

Transit Element

June

2005



SOLANO Comprehensive Transportation Plan

TRANSIT ELEMENT

SUMMARY

The Transit Element proposes to double the number of daily transit trips by 2030 assuming there is adequate funding. It does this by expanding the coverage of service, increasing frequencies, improving the quality of service and enhancing access to the service. Core elements of the plan include 15 minute frequency peak hour ferry service to San Francisco, hourly Capitol Corridor passenger rail service and half hour peak period commuter service with more Solano County stations to improve access and increasing intercity bus services by threefold. New Sunday service is proposed on at least three key intercity bus routes. Improvement to the intercity transit services will need to be coordinated with improvements to local bus, pedestrian, bicycle and automobile access (park and ride). Improvements to the freeway and highway system need to consider opportunities to improve access. These improvements are proposed to increase daily ridership of intercity transit services from 6,000 today to approximately 12,000 by Year 2030.

The Transit Element of the Solano Comprehensive Transportation Plan consists of five components:

- Intercity Bus
- Intercity Passenger Rail
- Ferry Services
- Intercity Transit Service for Senior and Disabled (Paratransit)
- Support Systems

PURPOSE AND NEED

Intercity transit services enhance travel mobility to/from and within Solano County as well as providing increased transportation capacity. The population of Solano County is projected to increase 46 percent between 2000 and 2030. This suggests a corresponding increase in the number of intercity commute and other travel.

STA I-80/680/780 TRANSIT CORRIDOR STUDY

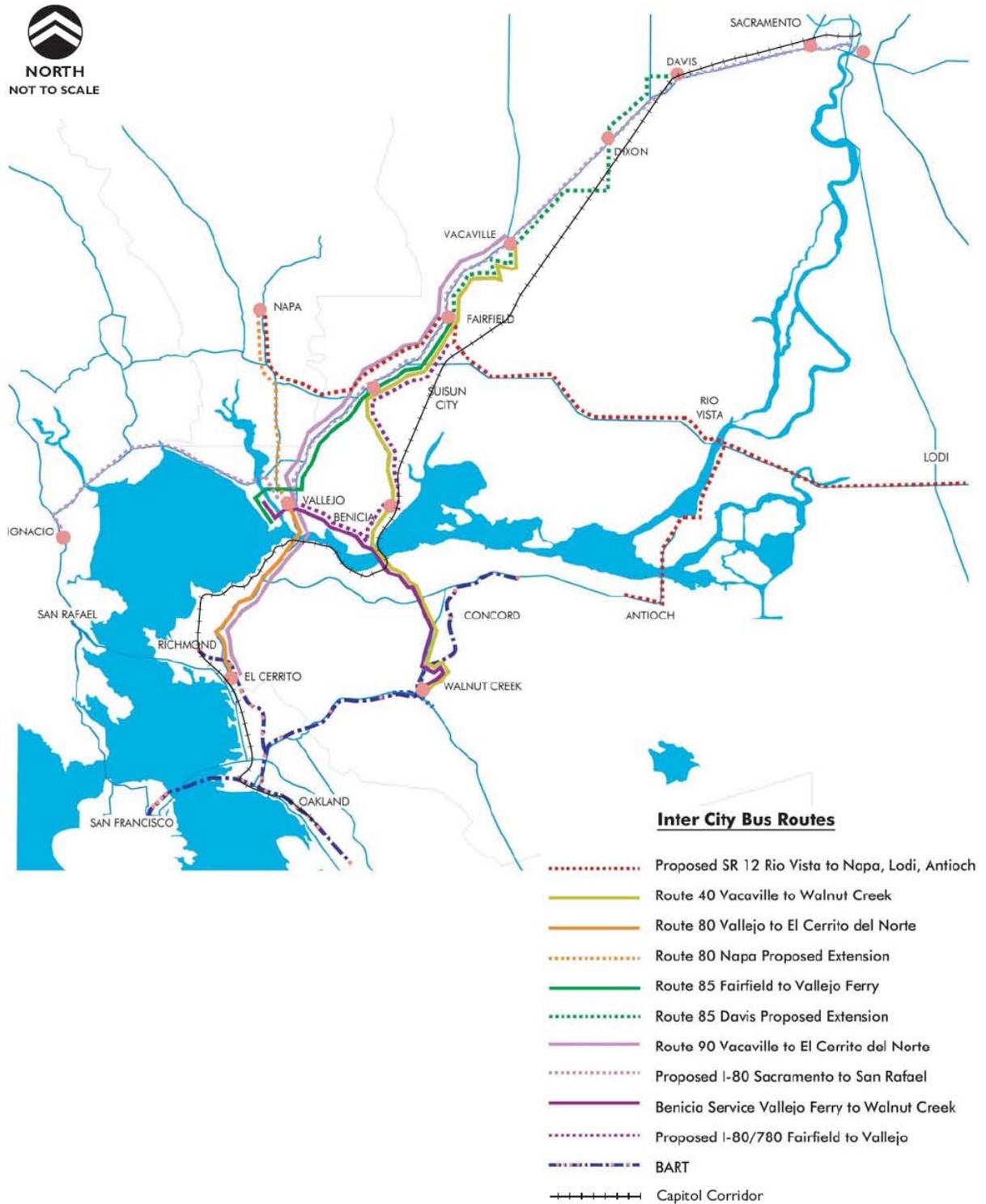


Figure 2.1
COMPREHENSIVE TRANSPORTATION PLAN
2025 VISION INTERCITY BUS SERVICE PLAN

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By 2030, ABAG is projecting an increase in total jobs in Solano County from 123,210 in 2000 to 218,000 jobs by 2030. However, by 2030, the number of employed workers is also expected to increase from 179,517 to 305,500 adding increased pressure on already congested roads. Without added investment in intercity transit services, regional roadways will become increasingly congested thereby adversely impacting the quality of life in Solano County and also its economic vitality. Solano County’s location midway between the Bay Area and Sacramento provides special opportunities to share transportation costs with neighboring counties.

INTERCITY BUS TRANSIT PLAN

Nine public intercity bus routes are presently operated by Solano County transit agencies. One route (Route 20) connects Fairfield-Vacaville, another (Route 30) connects to Davis and Sacramento, two routes (Routes 40 and Benicia Route 1) connect to the Pleasant Hill BART Station, two routes (Route 85 and Benicia Route 1) connect to the Vallejo Ferry Terminal and three routes (Routes 80, 90 & 91) connect to the El Cerrito del Norte BART Station. Public intercity bus connections to Napa from Vallejo are provided by VINE Transit and YoloBus provides connections to Winters and Davis from Vacaville. No Sunday service is currently provided on these lines.



The recommended intercity bus service plan (Figure 2.1) represents a financially unconstrained vision or blueprint for service. Three intermediate levels of service or phases were defined reflecting a range of possible funding resources (Table 2.1). Implementation of the service vision would involve expanded public discussion and input to refine its elements.

TABLE 2.1, LEVELS OF SERVICE

Level	New Annual Funding	Source
1	\$500,000	All local TDA used for transit
2	\$1 million + TDA and growth	Sales tax and all TDA
3	\$2 million + TDA and growth	Sales tax and all TDA
4	Unconstrained “vision”	Sales tax, RM2 bridge tolls, TDA, etc.

Based on the recently completed I-80/I-680/I-780 Transit Corridor Study, net increased capital costs (using current fleet as baseline) associated solely with bus fleet and bus storage and maintenance facilities would range from a low of \$16.3 million for Phase 1 service levels to \$70 million for the Vision service levels over a 25 year period. These costs are based on \$400,000 each for intercity bus coaches and an allowance of \$100,000 per bus for supporting storage and maintenance facility improvements. Fleet costs are based on a 13-year useful life for buses, which translates into a full replacement or nearly two times over a 25-year funding period. Recognizing that the full implementation of the different service improvement levels would not likely occur at the outset of the 25-year planning program a factor of 0.8 was applied to the net increased service level to estimate bus fleet purchases. As some of the proposed intercity bus services link with neighboring counties, it is logical to consider that Napa, Contra Costa, San Joaquin, Yolo/Sacramento and Marin/Sonoma counties might partner in funding these services.

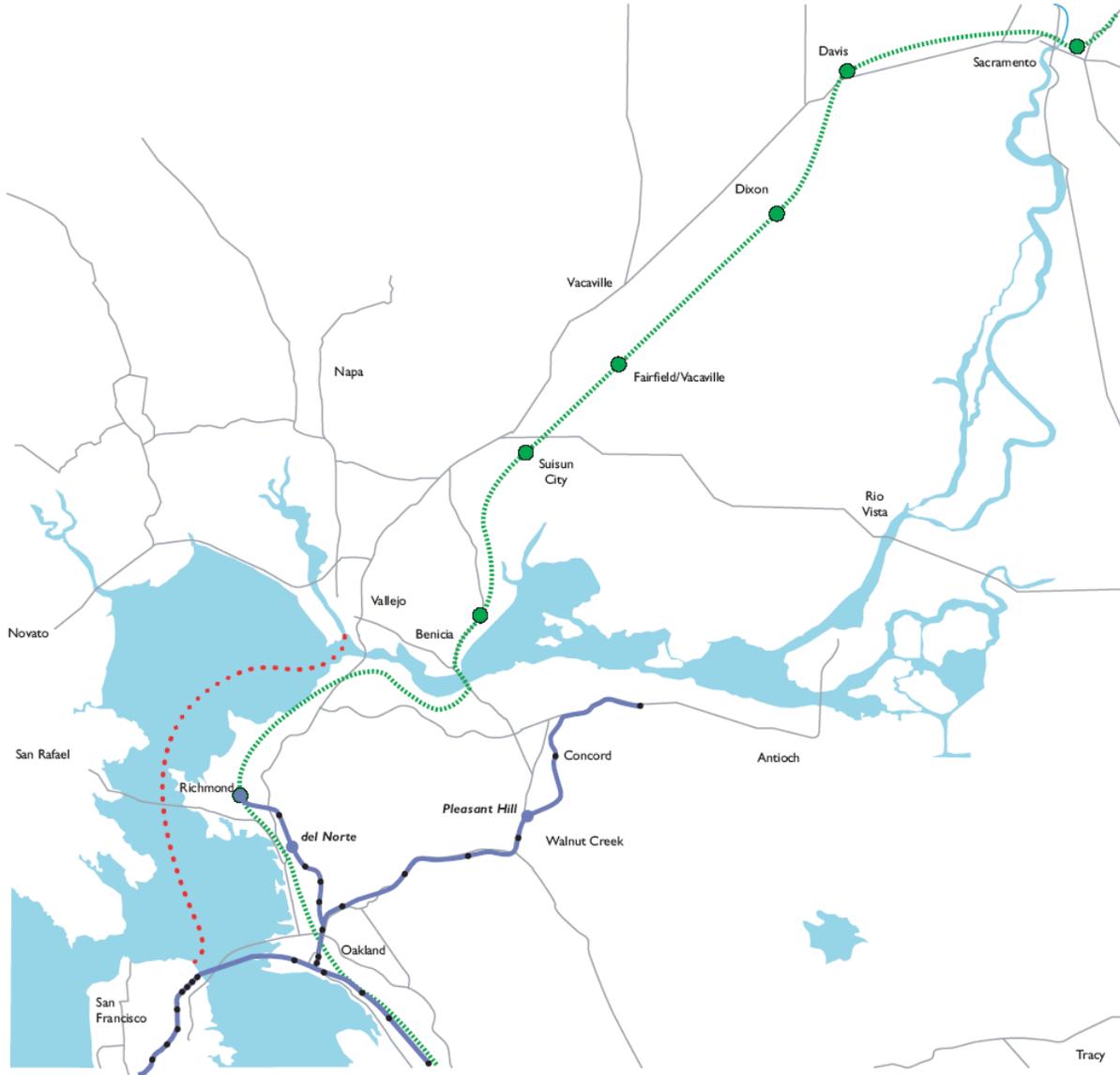
INTERCITY PASSENGER RAIL PLAN



One of the principal passenger rail recommendations for the Transit Element is the active support of Capitol Corridor service upgrades along with improved access for Solano County.

The Vision Plan of the Capitol Corridor Joint Powers Authority (CCJPA) proposes to expand intercity regional service to sixteen trains daily in both directions of travel by 2010 (Figure 2.2), subject to availability of additional state funding. The 16-train frequency would result in almost hourly service. An early objective was achieved in 2002-03 to add a morning train that gets Solano County commuters to Sacramento before 8:00 AM (the current first train now arrives in Sacramento at 7:35 AM).

In addition to more trains, reduced travel times and improved reliability are important service improvements. These are amongst the overall objectives and policy actions, which were defined for intercity transit services. The CCJPA has identified a number of improvements to reduce travel times and to improve schedule reliability. These improvements in and near Solano County include:



- Ferry Transportation
- BART Service
- Amtrak Service



Figure 2.2
KEY REGIONAL HIGHWAYS/PASSENGER RAIL/
FERRY TRANSPORTATION LINKAGES FOR SOLANO COUNTY

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Immediate Projects

- Addition/replacement of a second track for the Yolo Causeway, (completed and opened to service in January 2004).
- Upgrade the Bahia Viaduct and industrial siding track (Benicia)
- Addition of a third track in Dixon

Near-term Period

- Extend and rehabilitate Tolenas lead track

Vision/Long-term Period

- Suisun Bay Bridge Replacement



Potential to increase Solano County ridership of Capitol Corridor stations is closely related to convenience of access. New stations at Fairfield/Vacaville, Benicia and Dixon all look promising. CCJPA policy is to incrementally add stations to the corridor in order to balance improved passenger access with running speeds. Analysis of Solano County station location opportunities indicated that the Fairfield/Vacaville site located at Peabody Road offered good potential for patronage and for quick implementation. This station is being advanced first towards implementation. The Benicia site near Lake Herman Road also looked promising, but alternative sites are being considered and will require more time to implement. The Dixon site appeared to lend itself most to commuter rail patronage oriented towards Sacramento. All three of these sites are included in the Solano Comprehensive Transportation Plan.

Passenger rail service has advanced significantly in the past twenty-year period and has the promise to expand to serve new markets important to Solano County. The Solano Transportation Authority and other partnering counties and transit agencies recently completed commuter rail studies that explored opportunities to add viable passenger rail services to its intercity transit network. These opportunities include:

- I-80 commuter service from Solano County to Oakland/Richmond BART and Sacramento
- Vallejo and Suisun City-Fairfield service to Napa

Ongoing follow-up work is currently underway for the proposed Oakland to Sacramento Regional Rail service. With the passage of Regional Measure 2 and the potential for a transportation sales tax measure, the initial phase of a commuter rail service could commence in Solano County as soon as 2008-10.

FERRY TRANSIT PLAN

The City of Vallejo sponsors “Vallejo Baylink” fast ferry service between the downtown Vallejo waterfront and San Francisco. Currently, the Baylink fleet consists of four boats, three of which will be in daily operation by spring 2005. The fourth vessel will function as a spare to protect Baylink schedule reliability, to be rotated into regular service to ensure a timely repair and preventative maintenance schedule, and to provide service during unscheduled maintenance and other emergencies. Vallejo’s Short Range Transit Plan and this Transit Element propose the purchase of a fifth vessel, placed in service by 2007 or 2008.



Other ferry capital improvement needs includes approximately \$17 million to complete the \$65 million Vallejo Station intermodal facility at the Vallejo Ferry Terminal, including a 1,800-space parking structure, amenity upgrades, an off-street bus transfer facility, and other terminal improvements; and \$3 million to complete the Baylink’s maintenance facility on Mare Island. This will include sufficient overnight mooring slips, fuel storage, and upgraded maintenance. Regional Measure 2 includes \$2.7 million of annual subsidy for the Baylink ferry service.

Based on 2002 costs, Baylink’s operating expenses are projected to average \$30,000 per typical weekday (current dollars) for four boats in regular daily service, plus one spare. This calculation projects 20 round trip sailings per day, and an average operating expense of \$750 per vessel revenue hour. If Vallejo was able to maintain Baylink’s FY 2000-01 farebox recovery of 72%, a daily operating subsidy of about \$8,000 would be needed, therefore, about \$3.0-\$3.5 million in annual subsidies would be required for a five boat scenario. The required subsidy could be higher if fuel prices escalate, other costs increases, or if fare ratios of 72% cannot be maintained.

Due to the fact that Solano County has three unrestricted right-of-ways to San Francisco and the Central Bay Area including rail, water, I-80 HOV, Solano should take advantage of all three. In particular, a strategy of adding buses to supplement San Francisco-Vallejo ferries should be followed, particularly once four boats are in regular daily service. Adding buses rather than more ferryboats is far more cost-

effective in terms of both capital and operating costs once the four-boat threshold has been reached. Buses can provide the added flexibility and capacity particularly needed during “the peak of the peak” between 6:00 a.m - 8:00 a.m. and 4:00 p.m. – 6:00 p.m. Additional buses can be added easily and cost-effectively if demand warrants. Vallejo currently uses buses to supplement Baylink ferries during peak times, and also to provide service at times when demand does not warrant a ferryboat.

VALLEJO BAYLINK CAPITAL NEEDS 2005-2010

Vessels	\$12,000,000
Maintenance Facility Upgrades	\$3,000,000
Vallejo Station Intermodal Facility	\$17,000,000
TOTAL	\$32,000,000

The City of Benicia would also like to have ferry service and is studying such a potential service as part of their Short Range Transit Plan currently underway. STA believes that any additional ferry service should be coordinated and jointly operated with Vallejo Baylink ferry service to ensure cost effectiveness of such an expanded service. Perhaps a pilot project between Benicia and Vallejo could be considered after the fifth ferry is in operation and sufficient docking facilities are provided in Benicia

TRANSIT SERVICE FOR SENIOR AND DISABLED (PARATRANSIT)

Intercity paratransit services would be expanded in parallel with fixed route services. Efforts would be made to shift passengers able to use the fixed route services onto these more efficient services, in order to better serve the needs of those passengers unable to use the fully accessible fixed route services. The Solano Transportation Authority's "Senior and Disabled Transit Study for Solano County," proposes a wide array of short, medium, and long-term projects such as same-day medical paratransit, service consolidation, and Rio Vista to BART paratransit service, respectively.



TRANSIT SERVICE SUPPORT SYSTEM PLAN

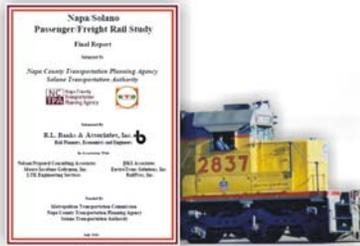
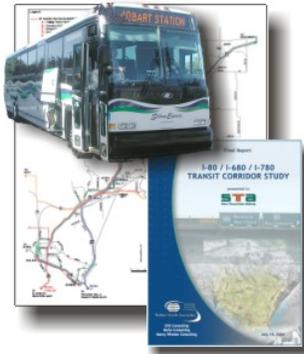
Access to intercity transit service will be important to successfully attracting patronage and enhancing travel mobility in the county. Presently there are about fifteen existing formal park-and-ride lots in the county, one train station and one ferry terminal along with several transit centers and informal park-and-ride lots.

The I-80/I-680/I-780 Transit Corridor Study and the State Route 12 Major Investment Study propose to expand six park-and-ride lots and to add eight new park-and-ride lots along the I-80 Corridor, two in the I-680 Corridor, three in the I-780 Corridor and two in the Highway 12 Corridor by 2030. Major expansions are proposed for the Vallejo Ferry Terminal, the Curtola park-and-ride lot, and the Fairfield Transportation Center. Aside from the investment in the Vallejo Terminal project, which has already been identified, approximately \$55 million is estimated to fund these improvements. Costs associated with improved pedestrian and bus access to interchanges is assumed to be included in overall freeway interchange improvement costs.

NEXT STEPS

Key to implementing elements of the intercity transit plan is obtaining the necessary funding required to cover operating deficits and to purchase buses, boats and trains and provide supporting infrastructure. The most logical sources for this funding are added Bridge Toll revenues and local "self help" sales tax revenues. Thus, in addition to its ongoing efforts to attract federal and state funding for transportation improvements, Solano County needs to explore revenue potentials from bridge tolls and a local sales tax. Public support will be essential to gain these new revenue sources.

To support these funding requirements, Solano County decision-makers have recently completed or are currently conducting the following important studies. These studies are:

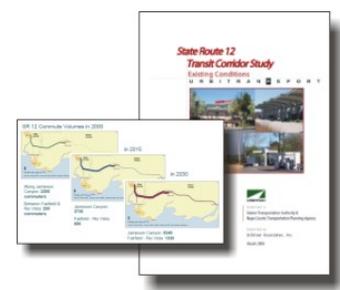


- I-80/680/780 Transit Corridor Study Implementation - This study reviewed the express bus capital and operating needs along the I-80/680/780 corridors. It recommends various short, medium and improvements to the current system and a long range Vision Plan for park and ride facilities, increased express bus services and expanded maintenance facilities. Completed in 2003-04, the implementation of this study will help to program Regional Measure 2 funds as well as prioritize funds from a local transportation sales tax measure.
- Napa-Solano Passenger/Freight Rail Study – This report documented significant travel between Napa and Solano Counties. There is an existing rail corridor that connects the two major centers, and a rail study would determine potential patronage, revenues, costs and subsidy levels for such a service. The STA, the Napa County Transportation Planning Agency (NCTPA) and MTC joined together to fund and manage such a study. This Study was completed in 2003 and follow-up work to this study is expected in the future, beginning with the SR 12 Transit Corridor Study.
- Auburn to Dixon Commuter Rail Study – As noted in this plan, the Sacramento commute-shed extends well into Solano County. Placer County has in the past expressed interest in working with other counties to explore the potential of passenger rail services operating between Auburn and Dixon or even Fairfield/Vacaville. As with the Napa Study, potential patronage, revenues, costs and subsidy levels for such a service was explored. The Phase 1 work for this Study was completed in 2003-04. Phase 2 will be completed as part of the Oakland-Sacramento Regional Rail study during 2004-05.
- Oakland to Sacramento/Auburn Regional Rail Study (formerly Solano to BART Commuter Rail Study (sBART)) – A substantial demand for peak period commute travel exists and this demand is projected to increase in coming years. Commuter trains are a high capacity alternative commute mode, totally segregated from highway congestion problems. The potential for augmenting Capitol Corridor peak commute period capacity, providing a linkage to Richmond BART, Oakland and perhaps even San Jose was investigated as part of the Contra Costa-Solano Rail Feasibility Study,



completed in the summer of 2003 and continues to be investigated as part of the Oakland – Sacramento/Auburn Regional Rail Study to be completed in 2005.

- Local Transit Studies – Local transit studies for the Benicia, Fairfield-Suisun, Rio Vista and Vallejo transit systems are either currently underway or are expected too be completed by 2005/06. These studies will identify critical short term transit needs for each of these communities and will be important input for providing enhanced countywide or subarea services.
- SR 12 Transit Corridor Study– This study was authorized by the STA Board in the fall 2004 with participation by the SolanoLinks Transit Consortium and the Napa County Transportation Planning Agency. It will examine and update the demand for intercity bus service between Rio Vista-Suisun City-Fairfield-Napa and identify a proposed schedule, phasing plan, institutional arrangements and potential funding plan to implement the service. The study is expected to be completed in 2005.
- Transit Consolidation and Institutional Feasibility Study – This study will identify various institutional, financial and organizational options for improving and expanding express and intercity transit services throughout Solano County and into adjoining counties and regions. The success of this study will require the full participation of all Solano transit operators and communities.



In addition to these broad planning and studies, a number of project planning and design studies need to be initiated to advance major projects like the Curtola park-and-ride expansion.

The Transit Consolidation and Institutional Feasibility Study is planned to begin in 2006 after the completion of the other local and regional transit studies, listed above, are completed. The growth of Solano County transit operations may be exceeding the ability of the current institutional structures to provide quality service within an appropriate policy and financial framework. A Transit Consolidation and Institutional Feasibility Study would provide the opportunity for Solano County policymakers to discuss and recommend the overall strategic direction and structure of transit services for the future.

INTRODUCTION



Vallejo Transit, Fairfield-Suisun Transit and Benicia Transit presently operate all of the intercity public bus services in the county. Collectively these intercity services are referred to and marketed as SolanoLinks. The focus of the Transit Element is on these intercity SolanoLinks bus services along with the ferry, passenger rail and intercity paratransit services for Solano County. Local transit services are each addressed by separate individual locally based planning efforts.

The Transit Element Report begins with a Statement of Goals and Objectives along with descriptions of: Forecast Market Demands for intercity transit services; the Current Institutional Framework; and Key Planning Issues. Bus, rail, ferry, and senior/disabled transit service modes are also described. Lastly, infrastructure elements needed to support the Service Plan are described.

PLAN OVERVIEW

The recommended plan represents a “vision” or “blueprint” for intercity transit services in 2030. The Plan is not financially constrained. The proposed implementation strategy; however, is closely linked to the availability of funding resources required to support provision of intercity transit services. Three implementation phases linked to short term funding resource levels (i.e. next 5 years) for operating subsidies are described for illustrative purposes:

- Full utilization of all current local transit funding resources
- An increment of one million dollars annually in new operating revenues
- An increment of two million dollars annually in new operating revenues

The long term unconstrained Vision Plan can most likely be achieved with full resources made available from Regional Measure 2 and a local transportation sales tax measure.

The Plan utilizes the high capacity strengths of ferry and rail modes where possible and uses the flexibility of lower capacity buses to feed these high capacity modes and to serve travel demands not located along rail and ferry corridors. Baylink ferries have capacity to serve 325 passengers per boat trip and Capitol Corridor trains can

serve up to 600 passengers per train. Standard 40 foot long buses have capacity to serve about 45 or more seated passengers.

GOALS AND OBJECTIVES

One stated goal of the Solano Comprehensive Transportation Plan, specifically for intercity public transit is:

Develop a Comprehensive Transit System for Buses, Rail and Ferries to Meet Future Demand

Five objectives have been defined for this transit goal:

- **Objective A** - Convenient Public Transit
- **Objective B** - New Service
- **Objective C** - Efficient Transit
- **Objective D** - Multi-modal system
- **Objective E** – Economic Considerations

Objective A - Convenient Public Transit:

Provide intercity public transit services with convenient access to developed areas of the county

Objective A Policy Actions:

1. Provide intercity service coverage with convenient access for the County's population
2. Provide basic non-commute oriented intercity services seven days a week
3. Provide hours-of-service weekday service coverage as needed
4. Meet ADA requirements for fully accessible intercity services

Objective B - New Service

Provide improved and new services to maximize usage and minimize traffic congestion.

Objective B Policy Actions:

1. Maximize intercity patronage
2. Provide reliable service
3. Provide competitive travel times to automobile travel
4. Provide convenient access to intercity service stops
5. Provide comfortable, safe and passenger friendly stop facilities
6. Provide easy to remember frequent service
7. Define fare policy for easy payment and affordable fares, incorporating the new TransLink technology and addressing the needs of low and moderate-income persons
8. Provide a choice of mode in the I-80 and I-680 corridors
9. Support congestion relief objectives
10. Set priorities for new intercity transit and countywide paratransit services
11. Set new intercity and commuter rail service priorities
12. Develop priorities, standards and a funding plan for long range ferry services

Objective C - Efficient Transit

Provide efficient intercity transit services to maximize ridership and cost effectiveness.

Objective C Policy Actions:

1. Prioritize capital investment to favor riders per dollar and coverage equity
2. Minimize Operating and Maintenance costs per vehicle-mile, vehicle-hour, passenger and passenger mile served
3. Balance service supply with passenger demands
4. Coordinate intercity services with other regional providers
5. Encourage use of high-capacity alternative travel modes
6. Provide funding for priority countywide transit services

Objective D - Multi-modal system

Integrate intercity services with local transit and other modes to provide a seamless multi-modal transportation system.

Objective D Policy Actions:

1. Provide safe and convenient pedestrian access to intercity service stops
2. Provide for bicycle carry on for bus/train/ferry and bicycle lockers at key stops
3. Structure service around time transfer hubs/stations to maximize transfer opportunities
4. Configure HOV facilities to be transit accessible and maximize usage of these facilities
5. Develop countywide HOV system and priorities for implementation
6. Coordinate Solano County service plan and operations with other providers in the Region
7. Coordinate passenger information and marketing efforts
8. Coordinate fare and transfer policies
9. Study the feasibility of consolidating transit providers in Solano County

Objective E - Economic Considerations

Address economic considerations when conducting transit plans and implementing new services.

Objective E Policy Actions:

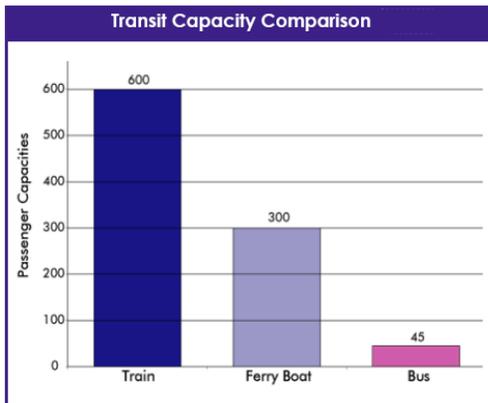
1. Provide opportunities for community involvement when improving and expanding various transit services, the transit operators should address the needs of minorities and low to moderate income persons in Solano County
2. Support proposals of the SolanoWorks (Welfare-to-Work) program and community based or lifeline transportation plans whenever feasible

MARKET DEMAND

A brief description of the role intercity transit could play in meeting projected mobility needs is presented here as a prologue and foundation for the recommended intercity transit plan.

Transit Mode Capacities

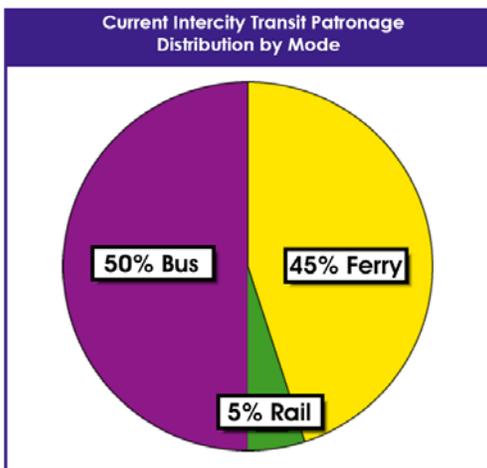
Transit is a means to minimize traffic congestion as well as a means of providing mobility choices. Capitol Corridor trains, which each provide capacity for 600 passengers, can provide the equivalent transportation capacity of 400 to 500 private automobiles, which translates into about 20 to 25 percent of a freeway lane capacity. Four to five trains per hour would provide the equivalent capacity as an entire freeway lane.



Baylink ferries with capacities of 325 passengers per boat could provide the equivalence of half a freeway lane of capacity with 15-minute headway service. Standard size buses with capacities of 45 passengers per bus can provide a freeway lane's equivalent capacity if operated on one-minute headways. Perhaps more importantly these high capacity transit modes can facilitate significantly improved travel flow conditions. As illustrated by Caltrans' ramp metering and metering measures for the Bay Bridge, very modest reductions in traffic volume can significantly improve overall traffic flow. Thus, buses, ferries and trains diverting demand away from Single Occupant Vehicle (SOV) commuting can provide substantial benefits even to those choosing to drive. The ability of buses to share HOV facilities also helps to increase the person carrying capacity of freeway facilities.

Current Transit Usage

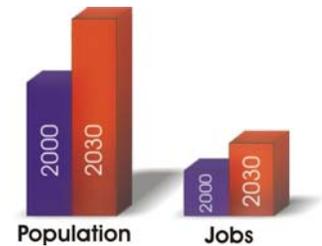
Approximately 6,000 intercity transit trips are made to or from Solano County on an average weekday. Approximately 50 percent of these inter-county transit trips are made by bus, with 45 percent made by ferry and the remaining 5 percent made by train. Another 800 daily intercity transit trips are made between communities in Solano County. While this seems like a large number, it is quite small in comparison to average daily traffic volumes entering and leaving the county, not to mention the large number of vehicle trips traveling between Solano County communities. Over 300,000 vehicle trips daily cross into/out of Solano County. Estimating an average of 1.2 persons per vehicle translates into 360,000 daily person trips of which 6,000 presently use public transit. This daily transit patronage amounts to less than two percent of the total intercity trips. Since some of the vehicle trips entering and leaving the county are through trips, transit usage is probably in the two to



three percent range. As such, a substantial opportunity exists to increase intercity transit usage.

Projected Growth in Travel

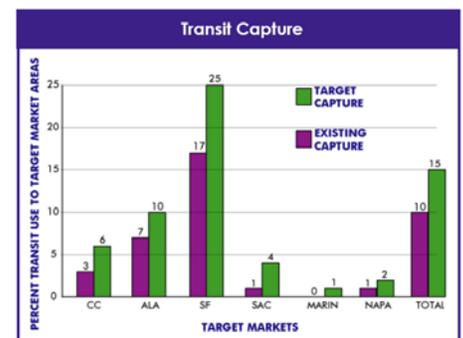
Population and employment projections prepared by the Association of Bay Area Governments (ABAG) for Solano County indicate that commute travel to and from the County will continue to increase. In Year 2000 Solano County was estimated to have 179,500 residents employed in the workforce. Fifty-four percent worked within the County and 46 percent commuted to other counties for work. Year 2030 forecasts that Solano County will have 305,500 residents working, with 42 percent working outside the county. While the percentage of residents working outside the county is projected to decrease, the absolute amount increases from 82,000 today to 113,000 in 2030. This is a net increase of 31,000 additional residents commuting out of the county to work.



The largest commute destination is projected to be Contra Costa County (34,600 jobs). Alameda County is projected to be the second largest commute destination (18,100 jobs), Napa is the third largest with 16,800 jobs and San Francisco eventually moving from third to fourth with 16,700 jobs. Sacramento and Yolo counties are also expected to provide a total of 15,400 jobs by 2030. Marin and Sonoma Counties together account for 9,400 and 8,200 jobs respectively. . Percentage-wise the Napa commute market appears to be growing the fastest according to the ABAG forecasts. The documented commute market to Sacramento and Yolo counties appears to understate actual commute activity. Most Solano County workers are projected to be county residents.

Target Transit Capture

Based on data from the 2000 U.S. Census, current proportions of peak commute and total daily trips made using transit to points outside of Solano County were estimated by comparing transit patronage data with MTC travel modeling data. The intent of this comparison was to identify order of magnitude transit capture relationships. Not unexpectedly, the San Francisco capture rate is very high, reflecting the high cost of parking, high levels of congestion, relatively concentrated trip destinations and high level of intercity transit resources focused on this market. Alameda County also has a relatively high capture rate, for many of the same reasons (excellent BART linkages, but low parking costs). Contra Costa County capture rate assessment focused on the Concord and Walnut Creek destinations. Absence of parking costs and the dispersed development pattern for intercity transit services results in lower usage rates.



CURRENT INSTITUTIONAL FRAMEWORK

Intercity transit services serving Solano County are provided and supported by about a dozen key agencies:

- Solano Transportation Authority (STA) and its Solano Napa Commuter Information (SNCI) program
- Vallejo Transit (VT)
- Fairfield-Suisun Transit (FST)
- Benicia Transit (BT)
- Vacaville City Coach (VCC)
- Dixon Read Ride
- Rio Vista Transit
- Solano County
- Capitol Corridor Joint Powers Authority (CCJPA)
- Amtrak
- Metropolitan Transportation Commission (MTC)
- Caltrans
- Greyhound Bus Lines

In addition to these key agencies, two neighboring counties provide important intercity connections to Solano County. VINE Transit and YoloBus provide linkages to Napa and to Winters/Davis respectively. No intercity public transit services are presently provided across Highway 37 linking Vallejo and Solano County communities to Marin and Sonoma counties, other than the dedicated Capitol Corridor/Amtrak feeder buses.

Table 2.2 summarizes principal roles for each of the twelve key agencies identified above. Greyhound Bus Lines operates private intercity bus services. Capitol Corridor Joint Powers Authority operates the intercity passenger rail service and the City of Vallejo operates the Baylink Ferry service. Vallejo Transit, Fairfield-Suisun Transit, Benicia Transit, Vacaville City Coach and Dixon Read-Ride provide local feeder bus services in support of intercity transit services. The STA's Solano Napa Commuter Information (SNCI) program and Caltrans are key partners with respect to park-and-ride facilities. In addition to Solano County, the SNCI program also serves Napa County. Rio Vista provides some intercity specialty transport services. With the exception of Greyhound, all the agencies are important partners in funding public transit services in

Solano County. The Solano Transportation Authority provides the forum for coordinating funding, service and marketing interfaces and other major elements important to intercity bus services.

TABLE 2.2 - TRANSIT RESPONSIBILITY MATRIX

	Policy	Funding	Ferry	Rail	Local Bus	Intercity Bus	Para-transit
STA	✓	✓				✓	✓
Vallejo	✓	✓	✓		✓	✓	✓
Fairfield-Suisun City	✓	✓			✓	✓	✓
Benicia	✓	✓			✓	✓	
Vacaville	✓	✓			✓		
Dixon	✓	✓			✓		
Solano County	✓	✓					
Rio Vista	✓	✓			✓	✓	
CCJPA	✓	✓		✓		*	
Amtrak	✓	✓		✓		*	
MTC	✓	✓					
Caltrans	✓	✓					
Greyhound						✓	

* Dedicated feeder buses to rail services.

Brief descriptions of the STA and the operators of intercity transit services in Solano County are provided in this section. Descriptions of the services are discussed later in this element.



Solano Transportation Authority

The STA was created under a Joint Powers Agreement in 1990 to act as the Congestion Management Agency (CMA) for Solano County to program federal, state and regional transportation funds. Membership is comprised of representatives from the cities of Benicia, Dixon, Fairfield, Rio Vista, Suisun City, Vacaville and Vallejo as well as County of Solano. In addition to programming requirements, STA is also responsible for countywide transportation planning and management of Solano Paratransit and intercity bus Route 30.

The Mission Statement for STA is “to improve the quality of life in Solano County by delivering transportation projects to ensure mobility, travel safety, and economic vitality.” Eight goals were established to achieve this Mission Statement:

1. Document transportation needs from both the local and countywide perspectives
10. Provide safety and operational improvements
11. Preserve the existing transportation system
12. Reduce congestion and maintain mobility
13. Improve commute options to the Bay Area and Sacramento regions
14. Promote transit including intercity bus, rail, and ferries
15. Promote alternative modes such as carpooling, vanpooling, and bicycling
16. Encourage Transportation for Livable Communities projects

STA coordinated the development of a multimodal comprehensive transportation plan for Solano County. This Transit Element is a core part of this comprehensive planning effort.

EXISTING INTERCITY TRANSIT PROVIDERS

City of Vallejo Transit Program

Vallejo’s transit system is administered by the Vallejo Transportation Division, part of the City’s Department of Public Works. The Transportation Division plans, oversees and controls Vallejo’s ferry, bus and paratransit services, consistent with City Council-adopted policies outlined in the Short-Range Transit Plan (SRTP). The Transportation Division oversees and monitors operation of the City’s transit services through contracts with private sector transportation providers. The Division is also responsible for transit



planning, budgeting, capital project implementation, regional coordination, and other activities required to operate the transit system.

Vallejo operates Vallejo Baylink ferry and bus services to San Francisco, which is supported by bridge toll revenues. Vallejo Transit buses provide local service within Vallejo, and regional express bus service along the I-80 corridor. The cities of Fairfield and Suisun City and the County of Solano provide financial assistance to Vallejo Transit route 85 through an agreement with Vallejo. “BartLink” routes 90 and 91 are subsidized through purchase of service agreements between Vallejo and Fairfield/Suisun City and Vacaville, respectively.



Fairfield-Suisun Transit

The City of Fairfield, through its Public Works Department, manages the contracted operation of Fairfield-Suisun Transit System (FST). Two previously separate city systems were consolidated in 1989 to form one larger system with Fairfield taking the lead role. The City Transportation Manager, under the direct supervision of the Director of Public Works, oversees the service and manages the transit contractor. A full time transit technician and a management analyst provide assistance. Suisun City contracts with Fairfield for operation of the Suisun City routes, and Suisun public works and planning staff offer recommendations on system operation and fare policy. Fairfield contracts with MV Transportation to provide both FST fixed route and paratransit service. FST operates Solano Paratransit and Route 30 via an agreement with STA. In addition, FST operates intercity Routes 20 and 40 through an agreement with the City of Vacaville.



Benicia Transit

Vallejo Transit currently provides day to day direction and management of the fixed route and paratransit transit services for Benicia Transit, which both are contracted out to private providers.



The mission statement for Benicia Transit consists of three elements:

1. The overall purpose of the City of Benicia transit program is to increase mobility opportunities for all Benicia citizens and aid in improving air quality in the region and reducing congestion;

2. As a minimum, the transit program should provide a level of intracity and intercity service that meets the needs of the transit dependent in Benicia; and
3. Where economically feasible, commuter-oriented service will also be offered to encourage use of transit as a viable transportation alternative. Service will be provided to and from important destination points, including transportation center locations, such as BART stations and ferry terminals.

Benicia Transit operates intercity service via I-780 and I-680 from the Vallejo Ferry Terminal, through Benicia, to Pleasant Hill BART.

Vacaville City Coach (Intra-City)



The City of Vacaville, through its Public Works Department manages its contracted transit service operations. This consists of Vacaville's fixed route and paratransit operations. Both services limit their operational area to within the Vacaville City Limits. Vacaville's transit fleet consists of 12 large buses including five fueled by CNG. Vacaville City Coach partners with both Fairfield-Suisun Transit and Vallejo Transit for the provision of inter-city and commute service. Specifically, Vacaville partners with Fairfield-Suisun Transit for their Route 20, 30 and 40 services and with Vallejo for their Route 91 service.

Capitol Corridor Joint Powers Authority (CCJPA)



The CCJPA was created in 1997 and is comprised of members from the Placer County Transportation Authority, Sacramento Regional Transit Agency, BART, Santa Clara Valley Transportation Authority (VTA), Solano Transportation Authority and the Yolo County Transportation District. According to the CCJPA Annual Report, BART provides staff and administrative management to the CCJPA including the following day-to-day responsibilities:

- Oversee the day-to-day train operations contained in the Amtrak operating agreement;
- Coordinate with Amtrak to make changes to the current contract to gain efficiencies that will be used to enhance the service;
- Manage and administer maintenance as performed by Amtrak of the state owned and other rolling stock assigned to the Capitol Corridor and San Joaquin Corridor;
- Oversee the deployment of the rolling stock;

- Oversee the portion of the dedicated feeder bus system for the Capitol Corridor Service that is contracted to private bus operators through the Amtrak contract; and
- Coordinate with Caltrans, Amtrak, UPRR, and the California Transportation Commission (CTC) and local communities to develop and implement a capital improvement program to improve and expand service through track and signal improvements, station upgrades, rolling stock acquisitions/renovations, and passenger convenience projects and amenities.

By contracting with Amtrak, the CCJPA currently funds 12 daily trains in each direction between the Bay Area and Sacramento.

Amtrak

Amtrak is the national passenger rail service operator, which plans and provides passenger rail services of national interest. Because Amtrak has statutory authority to operate passenger service over the lines of private freight railroads, Amtrak is the vehicle used by states and local agencies that wish to supplement Amtrak's national service trains with corridor trains such as those supported by Caltrans and the CCJPA. Subject to negotiation with the affected railroad, Amtrak can increase or decrease the level of service provided over each route, and to determine where stations are to be served. Amtrak also negotiates with the railroads on behalf of state or local agencies that fund corridor services. Amtrak, by virtue of operating national services and having an in-place administrative system, trained operating crews, and maintenance and service facilities throughout the nation, is also in a good position to be the contract operator of state or locally funded services.



Summary

A number of different intercity transit services are provided to Solano County in order to efficiently serve the individual needs of different local and regional travel markets. A high degree of coordination is evidenced between agencies from the perspective of providing these services. It is very important that these coordination efforts are also apparent to the transit consumer.

PRESENT IMPROVEMENT PLANS AND KEY PLANNING ISSUES

Transportation is very important to Solano County and numerous local and regional planning efforts relate to and influence Solano's Comprehensive Transportation Plan. These planning efforts were reviewed to integrate key recommendations into the Comprehensive Transportation Plan and to identify major unresolved planning issues.

MTC Transportation 2030 Plan

The Regional Transportation Plan is being updated in 2004-05 and is called the "Transportation 2030 Plan." Both a "fiscally constrained" (formerly called Track 1) and an unconstrained component called the "Vision" are being developed and will refine and replace the previous 2001 Track 1 and Blueprint plans.



MTC Express Bus Plan

The STA, Vallejo Transit and Fairfield-Suisun Transit submitted four Solano County oriented Express Bus proposals for consideration in the MTC Express Bus Plan. The I-80, I-680 and I-780 corridors were all identified for service. These proposals for express bus services linking BART stations in Contra Costa County were submitted during 2001-02. Funding opportunities were explored, and implementation scheduled for 2005 and beyond. A key issue will be how to fund the operating subsidies. Approved by voters on March 2, 2004, Regional Measure 2 (RM2) provides \$3.4 million pool of annual operations funds for various North Bay express bus routes and is expected to provide the major funds for the regional express bus program including express bus services for Solano County residents and employees.

HOV Facilities Plans

Future medium term plans to provide for High Occupancy Vehicle (HOV) lanes in Solano County call for the addition of center median lanes between I-680 near Cordelia to I-505 in Vacaville and on I-80 between the Al Zampa (Carquinez Bridge) and SR 37. Caltrans will develop a Project Study Report (PSR) for this project segment. Future HOV lanes are proposed on the Carquinez and Benicia Bridges. The westbound I-80 link between the Carquinez Bridge and Highway 4 in Contra Costa County is included in current proposed projects for State funding. STA has also proposed future long-range HOV lanes on I-680.



Vallejo Transit

The FY 1999/2008 Short Range Transit Plan (SRTP) proposes to:

- Purchase over-the-road coaches to replace aging transit buses for express services
- Rehabilitate the M/V Jet Cat Express (ferry) (already completed)
- Improve San Francisco ferry terminals (completed)
- Fund a fourth fast ferryboat, allowing three in daily service plus a spare (completed)
- Construct Intermodal Ferry Terminal Facility
- Establish a permanent maintenance facility for the Baylink ferry
- Increase capacity of the Curtola park-and-ride facility
- Construct an off-street bus transit center to replace the current on-street Sereno Transit Center (completed)



Vallejo Baylink Ferry Service

The City of Vallejo's highest priority transit capital project is construction of the proposed \$56 million "Vallejo Station" project adjacent to the Vallejo Ferry Terminal. So far, about \$47 million in federal, state, and local funds has been secured for the project with assistance from the Solano Transportation Authority as well as state and federal legislators and Regional Measure 2 (\$28 million).



Vallejo Station will support Vallejo's highly successful Baylink fast ferries and express buses, regional BartLink express buses, and other express bus services by providing 1,200 off-street, structured parking spaces for transit patrons. Improved operating facilities for regional and local bus service will be provided, plus major amenity improvements for regional and local bus riders including improved weather protection, upgraded lighting, transit information services, fare media sales, and upgraded safety and security. Other Vallejo Station features include roadway access improvements, bicycle facilities, and improved pedestrian access between downtown Vallejo, the Ferry Terminal, and the waterfront.

By 2010, the Vallejo SRTP Strategic Vision projects that "Vallejo Baylink" ferries and supplemental buses will carry about 5,000 daily commuters and day travelers, with Baylink ferry feeder buses carry 600-700 daily passengers. A fleet of express coaches will also connect Vallejo and Solano County to key BART stations, serving

about 4,000 daily commuter and other trips. Buses would run at least every 15 minutes on each route during rush hours, every 30 minutes during midday and hourly at other times. The intermodal facility will be required before four boats are operated in regular daily service. In the latter years of the SRTP planning period, expansion of the bus maintenance facility is also envisioned.

The acquisition of a fourth Baylink fast ferryboat was funded and received in the summer of 2004. This vessel will enter service in spring 2005 when three boats will be in regular daily operation. The additional operating subsidies needed to support a three boat operation is expected to be provided from Regional Measure 2 (RM2) funds. Another funding source, such as a local transportation measure, would be necessary to provide for the capital and operating of a fourth boat in regular daily operation.

Ferry Service to Benicia

Benicia has studied and favors ferry service directly to Benicia. Because a significant proportion of current Vallejo ferry riders (10-15%) are Benicia residents, there is concern that Benicia ferry service could be competitive rather than compatible with the Vallejo ferry service. Previous studies of Benicia ferry service propose a joint Martinez-Benicia ferry service to San Francisco, rather than two individual routes from the nearby cities located across Carquinez Straits. More refined analysis is required to determine whether there is sufficient demand and support for such a route. The Bay Area Water Transit Authority has embarked on a region-wide planning study, which will assess the need for new and expanded ferry services.

Fairfield-Suisun Transit (FST)

The FST Fiscal Year 2000/01 Short-Range Transit Plan identifies nine planning emphasis areas and issues:



1. Need for more frequent local service (30 minute headways)
2. Need for 30 minute service on Route 20 to Vacaville
3. Development of the Fairfield Transportation Center and associated route restructuring plans
4. Development of bus transfer facility in the North Texas Street Corridor
5. Service to developing areas of the community – Rancho Solano, Rolling Hills and Solano Business Park

6. Expansion of Route 40 to Walnut Creek BART Station, possibly with service to Benicia Industrial Park
7. Possible service expansion between Fairfield and Sacramento area destinations
8. Possible implementation of Express Bus Service Concept with service to Benicia Industrial Park
9. Need for increase in driver wages

The Fairfield Transportation Center (item #3) was opened in 2001 with 400 parking spaces and has proven very successful. A 234 space Phase 2 expansion to the Center was completed at the end of 2004.

Benicia Transit

Discussion has been ongoing to transfer the operation of the Vallejo Ferry Terminal to Pleasant Hill BART station intercity bus service to Vallejo Transit. Planning and site selection of an Intermodal Transportation Center near Lake Herman Road, as a first phase towards establishment of a passenger rail station is progressing. New bus service to the Benicia Industrial Park is also being considered. Discussion is underway to consider transferring the operation of Benicia Route 1 from the Vallejo Ferry Terminal to the Pleasant Hill BART station intercity bus service to Vallejo Transit. The City of Benicia is currently updating their Short Range Transit Plan to operating responsibilities to Vallejo



Capitol Corridor Joint Powers Authority

Current plans are to maintain 12 trains during 2003/2004 through 2004/2005. Improvement plans and issues include re-installation of the second track on the Yolo Causeway section (completed), construction of some third track segments between Benicia and Davis to facilitate mixed freight and passenger operations, and improve the Bahia industrial sidings in Benicia for increased speeds and strategies to minimize delays at the UPRR crossing of the straits. The 2004 State Transportation Improvement Program (STIP) includes \$2.3 million in state funding and Regional Measure 2 will provide about \$7.5 million to fund the Bahia siding track improvements.



Other Passenger Rail Studies

Several commuter rail studies were initiated in 2002/2003 and are continuing through 2004-05. Among these is the possible establishment of commuter rail services in the Sacramento Region overlaid on the Capitol Corridor services. Solano, Placer, and Yolo Counties, SACOG and Sacramento Regional Transit are participating in a track capacity study to determine the operational feasibility of commuter rail service between Auburn/ Sacramento, Davis, Dixon, Fairfield-Vacaville, Suisun City, Benicia, Martinez, Richmond BART, and Oakland). It is possible that such a service could be up and running in five years if local funding for capital and operating expenses can be found.

In 2003, the STA, the Napa County Transportation Planning Agency (NCTPA) and MTC completed a passenger rail study for new service between Napa and Vallejo and the Jameson Canyon (State Highway 12 corridor) service connecting to Fairfield and Suisun City.

North Bay (Highway 37) Corridor Study

The 1998 planning study for this corridor did not find any transportation alternatives that could effectively substitute for automobiles and trucks for this corridor. However, it recommends that subsequent planning for the corridor should re-evaluate the conclusions reached in light of any new information that becomes available. Average daily traffic volumes were estimated to increase from base year 1996 volumes of 26,830 to Year 2015 volumes of 35,800 vehicle trips. A corridor with these demand levels eventually will need to be served by public transit. A key question is where are these trips going to/from? Are these Mare Island and Solano County trips or longer distance through trips from Marin/Sonoma to Sacramento? Also to what extent would Mare Island employment development require intercity bus services?

Interstate-80/Interstate-680/Interstate 780 Corridor Study

In July 2004, STA completed a Major Investment and Corridor Study to determine how to upgrade highway facilities in these critical corridors. Integration of HOV lanes and express bus services into these plans was an important part of the study.

State Route 12 Major Investment Study

In 2001, the STA completed the SR 12 Major Investment Study on the portion of SR 12 from I-80 to Rio Vista Bridge. It examined various alternative packages to improve the corridor including roadway capacity, safety, transit and ridesharing proposals.

MTC Lifeline Service Program

The Metropolitan Transportation Commission is proposing the establishment of “lifeline” transportation services in the region. For Solano County this would involve slight expansion of coverage and substantial increase in service hours. Off-peak service could possibly involve use of small sized transit vehicles.

TABLE 2.3, TRANSIT NEEDS BY JURISDICTION

In the Fall of 2003, as part of the overall CTP update process the STA conducted a “Needs Analysis.” The following transit needs were identified by each of the STA member jurisdictions:

Benicia:

- Construct Benicia Multi-modal Rail Station
- Provide ferry service to Benicia
- Provide more joint bus operations
- Improve or replace bus shelters
- Construct transfer facilities (initial transit stop for Benicia Industrial park at Park Road/Industrial Way)
- Improve schedules
- Increased marketing
- Increase service and routes

Dixon:

- Dixon Multi-modal Rail Station/Transportation Center
- Increased operating hours
- Increase rolling stock
- Increase personnel
- Additional intercity express bus routes
- Transition to fixed route system

Fairfield:

- Fairfield/Vacaville Multi-modal Rail Station
- Expand Fairfield Transportation Center
- Acquire Land and Develop Transit Operations Center
- Commuter Information Systems (GPS)
- ADA Access at bus facilities
- Expand local bus service
- Expand express bus service
- Construct N. Texas Bus Transfer Facility
- Provide change of mode facilities

Rio Vista:

- Construct Ferry Dock
- Provide intermodal transit centers for fixed intercity routes to BART and Rail
- Intra-city shuttle bus

Solano County:

- Solano Paratransit support
- More joint bus operations
- Subsidized paratransit taxi service
- Expand regional express bus service
- Study the consolidation of intercity transit services
- Support Solano County paying its fair share for transit services provided to unincorporated residents by others

Suisun City:

- Improve and provide additional bus shelters
- Provide express bus from Lawler Ranch
- Provide direct bus connections to rail station

Vacaville:

- Vacaville Bus Terminal and Transfer Facility (Downtown)
- Timed Transfer Station near Ulatis Center
- New Transit Yard
- More joint bus operations
- Expand local bus service
- Additional transit vehicles and commuter buses
- Improve Security
- Increase Bus Routes

Vallejo:

- Vallejo Ferry Terminal Intermodal Terminal
- Vallejo Ferry Terminal Parking Structure
- New ferries (3rd and 4th vessels)
- Upgrade/expand maintenance facilities
- Vallejo SRTP transit capital program
- Vallejo SRTP operating revenues
- Expand regional and local bus service
- Expand paratransit
- Improve Mare Island maintenance facilities
- Upgrade Sereno Bus Transfer Facility
- Upgrade York & Marin Bus Transfer Facility
- Vallejo Station Intermodal Parking and transfer center
- Provide evening and weekend bus service
- Expand Capitol Corridor rail service
- Napa Valley rail service to Ferry Terminal
- Vallejo-Fairfield rail service
- Mare Island Bus Service Phase 1 and 2

IMPLEMENTATION STRATEGY

A prime benefit of implementing a bus rapid transit system is the advantage of incremental improvements in quality and service as funding increases and facility improvements occur. The suggested phasing plan first outlines the financially and capitally unconstrained system, which is the 25-year objective. It then details suggested service increases at three different levels: the first with all county TDA allocated to transit operating costs (about a \$1.6 million annual increase), a second with an additional \$1 million annual spending plus TDA and increases in TDA based on growth in population and retail sales (\$1.5 million annual total), and a third assuming \$2 million plus the TDA increases (\$2.5 million annual total). The unconstrained system assumes that bridge tolls will be available in sufficient quantities to fully fund the “Bridge Toll Eligible” services, freeing up the TDA and potential sales tax funds for other countywide services.

Unconstrained System - The 100 Bus System

The Unconstrained System features BART type headways on most services and makes transit attractive and convenient to Solano County residents. These transit service demands lead to the 100 bus regional system.

Table 2.4 - UNCONSTRAINED INTERCITY BUS NETWORK VISION FOR YEAR 2030

ROUTE	TO/FROM	HEADWAYS		BUS REQUIREMENT		SCHED. CYCLE
		PEAK	BASE	PEAK	BASE	
40	Vacaville to Walnut Creek	10	30	15	5	150
80	Napa to del Norte	15	30	8	4	120
80A	Vallejo and Benicia to El Cerrito (del Norte)	5	15	13	4	60
90	Fairfield to del Norte	10	30	10	4	100
91	Vacaville to del Norte	15	60	8	2	120
New	Sacramento to Marin	30	30	9	9	270
New	Vallejo Ferry to Walnut Creek	10	30	15	5	150
	Subtotal			78	33	
85	Davis to Vallejo Ferry	30	30	6	6	180
85A	Fairfield to Vallejo Ferry	30	0	4	0	120
New	Napa to Suisun Station	30	60	3	2	90
New	Suisun Station to Rio Vista	30	60	3	2	90
New	Rio Vista to Antioch	60	0	1	0	60
New	Rio Vista to Lodi	60	0	1	0	60
20	Vacaville to Fairfield	30	30	2	2	60
30	Davis to Fairfield	0	0	0	0	120
New	Ferry via Benicia Ind. Park	60	0	2	0	120
	Subtotal			22	12	
Total				100	45	

First Phase System

The First Phase System increases service by dedicating all TDA funds not presently used for transit to the intercity network.

Table 2.5 - FULL LOCAL TDA POTENTIAL INTERCITY BUS NETWORK YEARS 2005 TO 2030

ROUTE	TO/FROM	HEADWAYS		BUS REQUIREMENT		SCHED. CYCLE
		PEAK	BASE	PEAK	BASE	
40	Vacaville to Walnut Creek	30	0	5	0	150
80	Napa to del Norte	60	30	2	4	120
80A	Vallejo to del Norte	7.5	30	8	2	60
90	Fairfield to del Norte	20	60	5	0	100
91	Vacaville to del Norte	30	0	4	0	120
New	Sacramento to Marin	0	0	0	0	270
New	Vallejo Ferry to Walnut Creek	10	60	10	3	150
	Subtotal			34	9	
85	Davis to Vallejo Ferry	30	30	6	6	180
85A	Fairfield to Vallejo Ferry	0	0	0	0	120
New (12A)	Napa to Suisun Station	60	60	1.5	2	90
New (12B)	Suisun Station to Rio Vista	60	60	1.5	2	90
New (12C)	Rio Vista to Antioch	0	0	0	0	60
New (12D)	Rio Vista to Lodi	0	0	0	0	60
20	Vacaville to Fairfield	60	60	1	1	60
30	Davis to Fairfield	0	0	0	0	120
New	Ferry to Fairfield via Benicia Ind. Park	60	0	2	0	120
	Subtotal			12	11	
Total				46	20	

Second Phase System

The Second Phase System increases service by using all county TCA funds not presently used for transit and adding another \$1 million annually from other sources.

Table 2.6 - FULL TDA INTERCITY AND \$1 MILLION BUS NETWORK YEARS 2005 TO 2030

ROUTE	TO/FROM	HEADWAYS		BUS REQUIREMENT		SCHED. CYCLE
		PEAK	BASE	PEAK	BASE	
40	Vacaville to Walnut Creek	30	0	5	0	150
80	Napa to del Norte	30	30	4	4	120
80A	Vallejo to del Norte	5	30	12	2	60
90	Fairfield to del Norte	20	60	5	2	100
91	Vacaville to del Norte	30	0	4	0	120
New	Sacramento to Marin	60	120	4	2	270
New	Vallejo Ferry to Walnut Creek	10	60	10	3	150
	Subtotal			44	13	
85	Davis to Vallejo Ferry	30	30	6	6	180
85A	Fairfield to Vallejo Ferry	0	0	0	0	120
New	Napa to Suisun Station	60	60	1.5	2	90
New	Suisun Station to Rio Vista	60	60	1.5	2	90
New	Rio Vista to Antioch	0	0	0	0	60
New	Rio Vista to Lodi	0	0	0	0	60
20	Vacaville to Fairfield	60	60	1	1	60
30	Davis to Fairfield	0	0	0	0	120
New	Ferry to Fairfield via Benicia Ind. Park	60	0	2	0	120
	Subtotal			12	11	
Total				56	24	

Third Phase System

The Third Phase System increases service by using all county TDA funds not presently used for transit and increasing funding by another \$2 million annually.

Table 2.7 - FULL TDA INTERCITY AND \$2 MILLION BUS NETWORK YEARS 2005 - 2030

ROUTE	TO/FROM	HEADWAYS		BUS REQUIREMENT		SCHED. CYCLE
		PEAK	BASE	PEAK	BASE	
40	Vacaville to Walnut Creek	15	30	8	5	150
80	Napa to del Norte	30	30	4	4	120
80A	Vallejo to del Norte	5	0	12	0	60
90	Fairfield to del Norte	15	60	7	2	100
91	Vacaville to del Norte	30	60	4	2	120
New	Sacramento to Marin	60	120	4	2	270
New	Vallejo Ferry to Walnut Creek	10	30	10	5	150
	Subtotal			49	20	
85	Davis to Vallejo Ferry	30	30	6	6	180
85A	Fairfield to Vallejo Ferry	30	0	4	0	120
New	Napa to Suisun Station	60	60	1.5	2	90
New	Suisun Station to Rio Vista	60	60	1.5	2	90
New	Rio Vista to Antioch	60	0	1	0	60
New	Rio Vista to Lodi	0	0	0	0	60
20	Vacaville to Fairfield	60	60	1	1	60
30	Davis to Fairfield	0	0	0	0	120
New	Ferry to Fairfield via Benicia Ind. Park	60	0	2	0	120
	Subtotal			17	11	
Total				66	31	

Weekend Service

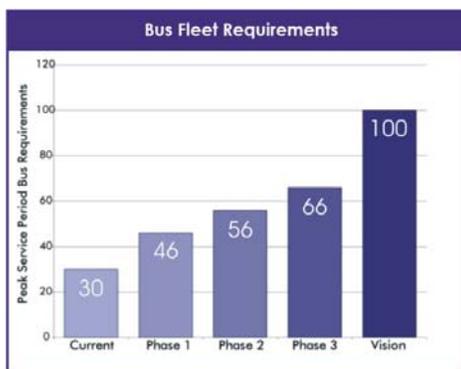
At present only the Capitol Corridor rail service and the Baylink ferry operate on Sundays. Both services presently only have a single stop in Solano County. Operation of Route 85 from Davis to the Vallejo Ferry Terminal is proposed along with Vallejo to del Norte Route 80 service on Sunday to expand access to intercity transit services. To complement these I-80 services, operation of the new service between Vallejo Ferry Terminal and the Walnut Creek BART station is also proposed for Sunday.

Equipment and Support Facility Needs

Estimated peak commute/service period bus requirements to operate the phased intercity bus service improvement plan are as follows:

ESTIMATED PEAK PERIOD BUS REQUIREMENTS

Phase	Peak Hour Buses	Total Including Spares
Current	30	35
First Phase	46	53
Second Phase	56	65
Third Phase	66	76
Unconstrained	100	115



The chart to the left graphically describes the peak bus fleet requirements associated with the vision and its intermediate implementation phases.

Current bus storage and maintenance facilities are over capacity and do not have resources to support the expanded intercity bus fleet nor expansions of their local bus fleets. Major expansions of current facilities are limited, indicating the need for one or more new bus maintenance/storage facilities, depending on expansion needs of local bus services.

Capital Funding Needs

Net increased capital costs (using current fleet as baseline) associated solely with bus fleet and bus storage and maintenance facilities would range from a low of \$16.3 million for Phase 1 service levels to

\$70 million for the Vision service levels over a 25 year period. These costs are based on \$400,000 each for intercity bus coaches and an allowance of \$100,000 per bus for supporting storage and maintenance facility improvements. Fleet costs are based on a 13-year useful life for buses or full replacement 1.5 times over a 25-year funding period. Recognizing that the full implementation of the different service improvement levels would not likely occur at the outset of the 20-year planning program a factor of 0.8 was applied to the net increased service level to estimate bus fleet purchases.

KEY ISSUES

Solano County is a fast changing community located midway between two of the most important regions in the world, the San Francisco Bay Area and the capital city of Sacramento. Intercity travel needs include those trips within Solano County as well as trips to neighboring regions. Its location between two important regions of the state provides strategic opportunities to upgrade intercity public transit services. Key issues include:

- What will be the market/community needs for intercity public transit services in the near and distant future?
- What is the best balance between intercity bus, intercity rail and ferry services? Local bus service?
- Bus rail and ferry services oriented to San Francisco are booming – what is the best balance for services oriented to Sacramento and intra-county travel?
- How many rail stations are warranted in Solano County and how should their implementation be phased?
- Will the increase in rail service frequency ultimately lead to the need for local stop commuter rail to complement higher speed long distance Capitol Corridor train service?
- What is the best strategy to integrate intercity transit services into the County and State comprehensive transportation plans?
- What is the best organizational framework to provide future intercity transit services?
- What passenger intermodal terminals, vehicle, maintenance/storage facility needs might be required to support successful service?
- What funding is required to support these services and how might they be funded?

INTERCITY BUS SERVICES

Descriptions of current bus services are provided followed by a description of the recommended bus component of the intercity plan and its implementation strategy.

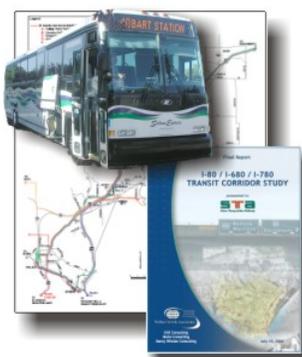
EXISTING BUS SERVICES



A brief summary of key service features for each of the intercity transit operators is provided in this section. Figure 6 shows the present publicly provided SolanoLinks intercity bus routes serving Solano County, along with the passenger rail corridor.

Overall, the SolanoLinks bus services, the Capitol Corridor passenger rail service, and the Baylink ferry service are estimated to serve approximately 6,000 daily passenger trips on an average weekday. Capitol Corridor service carries about 300 daily riders from Solano’s only rail station, located at Suisun City. The Baylink ferry service carries about 2,800 daily riders. Vallejo Transit serves about 2,300 trips to/from the County on Routes 80, 90 and 91. Fairfield-Suisun Transit carries about 150 trips to/from the County on Routes 30 and 40 and Benicia Transit is estimated to carry 400 daily riders to/from Solano County on an average weekday.

As such, the Capitol Corridor serves approximately 5 percent of intercity transit trips to points outside Solano County, and the Baylink ferry serves about 45 percent with the remaining 50 percent served by intercity bus services.

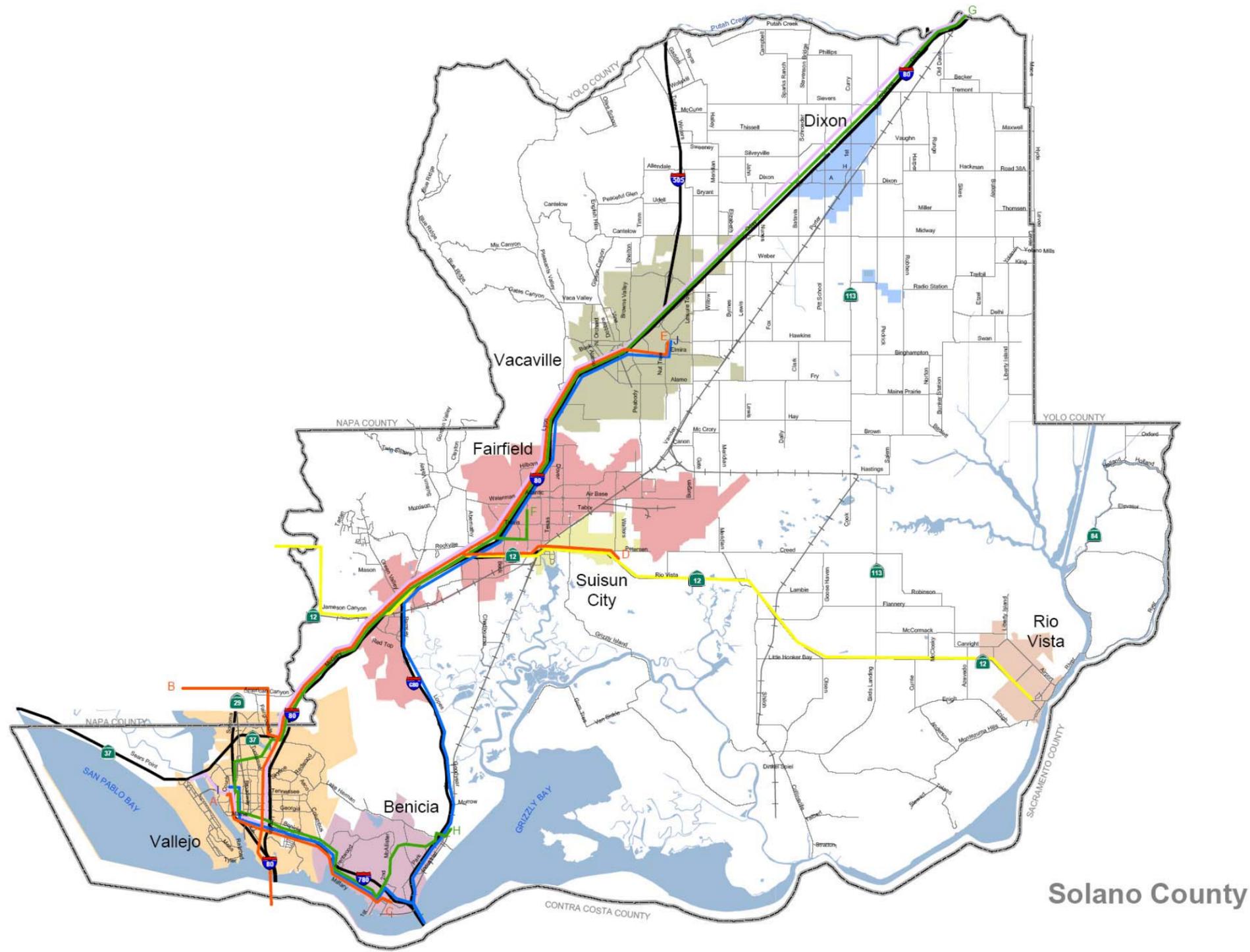


I-80/I-680/I-780 Transit Corridor Study

The I-80/I-680/I-780 Transit Corridor Study Final Report, prepared by Wilbur Smith Associates in 2003-04, provides an analysis of existing transit services and transit demand, and implementation plans for the County’s intercity express bus services and auxiliary facility improvements (Figure 2.3). Solano County has a need to develop a short and long-range multi-modal transportation plan for the I-80/I-680/I-780 Transit Corridor to accommodate projected growth through 2030.

Along with an analysis of intercity bus services, the report reviewed existing park and ride facilities, transit centers, rail services, corridor express bus service plans, and ferry terminal routes. The Transit Corridor Study recommends ten actions for implementation. The recommended actions are as follows:

- Incorporate the I-80/I-680/I-780 Transit Corridor Study Plan into this Update of the Solano County Comprehensive Transportation Plan;
- Fund and implement the first five year projects (with particular attention to right of way protection for park and ride facilities);
- Develop an annual and multi-year funding agreement (Memorandum of Understanding: M.O.U.) for intercity transit services;
- Fund and conduct a Transit Consolidation Study, which includes bus maintenance and storage yard issues;
- Seek funding through Regional Measure 2 and local transportation measure to implement elements of the Plan;
- Work with Caltrans and Contra Costa County to provide a continuous eastbound HOV facility on I-80 by eliminating the short gap approaching the Carquinez Bridge;
- Work with Caltrans to provide a southbound HOV approach to the Benicia Bridge and across the span;
- Coordinate with ongoing planning of Segment 1 with respect to opportunities to add direct ramp at Abernathy Road should studies show the overpass must be rebuilt;
- Coordinate with BART to upgrade the del Norte shelter for Vallejo Transit passengers, including provision of real time passenger information at the shelter; and
- Initiate a multi-modal corridor study for State Route 12 (in coordination with Districts 4 and 10, and Napa and San Joaquin Counties).



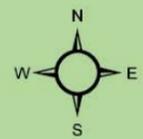
LEGEND

- EL CERRITO DEL NORTE BART BUS ROUTES
- A VALLEJO FERRY TERMINAL
- B SEVERUS DRIVE
- C DOWNTOWN BENICIA
- D HIGHWAY 12 WALTERS ROAD
- E VACAVILLE INTERMODAL CENTER (NEW)

- VALLEJO FERRY TERMINAL ROUTES
- F SOLANO MALL
- G SACRAMENTO
- H BENICIA INDUSTRIAL PARK

- PLEASANT HILL & WALNUT CREEK BARTS
- I VALLEJO FERRY TERMINAL
- J VACAVILLE INTERMODAL CENTER (NEW)

- MARIN-SOLANO-DAVIS-SACRAMENTO EXPRESS
- HIGHWAY 12 NAPA-SOLANO-LODI/ANTIOCH



0 5
Miles

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Vallejo Transit Bus Service

Vallejo Transit operates four regional bus services including:

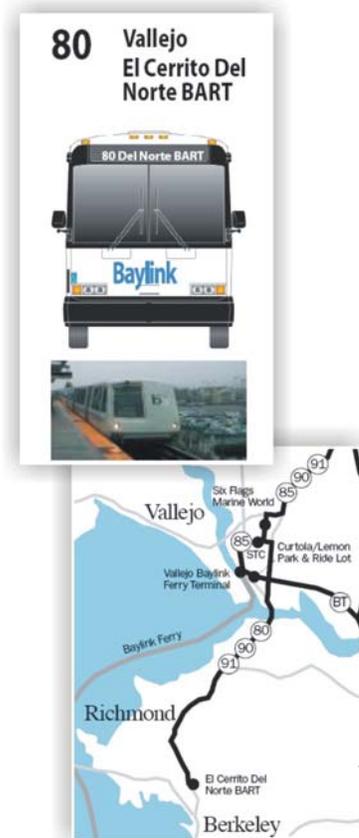
- Route 80, Vallejo to El Cerrito del Norte BART
- Route 85, Fairfield and Suisun City to Vallejo via Solano College
- Route 90, Fairfield and Suisun City to El Cerrito del Norte BART
- Route 91, Vacaville to El Cerrito del Norte BART

Route 80 is the original BARTLink service, and connects downtown Vallejo (near the Ferry Terminal) with the del Norte BART station. Some morning peak period trips originate north of downtown Vallejo. Service is provided Monday through Saturday. On weekdays, the first trip departs Vallejo at 4:15 a.m. and the last return trip leaves BART at 11:00 p.m. Service is provided every eight to fifteen minutes during the peak, and every 30 minutes in the midday. On Saturdays, service is provided every 30 minutes. Travel time from Vallejo to del Norte BART using the I-80 HOV lanes is about 25 minutes.

Route 85 links Vallejo and Fairfield, via the Solano Community College. Service is provided Monday through Saturday. On weekdays, the first trip departs at 6:33 a.m. from Fairfield and 5:35 a.m. from Vallejo. Morning peak period commute service operates on 30-minute frequencies and service continues at hourly frequencies until 9:30 p.m. from Vallejo and 10:30 p.m. from Fairfield. On Saturday mornings, service starts one hour later. All trips connect with the Vallejo Ferry Terminal and with Route 80. Travel time from Vallejo to Fairfield is about 55 minutes.

Route 90 links Fairfield and Suisun City with the El Cerrito del Norte BART Station. Service is provided weekdays only at 60-minute service frequencies with additional service in the peak periods (15 to 20 minute frequencies). First trip departs at 5:00 a.m., with the last trip returning at 7:30 p.m. from BART. Travel time from Fairfield to BART is about 40 minutes. Fairfield-Suisun Transit covers all subsidy needs for Route 90.

Route 91 provides four morning trips from Vacaville, and four evening trips return from BART to Vacaville. There is no midday or weekend service. First trip departs at 5:00 a.m., with the last trip returning at about 8:15 p.m. from BART. Travel time from Vacaville to BART is about 55 minutes.



Patronage Characteristics

On a typical weekday, Vallejo Transit's intercity routes carry approximately 2,685 passengers. Route 80 from Vallejo to del Norte BART carries the most (1,454) with Route 85 carrying 482 passengers and Routes 90 and 91 carrying 543 and 206 passengers respectively.

Equipment and Support Facilities

Vallejo Transit operates from an extensive and modern maintenance facility located in north Vallejo. This city owned five-acre facility currently accommodates 63 buses, although it was originally designed for 48 vehicles.



A total of 16 vehicles are assigned to these intercity services (nine on Route 80, two on Route 85, and five on Routes 90/91). All vehicles are standard transit coaches (generally buses with utilitarian seats, hard floors, standing room, and several doors), as opposed to more comfortable over-the-road coaches (generally intercity-like buses which have larger, more comfortable seats, less standing room, and a quieter ride), which are used by Golden Gate Transit and recently AC Transit for long-haul express bus services. Buses for express routes 85, 90 and 91 enter and leave service each day from Fairfield and Vacaville terminals. The distance between the Vallejo Transit bus storage yard and Route 85 and 90 service portal is about 16 miles. The distance between Route 91's service portal and the Vallejo Transit storage yard is about 24 miles. At average speeds of 55 mph it requires 18 minutes each day to put a bus into service for Routes 85 and 91 and 25 minutes each day to put a bus into service for Route 90. These are unproductive hours during which no passengers are served.

Passenger facilities are generally good, with ongoing planning for additional improvements. At the El Cerrito del Norte BART Station, buses use the improved bus waiting areas. There is good signage and adequate passenger shelter. The Curtola park-and-ride facility's 450 auto spaces are often full by 7 am. The City of Vallejo is in the process of developing a major improvement to the ferry terminal. This \$56 million "Vallejo Station" project would provide 1,200 parking spaces and enhanced bus transfer facilities.

Policies

As a multi-modal operator, Vallejo has several key objectives as outlined in the system's Short Range Transit Plan (SRTTP). These five objectives are:

1. Control the operating budget
2. Increase system productivity
3. Implement effective marketing
4. Focus expansion on high demand and high farebox return
5. Undertake efforts to obtain new funding sources

A series of actions are anticipated in the SRTP to achieve compliance with the five objectives. These action items include:

- Competitive procurement of transit services
- Targeted patronage objectives (for example, 809,000 annual Baylink passengers)
- Maintenance and facility upgrades
- Purchase of new vehicles and vessels

Fares and transfers vary according to distance. The following is a matrix of adult fares:

Transfers to and from the connecting local bus system are valid at their face value for credit on the intercity buses. Monthly passes are available and cost \$85 for the Fairfield to BART service and \$91 for the Vacaville to BART trip. The monthly pass for the Route 80 costs \$77, as does the pass valid for Vallejo to Fairfield trips.



Service is fully linked at various locations in Solano County. A major new intermodal transportation facility, the Fairfield Transportation Center (site of the former Magellan Road park-and-ride lot), opened in 2001 and is served by Vallejo Transit Route 85, 90 and 91 buses. Vallejo Transit also serves the Vallejo Ferry terminal and the El Cerrito del Norte BART station. Other key transportation nodes include the Vacaville Regional Transportation Center at Davis Street, Solano Mall, and the Suisun City Amtrak Station.

It should be noted that Vallejo Transit's BARTLink buses (which connects Solano County with the BART system at El Cerrito del Norte station) have routinely achieved farebox recoveries of 80 to 90 percent.



Fairfield-Suisun Transit

FST operates three intercity routes: Route 20 links Fairfield and Vacaville, Route 30 links Fairfield, Vacaville, Dixon, UC Davis, and Sacramento, and Route 40 links Vacaville, Fairfield and the Pleasant Hill BART station. Service frequencies on all three lines are sparse. Service is fully linked at various locations in northern Solano County. A major new facility, the Fairfield Transportation Center, opened in 2001 and is being expanded in 2004. Other key transfer nodes include the Vacaville Regional Transportation Center, Solano Mall, and the Suisun City Amtrak Station. FST intercity routes serve the Pleasant Hill BART station, allowing easy connections to BART for trips to Oakland and San Francisco. The public timetable includes the connecting times (which are generally less than 10 minutes) as well as the overall trip times from Fairfield and Vacaville to San Francisco (about 90 minutes).

Route 20 is an Interstate 80 freeway connector between Fairfield’s Solano Mall and the Vacaville Regional Transportation Center, with intermediate stops at Walmart, the Vacaville Factory Stores, and the Vacaville downtown transfer center. Service operates hourly from about 7:30 a.m. to 6:30 p.m. and the total round trip running time is 53 minutes (one bus is assigned to the service).

Route 30 is primarily a UC Davis and Sacramento connector. Five roundtrips daily provide service from Fairfield, Vacaville, Dixon, UC Davis and Sacramento. The first trip departs at 6:48 a.m., and the last trip returns at 6:11 p.m. Trip time is about 54 minutes for the 25-mile Fairfield to Davis trip because it makes 6 stops in Fairfield, Vacaville, Dixon and Davis. The 6:52 a.m. express bus trip from Fairfield to Sacramento also takes about 54 minutes because it does not stop in Davis. Headways are generally a little over two hours (one bus is assigned to the service).

Route 40 provides a fast feeder service from Vacaville and Fairfield to the Pleasant Hill BART Station. In the southbound direction, four morning trips and five evening trips are offered, while northbound four morning trips and five afternoon trips serve Solano County commuters. Travel time from the Pleasant Hill BART station to Fairfield is about 45 minutes, while to Vacaville it is about one hour. The first trip departs at 5:05 a.m., and the last trip returns at 8:31 p.m. (allowing a 6:30 p.m. departure from San Francisco attractions). The distance from Pleasant Hill BART to Fairfield is about 30 miles.

Patronage Characteristics

Fairfield-Suisun intercity transit routes carry approximately 367 daily passengers on a typical weekday. All of the 202 daily trips served by Route 20 are internal to the county and some of the 36 passengers carried by Route 30 are also internal county trips. Most of Route 40's 129 daily passengers are to/from the Pleasant Hill BART Station. Thus, perhaps about 100 daily trips served by Fairfield-Suisun Transit are trips to points outside the county.

Equipment and Support Facilities

The City of Fairfield owns 26 transit vehicles, and uses 19 of these vehicles in both intercity and local service. The vehicles are stored at the city's corporation yard, with city staff servicing and maintaining the vehicles.



Route 20, 30 and 40 require a total of five buses, of which three are assigned to Route 40. Buses for both Routes 20 and 40 enter/exit service at Vacaville. Route 30 buses enter and exit service from Fairfield. The distance between Fairfield-Suisun Transit's bus storage yard and the Vacaville service portal is about eight miles and involves approximately 30 minutes (15 minutes each way) daily per bus to get buses into and out of service each day. Passenger facilities are spartan; however, the City is aggressively emphasizing park-and-ride facilities including the Fairfield Transportation Center, which combines a 400-space park-and-ride garage with a large bus transfer area.

Policies

The Short-Range Transit Plan includes a detailed set of Goals and Objectives. Generally, like most transit systems, FST strives to enhance mobility in an effective and efficient manner. System indicators of these goals for the intercity services are the following (all for FY 2004/05):

Benicia Transit

Benicia Transit operates one intercity bus route,. The route provides service to the Pleasant Hill BART Station and connects to the Vallejo Ferry Terminal and Downtown Vallejo’s Transit Center.

Service

The main intercity bus service operates from Vallejo Transit’s York and Marin Transit Center to the Pleasant Hill BART Station via the Curtola Park-and-Ride lot, Military West & 14th, Solano Square, H and E. 3rd Streets L and E. 5th Streets, and Sun Valley Mall. This trip takes about 20 minutes between Vallejo and H Street, 18 minutes from H Street to Sun Valley Mall and another 16 minutes to reach the Pleasant Hill BART Station. Service operates from 5 a.m. to 7 p.m.

Patronage Characteristics

Benicia Transit carries about 450 daily riders to and from Contra Costa County and BART.

Equipment and Support Facilities

The City owns its fleet of transit vehicles, which are stored and maintained at contractor facilities. Vehicles are fueled at the City Corporation Yard. The peak direction travel is towards Pleasant Hill BART in the morning and away in the evening. This suggests that the most efficient location to introduce and remove buses from service would be in Vallejo.

Policies

Fares differ depending on the service used, characteristic of the rider (senior, disabled, youth) and bulk-prepaid fares (passes and tickets).

Transfer connections are provided to I-80 corridor service at the Curtola Park-and-Ride lot and to Vallejo Transit and Napa Transit at the York and Marin Transit Center. Direct service to the Baylink ferry terminal is provided. Transfer connections to I-680 bus services are not provided, due to physical and operational constraints at the I-680/780 interchange and the somewhat similar destinations of these services. Transfers are also provided to BART at the Pleasant Hill BART Station.



VINE Transit (Napa County)

VINE Transit operates Route 10 between Calistoga, St. Helena, Oakville Yountville and Napa to Vallejo. About a dozen roundtrips are made daily to and from Vallejo. Stops within Vallejo include the Sereno Transit Center, Ferry Terminal and York-Marin Transit Center. Most of the southbound trips serve the ferry terminal prior to arriving at the York and Marin Transit Center, while only about half the northbound trips stop at the ferry terminal after leaving the York and Marin Terminal.



YoloBus

YoloBus operates Route 220 from Davis via Winters to Vacaville. It makes three roundtrips daily to Vacaville (with stops at Safeway and Walmart). Adult fare is one dollar.



Summary

Nine public intercity bus routes are operated by Solano County agencies. One route connects to Davis and Sacramento, two routes connect to the Pleasant Hill BART Station, one route connects to the Vallejo Ferry Terminal and three routes connect to the del Norte BART Station. Public intercity bus connections to Napa from Vallejo are provided by VINE Transit and YoloBus provides connections to Winters and Davis from Vacaville. While Figure 6 suggests that frequent service exist along the I-80 Corridor, it is very sparse east of Vacaville (only Route 30). The segment between Vacaville and Fairfield is served by four routes (FTS routes 20, 30 and 40; and Vallejo Transit route 91). The segment between Vallejo and del Norte BART Station is served by 27 bus trips in each direction on an average weekday. There is no service to Sacramento.

RECOMMENDED BUS SERVICE PLAN

The recommended intercity bus service plan represents a financially unconstrained vision or blueprint for service. Three intermediate levels of service or phases were defined reflecting a range of possible funding resources. Implementation of the service vision would involve expanded public discussion and input to refine its elements. A more detailed implementation and phasing plan was recently developed in the I-80/I-680/I-780 Transit Corridor Study. The overall bus service plan would take substantial new funding sources to fully implement, including the proposed Regional Measure 2 and/or a proposed half-cent transportation sales tax in Solano County.

Solano Intercity Bus Service “Vision”

Buses would be comfortable, with a relaxing interior environment. Service would be fast and reliable, and fare collection would take place off vehicle, so that station dwell times are minimal.

Service would be implemented incrementally, as funding increases and capital improvements come on-line. But the basic plan would be well understood by the public and decision-makers; route simplicity and service attractiveness would be combined with extensive marketing to project an image of quality service and high customer satisfaction.

AVAILABLE IMPLEMENTATION FUNDING

Funding Level	New Annual Funding Available	Source
1	\$1.6 million (2005-06)	All local TDA used for transit
2	\$1 million + TDA and growth	New local sales tax and all TDA
3	\$2 million + TDA and growth	New local sales tax and all TDA
4	Unconstrained “Vision”	New local sales tax, RM2, bridge tolls, TDA, etc.

The plan provides good connections with local bus services and with regional transportation hubs. It also allows transfers to all routes in the intercity bus network with a maximum of one transfer.

Route Network

All the intercity bus routes would be eligible for sales tax funding. Routes crossing the Bay or Strait, however, are the most logical to support with Bridge Toll revenues. Figure 2.2 on page 83 shows the proposed route network and Table 2.5 on page 96 summarizes the proposed 2030 Vision Service Plan frequencies.

Route: 40 Vacaville-Fairfield to Walnut Creek BART

Route 40 would be improved to become an all day line with better service, larger buses, and better connections. Service would begin at the Vacaville Park and Ride Lot at Davis Street, provide express service along I-80 to the Fairfield Transportation Center, express

service via I-680 and make a new stop for the Benicia Industrial Park at the I-680 and Industrial Way/Park Rd. then express service via I-680 to Treat Boulevard to Pleasant Hill BART, and then via local streets (Oak and Jones Roads) to the Walnut Creek BART station.

Connections: At the Vacaville Park and Ride center to local buses and to Sacramento/Fairfield/Vallejo/Marin County service buses, at the Fairfield Transportation Center to Route 12 and local buses, and at the Walnut Creek BART station to County Connection buses and shuttles to Bishop Ranch Business Park.

Route: 80 Napa-Vallejo to El Cerrito del Norte BART

Route 80 would be improved with better service, larger buses, and better connections. Service would begin at Pearl Street in downtown Napa, and then operate via Highways 121 and 29 into Vallejo, connecting with the Vallejo Ferry, and stopping at the Curtola Park and Ride Lot before operating express via I-80 to the El Cerrito del Norte BART station. Every other trip would operate from Napa.

Connections: At Napa with all local VINE buses and Route 12 to Fairfield Suisun, at the Vallejo Ferry Terminal with the ferries and local Vallejo buses, and at the El Cerrito del Norte BART station.

ESTIMATED PEAK HOUR BUS SERVICES

CORDON LINE	HOURLY BUS SERVICE
Carquinez Bridge	18
Benicia-Martinez Bridge	12
Yolo Causeway	2
Highway 37	2
SR 12 Jameson Canyon/Highway 29	2

Route: 90 Vacaville-Fairfield to El Cerrito del Norte BART

Route 90 would be improved to include midday service and increased service, larger buses, and better connections. Service would begin at the new proposed Vacaville Ulatis/Allison Intermodal Center and the Vacaville Park and Ride facility on Davis

Street, with access via I-80 at the Fairfield Transportation Center, and would operate express to El Cerrito del Norte BART.

Connections: At Vacaville and Fairfield with all local buses, and at the El Cerrito del Norte BART station.

Route: Sacramento to Novato via Solano County

This route would incorporate the current Route 30 and reinstate the former Route 100, but with better service, increased frequencies, and more destinations. Service would begin at 8th and Capitol Mall in downtown Sacramento (connection to Sacramento LRT and State Capitol), and operate via I-80 to Curtola Parkway, then via Curtola to the Vallejo Ferry Terminal, then via Mare Island Way to Highway 37 and then via Highway 101 to Novato. Stops would be as follows: West Sacramento at the Enterprise Park and Ride, Davis Amtrak station, Dixon (freeway ramp), Vacaville (park and ride), Fairfield Transportation Center, Solano College, Curtola Park and Ride, Vallejo Ferry Terminal, Novato. Service would be scheduled to meet every other ferry.



Connections: At Sacramento with RT light rail, Davis with UniTrans and YoloBus, Vacaville and Fairfield with local bus systems and with Route 12 to Napa and Rio Vista, Curtola with Route 80, Vallejo Ferry with ferry, Novato with Golden Gate Transit.

Route: Napa-Vallejo to El Cerrito del Norte BART

This route would improve the existing Benicia Transit service to Pleasant Hill BART. It would improve the service with larger buses, greater transfer opportunities at the Walnut Creek BART Station and better service levels and span-of-service. Service would begin at the Vallejo Ferry Terminal, operate via Curtola Parkway, I-780 and Military West through Benicia, I-680 to Treat Boulevard to Pleasant Hill BART, and then via local streets (Oak and Jones Roads) to the Walnut Creek BART. Rerouting can cover the Benicia Flyer area.

Connections: At the Vallejo Ferry Terminal with the ferries, Route 80 and local Vallejo buses, and at the Walnut Creek BART station to County Connection buses and shuttles to Bishop Ranch Business Park.

Route: Napa to Fairfield and Suisun

This route would establish a new link between Napa and Fairfield and Suisun via Highway 12. Service would begin at Pearl Street in downtown Napa, and then operate via Highways 121 and 29 to Highway 12, then via Highway 12 into Fairfield.

Connections: At Fairfield Transportation Center with Routes 85 and the proposed Sacramento-Vallejo-Novato route, and with local service to both Fairfield and Suisun along with Napa local VINE.

Table 2.5 - PROPOSED 2030 BUS NETWORK - UNCONSTRAINED SYSTEM

Existing Route #	Proposed Route #	Origin	Destination	Via	Service Peak Freq.	Freq. Base
Express Routes – Bridge Toll and Sales Tax Eligible						
40		Vacaville	Walnut Cr BART	Fairfield, I-80, I-680, Pleasant Hill BART	10	30
80		Napa	El Cerrito del Norte BART	Vallejo, I-80 (connects with ferry)	5	15
90		Vacaville	El Cerrito del Norte BART	Fairfield, I-80	10	60
30	New	Sacramento	Novato	Davis, Dixon, Vacaville, Fairfield, Vallejo (connects with ferry) and Marin	30	30
	New	Vallejo	Walnut Cr BART	Benicia, I-780	10	30
Express Routes – Sales Tax Eligible						
	New	Napa	Suisun City	Jameson Canyon	30	60
	New	Suisun City	Rio Vista	Hwy 12	30	60
	New	Rio Vista	Antioch	Hwy 160	60	
	New	Rio Vista	Lodi	Hwy 12	60	
20	20	Vacaville	Fairfield	Local	30	30
85		Davis	Vallejo	Dixon, Vacaville, Fairfield, Vallejo (connects with ferry)	15	15
	New	Vallejo	Fairfield	Via Benicia Industrial Park	60	No service

New Route: Fairfield and Suisun to Rio Vista

Route 12B would establish a new link between Rio Vista and Fairfield and Suisun via Highway 12. Service would begin at the Suisun Amtrak Station then operate via Highway 12 to Rio Vista.

Connections: At Fairfield Transportation Center with Routes 85 and 180, and with local service to both Fairfield and Suisun.

New Route: Rio Vista to Lodi

Route 12C would establish a new link between Rio Vista and Lodi via Highway 12. Service would begin in Rio Vista and then operate via Highway 12 to Lodi.

Connections: In Lodi to local transit services.

New Route: Rio Vista to Antioch

Route 12D would establish a new link between Rio Vista and Antioch via Highway 160. Service would begin in Rio Vista and then operate via Highway 160 to Antioch.

Connections: Possible connection to BART's extension to Antioch.

Route: 85 Vallejo to Davis Local/Limited

Route 85 would be improved with better service, larger buses, and better connections. The enlarged Route 85 combines Routes 20 and 30. Service would begin at the Vallejo Ferry Terminal and operate through northern Vallejo via Marine World, then via I-80 with service to Solano Community College, to the Fairfield Transportation Center, and then via Route 20 to Vacaville, then via Route 30 to Dixon and into UC Davis, with a terminal at the Davis Amtrak Station. All service would operate to Vacaville – every other bus would operate to Davis.

Connections: At the Vallejo Ferry Terminal with the ferries, Route 80, Route 780, and local Vallejo buses, at the Fairfield Transportation Center with Route 12, Route 180 and local FST buses, at Davis Street in Vacaville with local Vacaville buses, and at Davis with Amtrak, UniTrans and YoloBus.

New Route: Vallejo to Central Benicia Industrial

This new route establishes a new link connecting the Benicia Industrial Park with both Vallejo and central Benicia. Service would

begin at the Vallejo Ferry Terminal, operate via Curtola Parkway to I-780, then via I-680 to the Benicia Industrial Park.

Connections: In Vallejo to Vallejo Transit network.

Route: 20 Vacaville to Fairfield

Route 20 would continue in its current form providing local coverage between Vacaville and Fairfield. With the opening of the planned new Fairfield/Vacaville Capitol Corridor Station, Route 20 would be realigned to serve this station. Its frequency would be increased from its current 60 minutes to 30 minutes.

Connections: Local and intercity transit connections would be provided at the Fairfield Transportation Center and Solano Mall transit center in Fairfield and also at the Vacaville Transit Center.

Estimated Fares (2004 dollars)

Fares and transfers vary according to distance as shown in the Fare Matrix below. Monthly passes would be priced at 40 rides, while 10 ride tickets would give a 20 percent discount.

INTERCITY ADULT BUS FARE MATRIX

Between/and	Sacto.	Davis	Vacaville	Fairfield	Vallejo	BART (WC or d’Norte)
Sacramento	—	\$2.50	\$3.50	\$3.75	\$5.00	\$8.00
Davis	—	—	\$2.75	\$3.50	\$4.50	\$7.00
Vacaville	—	—	—	\$1.50	\$4.00	\$5.00
Fairfield	—	—	—	—	\$3.50	\$4.50
Vallejo	—	—	—	—	—	\$3.50
Novato	\$9.00	\$7.50	\$6.00	\$5.00	\$4.00	—
Napa	\$5.00	\$4.00	\$3.00	\$2.50	\$2.50	\$5.00

RAIL SERVICES

The Intercity Transit Plan proposes a significantly increased role for passenger rail services towards meeting the County's travel needs. A description of the current role provided by the Capitol Corridor passenger rail service is provided in this section, followed by proposed improvements to attract increased ridership. A discussion of non Capitol Corridor rail service improvement opportunities is provided at the end of the section.



EXISTING PASSENGER RAIL SERVICES

Passenger rail services and their supporting network of feeder bus services link Solano County to the Bay Area and to the Sacramento Region.

Existing Passenger Rail Service Providers

Amtrak

Amtrak long distance intercity trains do not stop at the Suisun City Station. Two daily long distance trains serve Solano County at neighboring stations located in Davis and Martinez. Passenger fares for these long distance trains are set higher than for the Capitol Corridor trains. The California Zephyr is a long distance train operating between Chicago, Denver, Salt Lake City, and the Bay Area. A second long distance train, the Coast Starlight, runs between Seattle, Portland, Sacramento, Oakland, and Los Angeles.

Capitol Corridor Train Service

Prior to 1991, Amtrak's California Zephyr was the only train serving the Suisun/Fairfield Station. The Capitol Corridor service was introduced in December of 1991 with three daily trains meeting regional transportation needs between the Bay Area and Sacramento. The Capitol trains stopped at Suisun City in addition to

the service provided by the Zephyr. The Zephyr stop at Suisun City was discontinued in October 1998.

CCJPA has outlined plans to expand Capitol Corridor passenger rail service to eventually hourly service between Sacramento and San Jose. Experience on other California intercity rail corridors has indicated that the best operating practice is for all trains to make all stops rather than operating a two-tier local and express passenger rail service. Thus, current thinking is for all trains to stop at the Suisun/Fairfield Station.

The railroad industry distinction between intercity passenger rail service and local/commuter rail service is not clearly defined. Intercity passenger rail services typically run faster, have less frequent headways and have higher fares than local/commuter passenger rail services. They focus on inter-regional travel rather than intra-regional travel markets. The distinction between the two types of passenger rail services is important in terms of CCJPA's track sharing agreements with the UPRR and the State's role in funding service versus regional/local funding. The CCJPA's agreement with UPRR allows it to operate up to 16 daily intercity service roundtrips, but does not provide for operation of any local or commuter services. The State's funding for intercity rail services does not cover local and commuter passenger rail services, which are seen as the responsibility of regional and local governments.

Service Features

Capitol Corridor frequencies have increased in the ten years since introduction and the route now provides 12 daily round trips. One of the trips runs through to Auburn, and four trips operate south of Oakland to San Jose. The Richmond station provides a direct connection to BART on an adjacent platform. The Richmond station was recently renovated to improve efficiency and safety. Rail patronage at the Suisun City Station has mirrored the expansion of Capitol Corridor service, growing from about 15,000 annual passengers in 1992 to 38,660 in 1999, 57,880 in 2000 and 98,000 in 2003. Figure 10 describes the service corridor and current stations.

During 2003-04, many of the travel times between stations improved as a result of recent track improvements such as the completion of the second track at the Yolo Causeway. See below for a list of some of the currently scheduled travel times between key stations.

2004 CAPITOL CORRIDOR TRAVEL TIMES (MINUTES)

To/From	Davis	Suisun City	Martinez
Sacramento	15	39	60
Davis	0	24	45
Martinez	45	21	0
Richmond	70	46	25
Emeryville	87	61	40
San Francisco	110	86	65
San Jose	175	151	130

Source: April 26, 2004 Capitol Corridor schedule

Current Capitol Corridor schedules provide service to and from Suisun City approximately an average of about 1 to 1-1/2 hours throughout the day. The increase, in service levels to seven daily trains in 2000, nine trains in 2001 and twelve trains in 2004, is a significant reason for the ridership growth now being experienced. The service provides schedules allowing day trips to either Sacramento or the Bay Area, with schedule times and options that are enticing ridership. Current weekday schedules to and from Suisun City are summarized in Table 2.8.

The ultimate goal of the Capitol Corridor management is to provide hourly service all day, with 16 daily round trips.



Table 2.8 - CURRENT TRAINS SERVING SUISUN - FAIRFIELD STATION

Eastbound Times	Origin/Destination	Westbound Times	Origin/Destination
6:43 AM	Oakland/Sacramento	5:09 AM	Sacramento/San Jose
7:33 AM	Oakland/Sacramento	6:09 AM	Roseville/San Jose
8:53 AM	San Jose/Colfax	6:59 AM	Roseville/San Jose
10:23 AM	San Jose/Sacramento	8:19 AM	Colfax/San Jose
11:53 AM	San Jose/Colfax	9:49 AM	Auburn/San Jose
1:23 PM	Oakland/Sacramento	11:19 AM	Sacramento/Oakland
2:53 PM	San Jose/Colfax	12:49 PM	Colfax/San Jose
4:38 PM	San Jose/Auburn	2:49 PM	Sacramento/San Jose
5:58 PM	San Jose/Auburn	5:19 PM	Colfax/San Jose
6:38 PM	San Jose/Auburn	6:19 PM	Sacramento/San Jose
8:03 PM	San Jose/Colfax	7:19 PM	Sacramento/Oakland
9:28 PM	San Jose/Sacramento	9:19 PM	Colfax/San Jose

Thus, for eastward trips to/from Sacramento, train trips themselves are 33 minutes shorter from Davis than they are for trips from Suisun City. For westward trips to San Francisco train trips are 21 minutes shorter from Martinez than from Suisun City. Transfer connections to San Francisco from the Capitol Corridor via BART at the Richmond station take approximately 91 minutes (49 minutes on the Capitol, an allowance of 5 minutes for transfer and 37 minutes on BART to Montgomery Street) from Suisun City. Capitol Corridor passengers also have the option of traveling to Emeryville, where a connecting Amtrak bus takes passengers to San Francisco (Ferry Building, Union Square, or Fisherman’s Wharf).

Passenger Rail Stations

The CCJPA has adopted a policy for adding new stations. In addition to Fairfield/Vacaville, Benicia and Dixon, the Cities of Hercules, Fremont and Union City have all indicated interest in obtaining new Capitol Corridor stations. The Solano Transportation Authority has adopted the new Fairfield/Vacaville station site

located at Peabody and Vanden Roads as Solano County's next priority rail station. The CCJPA is requiring local sponsors of new stations to:

- Reach a consensus of the political entities within the jurisdiction that the station is needed
- Arrange 100% of the funding including any improvements requested by the UPRR and approved by the CCJPA (CCJPA will support the efforts of project sponsor to obtain funding)
- Meet or exceed minimum station facility requirements
- Arrange for station maintenance including funding
- Demonstrate and achieve a minimum of ten boardings or alightings per train (i.e. with ten trains per direction need 100 boardings and 100 alightings daily)
- Maintain a minimum of five mile spacing between stations
- Coordinate CCJPA and Amtrak negotiations with the UPRR
- Submit a local marketing plan for the new station
- CCJPA has begun to introduce a seamless free transfer from trains to local transit, starting with AC Transit, Sacramento RT, UniTrans, Yolobus, County Connection and Fairfield-Suisun Transit.

In addition to the Suisun City Station, the Capitol Corridor serves 14 other stations in the San Jose to Auburn travel corridor (Figure 10). From Suisun City to Sacramento, Capitol Corridor trains stop at the Davis Station, which is located 27 miles to the east and at Sacramento, which is located 13 miles east of Davis. From Suisun City to San Jose, Capitol Corridor trains stop at Martinez (17 miles), Richmond (20 miles farther west), Berkeley (3.7 miles farther west), Emeryville (2 miles farther west), Oakland (5 miles farther west), Hayward (12 miles farther west), Fremont (11 miles farther west), Great America (13 miles farther west) and San Jose (7 miles farther west). A new station is under consideration for Hercules midway in the 20-mile gap between Martinez and Richmond. At present the 134 mile corridor between Sacramento and San Jose, has an average station spacing of 12 miles. The 42-mile segment in Solano County with one station has an average spacing of 22 miles.

The UPRR maintains approval authority for addition of stations, changes to track/signal facilities and operation of more than the

currently approved number of passenger trains. With the projected increase in the number of trains, it is becoming increasingly important to minimize opposite direction running (e.g. running westbound trains on the eastbound track). The track signal system is configured to allow this opposite direction running, but opposite direction running increases train dispatch efforts. The only current Solano County station (Suisun City), and the two adjacent stations (Davis and Martinez) all have a sidetrack platform and a center loading platform. Passengers must cross the tracks at-grade to reach the center platform. The Suisun and the Martinez stations have their side platforms located on the south side of the track serving the predominantly eastbound train direction, whereas the Davis Station has its side platform on the north side of the tracks serving the westbound track. Trains are routinely held outside of stations until trains boarding passengers pull out.

The UPRR has also indicated that it cannot guarantee sufficient notice of which track passenger trains will be using at stations. This position combined with the strong desires not to have passengers crossing tracks at-grade, means that new stations will need to have center loading platforms where passengers can board trains on either track. Access to the center platform desirably should be grade separated using a pedestrian subway or overpass.

Patronage

Caltrans managed the Capitol Corridor service until July 1, 1998, when day-to-day oversight responsibility was transferred to the Capitol Corridor Joint Powers Board, an agency representing local governments along the route. Actual train operation is contracted to Amtrak.

Rail service frequencies and annual passenger counts at the Suisun City station are shown in Table 2.9.

Table 2.9 - SUISUN CITY RAIL SERVICE AND PATRONAGE

Year	Service (each direction)	Annual Passengers
1990	California Zephyr	2,650
1991	California Zephyr; 3 Capitols ¹	3,710
1992	California Zephyr; 3 Capitols	15,760
1993	California Zephyr; 3 Capitols	20,080
1994	California Zephyr; 3 Capitols	19,850
1995	California Zephyr; 3 Capitols	18,090
1996	California Zephyr; 4 Capitols ²	23,260
1997	California Zephyr; 4 Capitols	27,420
1998	California Zephyr ³ ; 5 Capitols ⁴	32,000 est.
1999	6 Capitols ⁵	38,660
2000	7 Capitols ⁶	57,880
2001	9 Capitols	78,000
2002	11 Capitols	76,000
2003	12 Capitols	87,667

Notes:

¹ Service initiated December 1991 with 3 round trips.

² Service expanded to 4 round trips in April 1994.

³ Zephyr service discontinued October 1998.

⁴ Service expanded to 5 round trips in October 1998.

⁵ Service expanded to 6 round trips in May 1999.

⁶ Service expanded to 7 round trips in February 2000.

The 87,667 annual boardings and alightings for 2003-04 were served by about 7,000 annual train stops, which translate to an average of approximately 12.5 boardings and alightings per train. Suisun City station ridership continues to increase as a result of the expanded Capitol Corridor service and the more than doubling of parking spaces in 2003 to about 250 spaces.

Predominant travel to and from Suisun City on the Capitol trains is between Sacramento and Suisun City, and between Suisun City and Emeryville (San Francisco bus connection). Oakland and Martinez also have significant traffic levels for Suisun passengers.

Equipment and Support Facilities

Presently most trains are five cars in length or about 600 feet including the locomotive. Trains typically include: one locomotive, one dining car, three to four coach cars and one “cab” coach car. The latter allows the train to operate in the “push” mode with the locomotive in the rear of the train. Most Capitol Corridor trains currently operate with the locomotive at the front of the train (in the pull mode of operation) in the westbound direction and with the locomotive on the rear of the train (push mode) in the eastbound direction. Each coach car holds up to 88 passengers (84 for the cab car). Trains are capable of speeds of up to 110 mph, but the track is limited to a maximum of 79 mph. The early morning westbound train has been increased to six passenger cars in order to accommodate the patronage demands.

The Suisun City station is the historic Southern Pacific depot serving both Suisun and Fairfield. The building was renovated, new passenger platforms were installed and parking and bus-loading space was improved. The station has both a station side platform and a center passenger-loading platform. The Suisun City Redevelopment Agency is responsible for station maintenance and operating costs. There is no Amtrak ticketing or baggage service provided at the facility. The station also serves as the Greyhound depot. As train frequencies increase the likelihood of westbound and eastbound trains arriving at the same time will increase. Annual operating cost for the Suisun City Station average approximately \$20,000. This cost does not include security, insurance and major building improvement reserve fund costs. Costs would be higher if non-Greyhound Bus Lines personnel staffed the station.

Policies

Current fare schedule practice for Capitol Corridor service is distance based and attempts have been made to provide easy payment fares – multiples of 50 cents or one dollar. It is likely that longer distance trips from adjacent Solano County stations would have similar fares, while short distance trips (i.e. Davis) differential fares would be charged. As such a slight fare incentive might exist to use one station versus the adjacent station. Availability of parking and of earlier pick of seats is another factor that typically influences station choice. Capitol Corridor service provides a basic one-way

fare, which is doubled for round trip travel. For frequent riders, there are 10-ride tickets valid for 45 days and for daily riders a monthly pass. Discounted fares (15%) are available for seniors. Special promotional fares are offered from time to time, such as “kids ride free” and “two for one” promotions.

**CURRENT FARES TO AND FROM SUISUN
EFFECTIVE JUNE 6, 2005**

Suisun to	Miles	Fare	10 Ride (45 day)	Monthly Pass
Sacramento	40	\$13.00	\$78.00	\$213.00
Oakland	49	\$13.00	\$79.00	\$213.00
San Jose	94	\$20.00	\$121.00	\$326.00
Martinez	17	\$8.00	\$50.00	\$135.00

In terms of productivity, the Capitol Corridor service has seen its ridership increase dramatically. Ridership has jumped from 544,000 in FY 98-99 to 1,165,300 in FY 03-04.

Other Passenger Railroad Service Opportunities and Planning Issues

In addition to the UPRR mainline used by Capitol Corridor passenger rail service, Amtrak’s California Zephyr and Coast Starlight, Solano County is served by several other potentially important railroad assets.

Rail passenger service in Solano County has also been discussed for the Napa-Solano connection to the Vallejo Baylink Ferry Terminal and/or to Richmond BART via the Carquinez Bridge. Another proposal is to shift Capitol Corridor trains from the UPRR Bridge over Carquinez Strait onto the Benicia-Martinez Bridge. This latter proposal would eliminate delays caused by the UPRR Bridge, which opens to accommodate shipping traffic. The 1997 study Long Range Rail Alignment for the I-80 and I-680 Corridors addressed both of these issues.

The 1997 report considered establishment of light rail transit across the Carquinez Bridge; connecting to Napa via four different alignments:

- Sonoma Boulevard to California Northern tracks north to Napa
- Sonoma Boulevard to Curtola Parkway, Mare Island Way and California Northern to Napa
- I-80 to Curtola Parkway and California Northern tracks (near Solano Avenue) to Napa
- I-80 to Curtola Parkway, Mare Island Way and California Northern tracks to Napa

Variations of these concepts would be to terminate the Carquinez light rail service in Vallejo without extending to Napa or merely connecting Napa to Vallejo without crossing the Carquinez Bridge. Use of light rail type vehicles would require time separation from freight rail and Napa Wine train traffic. Subsequent to completion of the 1997 report, Caltrans has incorporated the flexibility to run light rail trains across the bridge in its current bridge design and construction. The bridge is not able to accommodate the loads of BART or commuter rail on the new bridge structures. The 1997 report focus on light rail transit rather than Capitol Corridor, Amtrak or BART rail technology was to avoid major costs associated with strengthening bridges across the Carquinez Strait. Light rail equipment is also better able to handle steep grades. The 1997 report also examined potentials for operating light rail trains across the Benicia Bridge. These opportunities proved to be very expensive.

The Capitol Corridor JPA has expressed increasing concerns about depending on the UPRR Bridge to cross the Carquinez Strait. The UPRR Bridge must open for shipping traffic several times a day, which will increasingly disrupt Capitol Corridor service. The CCJPA believes that its equipment could possibly operate on the grades across the Benicia Bridge and has asked Caltrans to examine the feasibility of shifting their trains from the UPRR Bridge to the Caltrans Benicia Bridge.

Operating and Capital Costs

According to the most recent annual report, CCJPA actual costs for FY 03/04 were \$22.4 million for operations, \$1.2 million for marketing and \$97.5 million for capital improvements either

underway or committed programming. CCJPA's ten year capital improvement plan envisions a total investment of about \$457 million consisting of \$48 million for additional trains, \$78 million for new/improved stations, \$17 million for amenities and safety improvements and \$314 million for track/signal improvements.

Funding for the operating expenses and capital costs are primarily from the State.

RECOMMENDED RAIL PLAN AND IMPLEMENTATION STRATEGY

Some of the principal passenger rail recommendations for this Transit Element include the active support of Capitol Corridor service upgrades along with improved access for Solano County.

Support Capitol Corridor Service Upgrades

The Capitol Corridor Joint Powers Authority (CCJPA) proposes to expand service to 18 trains daily in both directions of travel by 2015. The 18 train frequency would result in almost hourly service. An early objective would be to add a morning train that would get Solano County commuters to Sacramento before 8:35 AM (current first train).



In addition to more trains, reduced travel times and improved reliability are important service improvements. These are among the overall objectives and policy actions, which were defined for intercity transit services. The CCJPA has identified a number of improvements to reduce travel times and to improve schedule reliability. These improvements in and near Solano County include:

Immediate Projects

- Addition/replacement of a second track for the Yolo Causeway, (completed in 2004).
- Upgrade the Bahia industrial siding project (Benicia)
- Addition of a third track in Dixon

Near-Term Period

- Extend and rehabilitate Tolenas lead track for the Fairfield-Vacaville Station

Vision/Long-Term Period

- Suisun Bay Bridge Replacement

Yolo Causeway Double Track Project – This project essentially replaces the old double track section and would reduce train conflicts and delays over this four-mile segment. Construction was completed 2004.

Bahia Industrial Siding Project – This project would provide industrial siding track that would minimize conflicts on the mainline.



Dixon Third Track Project – Would add a third passing siding to allow high speed trains to pass slower freight trains and thereby increase passenger train speeds and improve their schedule reliability. The passing siding would most probably be located between the two main tracks, west of Downtown where the current two tracks spread a part. This project needs to be further analyzed as part of the Dixon Multimodal Train Station projects and track plans that need to be developed for review by the Capitol Corridor and the Union Pacific Railroad.

Fairfield Tolenas Lead Track Extension Project – This project would extend the current lead track serving the Tolenas industrial siding (near Peabody Road) and thereby reduce passenger train conflicts and schedule delays associated with freight train activities. .

Suisun Bridge Replacement Project – This project is envisioned to construct the rail crossing between Benicia and Martinez at a higher grade to eliminate delays related to bridge openings for shipping traffic. The concept would be to run Capitol Corridor trains on a single track across the Benicia-Martinez Bridge. A feasibility study was prepared in 2003 to provide a preliminary analysis of this concept. Some of the above improvements have been defined without the benefit of sophisticated track capacity analyses and will likely be refined. Specifically, the best strategy for providing passing opportunities and for upgrading track alignment for increased speed warrants more attention. Additional track modeling is being conducted as part of the Oakland-Sacramento Regional Rail Study.

Addition of New Intermodal Train Stations

Potential to increase Solano County ridership of Capitol Corridor stations is closely related to convenience of access. New stations at Benicia and Dixon all look promising, and preliminary plans for the Fairfield / Vacaville Station have been prepared for review and approval by the Union Pacific Railroad. CCJPA policy is to incrementally add stations to the corridor in order to balance improved passenger access with running speeds. Analysis of Solano County station location opportunities indicated that the Fairfield/Vacaville site located at Peabody Road offered good potential for patronage and for quick implementation. The Benicia site near Lake Herman Road also looked promising, but will require more time to implement. The Dixon site lends itself most to commuter rail patronage oriented towards Sacramento. All three of these sites are recommended for inclusion in the Solano Comprehensive Transportation Plan.

Investigation of New Passenger Rail Service Opportunities

Passenger rail service has advanced significantly in the past twenty-year period and has the promise to expand to serve new markets important to Solano County. Solano County should explore opportunities to add viable passenger rail services to its intercity transit network. Six opportunities include:

Napa to Vallejo and Jamieson Canyon Services - STA and the Napa County Transportation Planning Agency have completed a feasibility study for establishing passenger rail service from Napa to Vallejo and from Napa to Suisun City. The findings of this study identified the potential patronage potential as well as investment requirements needed to implement these services.



Solano- Oakland - Sacramento Commuter Rail Service – The Metropolitan Transportation Commission has studied transportation problems and potential BART extensions to Solano County on several occasions. Current patronage of Capitol Corridor trains indicates that there might be a commute market for this type of service. The STA, the Capitol Corridor and the counties of Contra Costa, Yolo, Sacramento and Placer are continuing to analyze the

potential for commuter rail service coordinated with the intercity Capitol Corridor service.

Colfax/Auburn to Dixon Commuter Rail Service – Ten years ago, Placer County studied the feasibility of commuter rail service between Placer County and Davis. A Steering Group has been organized to further explore the feasibility of this service. STA joined this group to explore the merits of extending the Davis service to Dixon. A key issue currently under study is the track capacity to accommodate commuter rail service through the Roseville area. Near-term service to Dixon appears promising if track capacity issues can be resolved. In the longer-term future, extension of this commuter service to Fairfield-Vacaville Station, Dixon and Benicia stations are being studied as part of the Oakland-Sacramento Regional Rail Study (also called sBART by the STA) being studied.



Solano to BART Commuter Rail Service (sBART) – A substantial demand for peak period commute travel exists and this demand is projected to increase in coming years. Commuter trains are a high capacity alternative commute mode, totally segregated from highway congestion problems. The potential for augmenting Capitol Corridor train service during peak hours linking with BART would also benefit Contra Costa and Alameda counties.

Super Capitol Corridor Service – Twelve trains in each direction are presently provided in Solano County during weekdays. Sixteen trains are planned and approved by UPRR. What might be the merits of 20 or more trains in each direction? The passenger commute rail service between San Francisco and San Jose/Gilroy currently operates at 40 trains per direction a day over its 50-mile (San Jose) to 80-mile (Gilroy) corridor. Aside from the track capacity issue, would the market benefit from increased levels of service?

High Speed Rail Service – The Bay Area to Sacramento corridor is not on the proposed High Speed Rail Plan. If it were, the chances are that the service would not stop more than once, if that, in Solano County.

Bus Plan Implications

If one or more of these potential new passenger rail services prove viable or should be implemented; adjustments would likely be needed to the proposed bus service plan.

FERRY SERVICES

High-speed ferry service between Vallejo and San Francisco began in 1986 with one 25-knot vessel. That service provided five round trips a day, including one commute run to San Francisco in the morning and a late afternoon return. Under threat of abandonment by the private sector as a result of continuing losses, the City of Vallejo agreed in 1988 to subsidize continuing operation of the service in its function as a “transit operator.”

EXISTING FERRY SERVICE (VALLEJO BAYLINK)

Successful expansion of ferry service with borrowed vessels after the 1989 Loma Prieta earthquake led to the 1991 Vallejo Ferry Plan, the planning basis for the current Vallejo Baylink ferry and bus network. As a result of the adoption of the Ferry Plan, the City acquired federal, state and regional funds to move forward with implementation. The first step was the 1994 City acquisition of the M.V. Jet Cat Express, a 28-knot, 365-passenger vessel. The City selected Blue & Gold Fleet of San Francisco to operate the ferry service under contract.



Baylink ferries operate over a 24 nautical mile route between the Vallejo Ferry Terminal and the San Francisco Ferry Building. Several trips a day also stop at Fisherman’s Wharf Pier 41. Seasonally (April through October), one morning trip is provided daily from Vallejo to Angel Island State Park with a return in the late afternoon. The running time for the basic Vallejo to San Francisco route is 53-55 minutes. The Jet Cat Express, the older back-up and weekend vessel, takes five to ten minutes longer to run the route.

The ferries operate from 6:00 a.m. to 8:30 p.m. (last return leaving San Francisco) on weekdays, with trips approximately once an hour during peak periods and every second hour off-peak.

Ferries provide eleven round trips a day, with five additional trips provided by bus.

On weekends and holidays, six round trips are scheduled in winter, and eleven during the spring, summer and early fall periods. Weekend schedules operate from 8:00 a.m. to 8:30 p.m. year round.

Because demand exceeded vessel capacity, Vallejo initiated supplemental Baylink bus service (Route 200) in June 1998, initially during the afternoon peak period, but presently including two morning (when needed) and four afternoon supplemental bus trips. Two additional night return bus trips were added at 7:30 and 10:30 p.m. to provide schedule flexibility for Baylink patrons.

Patronage

Ridership growth has been outstanding on the Baylink service. At this point, three and a half years after its initiation, ridership is constrained by commute period capacity. Up to 10 percent of monthly trips operate at capacity.

Ridership in 1997/98, the first year of two-vessel service, was 546,000, up 102% from the previous year. Table 2.10 summarizes annual ridership and the annual growth rate through 2004/05.

Table 2.10 - VALLEJO BAYLINK FERRY RIDERSHIP TRENDS

Year	Ridership	Annual Growth Rate
1997-1998	546,500	
1998-1999	613,100	12.2%
1999-2000	735,900	20.0%
2000-2001	801,000	8.8%
2001-2002	709,846	-11.4%
2002-2003	694,700	-2.1%
2003-2004	680,500	-2.0%
2004-2005	722,000	6.2%

About 2,600-3,000 weekday passengers currently use Baylink ferries and buses between Vallejo and San Francisco.

When a third vessel is placed in service, expected in spring -2005, the current 11 weekday round trips will expand to about 17-18, with five morning and afternoon commute trips, providing a 66%

expansion of commute capacity, from 900 seats to 1,500. With three vessels operating, daily ridership is expected to eventually top 4,000. A fourth operating ferry is anticipated for the 2007-08 fiscal year, but ridership patterns may require it sooner.

Passenger Information

About one half of current ferry riders reside in Vallejo. Ten percent of ferry riders reportedly reside in Benicia, ten percent in Napa, 6 percent in Fairfield, and three percent in Vacaville. Virtually all trips began or ended at the rider's home (home based trip) and nearly 90 percent are journey to work commute trips. Only two percent of ferry riders used buses to access the ferry terminal, with 71 percent drove alone, and 12 percent carpool.



At present, the Baylink service carries an average of between 90-110 passengers per trip. This is calculated by dividing daily ridership by the 22 daily service hours.

Facilities and Equipment

The 10,000 square foot Vallejo ferry terminal building was completed in 1988, and includes a waiting room, ticket office, restroom facilities, and concession areas. It was funded by a combination of local redevelopment and state funding. The terminal also has a high-capacity \$1.7 million dock completed in 1998-99, which allows rapid boarding and disembarking from both vessel doors.

The primary vessels used for the Vallejo Baylink ferry service are two 35-knot, 300-passenger catamaran ferries (M.V. Mare Island and M.V. Intintoli), designed by Advanced Multi-hull Designs of Australia and built by Dakota Creek Industries, Inc. of Anacortes, WA. They were acquired in 1997. The M.V. Vallejo, (renamed after a 2001 modification to the former Jet Cat Express), provides a back-up vessel with a capacity of 300 passengers and a 32 knot speed.

Vallejo currently uses an interim vessel maintenance facility at Mare Island. Berthing space, spare parts, a small shop, and operational offices are leased approximately one mile north of the ferry terminal.

Vallejo has selected Mare Island Building 165 as the permanent home of the Baylink ferry maintenance facility. This will allow for on-going maintenance needs of the expanding vessel fleet. Approximately \$3 million of the \$5 million project has been funded through a combination of federal, state, and regional funds. At

completion, the project will include an upgraded maintenance dock and overnight docking facilities, fuel storage sufficient for a week of operations, maintenance and operations offices, and workshops and parts storage.

The Port of San Francisco has implemented phase 1 of Ferry Building terminal improvements, which upgraded the dock presently used for most trips to San Francisco. Vallejo is completing the permitting process for a new public dock at San Francisco Pier 43, Fisherman's Wharf, which will be available for all ferry services. It was funded by a \$2 million FHWA Section 1207 grant. A recently awarded Section 1207 grant will fund docking improvements at Angel Island State Park, also served by Vallejo Baylink service during spring and summer.

In 1999, Vallejo paved and lit the 700-space interim parking lot across Mare Island Way from the Vallejo Ferry Terminal. Capacity continues to be added to accommodate demands.

Policies

Current adult fares for the Vallejo-San Francisco ferry service (Baylink) are \$9.50 one-way/\$15 for a round trip (Daypass), or \$200 for a monthly pass. The fare for the Baylink monthly pass increased to \$215 on April 4, 2004, as approved in a three-year budget by the City Council in 2002. Youth, senior, and disabled patrons pay \$4.75 each way.

The Baylink Daypass is good for all Vallejo Transit bus service as well as ferry service. A Baylink Monthly Pass offers a full month of travel on the ferries, Vallejo Transit buses and San Francisco MUNI. Vallejo Transit provides reciprocal transfers with connecting operators but this does not extend to the ferry service. Napa and Benicia provide bus connections to some Baylink trips.

Operating Costs

Baylink operating costs for FY00-01 were approximately \$6 million. Costs are expected to increase at approximately 3-4% annually although escalation of fuel prices in 2000-01 has caused an increase in the cost structure. Costs will increase when additional vessels are placed in service, with current projections showing increases in FY03-04 and FY08-09.

The primary determinants of the cost of operating Baylink service are the operating agreement with Blue & Gold Fleet and the cost of

fuel. The former is based on a three-year agreement, with cost of living adjustments. The cost of fuel for a vessel is equal to 25-30% of operating costs, a higher proportion than for landside transit.

The present operating cost is approximately \$7 per passenger trip.

As with all Bay Area transit, farebox revenues are insufficient to cover all costs. However, the Baylink Ferry has demonstrated a strong financial performance. For fiscal year 1999-2000, operating cost for the Baylink service was approximately \$5.2 million, of which \$3.75 million came from fare revenue – approximately 72 percent. The previous year, fare revenues generated approximately 64 percent of the \$4.7 million operating budget. Additional operating support is derived from TDA revenues and Bridge Toll 5% funds, as well as several lesser sources. The FY2000-01 year farebox recovery ratio was 77.7%. This farebox recovery ratio decreased to 73.4% in FY2001-02 and to 63.0% in FY2002-03 as a result of dramatic economic adjustments in late 2001 and a reduction of approximately 60,000 jobs in downtown San Francisco.

Capital Costs

Vallejo has received commitments for approximately \$ 48 million of state, federal, Regional Measure 2 and local funding for the design and construction of the intermodal facility, which is now estimated at \$65 million.. Other future projects include dredging, programmed for every three years, maintenance facility improvements, and the fourth operating ferry.

FERRY PLAN

The recommended ferry plan for Solano County is consistent with the 2010 vision outlined for Vallejo Baylink in Vallejo's 1999 Short Range Transit Plan Update. The plan is designed to carry 5,000 weekday ferry and bus passengers between Solano County (Vallejo) and San Francisco. Approximately 2,000-morning peak period trips and 2,000 afternoon/evening peak period trips are expected on a typical weekday in 2010. This is about double the current Vallejo Baylink ferry and bus patronage.

Currently, Baylink operates a fleet of three 300-passenger catamarans. Two vessels are in service at any given time. The third serves as a backup, to protect the reliability of the schedule, and to ensure that repairs and preventative maintenance are completed on a timely basis. Because of the 55-minute travel time in each direction

between the Vallejo Ferry Terminal and the San Francisco Ferry Building, each vessel can provide a 120-minute headway. A total of 900 seats are currently provided between Vallejo and San Francisco between 6:00 a.m. and 9:00 a.m. The vessel assigned to the existing 6:00 a.m. departure from Vallejo also operates the 8:00 a.m. departure.

Service Plan

A schedule providing at least 2,000 peak seats requires a minimum of seven Baylink ferry trips between 5:30 a.m. and 9:00 a.m. Supplemental buses will be needed to round out available capacity, given that the earliest and latest trips leaving the Vallejo Ferry Terminal are unlikely to operate at the full capacity of a 300-passenger boat. A total of four boats (excluding a fifth, the spare) is sufficient to operate every half hour between 5:30 a.m. and 8:30 a.m., providing 7 trips with 2,100 seats. Buses would fill in at 0:15 and 0:45 minutes past the hour, providing an effective 15-minute headway between Vallejo and San Francisco during each peak period (e.g., 5:30 a.m. to 9:00 a.m., and 3:30 p.m. to 7:30 p.m.) Ferry service would be provided every hour midday on weekdays, and hourly all-day on weekends and holidays.

Buses would provide the added flexibility and capacity needed during “the peak of the peak” between 6:00 a.m. and 8:00 a.m. and 4:00 p.m. to 6:00 p.m. A minimum of one bus would run each scheduled time between ferries. However, additional buses can be added more easily than additional ferryboats and would be cost-effective if demand warranted. While every additional vessel beyond the proposed four in daily Baylink service (plus a spare) would cost \$10 million to purchase and more than \$1,000,000 annually to operate, bus capital costs for similar capacity would be about \$2.5 million. Annual bus operating costs for the same capacity as a boat would be about \$500,000 per year.

This program would have implications for capital and operating needs. The following summarizes the program needs required to supplement the service to achieve this level.

Capital Plan

The ferry service plan will require additional vessels, expanded maintenance facilities and terminal facility improvements.

Vessels - Vallejo’s SRTP Vision for 2010 envisaged a fleet of five Vallejo Baylink ferryboats plus supplemental buses, carrying about

5,000 daily passengers. Service life replacement of several boats near the end of the 25-year Comprehensive Transportation Plan along with post ten-year operations, would require additional boats.

Maintenance Facility - Significant improvements would be required, including overnight mooring slips, fuel storage, equipment, etc. Estimated cost for this would be \$8-10 million (Robbins).

Parking/Intermodal - The current 700 spaces are planned to be replaced by a 1,200 space garage plus intermodal improvements. Total project cost, including extension of Georgia Street, is estimated to be \$56 million.

With some reduction in the proportion of patrons accessing the terminal by driving alone (from current 75% of commuters and 44% of non-commuters to 65% and 35% respectively), total parking needs for 6,000 daily riders would be expected to be about 1,500 –1,700 spaces, or 300-500 in excess of that planned for the parking structure/intermodal center. Additional interim parking may be available north of Georgia Street, but it is not clear that long-term parking for more than 1,200 spaces will be available without utilizing street parking. Vallejo is projecting that a monthly pass would include parking, but that others would pay for daily parking at the terminal. This should marginally improve mode split.



Redevelopment and terminal improvements should increase the number of patrons accessing on foot or bicycle, but increased transit use is also required. At present, fewer than 100 commuters use bus as their access mode, about 3-4% of commuters. This is projected to increase to 12%, or about 240 riders during the morning peak period. Improved pedestrian access will be provided between the Vallejo transit/transfer center and the ferry terminal, and additional regional service from Napa, Benicia, and Fairfield/Suisun City will be required. Service from Vacaville and Sacramento (perhaps on an hourly basis to match the basic schedule) would also generate some transit and ferry trips. This level of service and ridership would require additional fare equipment, signage, and bicycle storage. A designated kiss-and-ride area should also be provided.

Operating Needs

Baylink's operating expenses are projected to average \$28,000 per typical weekday (2002 dollars) for four boats in regular daily operation. This calculation projects 20 round trip sailings per day and an average operating expense of \$700 per vessel revenue hour of service. Maintaining Baylink's FY 2000-01 farebox recovery of 72% translates into a daily operating subsidy of about \$8,000. About \$2.5-\$3.0 million in annual subsidies would be needed to support service, including weekend service.

The potential to increase off-peak patronage and revenue relating to off-peak fare programs should be explored.

Benicia Service Strategy

Given the level of service and parking difficulties that may result from 6,000 daily riders accessing the Vallejo terminal, a secondary commute terminal in Benicia should be considered for the long-term future. If the Vallejo landside facility capacity begins to constrain growth in ferry ridership, a Martinez/Benicia combined ferry, being studied by the San Francisco Bay Area Water Transit Authority, might divert 5-10% of Vallejo ferry patronage (a portion of Benicia based riders). Cost of minimum ferry improvements in Benicia would be \$5-10 million for a dock, minimal terminal, and improving parking. Land acquisition for 2-3 acres of parking or a parking structure would increase the cost, and might only be possible at the Fifth Street site alternative that has been considered for Benicia.

Non-peak (midday and weekend) service from Benicia would compete with Vallejo service and take a portion of the market that would have adverse financial consequences for both services. Offering peak period only service from Benicia could work in conjunction with connecting bus transit that would accommodate patrons returning to Vallejo. The on-going Water Transit Authority studies will further assess the commute and non-commute potential for the Benicia service.

TRANSIT FOR SENIOR AND DISABLED (PARATRANSIT)

Solano County is experiencing an aging population, as are similar metropolitan regions throughout the country. The current percentage of the County population over 65 is expected to grow faster than any other Bay Area county. Solano County residents with disabilities are increasingly mobile and using accessible transportation in record numbers to access services. Between 2005 and 2025, the ADA paratransit eligible population is projected to more than double.

The Solano Transportation Authority (STA) considers the mobility needs of this growing paratransit population a priority. While there is a wide range of transportation services available, service gaps remain due to changes in traffic conditions, limitations on fixed-route service, program constraints, and eligibility limitations. Specifically, there is a growing population of the frail elderly who are not considered to be ADA-paratransit eligible, yet experience mobility challenges.

Intercity paratransit services in Solano County are provided by Vallejo Transit, Fairfield-Suisun Transit and Benicia Transit. Benicia, Vallejo, Fairfield-Suisun, Dixon and Rio Vista also operate local paratransit services

VALLEJO TRANSIT

Vallejo Transit contracts with a private operator to provide door-to-door ADA paratransit services in the southern portion of the county for Vallejo and Benicia residents. This joint service is provided by Vallejo and Benicia Transit, which includes a single dispatch center and administration by the City of Vallejo. The Runabout service continues to show ridership increases and the proportion of trip denials due to capacity scheduling conflicts is creeping up, although still quite low. Approximately 61 percent of the runabout passenger trips are to points within the City of Vallejo. Twelve percent of the passenger trips are between Benicia and Vallejo and the remaining 27 percent of passenger trips are to/from Vallejo and Benicia and other points. According to the most recent Short Range Transit Plan the average subsidy cost per passenger trip in FY 98/99 was nearly \$21. This average cost includes local as well as intercity trips. The intercity trips are longer and are more costly to provide. Similar to



fixed route bus services, no Sunday paratransit services are currently provided.

FAIRFIELD-SUISUN TRANSIT (FST)



FST provides intercity paratransit services to the northern portion of Solano County under contract from STA. Ridership has remained steady over the past years, hovering around 4,000 annual riders. No Sunday service is provided.

Requirements of the 1990 Americans with Disabilities Act (ADA)

The ADA requires transit operators to provide comparable service to those unable to use fixed route transit services. Under the ADA transit operators must provide comparable services as measured in terms of six criteria:

6. Service area
7. Response time
8. Fares
9. Service days and hours
10. Meet request for any trip purpose
11. No service limitations because of capacity constraints

Due to the high cost of providing this specialized door-to-door service many transit operators restrict use to those unable to use fixed route services. For longer distance trips, transfers from door to door onto fixed route services are often required. Commute fixed route transit services are exempt from the comparable service requirement.



RECOMMENDED PLAN

The STA has conducted a study entitled the “Solano County Senior and Disabled Transit Study.” The Study provides an analysis of the transportation limitations faced by seniors and the disabled in the County and lists strategies to address service gaps.

Recommended strategies from the study are organized into short-term, medium-term and long-term strategies as follows:

SHORT TERM STRATEGIES

- Expand fixed route driver sensitivity training and retraining
- Improved dissemination of bus schedules
- Identify opportunities for freeing up paratransit capacity
- Develop procedures for same-day medical return trips
- Train social service staff on paratransit limits and application preparation
- Develop guidelines to ensure transit-oriented development
- Promote deliveries from markets and pharmacies
- Develop casual carpool programs

MEDIUM-TERM STRATEGIES

- Include more low floor buses in future fixed-route fleet expansions
- Improve timed transfers between regional and local services
- Expand local service to connect Dixon and Vacaville
- Consolidate paratransit services
- Develop feeder services from paratransit to core fixed routes
- Evaluate intercounty paratransit service
- Provide partial subsidy of paratransit fares for low-income users
- Create shopper shuttles
- Create new volunteer driver programs
- Provide Free midday fixed-route fares on local service for seniors and the disabled
- Evening/weekend subsidized taxi service
- Provide fixed route travel training
- Establish a travel information clearinghouse

LONG-TERM STRATEGIES

- Improve headways on Route 30
- Establish Sunday transit and paratransit service

- Convert some paratransit to Flex-route service
- Establish Service from Rio Vista to Pittsburg BART
- Create Driver Wellness programs

The proposed expansion of the intercity transit services including limited service on Sunday, will require expansion of ADA paratransit services, even though all fixed route transit services in Solano County are “fully accessible” (lift equipped buses). At present the ratios of peak deployment intercity service transit vehicles to intercity paratransit vehicles is about four to one. Four levels of service increase (linked to funding for paratransit fixed route service) are proposed.

YEAR 2030 SERVICE INCREASE/VEHICLE RATIO

Existing Service	8 vehicles
First Phase - 50% service increase	12 vehicles
Second Phase - 90% service increase	15 vehicles
Third Phase - 120% service increase	17 vehicles
Unconstrained Plan - 230% service increase	26 vehicles

As noted previously a limited trunk Sunday fixed route service is proposed. Paratransit services would also be required to serve demands within this service corridor. Where appropriate long distance trips should be accommodated in coordination with fully accessible fixed route services via transfers. Only ADA eligible riders should be served by the intercity paratransit service.

Where possible, partnership service should be explored with medical, government social service agencies and private developers. For example, Kaiser HMO should participate with the fare subsidy of its patients and retirement village developers should be urged to sponsor paratransit services for residents of their projects.

Please refer to the STA’s recently completed “Solano County Senior and Disabled Transit Study” for more detailed data and recommendations on the demand and need for expanded paratransit services over the next 25-30 years.

INTERCITY TRANSIT SUPPORT SYSTEM ELEMENTS

Provision of a seamless and accessible transit system will involve expansion of park-and-ride facilities and upgrading intermodal transit centers.

PARK AND RIDE FACILITIES

Existing Conditions

There are about fifteen formal park-and-ride locations in Solano County and a number of informal locations (Table 2.10). Vallejo maintains a large park-and-ride lot at the ferry terminal and a medium size lot at the York and Marin Transit Center. The Curtola park-and-ride lot in particular seriously lacks capacity and continues to be seriously oversubscribed. Typically, 20 to 30 cars are parked at each of the informal Red Top Road and American Canyon Road I-80 interchange park-and-ride areas. Commuters also park in private off-street parking lots and along public streets near popular bus routes.



Since the first Transit Element was approved in 2002, an additional approximately 650 park and ride spaces have been constructed by 2005.

Future Park and Ride Demands

The future demand for park-and-ride facilities will be determined by a number of factors. Paramount among these factors will be the expansion of High Occupancy Vehicle (HOV) facilities into the County, the levels of Single Occupancy Vehicle (SOV) general flow traffic lane congestion, the attractiveness of public transit services and the convenience of the park-and-ride lot locations for commuters. Several of these key factors were addressed in the I-80/680/780 Transit Corridor Study completed by the STA in July 2004. A major challenge for intercity bus service use of HOV lanes historically has been access. HOV lanes tend to be located in the

center median lanes, which are difficult for express buses to use, since express buses often must make stops at major freeway interchanges to serve passengers. Some HOV systems provide direct HOV only ramps to/from the center median HOV lanes and minimize these access challenges. Where possible direct ramps should be considered in the planning of Solano County HOV facilities. Two specific direct ramps were proposed as part of the I-80/I-680/I-780 Transit Corridor Study.

Park and Ride Siting Principles

Successful park-and-ride lots are generally located as follows:

- Upstream of major points of congestion
- Upstream of HOV facilities
- Upstream of toll facilities
- At major junctions of transit routes
- Upstream for long distance highway segments
- Along intercept paths to freeways, particularly high visibility sites near freeway

The Curtola park-and-ride site exemplifies most of these criteria and with the completion of the I-80 HOV system between the Carquinez Bridge and the Bay Bridge, it will meet all of the criteria.

Table 2.11 - SOLANO PARK-AND-RIDE FACILITIES COMMUTER INFORMATION

City	Location	Spaces
Benicia	East Second St. & East S St. at I-780	15
Cordelia	Green Valley Rd. at I-80	65
Dixon	Market Ln. at Pitt School Rd.	100
Dixon	B St. at Jackson (Future Capitol Corridor Station)	114
Fairfield	Cadenasso Dr. near West Texas at I-80 (Phase 1)	634
Fairfield	Kmart at North Texas & Air Base Pkwy	48
Suisun City	Main St. at Route 12	250
Vacaville	Cliffside at I-80	129
Vacaville	Leisure Town Road at I-80	46
Vacaville	Davis St. at I-80	250
Vacaville	Bella Vista Road and I-80	201
Vallejo	Benicia Rd. at I-80	13
Vallejo	Curtola Parkway & Lemon St. at I-80 (SW)	379
Vallejo	Curtola Parkway & Lemon St. at I-80 (SE)	64
Vallejo	Magazine St. at I-80	19
Vallejo	Intermodal Center at Mare Island Way & Georgia St.	650
Total		2977

It should be noted that park-and-ride sites do not need to be owned and constructed by public agencies, some transit operators contractually agree to share underutilized weekday private parking resources. Privately owned parking lots are often not fully utilized during time periods needed by commuters (6 a.m. to 6 p.m. on weekdays). Shared use agreements can be employed to allow commuters to use these empty parking spaces. The agreement can involve community goodwill, advertising benefits and/or money. The use of private parking is simplest at locations that do not require buses to enter the parking lot (on-street loading). Possible candidates for shared use parking include the Brendan Theater lot in Vacaville, the Target shopping lot adjacent to the new Fairfield Transportation Center and private lots in central Rio Vista.

Proposed Major Expansions of Existing Facilities

Major expansions are proposed for the Vallejo Ferry Intermodal Center and to the Curtola park-and-ride lot. Expansions to the Fairfield Transportation Center lot and the Dixon Downtown lot are also proposed.

Vallejo Baylink Intermodal Center - Planning has been completed for the 1, 200 spaces park-and-ride garage to serve expansion of the Baylink ferry service.

Curtola Park and Ride Lot – Demand for this lot is seriously over available capacity. It is used by both rideshare commuters and transit riders and has a near ideal location at the junction of two major commute corridors. Completion of the westbound I-80 HOV lanes from the Carquinez Bridge to Highway 4 will further increase demand and worsen current problems.

The proposed plan is to construct a 1,200-space parking structure on the west end of the site and to consolidate the bus loading at the eastern end of the site. A new traffic signal would be installed on Curtola Parkway to improve access and to allow buses destined to Downtown Vallejo to directly exit onto Curtola Parkway. Currently these buses must double back to Lemon Street. The increased parking supply also requires increased driveway access to support it. Location of bus loading facilities at the eastern end of the site is proposed to enhance pedestrian accessibility and to increase visibility. The transit center element of the project is intended to serve Greyhound buses, which can have long dwell times and intercity express buses, which only stop long enough to load and unload passengers. Prepayment of fares could be considered for this high passenger activity location. Real time passenger information is

also recommended for this site. The parking structure would be four levels and would be constructed in two phases in order to minimize parking loss during construction. Access to the PG&E yard would be maintained. The estimated cost for this project is \$12 million. During construction of the garage, an interim replacement facility should be identified. One possibility is the site that is located on the south side of Curtola Parkway at Sonoma Boulevard.

Fairfield Transportation Center - The recently constructed parking garage is successfully operating near its capacity. Phase II of the project added a surface lot and expanded capacity to 634 spaces. Phase III would add an additional 400 spaces for a total of 1,000 spaces, (refer to I-80/I-680/I-780 Transit Corridor Study).

Vacaville Regional Transportation Center Street Lot - This lot presently operates near its capacity. The nearby Bella Vista park-and-ride lot project (completed in 2005) will expand capacity and help support future demands.

Expansion of Suisun City Amtrak Station Lot – Land was available in the Caltrans right-of-way for expansion of the park and ride lot. The expansion was completed in 2003 and helped handle the overflow demand conditions that were occurring as well as support the Capitol Corridor patronage in the future.



Dixon Downtown Lot – The City has completed Phase I of the Downtown intermodal project. Demands at this lot will increase significantly when commuter rail service is established to Sacramento and Oakland. The timing of the Phase I parking lot expansion therefore depends on the timing for passenger rail service. The station concept needs to be reviewed to reflect the UPRR’s current preferences for station facilities.

New Highway and Bus Transit Oriented Park-and-Ride Lots

I-80 Corridor

Based on the I-80/680/780 Transit Corridor Study, nine new or expanded long-range park-and-ride lots are proposed for the I-80 Corridor to accommodate the projected 2030 transit and ridesharing demands. Two would be located in Dixon, one in Vacaville, three in Fairfield and two in Vallejo.

- Dixon – North First Street/SR-113
- Dixon - West A Street
- Vacaville – Vacaville Intermodal Center
- Vacaville – Bella Vista Park and Ride
- Fairfield – North Texas Street
- Fairfield - Red Top Road (to replace Green Valley Road Park and Ride)
- Fairfield- Fairfield Transportation Center
- Vallejo – Turner Road (near State Route 37 and Fairgrounds)
- Vallejo – Expansion of Curtola Parkway Park and Ride lot

These new facilities would complement current lots located at Pitt School Road, Davis Street, Cliffside Drive, West Texas Street (Fairfield Transportation Center), Green Valley Road, Benicia Road, Curtola Parkway and Magazine Street. The North First Street lot and West A Street lot would be well located to serve east and west oriented commuters respectively from Dixon. The Nut Tree site is conveniently located near the junction of I-505 and is recommended to be explored as an element of the proposed redevelopment of the Nut Tree area. The North Texas Street lot is well located to serve east and north oriented commuters from eastern Fairfield. With the planned reconstruction of the I-680 interchange, opportunities to expand park-and-ride facilities and incorporate direct bus access to it should be explored.

The Red Top Road project will convert the current ad hoc park and ride facility to a formal park and ride lot. Establishment of a park-and-ride facility at Turner Road Overcrossing (near the SR 37 junction) should be explored in conjunction with retail proposals being developed on a portion of the fairgrounds.. Should this not prove feasible a park-and-ride lot should be explored along SR 37 between SR 29 and Wilson Avenue.

I-680 Corridor

Two new park-and-ride lots are proposed for the I-680 Corridor.

- Gold Hill Road (Fairfield)
- Vista Point and Benicia Intermodal Center near Lake Herman Road
- Industrial Way/Park Rd. and /or the Benicia Intermodal Station near Lake Herman Road

The Gold Hill Road site would serve commuters in the Cordelia area southbound on I-680. The Benicia Intermodal site near Lake Herman Road is seen as the initial phase of development leading to establishment of a passenger rail station at this location. Improved access from I-680 is desired in conjunction with this project.

I-780 Corridor

In addition to the Benicia Intermodal site that serves commuters in this corridor, three new park-and-ride lots are recommended along the I-780 Corridor: .

- West Military and Southampton
- Columbus Parkway and Rose Drive
- East H Street

SR-12 Corridor

Three park-and-ride lots are proposed for the Rio Vista and Suisun City segment of State Route 12.

- Rio Vista – State Route 12 and Church Street
- Rio Vista – Downtown near Main Street
- Suisun City - SR 12 near Walters Road (to serve the new residents along Walters Road and the Lawler Ranch areas)

The Church Street lot would serve residents located in the westside of the City and the Main Street site would serve residents located closer to downtown. Commuters prefer to use lots located near their home. The Main Street lot could be a shared use lot by an agreement with private property owners. The new Suisun City lot could also provide a stop for express bus service to the Suisun City Amtrak train station and other commuter destinations.

INTERMODAL BUS TRANSIT ORIENTED CENTERS

The proposed intercity bus service plan could be most attractive to passengers if delays at interchange bus stops could be minimized without the loss of pedestrian and local feeder bus access connections to the freeway intercity bus stops. Desirably the freeway bus stops should function much like station stops serving passenger rail services. These locations include:

- I-80 and North First Street in Dixon
- I-80 and Davis Street and Allison/Ulatis in Vacaville
- I-80 and North Texas in Fairfield
- I-80 and West Texas in Fairfield Transportation Center
- Red Top Road in Fairfield
- I-80 and I-680 in Cordelia
- I-80 and I-780/Curtola in Vallejo
- I-680 and Industrial Park and Lake Herman Road in Benicia
- I-780 in Downtown Benicia

On going planning for the I-80/I-680/SR-12 interchange located in Fairfield should specifically explore opportunities to integrate an express bus transit center into its design. The North Connector Road appears to provide the best opportunity for this new transit hub. This location could efficiently serve most all of the proposed new intercity routes including the new Highway 12 bus route and new Sacramento express bus route.

INTERMODAL FERRY AND RAIL CENTER FACILITIES

Solano County presently has one passenger rail station and one ferry terminal. The City of Fairfield and City of Vacaville are in the process of planning a second passenger rail station working with the STA. As described in the “ Ferry Services” section, the Baylink ferry terminal in Vallejo is planned for major improvements, which include added parking and bus transit interface improvements. Planning for the expansion of the parking facilities at the Suisun City Station is also well advanced.

Fairfield/Vacaville Intermodal Train Station

Conceptual planning has advanced for development of a station at the Peabody Road crossing of the Capitol Corridor/UPRR tracks. Recent direction from the UPRR appears to require a center

platform for the station development. Revised track plans were submitted to the Union Pacific in fall 2004.

Benicia Intermodal Train Station

Development of a new train station near Lake Herman Road appears to have promising patronage potential. A station at this location was rated to be as promising as the Fairfield/Vacaville site, except it required a longer period of time for development. Thus, once the new Fairfield/Vacaville station is completed and demonstrates its patronage success, advancement of the Benicia Station should follow. The City of Benicia is considering alternate site locations for this project.

Dixon Intermodal Train Station

STA is coordinating with Sacramento area agencies exploration of the feasibility of commuter rail services between Oakland and Sacramento. This service and perhaps Capitol Corridor passenger rail service potentially could serve the new Dixon Intermodal Transportation Center, which is now under development.

Benicia Intermodal Ferry Terminal

The City of Benicia has indicated an interest in new ferry service to the Downtown waterfront. Between \$5 and \$10 million is estimated to be required to provide a viable ferry dock downtown. The Water Transit Authority is reportedly investigating the potential and improvement dock needs in Benicia.

