improvements have upgraded this intersection in advance of the Jepson Parkway project.

#### **4. PURPOSE AND NEED**

The purpose of this Project is to provide roadway improvements that create a safe, environmentally-conscious route for local traffic through central Solano County. The Jepson Parkway Project is within the jurisdictions of the City of Suisun City, City of Fairfield, City of Vacaville, and unincorporated portions of Solano County. The project is designed to meet objectives of the *Jepson Parkway Concept Plan* (Concept Plan), prepared by STA. As envisioned by the Concept Plan, the Jepson Parkway would improve safety at various locations and along various road segments; offer relief from existing and anticipated traffic congestion on north-south routes in Solano County; provide improved and new transit, bicycle, and pedestrian facilities; and include a crossing of the Union Pacific Railroad (UPRR) tracks. The Concept Plan also proposes advisory design guidelines that would promote visual continuity along the roadway through the consistent use of design elements such as landscaping and signage.

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.

Implementation of the project to meet the objectives of the Concept Plan would assist the STA in meeting the following specific purposes:

- 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 identified in adopted local and regional plans.
- Relieve existing and future (2030) traffic congestion on I-80.
- Support future multimodal transit options and bicycle and pedestrian use.

#### 4A. PROBLEM, DEFICIENCIES, JUSTIFICATION

**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.

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 acceptable LOS D, during the PM peak hour in 2005. 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.

**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 23<sup>rd</sup> in 1998 and 30<sup>th</sup> in 2005),
- Peabody Road and Vanden Road (ranked 33<sup>rd</sup> in 1998),

- Peabody Road and Cement Hill Road (ranked 40<sup>th</sup> in 1998),
- Peabody Road/Cement Hill Road/Vanden Road (15<sup>th</sup> in 2005),
- Vanden Road and Canon Road (ranked 29<sup>th</sup> in 1998 and 41<sup>st</sup> in 2005).

Traffic on Peabody Road currently crosses directly over the UPRR tracks, creating a potential conflict between trains and automobiles. This is the only north-south crossing on a continuous roadway in central Solano County.

**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.

#### **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, which includes Class I (separated) bicycle and pedestrian facilities.

#### **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. 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.

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 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.

#### **City of Vacaville General Plan**

The 1990 City of Vacaville's adopted General Plan (as amended through August 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.

#### **Solano County General Plan**

According to the Land Use and Circulation Element of Solano County's adopted General Plan (2008), 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.

**Relieve Existing and Future Traffic Congestion on Interstate 80:** The 1989 *Strategic Traffic Planning Study* 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. 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.

**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. The potential train station will include expanded bus service from both Fairfield and Vacaville. This rail station would be located at the southeast corner of the intersection of Peabody Road and Cement Hill Road/Vanden Road.

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.

#### **4B. REGIONAL AND SYSTEM PLANNING**

- Identify Systems

The Jepson Parkway is a local arterial that will provide a continuous north-south route in central Solano County between SR 12 in Suisun City and Vacaville. The Jepson Parkway consists of improved portions of Walters Road, Cement Hill Road, Vanden Road, and Leisure Town Road. These roadway segments will maintain their specific names and the overall corridor will be referred to as the Jepson Parkway. The Jepson Parkway provides an alternative route to I-80 between Vacaville and Fairfield/Suisun City.

- State Planning

The concept of the Reliever Route to Interstate 80 was originally identified in the 1989 *Strategic Transportation Planning Study* completed by MTC for the San Francisco Bay Area Freeway System. The concept was advanced and further defined in the 1990 *Bay Area Freeway Reliever Routes Phase II Evaluation Report* and 1996 *Interstate 80 Corridor Study* completed by MTC. STA's 1997 Phase 1 Report, specifically defined the improvements that make up the Jepson Parkway.

- Regional Planning

This project is consistent with the Regional Transportation Plan (RTP) for the San Francisco Bay Area, prepared by the Metropolitan Transportation Commission (MTC). The project is listed under the Financially Constrained Element\* in the Strategic Expansion section of MTC's Transportation 2030 for Solano County. The reference number for the Jepson Parkway Project is 94151. (\*Financially Constrained Element refers to programmed local, regional, State and federal funds as well as discretionary State and federal funds anticipated to be available over the long term of the Transportation 2030 Plan.)

- Local Planning

Individual improvements, consistent with the proposed project, to the roadways that make up the Jepson Parkway are identified in the General Plans of Suisun City, Fairfield, Vacaville and Solano County. STA and the local partner agencies completed the *Jepson Parkway Concept Plan* in 2000. This plan identifies the roadway, multi-modal and aesthetic details of the Jepson Parkway Project. Additionally, the 2004 Solano Countywide Bicycle Plan describes bikeways along the entire corridor as countywide priority projects.

- Transit Operator Planning

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.

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

#### 4C. TRAFFIC

- Current and Forecasted Traffic

Traffic volume forecasts for 2000, 2005, 2025, and 2030 were developed based on travel demand models. The models were developed based on land

use development assumptions regarding likely development in the region for the given timeframes, and on reasonably foreseeable roadway improvement projects. The 2025 model was built using the TRANPLAN software platform (by the City of Fairfield) and the 2030 model was built using CUBE software platform (by a consultant for STA); however both models have some differences. The 2025 model is a fiscally constrained model and only includes funded roadway network additions. The 2030 model has a separate network for high occupancy vehicle (HOV) lanes and assumes full buildout of the I-80/I-680 interchange. One of the important conclusions of the 2030 model is that the I-80 PM peak hour traffic between Fairfield and Vacaville interchanges exceeds capacity, which was not shown in the 2025 model. A comparison of the volumes for the two models was made and it was concluded that the 2030 model is the more accurate model due to availability of updated land use data. It was also concluded that the 2030 model numbers should be used for future planning purposes. The alternatives for the Jepson Parkway Project were originally developed using the 2025 model, so a prorated escalation process was used to forecast the 2030 traffic volumes (from the original 2025 volumes) for the Project.

**2010 ADT:** 15,200 (Walters Road), 9,200 (Cement Hill Road), 12,800 (Vanden Road), 15,867 (Leisure Town Road)

**2030 ADT:** 28,875 (Walters Road), 29,390 (Cement Hill Road), 20,200 (Vanden Road), 31,167 (Leisure Town Road)

For a more detailed discussion of traffic, see the Jepson Parkway *Updated Transportation/Circulation Impacts Report* dated November 2007.

- 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 23<sup>rd</sup> in 1998 and 30<sup>th</sup> in 2005),
  - Peabody Road and Vanden Road (ranked 33<sup>rd</sup> in 1998),
  - Peabody Road and Cement Hill Road (ranked 40<sup>th</sup> in 1998),
  - Peabody Road/Cement Hill Road/Vanden Road (15<sup>th</sup> in 2005),
  - Vanden Road and Canon Road (ranked 29<sup>th</sup> in 1998 and 41<sup>st</sup> in 2005).

Traffic on Peabody Road currently crosses directly over the UPRR tracks, creating a potential conflict between trains and automobiles. This is the only north-south crossing on a continuous roadway in central Solano County.

## 5. ALTERNATIVES

### 5A. JEPSON PARKWAY

This report only includes the selected build alternative or Project. The approval of the Final Project Technical Report will occur after the FEIR is approved by the STA Board.

## Project Description

The preferred alternative or Project is an upgrade (and one new extension) of existing roadways that create a continuous north-south arterial in central Solano County. The proposed Project would provide a four-lane divided arterial for the entire length of the corridor and includes improvements to (from south to north) Walters Road, Cement Hill Road, Vanden Road, and Leisure Town Road (See Attachment B). Detailed descriptions of each roadway segment are presented below. The Project components include the widening of existing Project roadways; construction of a northern extension of Walters Road between Cement Hill Road and the intersection of Huntington Drive; a grade separation (overpass) of the UPRR mainline tracks as part of the Walters Road extension; improvements at the Leisure Town Road crossings of Alamo Creek and New Alamo Creek; improvements at the Vanden Road crossing of Union Creek; a new crossing of McCoy Creek; bicycle and pedestrian paths; landscaping; and utilities relocation.

- Proposed Engineering Features

Walters Road (from SR 12 to Huntington Drive in Suisun City and Fairfield)

From the intersection of Walters Road/SR 12 to Walters Road/Peterson Road a new sidewalk will be constructed behind the existing curb and gutter on the west side. A new raised median will be constructed north of Petersen Road. Between Petersen Road and Tabor Avenue the existing Walters Road is already constructed to the proposed Jepson Parkway requirements. From the intersection of Walters Road/East Tabor Avenue to the intersection of Walters Road/Air Base Parkway the existing roadway will be widened 20 to 30-foot to the east to accommodate additional lanes. The existing curb, gutter and sidewalk on the west side will remain in place. An attached pedestrian/bicycle path (Class 1) will be constructed along the east side of Walters Road.

On Walters Road, from Tabor Avenue to Air Base Parkway, the existing storm drainage systems will be modified and expanded to handle the additional lanes. Existing runoff on the eastside currently uses a roadside ditch that is then piped to the west side at two locations. The proposed roadway will convey offsite runoff from the eastside at the same locations through pipes that discharge on the west side of Walters Road. A new storm drainage system near the intersection of Walters Court and Walters Road will need to be extended west within Walters Court to McCoy Creek to discharge because of the flat grade issues in the area.

The existing traffic signal at Walters Road/Air Base Parkway will be replaced with a new traffic signal system. The traffic signals at Walters Road/Air Base Parkway and Walters Road/Huntington Drive intersections will be coordinated to operate together because of the close spacing. Additionally, a signal at Walters Road/Walters Court will be required due to the spacing of these intersections.

Walters Road extension *(from Air Base Parkway to Cement Hill Road in Fairfield)*

Walters Road will begin to gain elevation just north of Air Base Parkway as the roadway is elevated to cross over the UPRR tracks with a new 160-foot single span bridge. Walters Road currently ends at Huntington Drive, just north of Air Base Parkway. The intersection of Huntington Drive/Walters Road will be raised two-to-four feet. From the UPRR overcrossing the new alignment curves to the west crossing a tributary of McCoy creek with a 140-foot single span bridge, followed by a short at grade section before spanning the man made Strassberger Detention Pond with a new 1285-foot multiple span bridge. During final design, value engineering process will be used to minimize environmental impacts, identify potential environmental enhancements, and reduce cost of the segment. From the Strassberger detention pond the alignment will curve back to the east along a natural ridge line before tying in with the existing tee-intersection of Walters Road (north) and Cement Hill Road. The length of the new alignment is 1.05 miles. The raised median has been narrowed to two feet wide for the entire length of the Walters Road extension. An attached pedestrian/bicycle path (Class 1) will be constructed along the east side of the Walters Road extension.

The Walters Road extension will cross the man-made Strassberger detention basin, which receives the McCoy Creek. The crossing will be constructed to allow the existing hydrology on the north and south sides of the detention basin to remain intact. An additional bridge will span a tributary of the McCoy Creek south of the Strassberger detention pond. Storm water runoff will be collected within the roadway curb and gutter and drop inlets and conveyed into storm drainage systems that discharge into biofiltration swales on the sides of the road before reaching existing runoff locations.

Cement Hill Road *(from Walters Road extension to Peabody Road/Vanden Road in Fairfield)*

From the Cement Hill Road/Walters Road intersection to 300-feet west of the intersection of Vanden Road/Cement Hill Road/Peabody Road the existing roadway will be widened to the south. The roadway will be completely reconstructed and the profile will be improved. A raised landscaped median with left turn lanes at intersections will be constructed along the entire Cement Hill Road alignment. Bicycle and pedestrian paths will be constructed on both sides of the roadway for the entire alignment with the Class 1 Bicycle facility located on the south side.

The McCoy Creek crossing at Cement Hill Road will not require any additional work. Storm water runoff will be collected within the roadway curb and gutter and drop inlets and conveyed into storm drainage systems that discharge into biofiltration swales on the south side of the road before reaching existing runoff locations.



The existing traffic signal at Cement Hill Road/Walters Road will be replaced with a new traffic signal system.

Vanden Road (from Peabody Road/Cement Hill Road to Leisure Town Road in unincorporated Solano County)

From approximately 500-feet east of the Vanden Road/Cement Hill Road/Peabody Road intersection to the Leisure Town Road/Vanden Road intersection the roadway will be widened to the west/northwest away from the UPRR tracks. The roadway will be completely reconstructed and the profile will be improved. The roadway will be raised at the Union Creek crossing and a new two span bridge will be constructed to pass the 100-year storm event. From approximately 500-feet east of the Vanden Road/Cement Hill Road/Peabody Road intersection to approximately 300-feet west of the intersection the existing roadway will be widened five-to-six feet to the north and south (for an additional left turn lane at the Vanden/Peabody/Cement Hill Road intersection). The intersection of Vanden Road/Canon Road will be improved with additional turn lanes and improvements to the railroad grade crossing on Canon Road, which will include a reconstructed crossing, center median and new signal equipment. The Vanden Road segment is a rural cross section without curb and gutter. A landscaped median with left turn lanes at intersections will be constructed along the entire Vanden Road alignment. Landscaping within this segment will be low maintenance consisting primarily of pockets of trees and shrubs. A detached bicycle/pedestrian path (Class 1) will be constructed on the west/northwest side from Vanden Road/Cement Hill Road/Peabody Road to Leisure Town Road.

The roadway will be raised and a new two span bridge will be constructed at the Union Creek crossing. With the added width of the proposed roadway approximately 500-feet of Union Creek will need to be realigned. Currently the creek makes a series of ninety degree bends as it approaches Vanden Road. Existing offsite runoff that crosses Vanden Road will continue to cross Vanden Road in the same location through improved culvert crossings. Culvert crossing locations will be determined based on locations of existing culverts crossing the UPRR tracks and on avoiding impacts to the Kinder Morgan high pressure gas line. Roadway storm water runoff will be collected in roadside ditches and conveyed to cross culvert locations. Biofiltration strips will be implemented in the roadside ditches.

A new traffic signal system will be constructed at the Vanden Road/Cement Hill Road intersection. This traffic signal will be interconnected with the improved railroad crossing equipment. The additional left turn lane at the Vanden/Peabody/Cement Hill Road intersection is required within the 20-year planning horizon, and will require reconfiguring/replacing the traffic signal at this intersection.

Leisure Town Road (from Vanden Road to Orange Drive in Solano County & Vacaville)

From the Leisure Town Road/Vanden Road intersection to New Alamo Creek the existing roadway will be widened to the west to accommodate additional lanes. From New Alamo Creek to New Ulatis Creek the existing Leisure Town Road alignment will be shifted to the east to provide a 35-to-55-foot landscape buffer between the existing residential developments and the roadway. Leisure Town Road will be completely reconstructed on the shifted alignment. From New Ulatis Creek to Orange Drive the roadway will be widened to the east approximately thirty feet to accommodate the additional lanes and median. The existing western curb and gutter will remain in place; however a wider sidewalk will be constructed behind the curb and gutter. The existing box culvert at Old Alamo Creek will be extended to the east and north to discharge on the north side of Elmira Road. The New Alamo Creek bridge crossing will be widened to the west. A raised landscaped median with left turn lanes at intersections will be constructed along the entire Leisure Town Road alignment. A detached pedestrian/bicycle path (Class 1) will be constructed on the west side from Vanden Road to New Alamo Creek where it ties in with an existing facility.

The Horse Creek, Ulatis Creek, and New Ulatis Creek crossings will not require any additional work. The bridges for these creeks have previously been widened to accommodate the proposed cross section width. The existing Alamo Creek box culvert will be extended to the east and combined with a storm drainage system before heading north to discharge into the existing channel alignment north of Elmira Road. The existing New Alamo Creek bridge will be widened to the west approximately 50-feet. Storm water runoff will be collected within the roadway curb and gutter and drop inlets and conveyed into storm drainage systems that discharge into the above mentioned creeks. These storm drainage systems will include detention basins along the east side of Leisure Town Road adjacent to the creeks. South of New Alamo Creek the proposed storm drain systems will discharge into the recently constructed Southeast Vanden Area detention basin.

New traffic signal systems will be constructed at the Vanden Road/Leisure Town Road Intersection, and Leisure Town and Alamo Drive, Marshall Road, Elmira Road, Ulatis Drive, and Stonegate Drive intersections. Existing traffic signals at Leisure Town Road and Orange Drive and Sequoia Drive will not require changes.

Expected traffic operations are stated in detail in the Jepson Parkway *Updated Transportation/Circulation Impacts Report* dated November 2007.

- Nonstandard Mandatory and Advisory Design Features –

The only work within state right of way for this project is minor sidewalk construction and pavement marking changes on the north

approach of the Walters Road and SR 12 intersection in Suisun City. No Mandatory or Advisory Design Exceptions are required.

- Utility and Other Owner Involvement

Utility and Other Owner Involvement is discussed in detail under Section 6.C, "Right of Way Issues".

- Railroad Involvement

Railroad involvement is discussed in detail under Section 6.C, "Right of Way Issues".

- Highway Planting

No existing highway planting within Caltrans rights of way would be affected by the proposed project. The project would include the installation of landscaping outside the Caltrans right of way. The plant establishment period for landscaping outside Caltrans right of way will be one year where irrigated and three years in areas without irrigation.

- Erosion Control

Disturbed slopes will be re-vegetated per an erosion control plan. Existing slopes are stable and vegetated. The method of re-vegetation and establishment period will be determined during the PS&E phase.

- Noise Barriers

Noise Barriers were found to be feasible and reasonable at four locations along Leisure Town Road. These include:

- Leisure Town Road west side (One property south of Kingswood Avenue)
- Leisure Town Road west side (Kingswood Avenue to Fallbrook Avenue )
- Leisure Town Road west side (Fallbrook to Arbor Oaks Drive)
- Leisure Town Road east side (Poplar Drive to Horse Creek)

The City of Vacaville supports Noise Barriers up to eight feet in height.

- Nonmotorized and Pedestrian Features, etc.

Class 1 Bicycle facilities are provided continuously along the length of the Jepson Parkway, and many sections have varying width Class 2 Bicycle facilities on both sides of the roadway. The continuous Class 1 Bicycle facility location changes throughout the corridor based on constraints and right of way.

- Cost Estimates

The Jepson Parkway project is estimated to cost \$155,478,200 based on current prices, including \$13,701,500 for right of way and utilities, and \$141,776,700 for construction. The total capital outlay cost including support cost is \$186,669,000. The breakdown for these categories is in the following table:

	Walters Road	Walters Road Extension	Cement Hill Road	Vanden Road	Leisure Town Road
Roadway Items	\$9,013,297	\$17,842,671	\$8,838,349	\$17,565,021	\$47,878,331
Structures Items	\$0	\$37,580,000	\$0	\$2,079,000	\$980,000
Right-of-Way & Utilities	\$65,000	\$967,000	\$723,750	\$5,654,250	\$6,291,500
Support Costs	\$1,982,925	\$12,192,988	\$1,944,437	\$4,321,685	\$10,748,833
Total Segment Costs	\$11,061,222	\$68,582,659	\$11,506,535	\$29,619,955	\$65,898,663
<b>Total Project Costs</b>			<b>\$186,669,034</b>		

STA and their local partner agencies have agreed to fund the Jepson Parkway 50/50, with 50% of approved project costs being funded by STA and the remaining 50% coming from Solano County, City of Suisun City, City of Fairfield, and City of Vacaville. The breakdown of the project costs by each jurisdiction is shown in the following table:

	STA	City of Suisun City	City of Fairfield	City of Vacaville	Solano County
Roadway Items	\$50,568,834	\$119,612	\$18,072,574	\$20,659,889	\$11,716,759
Structures Items	\$20,319,500	\$0	\$18,790,000	\$1,039,500	\$1,039,500
Right-of-Way & Utilities	\$6,850,750	\$5,000	\$882,250	\$2,257,500	\$3,706,000
Support Costs	\$15,595,433	\$26,315	\$8,109,766	\$4,652,976	\$2,806,377
Total Jurisdiction Costs	\$93,334,517	\$150,926	\$45,854,590	\$28,060,365	\$19,268,636
<b>Total Project Costs</b>			<b>\$186,669,034</b>		

- Right of Way Data

Right of Way acquisition is required for this project at an estimated cost of \$10,774,000. No State Right of Way is required for State improvements at SR 12. Specifics about right of way are discussed under Section 6.C, "Right of Way Issues".

## 5B. REJECTED ALTERNATIVES

In addition to the no-build alternative (alternative A) four build alternatives (alternatives B, C, D and E) were evaluated in the Draft Environmental Impact Report/Environmental Impact Statement (Draft EIR/S). Common roadway segments were used on multiple alternatives as shown below. For additional information on each alternative see the DEIR/S for additional information.

<b>Alternative B:</b>	Walters Road, Walters Road extension, Cement Hill Road, Vanden Road, and Leisure Town Road
<b>Alternative C:</b>	Walters Road, Air Base Parkway, Peabody Road, Vanden Road, and Leisure Town Road
<b>Alternative D:</b>	Walters Road, Huntington Drive, Peabody Road, Vanden Road, and Leisure Town Road
<b>Alternative E:</b>	Walters Road, Air Base Parkway, and Peabody Road,

The following sections discuss the reasons for rejecting certain alternatives ultimately leaving Alternative B as the preferred alternative.

**Alternative A:** The no-build alternative is not practicable and cannot be identified as the preferred alternative because it would not address the project purpose and need. Based on studies performed for the Draft and Final EIS, under no-build conditions, traffic congestion on the local roadway network and I-80 would worsen, greater numbers of local trips would need to be made on the Interstate and State highway network, safety conditions would be exacerbated, and multi-modal options would be lacking.

Three build alternatives C, D, and E were rejected for the following reasons:

**Alternative D would result in severe economic impacts.** Alternative D would displace industrial and commercial properties and result in the loss of some 224 local jobs. The severe economic hardship to these employees and the City of Fairfield is not acceptable to the local community; thus Alternative D would not be practicable. There are no other practicable alignment variations to construct Alternative D to avoid these impacts; Avoidance of this economic impact could be achieved by either Alternative C or Alternative E.

**Alternative E would result in the use of Section 4(f) lands.** While Alternative E would avoid the job losses of Alternative D and appears to have the least overall impacts to natural resources, it would result in permanent use of 1.7 acres of land from Al Patch Park and 1.2 acres of Will C. Wood High School. Both properties are protected by Section 4(f) of the Department of Transportation Act, which prohibits the Secretary of Transportation from

approving a project that uses 4(f)-protected property if there is a feasible and prudent alternative to that use. Alternatives B, C, and D would avoid these 4(f) impacts, but the economic impacts of Alternative D render it not prudent or practicable. Under Section 4(f) regulations, Alternative E cannot be selected as the preferred alternative unless both of the other remaining build alternatives can be shown not to be prudent and feasible. Alternative E also would require the full acquisition of 26 single-family and 10 multi-family residential units.

**Both Alternatives C and E would result in homeland defense impacts.** The aerial ramp (“flyover” ramp) required to be constructed at the intersection of Peabody Road and Air Base Parkway with either Alternative C or Alternative E would allow high-elevation visual and physical access to Travis Air Base facilities, including the Aero Club landing strip and David Grant Hospital. David Grant Hospital serves sensitive Defense Department missions and is designed to provide emergency functions. This access—particularly from a roadway that offers quick access and retreat—poses a concern for homeland defense. Travis Air Force Base officials raised this concern in their comments on the Draft EIR/S. In light of potential homeland defense impacts, both Alternative C and Alternative E appear to be impracticable.

**Alternatives C and E also would require the acquisition of lands dedicated as preservation areas for special status plants.** As described in the Travis Air Force Base letter referenced above, Alternatives C and E have the potential to affect an area of high habitat value, consisting of a combination of natural and created vernal pools and seasonal wetlands with good populations of Contra Costa goldfields (*Lasthenia conjugens*), and a contiguous property that is being developed as a mitigation bank. This site includes vernal pools where efforts are currently underway to propagate and preserve Contra Costa goldfields and other listed and special status plant species. Travis officials have agreed to maintain this area of the Air Base for preservation of vernal pools, wetlands, and these plant species. Acquiring these lands for Alternative C or Alternative E would violate this agreement. In essence, these lands are not available for use in the Jepson Parkway project.

## 6. CONSIDERATIONS REQUIRING DISCUSSION

### 6A. HAZARDOUS WASTE

An Initial Site Assessment (ISA) was prepared to determine the potential and scope of existing contamination due to hazardous materials within the project area. The ISA indicates that the Jepson Parkway alignments generally have the potential for exposure to hazardous materials in the form of aeriially deposited lead (ADL), polychlorinated biphenyls (PCBs) in transformers, heavy metals such as chromium and lead in yellow street striping, and petroleum hydrocarbons from leaking storage tanks, petroleum pipelines, and railroad use.

ADL could be present at levels above regulatory thresholds along heavily traveled roadways because of lead additives in gasoline used up until approximately 1987. Such roadways in the corridor include Walters Road north

of the intersection with Petersen Road, Vanden Road, and Leisure Town Road north of its intersection with Alamo Drive, and Peabody Road.

The ISA identified two leaking storage tank sites along the alignment shared by Alternative B and Alternative C: 817 Leisure Town Road and 2301 Walters Road.

The Union 76 Gasoline Service Station site is located at 817 Leisure Town Road in the City of Vacaville. This site is used as a gas station and is listed as an open LUST on the EFS database report. The site is located on the east side of Leisure Town Road. Recent groundwater monitoring reports indicate GRO, Benzene and MTBE contaminants. A remediation system was installed on the site in early 2008 and is expected to be in place for four years. Groundwater depth is between 10 and 15 feet below ground surface and flows to the southeast. No right-of-way is required and no physical improvements are proposed adjacent to or within 500 feet of this site; therefore, it is not anticipated that the Union 76 site would impact the project.

The Bonfare Market site is at 2301 Walters Road in the City of Fairfield. This site is used as a gas station and is listed as an open LUST on the EFS database report. The site is located on the west side of Walters Road at Walters Court (northwest corner). Recent groundwater monitoring reports indicate the presence of TPH-g, MTBE, TBA, and TAME. It appears that the groundwater contamination extends beneath Walters Road. An ozone sparge remediation system was installed in early 2007 and it is likely that a separate system will be required for plume treatment and could be in place for at least five years. Groundwater depth is relatively shallow in the 3 to 7 feet range. No right-of-way is required from this site; however roadway and trenching operations would occur adjacent to the site within Walters Road. It is probable that contaminated soil and groundwater would be encountered.

Other potential sources of contamination include aerially applied chemicals during agricultural use of adjacent parcels that could present a respiratory irritant to construction workers. Construction may require the movement or disposal of soils or materials containing some or all of these hazardous materials.

## **6B. RESOURCE CONSERVATION**

The proposed project will attempt to rehabilitate existing pavement as much as possible, thereby reducing the need for new construction materials for structural sections. The fill section will reuse excavated materials from the project, if possible.

This project will attempt to salvage as much existing material (such as sign panels, metal beam guard railing, etc.) as possible. Determination of what items to salvage and the respective quantity of salvaged material will be made during the design phase of the project.

Also, the proposed project will improve traffic operations and facilitate traffic movements through the project area. The lessening of congestion and related

traffic delays will result in faster average travel speeds, thus allowing more energy efficient vehicle operation.

## **6C. RIGHT OF WAY ISSUES**

- **Right of Way Required**

Sixty-nine (69) parcels will be required for the Project right of way. No right of way is required within/adjacent to state right of way. Parcel Data for the affected properties was obtained from GIS and assessor records for Solano County provided by the County and a service. The records included parcel numbers with the associated parcel limits shown on mapping. No property rights have been required or are anticipated to be required through the dedication process. No Caltrans property will become excess lands through this project.

- **Relocation**

There will be no relocations required within the state right of way. But the Project construction will require relocation of up to four businesses within the Vanden Road project area. The cost of relocations is included in the preliminary cost estimate. There are no residential relocations from the Project. The project anticipates significant utility impacts and relocations.

- **Railroad Involvement**

There is an at-grade spur railroad crossing on Walters Road south of Air Base Parkway. The spur is owned by Travis Air Force Base, and is gated off. The existing railroad crossing does not have any railroad signals and the crossing is in poor shape. The project will replace and widen the railroad grade crossing. Additional warning and railroad grade crossing details will be determined during final design through coordination with Travis Air Force Base.

The Walters Road extension will create a new grade separated crossing of the UPRR tracks north of Air Base Parkway. This grade separated crossing will include a new bridge overcrossing designed to UPRR specifications with all improvements outside of the existing railroad right of way. Design and construction of the grade separated crossing will be coordinated with the UPRR and California PUC and follow all of the UPRR procedures for design.

The existing at grade crossing of the UPRR at Canon Road adjacent to Vanden Road will be improved as part of this project. The existing crossing has signals with cross bucks and gates. Construction of the Jepson Parkway will include widening and improvement of the at-grade crossing including



reconstructing the crossing, installing new signals with a restricting median island and connecting the new railroad signals with the proposed Vanden Road and Canon Road traffic signal. Design and construction of the grade crossing improvement will be coordinated with the railroad and California PUC to incorporate current state standards for safe grade crossing layout.

All railroad crossings are outside of state right of way.

- Utilities

The project anticipates significant utility impacts. Verification and potholing will be required. Relocations will be necessary. Relocation of utility poles, underground telephone lines, water lines, sewer lines, gas mains, and undergrounding PG&E power lines is anticipated. Utility impacts may be reduced as adjustments of the roadway alignment and storm drainage system are made in the design phase of the project.

The recently constructed Kinder Morgan 20-inch high pressure gas line along Walters Road and Vanden Road (departing Vanden Road northeast of Canon Road) will mostly be avoided through design modifications. Additionally the empty/abandoned 14-inch high pressure Kinder Morgan gas line will be avoided. An above grade gate valve along Vanden Road will need to be relocated. Similarly two air valves on the North Bay Aqueduct line at Walters Road and Cement Hill Road will need to be relocated outside the proposed right of way.

Numerous Solano Irrigation District (SID) laterals and channels will be impacted by the Project including the Daly Canal/Lateral, Byrnes Canal/Lateral, and Frost Lateral. All impacts to SID facilities will be mitigated by the Project through reconstructing impacted facilities in accordance with SID requirements.

Depending on the availability of funding, existing overhead power lines will be relocated underground.

Utility owners within the project limits include Kinder Morgan (gas), PG&E (gas and electric), Suisun-Fairfield Sewer District, City of Fairfield, City of Vallejo, City of Vacaville, AT&T, CA Department of Water Resources, and Comcast.

## **6D. ENVIRONMENTAL ISSUES**

A joint State Environmental Impact Report/federal Environmental Impact Statement (EIR/S) has been prepared to comply with the requirements of NEPA and CEQA (Public Resources Code [PRC] 21000 et seq.). Caltrans is the federal lead agency under NEPA pursuant to SAFETEA-LU (FHWA's NEPA Delegation) and STA is acting as State lead agency under CEQA.

The Draft EIR/S was published in June 2008 and circulated for a 60-day public review and comment period. Availability of the Draft EIS was published in the Federal Register on June 6, 2008 and the Draft EIR/S was circulated for public review and comment; a 60-day public review period was provided until August 6, 2008. The Draft EIR/S was made available for review online at [www.solanolinks.com](http://www.solanolinks.com) and print copies of the environmental document and supporting technical reports were provided for review at STA offices at One Harbor Center, Suite 130 in Suisun City; the City of Fairfield Civic Center Library at 1150 Kentucky Street in Fairfield; the Suisun City Public Library at 333 Sunset Avenue, Suite 280 in Suisun City; and the City of Vacaville Public Library/Cultural Center at 102 Ulatis Drive in Vacaville.

A public hearing on the project was held on Tuesday, June 24, 2008 at the Callison Elementary School, 6261 Vanden Road in Vacaville. The public hearing was an open house format meeting featuring a looping video presentation and display boards containing project information, during which attendees could circulate freely and ask questions or give comments directly to members of the project team. A court reporter also was on hand to record comments. Approximately 30 people signed in their attendance at this meeting, and there were a few additional attendees who did not sign in. Fifteen people provided comments through the court reporter.

Thirty-seven comment letters, including a petition with 67 signatories and 15 comments recorded at the public hearing were received. Copies of these comment letters, the petition and the court reporter's transcript are provided with responses to each comment in Volume II of this Final EIR/S.

In support of the EIR/S following environmental technical reports were prepared for the project:

- Updated Transportation/Circulation Impacts Report
- Visual Resources Technical Report
- Hydrology and Water Quality Technical Report
- Updated Air Quality Technical Report
- Updated Noise Study Technical Report
- Delineation of Waters of the United States
- Draft Section 4(f) Evaluation
- Historic Property Survey Report
- Natural Environment Study
- Community Impact Assessment
- Relocation Impact Report
- Mobile Source Air Toxics Analysis
- Updated Initial Site Assessment
- Updated Location Hydraulic Study

## **6E. AIR QUALITY CONFORMITY**

The project site is in both the Yolo Solano Air Quality Management District and the San Francisco Bay Area Basin portion of Solano County. The EPA has classified the project area as an "attainment area" for carbon monoxide and a

“non-attainment” area for ozone. Under the California Clean Air Act administered by the State Air Resources Board, the area is a non-attainment area for ozone, Particulate Matter, 10 micron and Particulate Matter, 2.5 micron. The county is either attainment or unclassified for other pollutants.

The proposed project was found to not significantly affect air quality in the project vicinity. No mitigation was required beyond Caltrans Special Provisions and Standard Specifications that include requirements to minimize or eliminate dust through the application of water or dust palliatives during construction.

This project is fully compatible with the design concept and scope described in the current Regional Transportation Plan (RTP), called the Transportation 2030 Plan and the 2005 Transportation Improvement Program (TIP), which the MTC has determined to conform to the State Implementation Plan (SIP) for air quality.

## **6F. TITLE VI CONSIDERATIONS**

Pedestrian facilities modified or upgraded as part of this project will meet the requirements of the Federal Americans with Disabilities Act (ADA) of 1990.

## **6G. NOISE ABATEMENT DECISION REPORT SECTION**

The Noise Study Technical Report identified noise impacts along the project. Traffic noise levels within the corridor under existing and future no build conditions would result in noise levels that approach or exceed the FHWA NAC. Traffic noise levels within the corridor would increase compared to existing and future no-project conditions for the Jepson Parkway Project. The Noise Study indicate that implementation of the Project would result in noise impacts at the following noise-sensitive areas as a result of noise levels that would approach or exceed the FHWA NAC:

- Residential land uses in Fairfield on the west side of Walters Road between East Tabor Avenue and approximately Granada Drive (Receiver Group 1 to 21b). This development has existing barriers near Granada Drive; these barriers end and there are no barriers approximately 150 feet and farther south of Granada Drive.
- Scattered residential land uses in unincorporated Solano County on the east side of Vanden Road near the intersection of Vanden Road and Leisure Town Road (Receiver Group 50a to 50b). These developments do not have any barriers in place.
- Residential developments in Vacaville on the west side of Leisure Town Road between Alamo Drive and approximately Stonegate Drive (Receiver Group 50 to 69). Many of these developments have existing noise barriers in place.
- Residential developments in unincorporated Solano County on the west side of Leisure Town Road between Kingswood Avenue and approximately Arbor Oaks Drive (Receiver Group 69a to 69b). These developments do not have any barriers in place.
- Mobile-home park in Vacaville on the east side of Leisure Town Road between Poplar Drive and Horse Creek (Receiver Group 70 to 70f). This development does not have any barriers in place, and either do the few

spread out residential properties south of this development between Poplar Drive and Maple Drive.

For existing conditions in the corridor, existing peak-hour traffic noise levels are typically less than 67 dB-*Leq*(h). Existing peak-hour traffic noise levels more than 67 dB-*Leq*(h) occur predominantly in the areas along Peabody and Leisure Town Roads where the traffic-noise impacts listed above were identified. This indicates that where noise impacts are identified under FHWA 23 CFR 772 guidance, existing traffic noise levels already approach or exceed the NAC. At the identified locations where noise levels approach or exceed the NAC, the noise level increase due to the project would not result in a substantial increase. Noise levels at these locations would result in increases of less than 3 dB from the Project. Therefore, even though there would be noise impacts at these locations, the impacts would not be considered a substantial adverse impact compared to existing conditions.

FHWA requires that noise abatement be considered for all areas that exceed the NAC, even when the project would not result in a substantial change in the existing noise environment. Because noise levels under existing conditions and with the Project exceed the NAC, noise abatement measures must be considered with implementation of the project.

#### **Mitigation/Abatement**

FHWA requires that noise abatement be considered for all noise impacts, even when the project would not result in a substantial change in the surrounding noise environment. As discussed above, existing noise levels already exceed the NAC for the sensitive receptors within the project limits; therefore, noise abatement measures must be considered. Noise abatement in the form of noise barriers was considered in the Noise Study and was determined to be feasible at several locations along the corridor.

While there are areas with existing soundwalls which exceed the NAC, noise abatement was not considered for these locations. Noise abatement for these areas would require replacement of the existing soundwalls with higher walls. However, experience has shown that it is difficult to achieve an additional 5 dBA reduction beyond that which is provided by the existing soundwalls. Therefore, the new, higher walls would not be considered feasible.

Based on the studies completed to date, the STA or the appropriate local agency intends to incorporate noise abatement in the form of barriers along the west side of Leisure Town Road south of Kingswood Avenue to north of Arbor Oaks Drive and along the east side of Leisure Town Road from Poplar Drive to Horse Creek with average heights of up to eight feet. Calculations based on preliminary design data indicate that the barriers will reduce noise levels by 5 to 9 dBA for 36 residences at a cost of \$1,035,900. If during final design conditions have substantially changed, noise abatement may not be necessary. The final decision of the noise abatement will be made upon completion of the project design and the public involvement processes.

Details regarding these barriers are provided below.

The Project will construct new noise barrier walls at four locations where there are currently no noise barriers. Noise barriers between 6 feet and 16 feet were analyzed. Noise barrier walls of at least 6 and 8 feet were found to meet both feasible and reasonable criteria. The cost allowance for noise barrier walls of 6 feet and 8 feet are presented below, as Vacaville has committed to building walls of at least 6 to 8 feet at the locations identified. The following is a description of each preliminary noise barrier configuration considered:

**West of Leisure Town Road—South of Kingswood Avenue:** This barrier would be constructed at the edge of the property line adjacent to southbound Leisure Town Road. The barrier would extend from the existing sound wall south of Kingswood Avenue to Kingswood Avenue. Vacaville has committed to construct concrete masonry unit walls along this stretch of roadway; with heights of 6 feet and 8 feet being proposed. To achieve a 5 dBA reduction a wall of at least 6 feet would be needed. Construction of a 6- or 8-foot wall would achieve a 5 dBA reduction at 2 of the 4 impacted residences. If the total cost of the wall at this location is less than the total cost allowance, then the wall would likely be incorporated into the project. The total cost allowance for the 6-foot wall, calculated in accordance with the Caltrans *Protocol*, is \$88,000. The current estimated cost of the wall at a height of 6 feet is about \$35,802. The total cost allowance for an 8-foot wall, calculated in accordance with the Caltrans *Protocol*, is also \$88,000. The current estimated cost of the wall at a height of 8 feet is about \$47,736.

**West of Leisure Town Road—Kingswood Avenue to Fallbrook Avenue:** This barrier would be constructed at the edge of the property line adjacent to southbound Leisure Town Road. The barrier would extend from Kingswood Avenue to Fallbrook Avenue. Vacaville has committed to construct concrete masonry unit walls along this stretch of roadway; with heights of 6 feet and 8 feet being proposed. To achieve a 5 dBA reduction a wall of at least 6 feet would be needed. Construction of a 6- or 8-foot wall would achieve a 5 dBA reduction at 16 of the 37 impacted residences. If the total cost of the wall at this location is less than the total cost allowance, then the wall would likely be incorporated into the project. The total cost allowance for the 6-foot wall, calculated in accordance with the Caltrans *Protocol*, is \$672,000. The current estimated cost of the wall at a height of 6 feet is about \$271,620. The total cost allowance for an 8-foot wall, calculated in accordance with the Caltrans *Protocol*, is also \$672,000. The current estimated cost of the wall at a height of 8 feet is about \$362,160.

**West of Leisure Town Road—Fallbrook Avenue to Arbor Oaks Drive:** This barrier would be constructed at the edge of the property line adjacent to southbound Leisure Town Road. The barrier would extend from Fallbrook Avenue to Arbor Oaks Drive, and north of Arbor Oaks Drive along the property line. Vacaville has committed to construct concrete masonry unit walls along this stretch of roadway; with heights of 6 feet and 8 feet being proposed. To achieve a 5 dBA reduction a wall of at least 6 feet would be needed. Construction of a 6- or 8-foot wall would achieve a 5 dBA reduction at 7 to 10 of the 13 impacted residences. If the total cost of the wall at this location is less than the total cost allowance, then the wall would likely be incorporated into the project. The total cost allowance for the 6-foot wall, calculated in accordance with the Caltrans *Protocol*, is \$308,000. The current estimated cost of the wall at a height

of 6 feet is about \$185,787. The total cost allowance for an 8-foot wall, calculated in accordance with the Caltrans *Protocol*, is also \$480,000. The current estimated cost of the wall at a height of 8 feet is about \$247,716.

**East of Leisure Town Road—Poplar Drive to Horse Creek:** This barrier would be constructed at the edge of the property line adjacent to northbound Leisure Town Road. The barrier would extend from Poplar Drive to Horse Creek. Vacaville has committed to construct concrete masonry unit walls along this stretch of roadway; with a height of 8 feet being proposed. To achieve a 5 dBA reduction a wall of at least 6 feet would be needed. Construction of a 6- or 8-foot wall would achieve a 5 dBA reduction at 11 of the 49 impacted residences. If the total cost of the wall at this location is less than the total cost allowance, then the wall would likely be incorporated into the project. The total cost allowance for the 6- or 8-foot wall, calculated in accordance with the Caltrans *Protocol*, is \$594,000. The current estimated cost of the 6-foot wall is \$283,338; the estimated cost of the 8-foot wall is \$377,784.

## 7. OTHER CONSIDERATIONS

- **Public Hearing Process**

A public hearing on the project was held on Tuesday, June 24, 2008 at the Callison Elementary School, 6261 Vanden Road in Vacaville. The public hearing was an open house format meeting featuring a looping video presentation and display boards containing project information, during which attendees could circulate freely and ask questions or give comments directly to members of the project team. A court reporter also was on hand to record comments. Approximately 30 people signed in their attendance at this meeting, and there were a few additional attendees who did not sign in. Fifteen people provided comments through the court reporter. All comments received at the public hearing and during the 60-day public comment period were responded to in the FEIR.

- **Route Matters**

This project has limited restriping work on the north leg of the intersection of SR 12 and Walters Road, outside state right of way. A freeway agreement will not be required.

- **Permits**

This project will require permits, agreements and concurrence from the following resource agencies:

1. Section 7 Biological Opinion with incidental take permit from the US Fish and Wildlife Service.
2. Clean Water Act Section 404 Permit from the US Army Corp of Engineers. (Individual).
3. Regional Water NPDES and RWQCB Water Quality Certification pursuant to Section 401 of the Clean Water Act.

4. California Department of Fish and Game Section 1602 Lake and Streambed Alteration Agreement.
5. Bureau of Reclamation Encroachment Permit for activities conducted within Board's right of way.
6. Caltrans Encroachment Permit.

- **Cooperative Agreements**

STA or a local partner agency will advertise, construct and administer the construction contracts. The Jepson Parkway will be constructed in phases with the Vanden Road segment being built first. Since the value of construction within the State Right of Way for the SR 12 work at Walters Road is less than \$1,000,000, STA will construct this portion using the encroachment permit process.

- **Other Agreements**

The new Walters Road extension overcrossing railroad grade separation will need approval by both the California Public Utilities Commission (CPUC) and the Union Pacific Railroad (UPRR). STA will submit the required forms, plans and applications to both the CPUC and UPRR to gain approval. A Railroad Agreement and Construction and Maintenance Agreement between the UPRR and the local jurisdiction will be required.

A Railroad Agreement with the UPRR is needed for the at-grade railroad grade crossing modification at the Canon Road crossing. STA will meet with the CPUC and UPRR to determine what improvements are needed at the crossing. The local agency that owns the crossing will modify a Construction and Maintenance Agreement with the UP for work at the crossing and within the UP right of way. The agreement will identify the construction costs and any additional annual maintenance costs incurred by the railroad that will be reimbursed by the owner.

- **Transportation Management Plan for Use during Construction**

A Transportation Management Plan (TMP) will be required for this project. The TMP is a special program that is implemented during construction to minimize and prevent delay and inconvenience to the traveling public. The proposed construction and improvements can include temporary roadwork, which require lane closures or detouring. For safety, temporary k-rails will be provided throughout the project limits during construction.

The TMP for this project will be developed and refined during the PS&E and final design phases, supported by detailed traffic studies to evaluate traffic operations. The need for necessary lane closures during off-peak hours or at night, or short-term detour routes for ramp closures, will be identified, as required. The TMP typically will include press releases to notify and inform motorists, businesses, community groups, local entities, emergency services, and elected officials of upcoming closures or detours. Various TMP elements, such as portable Changeable Message Signs and California Highway Patrol Construction Zone Enhanced Enforcement Program (COZEEP) are typically utilized to alleviate and minimize delay to the traveling public.

- **Stage Construction**

The project will be constructed in three phases. Funding is currently being provided by segment with funds programmed to complete improvements of the narrow rural Vanden Road segment (Phase 1) connecting Vacaville and Fairfield, followed by two additional phases to construct the urban segments in Vacaville (Phase 2) and the urban segments in Fairfield (Phase 3). Detailed information on each Phase is included below:

**Phase 1:** Will include widening Vanden Road from 500-feet east of the Vanden/Cement Hill Road/Peabody Road intersection to the Vanden Road/Leisure Town Road intersection. It is anticipated that this phase will take 2 years to complete.

**Phase 2:** Will include widening Leisure Town Road from the end of Phase 1 (Vanden/Leisure Town Road intersection) to the south side of the Leisure Town Road/Orange Drive intersection. It is anticipated that this phase will take 3 years to complete.

**Phase 3:** Will include widening Walters Road from Tabor Avenue to Huntington Drive; constructing the Walters Road Extension from Huntington Drive to Cement Hill Road; and Widening Cement Hill Road from Walters Road Extension through the Vanden Road/Peabody Road/Cement Hill Road intersection to connect with Phase 1. It is anticipated that this phase will take 3 years to complete.

## 8. PROGRAMMING

● Scoping and PA/ED	2000-2009
● PS&E Design Development (Phase 1)	2009-2010
● Right of Way Acquisition (Phase 1)	2009-2010
● Construction (Phase 1)	2010-2012
● PS&E Design Development (Phase 2)	2009-2012
● Right of Way Acquisition (Phase 2)	2010-2011
● Construction (Phase 2)	2012-2015
● PS&E Design Development (Phase 3)	2012-2015
● Right of Way Acquisition (Phase 3)	2013-2014
● Construction (Phase 3)	2016-2018

## 9. PROJECT PERSONNEL

Janet Adams, STA, Director of Projects	(707) 424-6010
Susan Chang, PBS&J, Project Director	(415) 362-1500
Corey Lang, PBS&J, Design Manager	(415) 362-1500
Michael Kay, PBS&J, Environmental Manager	(415) 362-1500



Pat Gelb, PBS&J, Sr. Environmental Advisor

(415) 362-1500

## **10. LIST OF ATTACHMENTS**

- A. Final Environmental Impact Report (Under Separate Cover)
- B. Project Location Map
- C. Project Typical Sections (separately bound 11x17 sheets)
- D. Project Layout Plan Sheets (separately bound 11x17 sheets)
- E. Structure General Plan/Elevation Sheets (separately bound 11x17 sheets)
- F. Project Cost Estimate

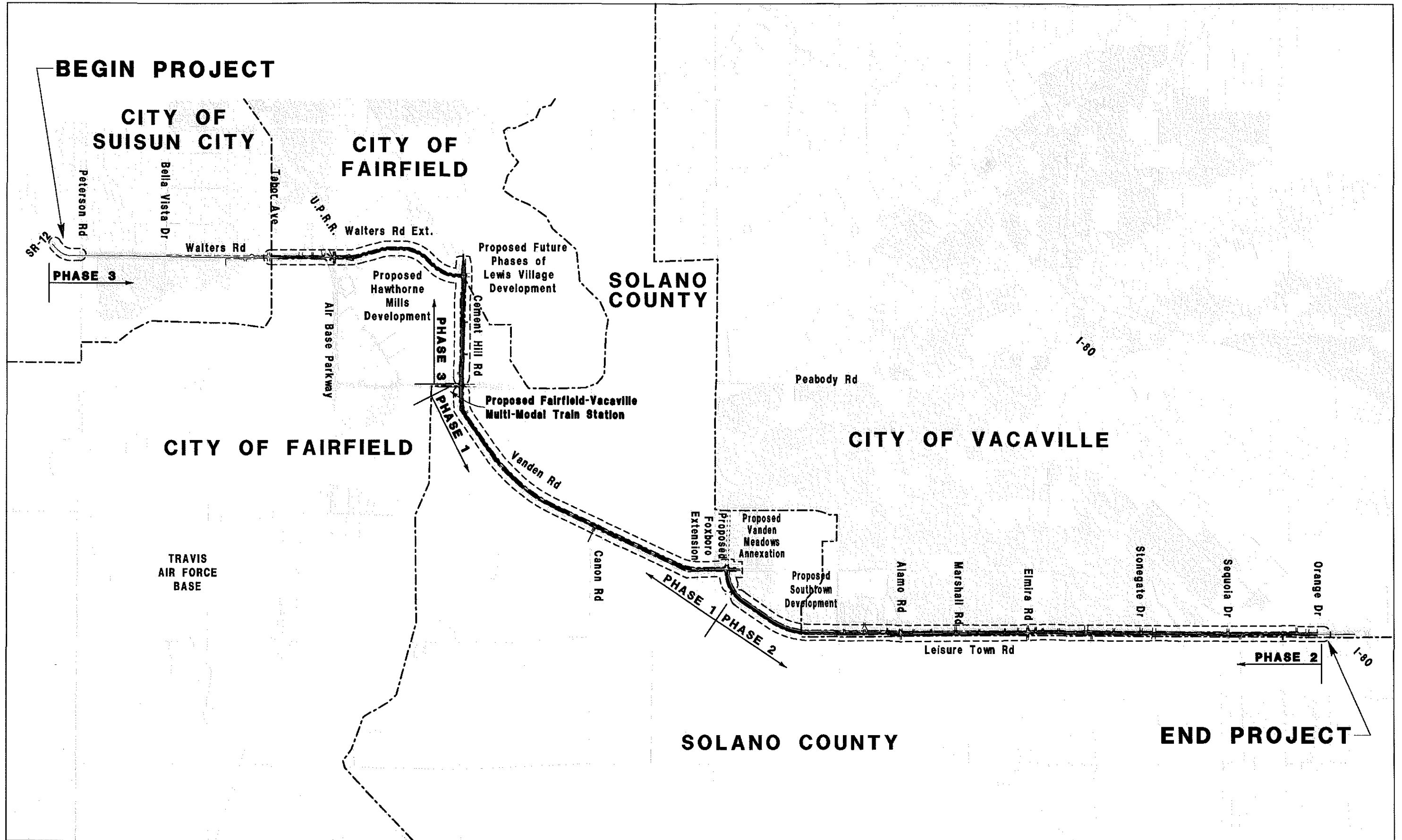
# **Attachment A**

Final Environmental Impact Report

(Under Separate Cover)

# **Attachment B**

## **Project Location Map**



REV	DATE	DESCRIPTION	CHECKED	APPD

**PBS&J**  
 353 Sacramento Street  
 Suite 1000  
 San Francisco, CA 94111  
 Telephone: (415) 362-1500  
 Fax: (415) 362-1954  
 ENGINEERING PLANNING SURVEYING CONSTRUCTION SERVICES

**STA**  
 Solano Transportation Authority  
 SOLANO TRANSPORTATION AUTHORITY  
 One Harbor Center  
 Suite 130  
 Suisun City, CA 94585  
 Telephone: (707) 424-8075  
 Fax: (707) 424-8074

DESIGN BY	CEL	DRAWN BY	NTS BEC
DATE		CHECKED BY	
PROJECT NUMBER	100001224		

**JEPSON PARKWAY  
 LOCATION MAP**

**MAP-1**

## **Attachments C-E**

(11x17 Sheets Separately Bound)

## **Attachment F**

### **Project Cost Estimate**

**ROADWAY SEGMENT COSTS**

Roadway/Intersection	Walters Rd	Walters Rd Ext	Cement Hill Rd	Vanden Rd	Lesiure Town Rd	Total Project Costs
Limits	(SR 12 to Air Base Pkwy)	(Air Base to Cement Hill)	(Walters to PBN/CH Intesection)	(PBN/CH Intersection to Leiusre Town Intersection)	(Vanden Rd Intersection to Orange Dr Intersection)	
Jurisdiction	Suisun City/Fairfield	Fairfield	Fairfield	Solano County	Solano County/Vacaville	
<b>CAPITAL COSTS</b>						
I. Roadway Items	\$9,013,297	\$17,842,671	\$8,838,349	\$17,565,021	\$47,878,331	\$101,137,667
II. Structure Items	\$0	\$37,580,000	\$0	\$2,079,000	\$980,000	\$40,639,000
III. Right of Way & Utilities	\$65,000	\$967,000	\$723,750	\$5,654,250	\$6,291,500	\$13,701,500
Subtotal Capital Costs	\$9,078,297	\$56,389,671	\$9,562,099	\$25,298,271	\$55,149,831	\$155,478,167
<b>SUPPPORT COSTS</b>						
Subtotal Support Costs	\$1,982,925	\$12,192,988	\$1,944,437	\$4,321,685	\$10,748,833	\$31,190,867
Segment Totals	\$11,061,222	\$68,582,659	\$11,506,535	\$29,619,955	\$65,898,663	\$186,669,034

**Notes**

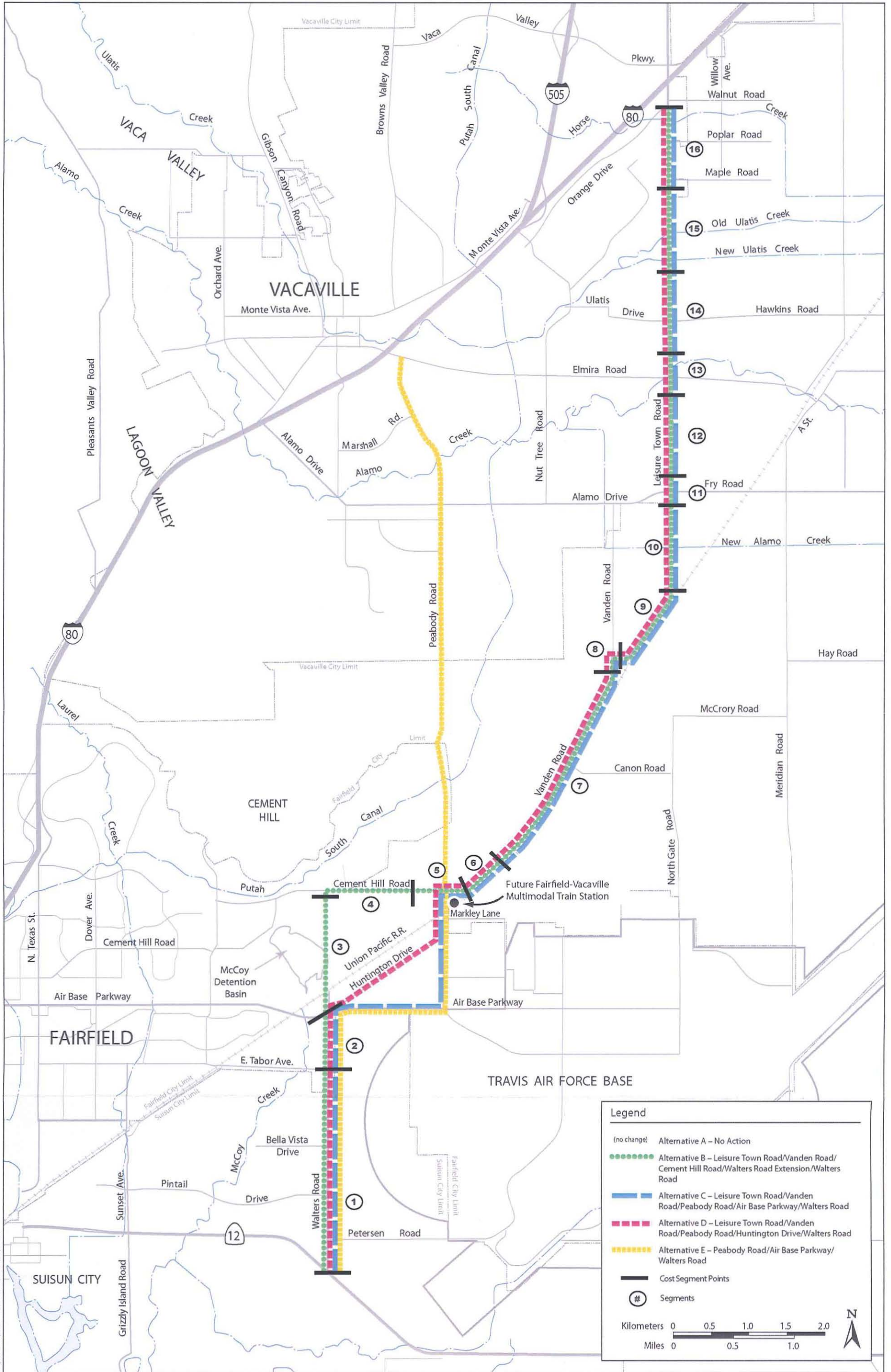
- 1 - See detailed cost spreadsheet for additional information
- 2 - Costs are in 2008 dollars
- 3 - Mitigation cots are included in Roadway Items
- 4 - Support costs include PS&E, R/W Engineering and Construction Administration

**LOCAL JURISDICTION COSTS (Based on 50/50 Agreement)**

JURISDICTION TOTALS	CAPITAL COSTS			TOTAL CAPTIAL COSTS	SUPPORT COSTS	TOTAL COSTS
	Roadway Items	Structure Items	Right of Way & Utilities			
Suisun City (Segments 1)	\$119,612	\$0	\$5,000	\$124,612	\$26,315	\$150,926
City of Fairfield (Segments 2, 3, 4, 5)	\$18,072,574	\$18,790,000	\$882,250	\$37,744,824	\$8,109,766	\$45,854,590
Solano County (Segments 6, 7, 8, 9)	\$11,716,759	\$1,039,500	\$3,706,000	\$16,462,259	\$2,806,377	\$19,268,636
City of Vacaville (Segments 10 to 16)	\$20,659,889	\$490,000	\$2,257,500	\$23,407,389	\$4,652,976	\$28,060,365
STA (50% of all Segments)	\$50,568,834	\$20,319,500	\$6,850,750	\$77,739,084	\$15,595,433	\$93,334,517
						\$186,669,034

SECTION	PRICE	UNIT	SEGMENT																								Project Total Total Cost								
			1		2		3		4		5		6		7		8		9		10		11		12			13		14		15		16	
			Units	Cost Est	Units	Cost Est	Units	Cost Est	Units	Cost Est	Units	Cost Est	Units	Cost Est	Units	Cost Est	Units	Cost Est	Units	Cost Est	Units	Cost Est	Units	Cost Est	Units	Cost Est		Units	Cost Est	Units	Cost Est	Units	Cost Est		
<b>I. ROADWAY ITEMS</b>																																			
<b>Section 1 - Roadway Items</b>																																			
Roadway Excavation	CY	\$15	100	\$1,500	10000	\$150,000	20000	\$300,000	46000	\$690,000	5000	\$75,000	20000	\$300,000	110300	\$1,654,500	6500	\$97,500	35000	\$525,000	25000	\$375,000	5000	\$75,000	30000	\$450,000	50000	\$750,000	48000	\$720,000	18000	\$270,000	20000	\$300,000	\$6,733,500
Imported Borrow	CY	\$20		\$0		\$92000	\$1,840,000		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$1,840,000	
Clearing & Grubbing	Acre	\$10,000	0.1	\$1,000	4.6	\$46,000	10.4	\$104,000	10.5	\$105,000	0.6	\$6,000	4.1	\$41,000	29	\$290,000	1.4	\$14,000	9.5	\$95,000	8.5	\$85,000	1.2	\$12,000	10	\$100,000	1.5	\$15,000	6.4	\$64,000	4.1	\$41,000	4.1	\$41,000	\$1,060,000
Muck Excavation & Stabilization	CY	\$35		\$0		\$8300	\$290,500		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$290,500	
<b>SUBTOTAL</b>				\$2,500		\$196,000		\$2,534,500		\$795,000		\$81,000		\$341,000		\$1,944,500		\$111,500		\$620,000		\$460,000		\$87,000		\$550,000		\$765,000		\$784,000		\$311,000		\$341,000	\$9,924,000
<b>Section 2 - Pavement Structural Section</b>																																			
Asphalt Concrete Pavement	TON	\$85	100	\$8,500	5400	\$459,000	12000	\$1,020,000	12500	\$1,062,500	1250	\$106,250	4750	\$403,750	28480	\$2,420,800	2300	\$195,500	8200	\$697,000	6700	\$569,500	1900	\$161,500	11400	\$969,000	3200	\$272,000	11000	\$935,000	6300	\$535,500	20600	\$1,751,000	\$11,566,800
Aggregate Base Course	CY	\$25	200	\$5,000	10400	\$260,000	23700	\$592,500	24800	\$620,000	2000	\$50,000	8800	\$220,000	57600	\$1,440,000	4500	\$112,500	10300	\$257,500	9900	\$247,500	3800	\$95,000	22900	\$572,500	6500	\$162,500	21300	\$532,500	12000	\$300,000	13900	\$347,500	\$5,815,000
Curb & Gutter - Fairfield	LF	\$26		\$0	2200	\$55,000	10300	\$267,500	8900	\$222,500	2700	\$67,500	4700	\$117,500		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$720,000
Curb & Gutter - Vacaville	LF	\$25		\$0		\$0		\$0		\$0		\$0		1200	\$30,000	1300	\$32,500	8400	\$210,000	5500	\$137,500	1200	\$30,000	9420	\$235,500	2150	\$53,750	31400	\$785,000	30800	\$770,000	25600	\$640,000	\$2,924,250	
Median Curb - Fairfield	LF	\$20	1400	\$28,000	4200	\$84,000	2200	\$44,000	9100	\$182,000	2300	\$46,000	4700	\$94,000		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$478,000
Median Curb - Vacaville	LF	\$20		\$0		\$0		\$0		\$0		\$0		1400	\$28,000	1600	\$32,000	8400	\$168,000	8000	\$160,000	1000	\$20,000	8600	\$172,000	1400	\$28,000	9000	\$180,000	6200	\$124,000	8100	\$162,000	\$1,074,000	
Median Curb - Special	LF	\$25		\$0		\$0	\$9730	\$243,250		\$0		\$0			\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$243,250	
Concrete Sidewalk	SY	\$50	1300	\$65,000	2400	\$120,000	5500	\$275,000	7200	\$360,000	2400	\$120,000	2600	\$130,000	12200	\$610,000	400	\$20,000	4500	\$225,000	1800	\$90,000	500	\$25,000	4900	\$245,000	800	\$40,000	2900	\$145,000	200	\$10,000	50	\$2,500	\$2,482,500
<b>SUBTOTAL</b>				\$106,500		\$978,000		\$2,432,250		\$2,447,000		\$389,750		\$965,250		\$4,528,800		\$392,500		\$1,557,500		\$1,204,500		\$331,500		\$2,194,000		\$556,250		\$2,577,500		\$1,739,500		\$2,903,000	\$25,303,800
<b>Section 3 - Drainage Items</b>																																			
Pipes <= 36"	LF	\$150		\$0	2600	\$390,000	3200	\$480,000	2800	\$420,000	30	\$4,500	400	\$60,000	600	\$90,000	200	\$30,000	1600	\$240,000	1100	\$165,000	600	\$90,000	3900	\$585,000	280	\$39,000	3800	\$570,000	1800	\$270,000	1100	\$165,000	\$3,598,500
Pipes > 36"	LF	\$300		\$0	80	\$24,000	0	\$0	1400	\$420,000		\$0		\$0		\$0	0	\$0	2100	\$630,000	0	\$0	1000	\$300,000	1100	\$330,000	1600	\$480,000	50	\$15,000	0	\$0		\$2,199,000	
Drop Inlets	EA	\$5,000		\$0	13	\$65,000	34	\$170,000	22	\$110,000	8	\$40,000	10	\$50,000	8	\$40,000	4	\$20,000	16	\$80,000	18	\$90,000	2	\$10,000	28	\$140,000	8	\$40,000	30	\$150,000	8	\$40,000	10	\$50,000	\$1,095,000
Storm Drainage Manholes	EA	\$8,000		\$0	5	\$40,000	6	\$48,000		\$0		\$0	4	\$32,000	2	\$16,000	8	\$64,000	12	\$96,000	2	\$16,000	8	\$64,000	4	\$32,000	4	\$32,000	10	\$80,000	4	\$32,000	6	\$48,000	\$584,000
Misc. Storm Drainage Structures	LS	Varies		\$0		\$5,000	\$15,000	\$20,000		\$0		\$0		\$0		\$0		\$5,000	\$10,000		\$10,000		\$5,000		\$10,000		\$40,000		\$10,000		\$5,000		\$10,000	\$165,000	
Permanent BMPs	LS	Varies		\$0		\$30,000	\$100,000	\$80,000		\$30,000		\$30,000		\$60,000		\$0		\$0		\$30,000		\$30,000		\$0		\$20,000		\$100,000		\$50,000		\$50,000		\$0	\$580,000
<b>SUBTOTAL</b>				\$0		\$554,000		\$813,000		\$1,050,000		\$74,500		\$172,000		\$226,000		\$71,000		\$394,000		\$1,021,000		\$121,000		\$1,119,000		\$581,000		\$1,340,000		\$412,000		\$273,000	\$8,221,500
<b>Section 4 - Specialty Items</b>																																			
Patterned Concrete Median	SF	\$15	3440	\$51,600	8900	\$133,500	5500	\$82,500	18000	\$270,000	4500	\$67,500	8000	\$120,000	3000	\$45,000	5300	\$79,500	16800	\$252,000	15000	\$225,000	2100	\$31,500	18100	\$271,500	3000	\$45,000	19400	\$291,000	12600	\$189,000	14800	\$222,000	\$2,376,600
Landscape Median - Urban	SF	\$5	1200	\$6,000	10200	\$51,000	1300	\$6,500	36200	\$181,000	6000	\$30,000	25000	\$125,000		\$0	1700	\$8,500	40200	\$201,000	30800	\$154,000	400	\$2,000	33300	\$166,500	2100	\$10,500	31500	\$157,500	30800	\$154,000	20000	\$100,000	\$1,353,500
Landscape Median - Rural	SF	\$2		\$0		\$0		\$0		\$0		\$0		155000	\$310,000		\$0				\$0		\$0		\$0				\$0		\$0		\$0	\$310,000	
Landscape Roadside - Urban	SF	\$4		\$0		\$0		\$0	10000	\$40,000	1500	\$6,000	20000	\$80,000		\$0		160000	\$640,000	700000	\$400,000	12000	\$48,000	100000	\$400,000	150000	\$600,000	110000	\$440,000	0	\$0	0	\$0	\$2,654,000	
Landscape Roadside - Rural	SF	\$1		\$0		\$0		\$0		\$0		\$0		200000	\$200,000	8000	\$8,000		\$0		\$0		\$0		\$0				\$0		\$0		\$0	\$208,000	
SID Irrigation Channel Relocations	LF	\$300		\$0		\$0		\$0	100	\$30,000		\$0		300	\$90,000	100	\$30,000	100	\$30,000		\$0		1000	\$300,000		\$0	3400	\$1,020,000	100	\$30,000	500	\$150,000	\$1,680,000		
Water and Sanitary Relocations	LS	Varies		\$0		\$5,000	\$5,000	\$10,000		\$5,000		\$5,000		\$5,000		\$0		\$0		\$5,000		\$5,000		\$25,000		\$5,000		\$20,000		\$10,000		\$40,000		\$40,000	\$175,000
Construction BMPs	LS	Varies		\$0		\$50,000	\$150,000	\$80,000		\$10,000		\$10,000		\$30,000		\$110,000		\$10,000		\$50,000		\$50,000		\$10,000		\$80,000		\$45,000		\$100,000		\$45,000		\$60,000	\$880,000
Biological Mitigations	LS	Varies	0	\$0	1	\$3,613,000	1	\$5,983,750	1	\$151,000	0	\$0	1	\$1,519,250	1	\$10,000	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0	1	\$78,000	0	\$0	0	\$0	1	\$6,500	\$11,361,500
Hazardous Materials Mitigations	LS	Varies		\$0		\$143,000		\$0		\$100,000		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$243,000
Noise (Soundwall) Mitigations	SF	\$45		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		11900	\$535,500	2500	\$112,500		\$0		\$0	8400	\$378,000	\$1,026,000	
<b>SUBTOTAL</b>				\$57,600		\$3,995,500		\$6,227,750		\$862,000		\$118,500		\$1,879,250		\$765,000		\$136,000		\$1,173,000		\$834,000		\$116,500		\$1,758,500		\$911,000		\$2,018,500		\$458,000		\$956,500	\$22,267,600
<b>Section 5 - Traffic Items</b>																																			
Signalized Intersection	LS	\$250,000		\$0	1	\$250,000	1	\$250,000	1	\$250,000	1	\$250,000		\$0	1.5	\$375,000	1	\$250,000		\$0		\$0	1	\$250,000	1	\$250,000	1	\$250,000	1	\$250,000		\$0		\$0	\$2,375,000
Interconnect Conduit	LF	\$20		\$0	6000	\$120,000	5000	\$100,000	1300	\$26,000	2350	\$47,000		\$0		\$0		\$0	4100	\$82,000	3800	\$76,000	500	\$10,000	4400	\$88,000	800	\$16,000	4700	\$94,000	3100	\$62,000	3600	\$72,000	\$793,000
Street Lighting	LF	\$80	0	\$0	2400	\$192,000	5700	\$456,000	4600	\$368,000	100	\$8,000																							





Source: Jones & Stokes, 2006.

**Figure**  
**Jepson Parkway Project Location and Cost Segments**