



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: James R. Helmer

**SUBJECT: CAPITOL EXPRESSWAY
LIGHT RAIL CORRIDOR**

DATE: 06-10-04

Approved

Date

Council District: 5, 7, 8, 10
SNI Area: East Valley/680
Communities, West Evergreen

RECOMMENDATION

Approve City recommendations on design options for the Capitol Expressway Light Rail Corridor project.

BACKGROUND

The Santa Clara Valley Transportation Authority (VTA) is developing a project to extend light rail service in the Capitol Expressway corridor from the terminus of the Capitol Avenue Light Rail project at the Alum Rock Station to Route 87, a total of 8.2 miles. This is one of three projects identified as part of the Downtown East Valley (DTEV) transit improvement plan, approved by the VTA in August 2000. The other two projects include 1) transit improvements in the Santa Clara Street and Alum Rock Avenue corridor, and 2) enhanced bus service in the Monterey Highway corridor. For the DTEV projects, policy direction is provided by a Policy Advisory Board (PAB). The City's members on the PAB are Councilmembers Chavez (Chair), Campos (Vice-Chair) and Cortese.

The scope of the Capitol Expressway Light Rail Corridor project includes converting the expressway into an attractive multi-modal boulevard for autos, light rail, bicycles and pedestrians. A map of the project is shown in Attachment A; an illustration of the project scope is shown in Attachment B. The project is consistent with the City's General Plan transit corridor designation for Capitol Expressway and it supports the City's goal of providing viable transportation choices.

Construction of the project will likely occur in phases based on funding availability. Project segments and their estimated costs are as follows:

- Phase 1A – Alum Rock Station to Eastridge (2.3 miles; \$256 million)
- Phase 1B – Eastridge to Nieman (0.8 miles; \$111 million)
- Phase 2 – Nieman to Route 87 (5.1 miles; \$393 million)

The Phase 1A/1B segments are proposed for funding as part of the 2000 Measure A program. Funding for the Phase 2 segment is subject to a study of other Countywide transit priorities, scheduled for completion by the VTA in Spring 2005.

The VTA is preparing an environmental clearance for the entire Capitol Expressway Light Rail Corridor project. The draft environmental document was released for public review on April 28, 2004; a public hearing on the project was held on May 27, 2004. The completion goal for the environmental clearance is December 2004.

The environmental document includes an analysis of the following 10 project design issues:

1. Vertical Alignment from Alum Rock to Story Road
2. Pedestrian Access to the Aerial Station at Story Road
3. Station Location in the Segment from Ocala to Cunningham
4. Vertical Alignment into Eastridge Transit Center Station
5. Park-and-Ride Facilities in Phase I Segment
6. Alignment from Eastridge Transit Center to Nieman Station
7. Alignment from Nieman to McLaughlin Station
8. Location of Monterey Highway Park-and-Ride
9. Location of State Route 87 Station
10. Overnight LRV Storage/Light Maintenance Facility

At this time, policy recommendations from the City of San José to the DTEV PAB are needed on these design issues. The DTEV PAB is scheduled to take action on the project design at their meeting on August 5, 2004.

ANALYSIS

For each of the 10 design issues, a technical evaluation has been completed assessing the factors related to transportation service, land use integration, environmental impacts, construction impacts, community support, and cost. City staff, comprised of representatives from the Departments of Transportation, Planning, Building and Code Enforcement and Public Works meet regularly with VTA and project consultants to facilitate development of the project and to advocate for the City's interests. The City staff team has jointly prepared the following summary and recommendations relating to the project design issues. A consolidated list of the staff recommendations is provided in Attachment C.

Issue 1 – Vertical Alignment from Alum Rock Station to Story Road Station (3 Options)

1-A Aerial/Aerial – Recommended

Constructs an aerial alignment from the end of Alum Rock Station over Capitol Expressway where the light rail vehicle would enter the median of Capitol Expressway and continue into an aerial station at Story Road.

1-B Depressed/Aerial

Transitions from at-grade immediately south of the Alum Rock Station into a tunnel under the Capitol Avenue/Capitol Expressway intersection, then rise sharply into an aerial alignment in the median of Capitol Expressway and continue into an aerial station at Story Road.

1-C Depressed/Depressed

Transitions from at-grade immediately south of the Alum Rock Station into a tunnel and stays below grade for the entire length of this segment of the project where there would be a depressed open air station at Story Road.

Recognizing the need to minimize conflicts and delay between traffic and light rail operations at the heavily congested intersection of Capitol Avenue and Capitol Expressway, it was determined early in the project development phase that the alignment at this location should be grade separated. An additional objective in determining the appropriate alignment is the ability to construct an aerial station at Story Road. This was an important issue to the surrounding community, and can only be achieved through Options 1-A and 1-B.

Although perceived as a visual intrusion by some of the adjacent residences, an aerial alignment (Option 1-A) is consistent with previous design solutions VTA has successfully developed on both the Tasman East Corridor through Milpitas and on the Vasona Corridor. Many of these design solutions have incorporated urban design features to mitigate the visual intrusion. This option also has the least traffic impacts related to construction and would provide faster operating speeds. It is noted that Option 1-A has a significantly lower cost than either Option 1-B (\$32 million greater) or Option 1-C (\$67 million greater).

Issue 2 - Pedestrian Access to the Aerial Story Road Station (2 Options)

2-A Passenger Access from the Median Portals

Pedestrians and LRT passengers would cross the expressway at grade to the median and then take an elevator up to the station.

2-B Passenger Access via Pedestrian Overcrossings – Recommended

Pedestrians and passengers would use a continuous over-crossing with access at each one of the four quadrants of the intersection to a mezzanine level and then one level up to the station. This allows passengers to access light rail without having to cross Capitol Expressway. Access to the platform level would also be provided from the street median.

In consideration of both heavy vehicle and pedestrian volumes at this intersection and in an effort to provide safe and convenient access to the Story Road Station, a design solution similar to the Great Mall Station, which includes both pedestrian overcrossings and median portals, is recommended. Under both scenarios, crosswalks would be maintained on all four legs of the intersection. Of the two design options, Option 2-B, is approximately \$7 million more than Option 2-A, but Option 2-B provides better accessibility to the station.

Issue 3 – Station Location in the Segment between Ocala and Cunningham (4 Options)

3-A Ocala Station - Recommended

This option would construct a station at the intersection of Ocala Road and Capitol Expressway and would be the closest location to most of the adjoining neighborhood.

3-B Ocala/Cunningham Station

This option would construct a station midway between Ocala and Cunningham. The station would be a single platform station in the center with passenger access via a pedestrian overcrossing.

3-C Cunningham Station

This option would provide a platform station at Cunningham.

3-D No Station

Option 3-A is recommended in that it is more accessible to the potential customer base than either Option 3-B or 3-C. Option 3-A was also supported by the community. In recognition of best practices concerning station spacing, the selection of Option 3-D would result in poor station spacing. Option 3-A has higher cost in the amount of \$3 million, due to utility relocation issues. In general, as a result of comments from the community and ridership estimates, Options 3-A is preferred. It is noted that safe and convenient pedestrian access from the Ocala Station to Lake Cunningham Park would be facilitated through the development of special pedestrian improvements consisting of wide sidewalks, lighting, landscaping and connections to the Thompson Creek trail system.

Issue 4 – Vertical Alignment into the Eastridge Transit Center (2 Options)

4-A Aerial Alignment/Aerial Station

This option would transition from an at-grade alignment to an aerial section over Tully Road and continuing into an aerial station at the Eastridge Transit Center.

4-B Depression Alignment/At-grade Station - *Recommended*

This option would transition from an at-grade alignment to a depressed section under Tully Road, and then transition to an at-grade alignment into the Eastridge Transit Center.

Convenient access between development at the Eastridge site, the LRT system and the bus system at the Eastridge Transit Center is the key element in recommending Option 4-B. This will be achieved under Option 4-B by providing an at-grade light rail station interface with the VTA's bus system and surrounding development. Option 4-A would provide an aerial station at the Eastridge Transit Center, which is not viewed as the most convenient and pedestrian-friendly access to the station as they would have to change levels to transfer from light rail to bus. In addition, representatives from the Reid Hillview Airport have expressed opposition to elevated light rail facilities in the vicinity of the Airport. Of the two design options, Option 4-B is approximately \$30 million more than Option 4-A.

Issue 5 – Park-and-Ride Facilities in Phase 1 Segment (2 Options)

5-A Ocala (new) and Eastridge (expansion)

This option would divide some of the parking between Ocala Road and the Eastridge Transit Center. This would result in a small parking lot at Ocala Road and a 300-space lot at Eastridge.

5-B Eastridge (expansion) - *Recommended*

Option 5-B would provide for all parking demand at the Eastridge Transit Center. Consolidation of parking at the Eastridge location allows for lower operating costs and more flexible management of parking supply. Parking demand in the Ocala/Eastridge area is estimated at approximately 400 spaces, with a range of 250 to 500 spaces required over time. As VTA currently provides 135 parking spaces at the Eastridge Transit Center, some property will have to be acquired from Eastridge to accommodate the future parking demand.

Issue 6 - Alignment from Eastridge Transit Center to Nieman Station (3 Options)

6-A Side-running at-grade alignment from Eastridge to Nieman Station

6-B Side-running depressed alignment from Eastridge to south of Quimby and at-grade to Nieman Station – *Recommended*

6-C Median-running from south of Eastridge to Nieman Station

Option 6-A is not considered a viable option in that the frequency of at-grade light rail crossings of both Eastridge Loop and Quimby Road would create severe traffic congestion. Although Option 6-B would have a greater construction impact due to cut-and-cover construction methods, the trade-off is in allowing for efficient traffic flow along Capitol Expressway. Option 6-B best supports the City's *Evergreen Smart Growth Strategy* efforts to create a transit oriented development on the vacant parcel just south of the Eastridge Shopping Center. The cost for Option 6-B is included in the Base Project and is \$67 million more than Option 6-A and \$14 million less than Option 6-C.

Issue 7 - Alignment from Nieman Station to McLaughlin Station (1 Option)

This option recommends a transition from the at-grade side-running alignment at the Nieman Station to an aerial alignment in the median of Capitol Expressway. This alignment continues over Aborn Road and Silver Creek Road, then transitions onto a new light rail bridge over 101. The new light rail bridge would be located on the north side of Capitol Expressway. Once over US 101, the aerial alignment would transition back into the median of the Expressway with an aerial station at McLaughlin. The alignment would then transition back to an at-grade alignment east of the Coyote Creek Bridge.

The alignment discussed under this design option will be heavily influenced by the outcomes of other studies and planning efforts including the *US 101 Central Corridor Study*, *Evergreen Smart Growth Strategy* and the *Comprehensive County Expressway Study*. The recommended alignment is a viable project that has been fully analyzed however; as the other studies and planning efforts advance this alignment recommendation may be revisited.

One particularly significant issue relates to the level of improvement needed at the intersection of Capitol Expressway and Silver Creek Road. If the Route 101/Capitol interchange is upgraded, additional improvements (at a cost of approximately \$50 million) may be needed at the Capitol/Silver Creek intersection in order to accommodate good traffic flow to and from the freeway, and to provide space for the light rail line.

Issue 8 - Location of Monterey Highway Park and Ride Facility (3 Options)

8-A Park-and-Ride Lot within Expressway Loop Ramps – Recommended

8-B Park-and-Ride Lot on the Drive-In Theater/Flea Market Site

8-C Park-and-Ride Lot on Commercial Property in the northeast quadrant of Monterey Highway/Capitol Expressway.

Option 8-A provides the most convenient and accessible park-and-ride location in the immediate area. Further, the recommended option will have the least environmental and right-of-way impacts, including impacts to existing businesses, as well as cost \$7-\$9 million less than the either Options 8-B or 8-C.

Issue 9 - Location of State Route 87 Station (2 Options)

9-A Station under Highway 87

9-B Station west of Highway 87 - *Recommended*

The Capitol Expressway Light Rail Corridor will construct a terminus station in the vicinity of Route 87. This new station will be supported by the existing park-and-ride facilities associated with the Guadalupe Light Rail Corridor's Capitol Expressway Station and bus transit center. Option 9-B provides better pedestrian access, avoids the complications associated with locating a platform under the SR 87 structure and is \$2.9 million less than Option 9-A.

Issue 10 - Overnight LRV Storage/Light Maintenance Facility (3 Options)

10-A Storage facility at Ocala Avenue

10-B Storage facility south of Quimby Road – *Recommended*

10-C Storage facility at SR 87 Park-and-Ride

Option 10-B provides for the best transit operations since it locates the vehicle storage facility near the end of the Phase 1 segment. Option 10-A has significant utility issues and Option 10-C is outside of the probable initial implementation scenario. Also, representatives from the Reid Hillview Airport have expressed interest in the Ocala site for uses that support the Airport.

Other Issues

- *Expressway Relinquishment* - The proposed implementation of the Capitol Expressway Light Rail Corridor project includes a transfer of ownership of the expressway corridor from County jurisdiction to City jurisdiction. The proposed design of the corridor is intended to serve multiple transportation modes as well as transit-oriented development. This design standard is inconsistent with County standards for their Expressway system, which is oriented towards high-speed auto travel. City staff is currently discussing with the County provisions for relinquishment of Capitol Expressway based on the timing of funding for expressway conversion improvements.

- *Environmental Approval Phasing* – As noted in the Background section of this report, the funding status for the Neiman to Route 87 segment (Phase 2) is uncertain and subject to further VTA review of future Countywide transit priorities. VTA environmental clearance action on the entire Capitol Expressway Light Rail corridor is scheduled for Fall 2004. However, the VTA's study of Countywide transit priorities, that involves the Phase 2 segment, is not scheduled to be complete until Spring 2005. One policy option would be to defer project approval action on the Phase 2 segment until after the prioritization study is complete in Spring 2005.

PUBLIC OUTREACH

Over the past several years VTA has conducted several community meetings on the Capitol Expressway Light Rail Corridor project. The most recent public meeting was held May 27, 2004. In addition, special workshops and community meetings have been convened, and the VTA participated at a number of SNI meetings as well as the Knight-Ridder Evergreen-Eastridge Design Charrette. Additionally, on June 9, 2004, the VTA provided a project presentation to the Evergreen Smart Growth Strategy Task Force.

COORDINATION

This item has been coordinated with the Department of Public Works, the Department of Planning, Building and Code Enforcement, and the Office of the City Attorney.

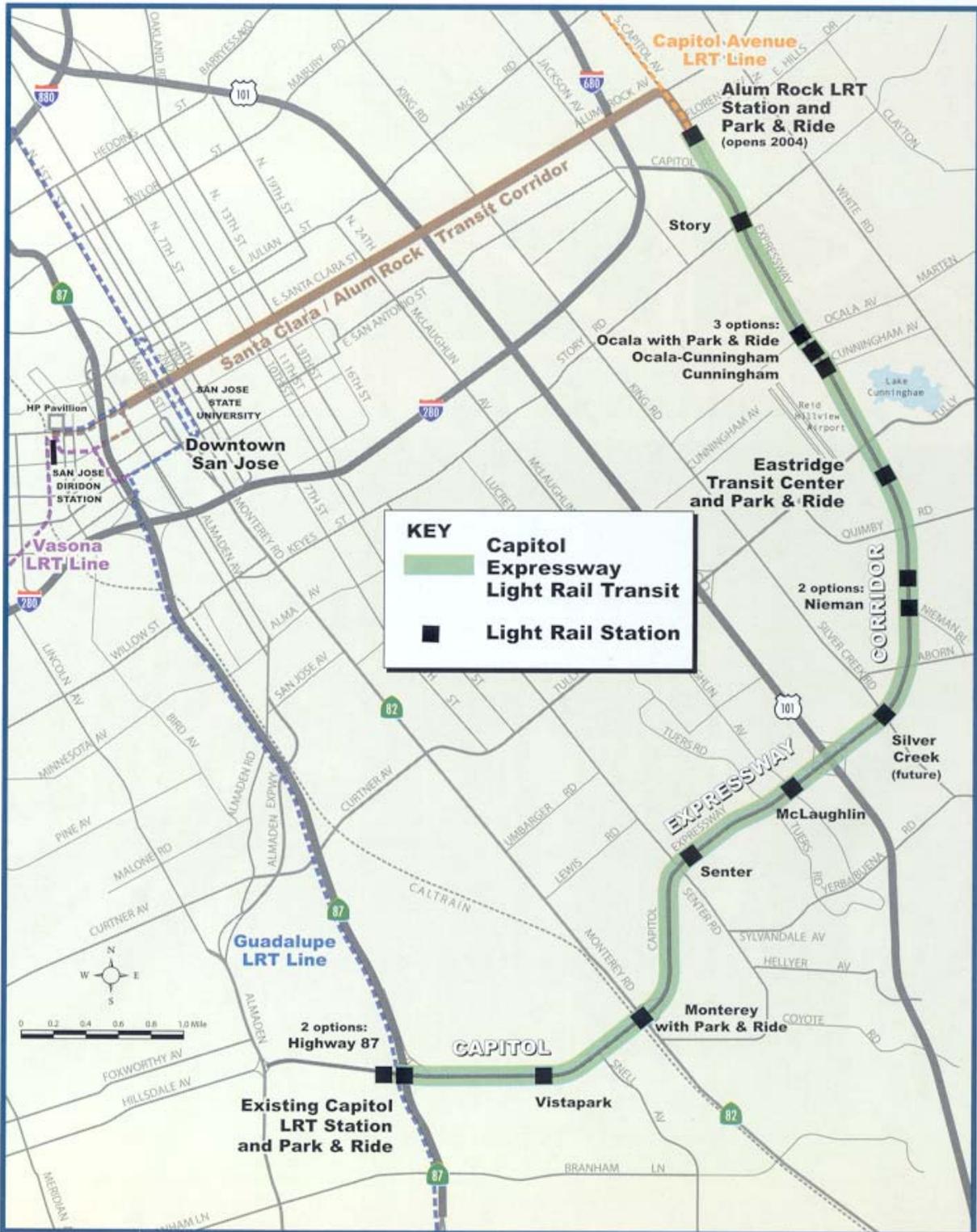
CEQA

Not a Project. The subject report provides City recommendations to the VTA to support their preparation of a CEQA review for the Capitol Expressway Light Rail Corridor project.

JAMES R. HELMER
Director of Transportation

Attachments

CAPITOL LIGHT RAIL TRANSIT EXTENSION PROJECT MAP



CAPITOL LIGHT RAIL TRANSIT EXTENSION

“BEFORE AND AFTER” CONDITIONS

The Capitol Corridor... from Expressway to Multi-Modal Boulevard



11' SIDEWALK | 28' FRONTAGE ROAD | 17' BIKE PATH AND SIDEWALK | 40' NORTHBOUND ROAD | 40' LIGHT RAIL | 40' SOUTHBOUND ROAD | 13' SIDEWALK

**CAPITOL LIGHT RAIL TRANSIT EXTENSION
ALUM ROCK TO ROUTE 87
Summary of Design Options and Staff Recommendations**

1. Vertical Alignment from Alum Rock to Story Road
 - 1-A Aerial/Aerial – Recommended**
 - 1-B Depressed/Aerial
 - 1-C Depressed/Depressed

Pros: lower cost (\$32M to \$67M), less construction impact; Cons: visual impact

2. Pedestrian Access to the Aerial Station at Story Road
 - 2-A Passenger Access from the Median Portals
 - 2-B Passenger Access via Pedestrian Overcrossings – Recommended**

Pros: better access; Cons: higher cost (\$7M)

3. Station Location in the Segment from Ocala to Cunningham
 - 3-A Ocala Station - Recommended**
 - 3-B Ocala/Cunningham Station
 - 3-C Cunningham Station
 - 3-D No Station

Pros: better access; Cons: higher cost (\$3M more than B or C)

4. Vertical Alignment into Eastridge Transit Center Station
 - 4-A Aerial Alignment/Aerial Station
 - 4-B Depression Alignment/At-grade Station - Recommended**

Pros: better access; Cons: higher cost (\$30M), higher construction impact

5. Park-and Ride Facilities in MOS-Phase I Segment
 - 5-A Ocala (new) and Eastridge (expansion)
 - 5-B Eastridge (expansion) – Recommended**

Pros: lower cost

6. Alignment from Eastridge Transit Center to Nieman Station
 - 6-A Side-running at-grade alignment from Eastridge to Nieman Station
 - 6-B Side-running depressed alignment from Eastridge to south of Quimby and at-grade to Nieman Station. – Recommended**
 - 6-C. Median-running from south of Eastridge to Nieman Station
Pros: better access, less traffic impact; Cons: higher cost (\$67M), more construction impact

7. Alignment from Nieman to McLaughlin Station
 - 7-A Aerial Transition from Side-Running to the Median of Capitol Expressway – Recommended**
(Design may be refined as part of Route 101 and Capitol improvements)

8. Location of Monterey Highway Park-and-Ride
 - 8-A Park-and-Ride Lot within Expressway Loop Ramps – Recommended**
 - 8-B Park-and-Ride Lot on the Drive-In Theater/Flea Market Site.
 - 8-C Park-and-Ride Lot on Commercial Property in the northeast quadrant of Monterey Highway/Capitol Expressway.
Pros: better access, lower cost (\$7M to \$9M), no business impact

9. Location of State Route (SR) 87 Station
 - 9-A Station under Highway 87
 - 9-B Station west of Highway 87 – Recommended**
Pros: better station design opportunities; lower cost (\$3M)

10. Overnight LRV Storage/Light Maintenance Facility
 - 10-A Storage facility at Ocala Avenue
 - 10-B Storage facility south of Quimby Road – Recommended**
 - 10-C Storage facility at SR 87 Park-and-Ride
Pros: better operations; Cons: higher cost than 10-A (\$5M)