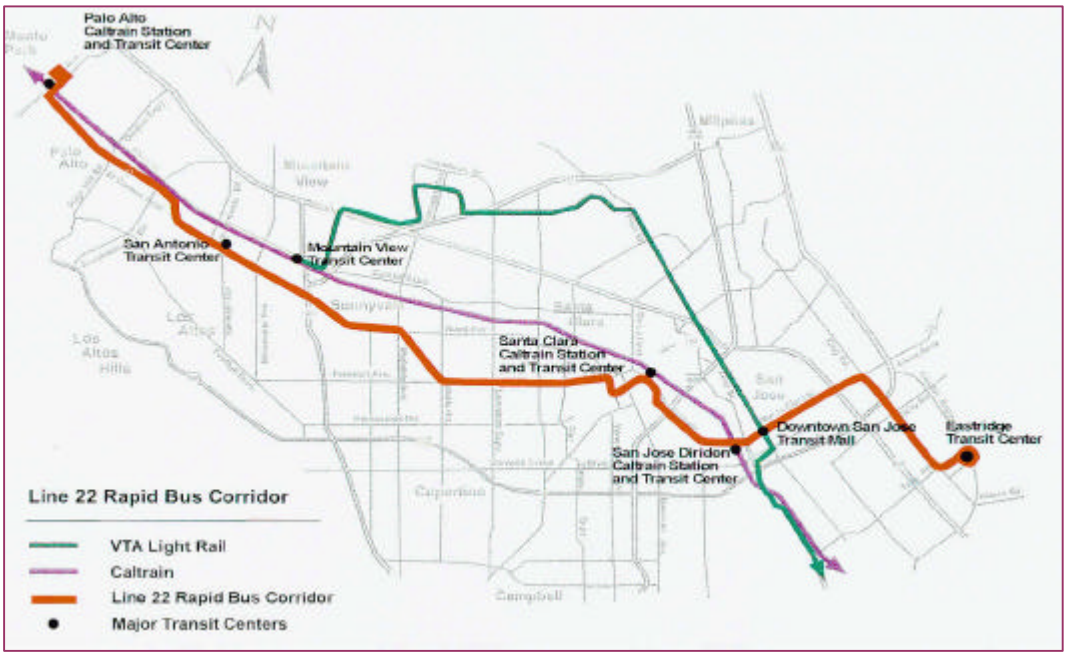
U.S. Department of Transportation

SANTA CLARA Valley Transportation Authority

Federal Transit Administration

Federal Transit Administration
Bus Rapid Transit Demonstration Program

SANTA CLARA VALLEY TRANSPORTATION AUTHORITY
LINE 22 RAPID BUS CORRIDOR



1. Project Description

- **Type of Project**

The Line 22 corridor is approximately 27 miles long and is considered by the Santa Clara Valley Transportation Authority (SCVTA) as the backbone of its bus system.

SCVTA plans to develop this route as a Rapid Transit Corridor. Travel time will be reduced by:

- selective use of queue jumps;
- bus " bulbs" at enhanced station areas;
- traffic signal priority;
- modifications to the route (shortening and straightening);
- fare prepayment using ticket vending machines at stations;

- low-floor buses;
- Automatic Vehicle Location and other intelligent transportation system technologies.

- **Method of Operations**

  The concept of operations calls for an integrated package of transit priority measures and infrastructure improvements to increase bus running times, reduce dwell times and signal delay, and effect better transfers to other routes.

- **Service Levels**

  Line 22 is 27 miles long and runs on 10-minute headways during weekday peak hours. The line operates near capacity and many buses are at standing room only. Line 22 is SCVTA's most heavily used transit line, carrying over 28,000 riders daily and representing 18% of total SCVTA ridership. Twenty-four hour service was implemented in January 1998. SCVTA will run articulated buses on the line beginning in the 2000-2001 fiscal year.

- **Estimated Time Savings**

  After implementation of Bus Rapid Transit (BRT) improvements, segments of Line 22 will experience time savings in the range of 25% to 40% over current travel times.

- **Number and Type of Vehicles Providing Service**

  SCVTA is acquiring 40 new low-floor articulated buses for Line 22. These larger buses will both increase seating capacity (33% over standard 40-foot buses) and speed up loading and unloading by eliminating steps for passengers. These buses will begin entering service in the 2000-2001 fiscal year.

- **Fare Collection and Boarding**

  Ticket vending machines will be installed at high volume stops, allowing passengers to pre-purchase tickets before the bus arrives. This results in increased time savings through faster boarding.

- **Use of ITS Capabilities**

  A variety of ITS technologies will be employed in Line 22, including: automated ticket vending machines, Automatic Vehicle Location (AVL), real time bus arrival information, and signal prioritization. These technologies will begin deployment in the 2000-2001 fiscal year.

- **Traffic Engineering and Infrastructure**

  Queue jump lanes, bulb-outs and duck-outs are in the design phase and will result in construction to modify the infrastructure along Line 22. In addition, communications infrastructure will be improved to accommodate the signal prioritization and AVL projects.

2. Problems Addressed by the Project

Provide better passenger information.
Provide faster more reliable service.
Increase capacity and passenger comfort.

3. Implementation and Operations Schedule

Line 22 Rapid Bus Corridor should be fully operational by late 2001.

4. Funding Plan

Other	
Private	
Local	$6,300,000
State	$800,000
Federal	$25,400,000
FHWA	$6,200,000
FTA Formula	
FTA Bus Discretionary	$19,200,000
FTA New Start	
Total	$32,500,000

Note: Of the capital expenses shown, $8.5 million are for station and operational improvements, and $24 million are for the procurement of the preferred vehicles (articulated buses).

5. Issues of Concern re: planning, design, implementation and/or operations

One concern is multi-agency and multi-jurisdictional coordination over the 27-mile corridor (i.e., signal prioritization along a state highway crossing five jurisdictions).

6. Current Status

A queue-jump lane demonstration project is already under way, as is the procurement process for the low-floor articulated bus fleet. SCVTA's advanced communication/AVL program is under way as well. A coordinated planning effort for the remaining elements of the Line 22 BRT was recently initiated.

7. Contacts

Mr. James Lightbody
Manager, Planning and Programming
Santa Clara Valley Transportation Authority
3331 North First Street
San Jose, CA 95134-1906
Phone: 408-321-5744
Fax: 408-321-5502
E-Mail: james.lightbody@vta.org

Mr. Grieg Asher, AICP
Senior Planner, Planning and Programming
Santa Clara Valley Transportation Authority
3331 North First Street
San Jose, CA 95134-1906
Phone:
Fax: 408-321-5502
E-Mail: greig.asher@vta.org