Silicon Valley Berryessa Extension

San Jose, California

(November 2009)

The Santa Clara Valley Transportation Authority (VTA) proposes to build a 10.2-mile two-station extension of the Bay Area Rapid Transit (BART) heavy rail system from Fremont to Berryessa Road in San Jose. Called the Silicon Valley Berryessa Extension (SVBX), the project will be built on former Union Pacific freight railroad right-of-way from the future Warm Springs BART station in Fremont (currently under construction) to two new stations, one in Milpitas adjacent to the existing VTA Montague light rail station and one at Berryessa. The SVBX will be a two-track, third rail exclusive guideway heavy rail system operating under automatic train control. The project scope includes purchase of 40 new BART passenger cars for operation on the extension and improvements to the existing BART Hayward rail car storage and maintenance yard. When completed, the SVBX will provide direct transit service over a future 119-mile BART network connecting Santa Clara County with San Mateo, San Francisco, Contra Costa and Alameda counties.

The SVBX is intended to provide increased transit access to and from Santa Clara employment and activity centers for both Santa Clara residents and residents from throughout the San Francisco Bay Area. Regional transit connectivity will be improved by extending and interconnecting BART with VTA light rail and other existing transit services in Santa Clara County. Increasing transit service in the SVBX corridor will provide improved travel alternatives to the severely congested and worsening travel routes of Interstate 880 (I-880) and I-680 between Alameda and Santa Clara counties.

Santa Clara County expects eventually to extend BART an additional six miles from Berryessa to downtown San Jose, San Jose International Airport and the City of Santa Clara.

Summary Description	
Proposed Project:	Heavy Rail 10.2 Miles 2 Stations
Total Capital Cost ($YOE):	$2,509.13 Million (Includes $305.78 million in finance charges)
Section 5309 New Starts Share ($YOE):	$900.00 Million (35.9%)
Annual Forecast Year Operating Cost:	$96.90 Million
Ridership Forecast (2030):	41,900 Average Weekday Boardings 8,900 Daily New Riders
Opening Year Ridership Forecast (2018):	23,900 Average Weekday Boardings
FY 2011 Local Financial Commitment Rating:	**Medium**
FY 2011 Project Justification Rating:	**Medium**
FY 2011 Overall Project Rating:	**Medium**

Project Development History and Current Status

In November 2000, Santa Clara County voters approved a 30-year one-half cent sales tax to raise funds for a twenty-mile extension of BART from Fremont to San Jose. In 2001, the Santa Clara Valley Transportation Authority (VTA) conducted a Major Investment Study/Alternatives Analysis (MIS/AA) for the Silicon Valley Rapid Transit Corridor (SVRTC) resulting in selection by VTA of a locally

preferred 16-mile project alternative that would extend BART from Warm Springs—a new BART station and 5-mile extension from the existing Fremont BART station to be built independently of the SVRTC project—through Milpitas to San Jose and Santa Clara.

In September 2002, FTA approved VTA's request for entry of the SVRTC project into preliminary engineering. In March 2004, a Draft Environmental Impact Statement (DEIS) was published. FTA raised concerns about performing an environmental review on the SVRTC while the Warm Springs extension was still under environmental review. Thus, VTA suspended the SVRTC environmental review process.

In December 2005, due to FTA concerns about funding and operations of the SVRTC, VTA withdrew the project from New Starts preliminary engineering. In mid-2007, following completion of the Warm Springs extension environmental review, FTA concurred with VTA's request to resume environmental clearance of the SVRTC project, including a shorter 10-mile alternative from Warm Springs to Berryessa—the current SVBX project. A Notice of Intent (NOI) to prepare an EIS on the project was published on September 21, 2007. The DEIS was published on March 13, 2009.

On July 23, 2008, the Metropolitan Transportation Commission approved the SVRTC, including the SVBX project, in the financially constrained long range Transportation 2035 Plan for the San Francisco Bay Area. In November 2008, Santa Clara voters approved an additional one-eighth cent sales tax for operation of the SVRTC. Collection of this tax is dependent on execution of a Full Funding Grant Agreement.

In September 2009, VTA applied for entry into preliminary engineering. FTA notified Congress of its intent to approve the project into preliminary engineering in November 2009 and took formal approval action in December 2009. Issuance of a FEIS is expected in early-2010.

Project Justification Rating: Medium

The project justification rating is based on the weighted average of the ratings assigned to each of the following criteria: the cost-effectiveness criterion is weighted 20 percent; the transit supportive land use criterion is weighted 20 percent; the economic development criterion is weighted 20 percent; the mobility improvements criterion is weighted 20 percent; the environmental benefits criterion is weighted 10 percent; and the operating efficiencies criterion is weighted 10 percent.

Cost Effectiveness Rating: Medium-Low

The cost effectiveness rating reflects the level of travel-time benefits (12,626 hours each weekday) relative to the project's capital and operating costs based on a comparison to a baseline alternative.

Cost Effectiveness	
	New Start vs. Baseline
Cost per Hour of Transportation System User Benefit	$30.88*
Incremental Cost per Incremental Trip	$43.98

*****Indicates that measure is a component of Cost Effectiveness rating.

Transit-Supportive Land Use Rating: Medium-Low

The land use rating reflects the population and employment densities within ½-mile of proposed station areas.

- In 2005, station area population density was 6,027 persons per square mile. In 2005, station area employment was 10,634 and the San Francisco Central Business District (CBD) employment was 318,163.
- Existing land use consists of industrial, parking, low-density residential, the Great Mall and the San Jose Flea Market. There are a few areas with high residential density. Neither station area is pedestrian friendly due to high volume roads, noise, lack of pedestrian attractions, and discontinuous or nonexistent sidewalks. In addition, station area character for both sites is minimal. There appears to be an ample supply of free parking.

Economic Development Rating: Medium-High

The economic development rating is based upon the average of the ratings assigned to the subfactors below.

Transit-Supportive Plans and Policies: Medium-High

- BART has adopted strong policies tying rail system expansion to transit supportive land use policies. Adopted in 1999, and updated in 2003, the policies encourage transit oriented development (TOD) around existing and proposed rail stations. Other board policy statements have expressed an advocacy role for BART in promoting region wide transit supportive initiatives. Several BART plans and policies complement the regional plans and policies.
- The *Silicon Valley Rapid Transit SVRT Station Areas Vision Plan* (VTA 2008) was developed with participation from cities, local officials, and community members to create a shared vision that accommodates BART station facilities and supporting TOD plans. The *Santa Clara General Plan—Charting a Course for Santa Clara County's Future: 1995-2010*, The City of Milpitas General Plan (April 2002 update), and a general plan update entitled *Envision San Jose 2040* all support development in the corridor and station areas. VTA is required, and continues, to plan and design consistent with BART Facilities Standards.
- The San Jose General Plan allows for establishing TOD corridors and BART station area nodes. TOD is to be promoted in designated special strategy areas, which typically are centered on exiting or planned light rail, major bus, and BART stations. The plan identifies Berryessa, Santa Clara Street/28th Street (near the proposed Alum Rock BART Station), and downtown San Jose as BART station nodes. The purpose of designating BART station nodes well in advance of any approval of an extension is to direct transit-oriented and pedestrian friendly development near proposed BART stations. Development types can range from high density residential to mixed-use to high intensity office/commercial. The greatest densities should be adjacent to a station, with overall TOD densities at minimum 20 units per acre and 55 units per acre if possible. The Milpitas General Plan also designates TOD Overlay Zones in anticipation of the project.
- Extensive public outreach efforts have been conducted for the community, government agencies and developers such as community meetings, community working groups, advisory committees, a joint development program and promotional materials.

Performance and Impacts of Policies: Medium-High

- More than 7,437 transit oriented development housing units have been constructed between 1990 and 2009 within the SVBX corridor along designated transit routes and identified transit nodes.
- Within the SVBX corridor, approximately 2,700 residential units, 415,000 square feet of office space, and 239,000 square feet of retail space could be built near the Milpitas Station; and 2,900 residential units, 180,000 square feet of office space, and 93,000 square feet of retail space could be built near the Berryessa Station.

Mobility Improvements Rating: Medium-Low	
	New Start vs. Baseline
Transportation System User Benefit Per Passenger Mile (Minutes)	0.6
Number of Transit Dependents Using the Project	4,600
Transit Dependent User Benefits per Passenger Mile (Minutes)	0.6

Environmental Benefits Rating: High	
Criteria Pollutant Status	**EPA Designation**
8-Hour Ozone (O_3)	Marginal
Particulate Matter (PM)	Non-attainment Area

Operating Efficiencies Rating: Medium		
	Baseline	**New Start**
System Operating Cost per Passenger Mile (current year dollars)	$0.36	$0.35

Local Financial Commitment Rating: Medium

The local financial commitment rating is based on the weighted average of the ratings assigned to each of the following criteria: the New Starts share of project costs is weighted 20 percent; the strength of the capital finance plan is weighted 50 percent; and the strength of the operating finance plan is weighted 30 percent.

Section 5309 New Starts Share of Total Project Costs: 35.9%
Rating: Medium-High

Locally Proposed Financial Plan		
Source of Funds	**Total Funds ($million)**	**Percent of Total**
Federal: Section 5309 New Starts	$900.00	35.9%
State: Traffic Congestion Relief Program (Gasoline Tax)	$365.59	14.6%
Local: Measure A Sales Tax	$1,243.54	49.6%
Total:	**$2,509.13**	100.0%

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

Capital Finance Plan Rating: Medium

The capital finance plan rating is based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

Agency Capital Condition: Medium

- The average age of VTA's bus fleet is 9.1 years, which is older than the industry average.
- VTA's good bond ratings, which were issued in 2008, are as follows: Moody's Investors Service Aa3 and Standard & Poor's Corporation AA+.

Commitment of Capital Funds: High

- All of the non-Section 5309 New Starts funds are committed, including allocations to the project from the State of California Traffic Congestion Relief Program and the 0.5 percent Measure A sales tax revenues and bond proceeds.

Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Low

- The assumptions regarding sale tax revenue collections are considered reasonable. However, the cash flow for the Measure A sales tax program is tight due to the need to transfer funds to VTA's Enterprise Fund (its transit operations fund) in order to avoid deficits in that fund.
- The capital cost estimate is considered reasonable.
- VTA has very little additional capital financing capacity to cover cost overruns or funding shortfalls should they occur.

Operating Finance Plan Rating: Medium

The operating finance plan rating is based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

Agency Operating Condition: Medium

- VTA's current ratio of assets to liabilities as reported in its most recent audited financial statement for the Enterprise Fund is very good at 2.7.
- VTA faces a deteriorating outlook, reflecting the impact of the national economic recession, as well as the temporary loss of State Transit Assistance Program funds. VTA ended FY 2009 with an operating deficit that was funded from its operating reserve. VTA raised its fares in October 2009 and has approved an 8 percent reduction in bus service and a 6.5 percent reduction in light rail service, effective January 2010.

Commitment of Operating and Maintenance Funding: High

- Over 95 percent of operating funding is committed. The main revenue sources are: fares; sales tax revenues from Measure A, Measure B, and VTA's originating legislation; Local Transportation Fund revenues, which are derived from a ¼-cent statewide sales tax; State Transit Assistance (STA) program funds; regional High Occupancy Toll (HOT) lane revenues; and other operating revenues including advertising, interest, joint development and parking income.

Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Low

- Assumed growth in fare revenues, BART unit operating costs, and other operating income is optimistic compared to historical experience. Specifically, the amount of HOT lane revenues and joint development income are considered uncertain since both require much time to implement, and are sensitive to many influences outside VTA's control.
- Even with these optimistic assumptions, the financial plan indicates negative operating cash flows for the majority years examined for the existing system**.** However, operation of the proposed project is not impacted since the Measure B sales tax limits use of the revenues to only this project.

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