



**MEMORANDUM**

**DATE:** September 19, 2005

**TO:** Board of Directors  
Santa Clara Valley Transportation Authority

**FROM:** Michael T. Burns  
General Manager

**SUBJECT:** Silicon Valley Rapid Transit Corridor (SVRTC) – Updated Ridership Estimates

**Summary**

On September 16, 2005, VTA submitted ridership estimates and related documents to FTA as part of the required annual New Starts update report. All submitted information relates to the 9.3-mile Federally Funded Segment (FFS) of the 16.3-mile project which is currently being considered by the Federal Transit Administration (FTA) for New Starts funding.

<b>2030 SVRTC Ridership Comparison: 2001 vs. 2005 Model</b> <i>(average weekday boardings)</i>		
	<b>2001 Model</b> <i>(forecast year 2025)</i>	<b>2005 Model</b> <i>(forecast year 2030)</i>
<b>9.3 mile FFS</b>	N/A	63,100
<b>16.3 mile Project</b>	83,600	111,500

In 2030, the ridership estimate for the FFS, which includes two stations (Montague/Capitol and Berryessa), is 63,100 weekday boardings. The ridership estimate for the 16.3-mile project, which includes seven stations (Montague/Capitol, Berryessa, Alum Rock, Civic Plaza/San Jose State University, Market Street, Diridon/Arena and Santa Clara), is 111,500 weekday boardings.

**Modeling Changes**

VTA staff has been working on updating the ridership estimates for the SVRTC project over the past year. The update includes the use of new background data for the model that has become available since the model was originally developed in 2001 and modifications to model functions required by the FTA. Key updates that substantially influenced the new ridership estimates include the following:

- The use of *Projections 2003* versus *Projections 2001* prepared by the Association of Bay Area Governments (ABAG) as background land use assumptions. *Projections 2003* reflects ABAG's Smart Growth Vision – a new growth pattern that directs high-density development around transit stations and downtowns. *Projections 2003* is the regionally adopted land use scenario and is used in the Metropolitan Transportation Commission

(MTC) 2030 Regional Transportation Plan (RTP). Use of the regionally adopted land use scenario is required by FTA.

- Modification of the forecast year from 2025 to 2030 to align with the Regional Transportation Plan, VTP 2030 and FTA's preference for a 25-year estimate.
- The use of Census 2000 journey to work data versus 1990 Census journey to work data.
- Per the direction of FTA, the use of regional mode choice constants, rather than Santa Clara County-specific mode choice constants.
- Reflection of the 525 vehicle bus fleet as included in VTP 2030 adopted in early 2005.

**Federally Funded Segment**

VTA's intent is to build the entire 16.3-mile extension. However, in order to qualify for New Starts funding, FTA is requiring VTA to evaluate the FFS, assuming the Berryessa BART Station as the end-of-the line station.

<b>2030 SVRTC Ridership Comparison (16.3 Mile Project vs. FFS)</b> <i>(average weekday boardings)</i>		
<b>Stations</b>	<b>16.3 Mile Project</b>	<b>FFS</b>
<b>FFS Stations</b>	37,600	63,100
<b>Locally Funded Stations</b>	73,900	-
<b>Total</b>	111,500	63,100

In 2030, the ridership projection for the FFS with two stations is 63,100 weekday boardings. In the full 16.3-mile extension, the same two stations attract 37,600 weekday boardings. The remaining five stations in the 16.3-mile extension attract 73,900 weekday boardings. If the BART extension terminates at Berryessa, 48,400 passengers would not ride BART each weekday.

**Project Costs**

The total project cost for the 16.3-mile extension is \$4.7B in 2005 dollars. This is an increase of \$500M from the prior \$4.2B estimate in 2003 dollars. The change in project cost is attributed to: cost escalation from 2003 to 2005 dollars (+\$250M); increases in parking and vehicles to support the increased ridership (+\$450M); and value engineering savings (- \$200M).

<b>Project Cost<sup>1</sup></b>		
	<b>2003 \$</b>	<b>2005\$</b>
<b>16.3 Mile Extension</b>	\$4.2B	\$4.7 B
<b>FFS</b>	N/A	\$2.2B

The cost of the FFS is \$2.2B in 2005 dollars. This number includes all costs associated with the operation of the FFS assuming the Berryessa BART Station as the end-of-line station. This

<sup>1</sup> These cost estimates are the result of the revision of the 2001 Conceptual Engineering costs estimates, adjusted using a 3.5 % annual inflation factor to escalate the costs to 2005 dollars. Preliminary Engineering is underway on the entire project. Fully updated cost estimates for the project will be available in mid-2006 for use in next years New Starts submittal.

virtual scenario for FTA evaluation purposes includes maintenance facilities, tail tracks, increased parking and an operator break room.

## **FTA Evaluation**

### *SAFETEA-LU Criteria*

The FTA evaluates projects across a wide range of criteria. The recently adopted SAFETEA-LU Legislation has modified those criteria to some degree increasing the importance of Land Use and Economic Effects. The four key criteria are now:

- Project Justification – Evaluation components include mobility improvement, environmental benefits, operating efficiency, and cost effectiveness (Transportation System User Benefit –TSUB)
- Project Economic Development Effects – FTA is working on defining this criterion in response to the SAFETEA-LU direction.
- Public Transportation Supportive Land Use Policies and Future Patterns – FTA is working on defining this criterion in response to the SAFETEA-LU direction.
- Project Finance Rating – Evaluation components include local financial commitment, capital financial plan, and operating financial plan.

### *Rating*

New Starts projects will no longer be rated as *Recommended*, *Not Recommended*, and *Not Rated*. They will now be ranked *High*, *Medium-High*, *Medium*, *Medium-Low* and *Low*.

### *Cost Effectiveness (TSUB)*

The cost effectiveness number for the FFS is \$31.64 in 2005 dollars. This is a significant improvement over the prior cost effectiveness number of \$40.99. The SAFETEA-LU legislation exempted the SVRT project from the requirement to meet the “medium” cost effectiveness criteria, which FTA is defining as \$14.00 to \$21.99. Over the next year, VTA will focus on defining project cost saving measures and continue working with FTA staff on the modeling effort to improve the cost effectiveness number.

## **Areas of Continued Discussion with the FTA**

New Starts projects are re-evaluated annually. In prior reviews of the project, the FTA has raised concerns in two primary areas – travel forecasting and VTA’s operating financial capacity. During the last year, VTA and the FTA made significant progress on coming to agreements on many of the assumptions in the transportation model. However, all modeling issues have not been resolved. With the goal of improving the overall ranking of the project, over the next year, VTA staff will focus on evaluating the ridership estimates and addressing the operating financial capacity issue, which is dependent on the outcome of the future operating sales tax proposal.

VTA staff will update the Board at key milestones.