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# EXECUTIVE SUMMARY

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## INTRODUCTION

In August, 1994, the Solano Transportation Authority retained a consulting team led by Wilbur Smith Associates to develop the Solano Rail Facilities Plan. The primary objective of this project is to develop plans for new rail stations along the Southern Pacific Railroad (Capitol Corridor) at Benicia, Fairfield/Vacaville and Dixon.

Other members of the consulting team are:

- Korve Engineering (patronage and cost estimates)
- Thompson and Associates (architectural services)
- Ellen Greenberg, AICP (planning and land use considerations)
- Pittman & Hames Associates (joint development and financing)

The consulting team has worked closely throughout the project with the Solano County Rail Technical Advisory Committee (RTAC), as well as with the communities of Dixon, Vacaville, Fairfield, Suisun, and Benicia. Members of the RTAC are:

Kim Kloeb, Transportation Planner  
Solano Transportation Authority

Alan Nadritch, Finance Director  
City of Benicia

Janet Koster, Administrative Assistant  
Public Works Department  
City of Dixon

Gian Aggarwal, City Traffic Engineer  
City of Vacaville

Kevin Daughton, Transportation Planner  
Public Works Department  
City of Fairfield

Eve Somjen, Assistant Director  
Department of Planning and Development  
City of Fairfield

Pam Bellchamber, Transportation Manager  
City of Vallejo

George Hicks, Public Works Director  
City of Suisun City

Jerry Erwin, Chief  
Transportation Planning Branch  
Caltrans District 10

Initial project activity included an inventory of existing rail facilities and identification of potential station locations. Station sites were then screened and evaluated, and through successive meetings with the RTAC and the cities, the list of candidate stations was narrowed to one preferred location each in Dixon and Fairfield/Vacaville, and an interim site and a permanent site for future development in Benicia. The existing Fairfield/Suisun station was assumed to continue in service in addition to the new station sites, and thus was not included in the site studies and evaluation.

As the number of alternative sites was narrowed, the consultants prepared conceptual sketch drawings to illustrate possible station development. These concept drawings together with site evaluations using a standard set of criteria were used by each community to assist in the selection of a preferred station location.

A future rail service plan was prepared by the consultants, based on expectations of future rail passenger service levels proposed in state and regional planning documents, and patronage estimates to help define station design requirements were developed for the target years of 1998, 2005, and 2015. Once the preferred stations were selected, concept drawings were further refined and estimates were developed for land acquisition and station construction costs.

Local land use plans were reviewed, and station areas evaluated for development opportunities. Finally, potential sources of financing were identified and discussed to assist the County and the local communities in selecting appropriate means to finance the proposed stations.

## **RAIL FACILITY INVENTORY**

The Southern Pacific's Sacramento to Oakland double track main line passes through the county from Northeast to Southwest. The county's only existing passenger station is located at Suisun-Fairfield, and it serves both long distance and local (Capitol Corridor) passenger trains passing through the county. The SP line once was a high speed line with up to 30 passenger trains per day. Service levels gradually declined over the years, and speeds were lowered to reduce maintenance requirements. Amtrak assumed operation of passenger service in 1971, and initiated improved services that reversed the historic decline of rail passenger service.

Responding to legislative direction pursuant to ACR 132, passed in 1988, CalTrans contracted with Amtrak to provide local service between Roseville, Sacramento, Oakland, and San Jose which supplements Amtrak's long distance trains. Three round trips commenced over this route, now known as the Capitol Corridor, in late 1991 and negotiations are continuing with Southern Pacific to provide track improvements (funded by Proposition 116 Rail Bonds) that will permit further expansion of the service. In addition, there is increasing interest in provision of commute service on the line, and Southern Pacific and BART have operated demonstration services to show the potential. Alameda, Contra Costa, and Solano Counties have cooperated with the Metropolitan Transportation Commission to determine and evaluate opportunities for rail and mass transit in the East Bay counties through the Greater East Bay Rail Opportunities Coalition (GEBROC). All of these factors caused Solano County to undertake this study of future passenger station locations.

## **POTENTIAL STATION LOCATIONS**

Potential station locations were discussed during early contacts with Solano County communities. The following sites were identified by the consultants and through local input:

### **DIXON**

Vaughn Road  
East H Street  
Downtown (A Street)  
Porter Street  
Midway Road

### **FAIRFIELD-VACAVILLE**

Elmira Road  
Canon Road  
Vanden Road ("Specific Plan" Site)  
Peabody Road

**BENICIA**

Goodyear Road (Bahia)  
Egret Court  
Lake Herman Road  
Bridge Site (at 680/780 interchange)

The sites were evaluated in terms of impact on rail operations, traffic and accessibility factors, site characteristics, land use and development opportunities, and compatibility with local plans.

Following meetings of the Solano Transportation Authority Rail Technical Advisory Committee on October 5 and October 26, 1994 and a meeting of the Fairfield City Council on October 18, the Dixon and Vacaville City Councils on October 25 and the Benicia City Council on November 1, the sites under evaluation were reduced to three at Dixon (including one new site), two for Fairfield/Vacaville and two in Benicia. These sites were:

**DIXON**

1. Downtown Site - Between North First and A Streets.
2. East H Street Site - In the Dixon Business Center.
3. Midway Road Site - A new site suggested by a landowner, located on Midway Road near Pitt School Road.

The Vaughn Road and Porter Road Sites were dropped from further consideration due to location and land use issues.

**FAIRFIELD/VACAVILLE**

1. Peabody Road - In the triangle formed by Peabody Road, the SP tracks and the proposed future alignment of Cement Hill Road.
2. Vanden Road (Specific Plan Site) - Along Vanden Road about one-half mile east of the Peabody Road site.

Sites further east, at Canon Road and Elmira, were dropped from further consideration due to land use considerations and location issues.

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## BENICIA

1. Bridge Site - Located on the bluff immediately northeast of the rail bridge across the Carquinez Strait.
2. Lake Herman Road/Gateway Plaza - West of Lake Herman Road near the I-680 interchange.

Two sites further east, Egret Court and Bahia/Goodyear Road, were dropped from further consideration due to location.

Conceptual site plans were prepared to illustrate how a station might be developed at each location. Subsequently, in discussions with each community, the sites were progressively narrowed to one preferred site at each location.

Dixon chose the downtown site, which provides convenient accessibility to surrounding residential neighborhoods and potentially reinforces downtown economic development goals.

Fairfield and Vacaville jointly selected the Vanden Road ("Specific Plan") site that conforms to the existing land use plans for the area and could serve as the catalyst for development of a transit-based community. This site assumes that development will occur east of Peabody Road, as envisioned in Fairfield's specific plan for the area.

Benicia expressed preference for an interim station at Lake Herman Road, with the ultimate goal of providing a station near the north end of the Benicia Bridge which, if funding were available, could be developed in conjunction with construction of the second I-680 Martinez-Benicia span and associated approach roads.

Although not a part of the study, the existing Suisun-Fairfield station on Main Street is expected to continue in service to provide service to Suisun and southwestern portions of Fairfield.

## **RAIL SERVICE PLANNING ASSUMPTIONS**

Rail service planning assumptions were provided, describing potential passenger rail service levels along the Southern Pacific line through Solano County for the years 1998, 2005 and 2015. These service assumptions were developed from information contained in state and regional rail planning documents, as well as the judgement of the consulting team regarding future service development. Assumptions include the number and type (commuter, intercity, high-speed) of trains stopping at each station, and the assumptions were used to determine future station facility requirements.

Ten trains per day (five round trips) now serve the corridor, including Amtrak's long distance and Capitol Corridor trains. By 1998, frequency is expected to grow to 20 trains including initial commute service to the Bay Area. By 2005, 32 trains will pass through the corridor, with further increased levels of commute and Capitol Corridor service. Finally, by 2015, limited stop high speed train service and Sacramento-oriented commute trains will be introduced, providing a total of 54 trains per day (27 round trips). Not all trains will serve all stations, and the Fairfield-Vacaville station is assumed to be the principal station in the county. The following table shows the assumed service levels for each station.

Assumed Service Levels for Solano County Stations				
	1995	1998	2005	2015
Total Trains in Corridor	10	20	32	54
Dixon	0	4	14	18
Fairfield-Vacaville	0	10	22	38
Suisun-Fairfield	8	12	14	18
Benicia	0	4	14	18

## PATRONAGE ESTIMATES

Patronage forecasts were developed for each station, and a likely pattern of rail passenger service growth was developed to facilitate planning for station parking and access requirements. Projected daily boardings, including long distance, Capitol Route intercity service, and commute services, are shown below.

Patronage Forecasts for Solano County Stations				
	1995	1998	2005	2015
Dixon	0	150	250	450
Fairfield-Vacaville	0	350	700	1,200
Fairfield-Suisun	150	450	550	900
Benicia	0	200	300	400
<b>TOTALS</b>	<b>150</b>	<b>1,150</b>	<b>1,800</b>	<b>2,950</b>

## STATION CONCEPTS

Schematic drawings (see Chapter 6), were prepared to illustrate the possible development of each station facility. Stations could be developed in phases. The initial stage would provide essential passenger shelters, platforms and lighting, bicycle storage facilities, and auto parking. Later development might include a station building or information kiosk, additional parking, and other amenities.

The Dixon station would be located north of the tracks at B Street. Parking would be provided both east and west of the station, and would be built in phases as service increases. Ultimately, a pedestrian underpass at B Street would provide access to Downtown Dixon and to bus parking facilities adjoining Downtown. Ultimate development of the station could incorporate a small station building, passenger drop off loop, and a thematic clock tower or identifying feature.

The Fairfield-Vacaville station would be situated on the north side of the tracks, between the railroad and a relocated Vanden Road. Parking would be located both east and west of the station, and additional parking would serve adjoining commercial and community uses. Bus loading bays and passenger drop off lanes would be provided. Ultimately, when high speed service is introduced in the Capitol Corridor, additional tracks and high-level platforms would be required south of the initial station platforms, accessible via a pedestrian underpass that also will serve additional parking areas to the south. As the county's principal future station, serving long distance and high speed trains, Fairfield-Vacaville will require a "full service" station with ticket agent and baggage facilities. The undeveloped site provides ample room for station development and integration with surrounding land uses.

The interim Benicia station would be located between Gateway Plaza Drive and the railroad, west of Lake Herman Road. Minimal initial development would include parking, bus facilities, and platform with a passenger shelter. Parking would be provided in phases, and a future station building could be provided in the event development at Benicia's preferred ultimate station is impractical.

Benicia prefers ultimate development of a station near the I-780/680 interchange, at the north end of the Martinez-Benicia Bridge. The sloping terrain and limited available site would necessitate structure parking, with access to the tracks via elevator. The parking structure would be on the south side of the rail tracks, with access from Bayshore Road. An alternate plan might provide for a parking structure between the rail line and I-680 with access via Park Road.

## STATION COST ESTIMATES

Costs were estimated for each preferred station site, including land acquisition, platform and passenger shelters, landscaping, parking, bus drop-off areas, and access roads. The Fairfield-Vacaville costs include a station building in Phase II. Estimates for the Benicia Bridge site include a parking structure, and access either from Park Road or Bayshore Road. The estimated project costs are shown below:

DIXON RAIL STATION: DOWNTOWN SITE		
Phase of Station Development	Activity	Estimated Costs (millions)
Phase I	a. ROW (2.3 acres)	\$ .469
	b. Design/Environm/Admin	.547
	c. Construction	1.720
	d. Total Phase I	\$ 2.736
Phase II	Surface Parking, Station Building, Bus Drop-Off	\$ 2.703
Total Project Cost: Full Build Out <sup>(1)</sup>		\$ 5.439 million
(1) Cost excludes optional pedestrian undercrossing.		

FAIRFIELD-VACAVILLE RAIL STATION: VANDEN ROAD SITE		
Phase of Station Development	Activity	Estimated Costs (millions)
Phase I	a. ROW (6.9 acres)	\$ .606
	b. Design/Environm/Admin	1.597
	c. Construction	4.184
	d. Total Phase I	\$ 6.387
Phase II	Surface Parking, Station Building	\$ 3.283
Total Project Cost: Full Build Out		\$ 9.670 million

BENICIA RAIL STATION: LAKE HERMAN ROAD/GATEWAY PLAZA SITE		
Phase of Station Development	Activity	Estimated Costs (millions)
Phase IA	a. ROW (3.2 acres)	\$ 1.008
	b. Design/Environm/Admin	.574
	c. Construction	1.289
	d. Total Phase I	\$ 2.871
Phase IB	Surface Parking, Station Amenities, Bus Drop-Off	\$ .632
Total Project Cost: Full Build Out		\$ 3.504 million

BENICIA RAIL STATION: BRIDGE SITE		
Station Option	Activity	Estimated Costs (millions)
Park Road Access	a. ROW	\$ .263
	b. Design/Environm/Admin	6.406
	c. Construction	25.363
Total Project Cost: Full Build Out		\$ 32.032 million
Bayshore Road Access	a. ROW	\$ .263
	b. Design/Environm/Admin	4.560
	c. Construction	17.979
Total Project Cost: Full Build Out		\$22.802 million

## LAND USE AND DEVELOPMENT OPPORTUNITIES

The downtown Dixon station has the potential to become a focus of downtown revitalization by providing an activity center adjoining the business district. The site is undeveloped at the present time.

The Fairfield-Vacaville station site on Vanden Road would be an important catalyst for development of transit-oriented land uses, including nearby residential densities that are supportive of transit services. The station also could become a hub location for local transit lines. Development of the surrounding area can be planned with maximum opportunity to create a unique community center incorporating the station, supportive commercial services, multi-family housing, and appropriate civic uses.

The Lake Herman Road station site in Benicia affords an opportunity for early development of a station serving Benicia and Cordelia, on a site with minimal construction difficulty. Benicia's preferred ultimate station site near the north end of the Benicia Bridge would better serve Benicia residents, but would require structure parking and more expensive access roads because of the difficult terrain and limitations imposed by the I-680/780 interchange.

The three new stations, together with the existing Fairfield-Suisun station, will provide Solano County residents with convenient access to intercity and commute services oriented to both the Sacramento and San Francisco Bay regions. The station spacing is appropriate for commute service, and all the sites facilitate auto and transit access.

## **FINANCING AND IMPLEMENTATION**

Several sources of funding have been identified that could be utilized to finance station development. These include:

- TCI Transit Capital Improvement Program Funds
- Regional Gas Tax Revenues
- Developer Contributions
- Redevelopment Funds
- ISTEA Intermodal Surface Transportation Efficiency Act Funds
- Local Sales Tax Funds
- Bridge Toll Revenues

Each funding source has different criteria for eligibility, and some (such as gas tax revenues and local transportation sales taxes) would require voter authorization. Because none appear to offer sufficient funding to complete all the station projects in the near term, Solano County will need to determine priorities and develop creative funding and development strategies.

Three Transit Capital Improvement (TCI) grant applications have been approved by Caltrans for the planning/analysis, site selection, preliminary engineering, environmental analysis, and, right of way acquisition of a proposed rail station in Solano County. Those grants included:

<u>Fiscal Years</u>	<u>Amount</u>	<u>Purpose</u>
FY 93/94	\$ 201,000	Analysis/Study
FY 94/95	\$ 498,000	PE/ROW/Environmental
FY 95/96	\$ 402,000	ROW Only
<b>TOTAL</b>	<b>\$1,101,000</b>	

The FY 93/94 grant is currently being drawn down to finance the Solano Rail Facilities Plan and staff work in support of the plan. The FY 94/95 and FY 95/96 grant funds are being reserved for preliminary engineering, environmental analysis and right of way negotiation/acquisition for the Fairfield Rail Station.

Because the Fairfield-Vacaville site already has funding commitments, it is important to continue working towards early construction of at least minimal station facilities so that rail service could be initiated in the next few years, when additional Capitol Corridor trains are introduced. It is equally important to begin site acquisition at Dixon and Benicia to assure the availability of sites for future stations.

The following chart identifies potential funding sources that might be utilized for station development in Solano County.

<b>MATRIX OF POTENTIAL FUNDING SOURCES BY STATION SITES</b>				
<b>Revenue Sources</b>	<b>Likely Funding Source</b>	<b>Fairfield Station</b>	<b>Dixon Station</b>	<b>Benicia Station</b>
1. Future TCI Grants	Yes	X	X	X
2. Regional Gas Tax	Undecided	X	X	X
3. Development Fees	Yes	X		
4. Redevelopment Funds	Yes		X	
5. FY97-04 ISTEA	Yes	X	X	X
6. Local Sales Tax	Undecided	X	X	X
7. Bridge Tolls	Undecided	X	X	X

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**NEXT STEPS**

1. It is recommended that the Fairfield/Vacaville site proceed forward into right-of-way negotiation, environmental analysis, preliminary design and engineering. Given the assumed right-of-way expense of \$606,000, there is sufficient funding in the three existing TCI grants (\$1,101,000) to complete the initial planning work, complete the EIR and begin engineering work. These activities are permitted under the grant restrictions imposed by the California Transportation Commission.
2. Solano County is precluded from applying for additional TCI funding for the Fairfield/Vacaville site at this time according to restrictions imposed by the California Transportation Commission. It is recommended that Dixon be the next applicant (FY 96-97 cycle) for station funding. This recommendation is based on Dixon's inclusion as a Scenario IV (twelve round-trip level) station candidate in the ACR-132 Report. In addition, the Dixon site is within an existing redevelopment area, and potentially could utilize redevelopment funds as a local source for station-related costs. [*Note: This recommendation was approved by the Solano County Transportation Authority on July 12, 1995*]
3. It is recommended that Benicia work with the ACR-132 PAC for inclusion in the Capitol Corridor plan as a future station location, since it is not presently identified as one. In addition, Benicia should explore possible local funding sources to augment regional or state funding for future station construction costs and should consider optioning land in the Gateway Plaza area to protect the recommended interim station site. Finally, Benicia should work closely with Caltrans to make certain that plans for the second I-680 Martinez-Benicia span and approach roadways accommodate a possible future station site.
4. The Solano Transportation Authority should continue its active support for the Capitol Corridor. Withdrawal of Amtrak funding and failure to obtain ISTEA demonstration funds have endangered future development of intercity and commuter rail services along the route, and continued state funding is by no means assured. Strong local support has been vital to the survival of the route, and this will continue to be important in the future. In this regard, new legislation introduced by Assemblyman Hannigan (AB 1720) would create a joint powers board including representatives of local governments and transit agencies to administer the planning and implementation of rail services along the corridor.