



Council Meeting: May 22, 2012

SUBJECT: Consideration of a Position on the El Camino Real Bus Rapid Transit Project Dedicated Bus Lane Concept

REPORT IN BRIEF

The Santa Clara Valley Transportation Authority (VTA) is nearing completion of a conceptual engineering and public outreach phase of a San Jose to Palo Alto Bus Rapid Transit (BRT) project that would traverse Sunnyvale via El Camino Real. This project is the result of a Countywide evaluation of potential BRT corridors that found the El Camino Real corridor to be a high priority for development. VTA retained a consulting firm and over the last approximately 18 months has examined civil engineering requirements, traffic impacts, urban design considerations, operations and ridership, compatibility with local plans and policies, as well as pedestrian and bicycle concerns. The VTA has also conducted extensive public outreach.

The VTA has studied multiple alternatives for improving bus service on El Camino Real including dedicated bus-only lanes and mixed-flow lanes (bus and motor vehicle lanes). The VTA is advocating an alternative that would construct exclusive bus-only lanes and stations in the median of El Camino Real from Lafayette Street in Santa Clara to Showers Drive in Mountain View. Specialized, branded BRT vehicles and light rail-like stations would be provided. One existing automobile travel lane in each direction on El Camino would be converted to bus-only lanes. The alternative at this time assumes on-street parking removal in Sunnyvale to provide bike lanes, consistent with the City's street space allocation policies.

VTA is asking for cities along the route to indicate a design preference or otherwise take a position on the project prior to the VTA initiating next steps. The City is not limited to endorsing the VTA's preferred alternative, but can support a different configuration or request certain features to be included in the project. To date, Sunnyvale has not taken a specific policy position on the proposal beyond monitoring and participating in project planning to assure that the City's concerns are addressed. Staff has given guidance to the VTA on consistency with related City policies and commented on design guidelines and technical studies. Depending upon the outcome of local agency outreach, the VTA will consider pursuing Federal "Small Starts" capital funding and Caltrans design approval in the near term, or may consider other funding sources or planning strategies.

The VTA is actively implementing BRT featuring dedicated bus only lanes along Alum Rock Avenue in San Jose which is planned to connect or be an extension of the El Camino Real Line 522 service. The specialized, branded BRT vehicles for the Alum Rock BRT will be used on El Camino Real in Sunnyvale regardless of the construction of BRT lanes on El Camino Real.

EXISTING POLICY

Legislative Advocacy Position 1.1 (1) Monitor the El Camino Real Bus Rapid Transit project conceptual engineering and environmental analysis to ensure that the City's interests are addressed.

The Land Use and Transportation Element of the General Plan and the El Camino Real Precise Plan contain numerous additional policies that are generally applicable to bus transit but not specifically the Bus Rapid Transit project. These policies are listed in Attachment A.

DISCUSSION

The alternatives initially considered over the whole corridor considered three basic options for bus rapid transit:

- Option 1. Retaining existing lanes and operating rapid bus service in mixed-flow lanes.
- Option 2. Designating one mixed-flow lane in each direction as bus rapid transit only lanes in the roadway median.
- Option 3. Retaining six existing mixed-flow lanes and constructing two bus rapid transit only lanes in the roadway median.

Under Option 1, generally speaking, landscape medians, on-street parking, or bike lanes – could be provided within the existing curb to curb width, depending upon local preference. The VTA has indicated that a BRT project would not construct bike lanes where none currently exist under a mixed-flow scenario.

Under Option 2, generally speaking, two of the following features - landscape medians, on-street parking, or bike lanes – could be provided within the existing curb to curb width, depending upon local preference.

Under Option 3, generally speaking, either a landscape median or bike lanes could be provided within the existing curb to curb width.

The median bus rapid transit lanes configurations (Options 2 and 3) would have stations in the median of El Camino Real in Sunnyvale.

The VTA has determined that insufficient transit benefit is gained from Option 3 to pursue it further due to high right of way costs and consequent high capital costs. VTA explained that this alternative is infeasible because of the need for right of way acquisition at intersections where medians are already narrow and there is no existing on-street parking. Federal funding for the project is limited to \$75 million, and the six-lane Option 3 would greatly exceed the available capital funding. Option 2 is the VTA's generally preferred Option for the Sunnyvale portion of the project.

VTA needs to define a preliminary investment strategy (i.e. which portions of the Corridor are in mixed flow and dedicated lane) to enter the Caltrans review process, the FTA Small Starts process, and begin the environmental process. In order to define a preliminary investment strategy and compete for Small Starts funding, a significant amount of study has been done by the VTA on civil engineering requirements, traffic effects, urban design considerations, operations and ridership, compatibility with local plans and policies, as well as pedestrian and bicycle concerns to develop a preferred configuration for a bus rapid transit project. Two project scenarios have been studied, a near term (2015) and a long term (2035). A full environmental analysis has not yet been prepared. Determination of the preliminary investment strategy and corridor configuration also requires the input of cities along the corridor as to their preference on corridor configuration.

This Report to Council looks at issues from a broad perspective, rather than presenting detailed technical information.

Transit

The project would likely create a significant transit benefit, and shift travelers from the automobile to transit. It would likely result in increased transit service for Sunnyvale. Ridership gains are anticipated both for the rapid transit service and the local line 22 service, which would remain to serve more closely spaced stops. The project achieves a transit benefit by improving travel times in the corridor and thereby attracting new riders. VTA estimates in 2035 that BRT would reduce bus travel times across the length of the corridor, from Palo Alto to San Jose from 107 minutes to 71 minutes eastbound, and 74 minutes to 53 minutes westbound. Specialized vehicles, branding of the vehicles and stops, and provision of rail service-like stations and ticketing help attract riders as well. The corridor currently serves a fairly broad spectrum of user types, from the transit dependent to commuters. This is forecast to increase with improved service as well as forecast growth in the corridor. BRT also is forecast to increase operating efficiencies and reduce costs per rider.

Based on VTA projections (assuming bus frequencies every 10 minutes), ridership could increase over year 2035 No Project levels from 12,085 daily Line 522 boardings to 22,717 BRT boardings. Line 22 local service would realize ridership gains from 8,750 daily boardings to 15,681 boardings. Operating cost per passenger would fall from \$ 4.77 per passenger to \$ 2.58.

The El Camino Real corridor was selected for more detailed study based upon the results of a countywide Bus Rapid Transit Strategic Plan. This plan examined six corridors and evaluated potential ridership, transit service competitiveness, speed, revenue potential, and trip lengths. The VTA's Comprehensive Operations Analysis methodology for evaluating efficiency and cost effectiveness served as a backdrop for the Plan evaluation. Recommendations were essentially segregated by corridor into BRT improvements versus local bus service improvements. The El Camino Real and Alum Rock corridors performed well under a bus rapid transit service model, and have been carried forward to a more detailed level of analysis and design. The El Camino Real corridor has the highest ridership in the VTA system, and would benefit from faster corridor travel times.

The Sunnyvale-Cupertino corridor was also evaluated for potential BRT compatibility. The Plan found that current service in the corridor was adequate to serve ridership and provide adequate bus speeds. The corridor's low density land uses and relatively high travel speeds do not lend themselves to supporting a more intensive transit service or realizing ridership benefits from a BRT-like system.

The VTA has indicated that Sunnyvale could be subject to a Community – Based Transportation Plan which would take a focused look at potential sources of transit ridership and trip linkages within Sunnyvale, and make recommendations for specialized service such as community bus or shuttles from City trip generators and neighborhoods to major transit corridors such as Caltran, Tasman West light rail, or a future BRT corridor on El Camino Real.

Sunnyvale Stations

The proposed project includes four stations in Sunnyvale (Attachment B). Under the four lanes plus bus only lanes alternative, the stations would be located in the median of El Camino Real, much like light rail stations in median running situations. Bus rapid transit running in the median is a lower cost, more flexible alternative than light rail, but the configuration of bus only lanes in the median lends itself to conversion in the future to light rail. The four proposed Sunnyvale stations are located in the four node areas identified for pedestrian oriented, mixed use (retail, residential and office) development in the City's Precise Plan for El Camino Real.

Traffic Flow and Diversion

Reducing El Camino Real from six mixed flow travel lanes to four will cause changes to traffic flow. The VTA's studies conclude that were the project to be built in the near future, intersections on El Camino Real in Sunnyvale could experience a diversion of through traffic to other routes or transit from 10% to 60% of current through traffic, depending upon the location. A breakdown of diverted trips is presented in Attachment C. As a result, traffic service levels would not significantly decline, and for the most part would stay the same as

today. If traffic diversion did not occur at the levels forecast by the VTA, either because growth in transit ridership is less than projected or fewer motorists select alternative routes, service levels would decline.

An independent examination by City staff found that under a worst case scenario, under which no traffic diversion occurred, traffic levels of service would degrade to level of service "F" at four locations. The El Camino Real/Mary Avenue intersection would realize the greatest decline in level of service; delay would increase by an estimated overall intersection average of 112.7 seconds over today's levels. Utilizing level of service "E" as an acceptable threshold for traffic flow, it is estimated that a 20% reduction in traffic, or 700 vehicles or 840 person-trips per peak hour would need to divert to other routes or to transit to maintain a level of service consistent with City policy. If the City staff analysis is a worst case analysis and the VTA analysis a best case, the reality of actual traffic conditions with construction of bus rapid transit probably lies somewhere between the City staff study and the VTA's results.

Although rapid bus service frequency is expected to improve under the proposal, VTA has indicated that local bus 22 service on El Camino will continue to operate in the mixed flow curb lane. Due to the reduction of mixed-flow lanes, local buses that stop frequently could create congestion if they block through lanes while boarding. Further study may be needed to identify ways to prevent local buses from blocking through traffic while boarding.

Because all traffic models have limitations, particularly in determining what new routes motorists would select, staff recommends that if BRT moves forward that pre-project and post-project traffic studies be performed to measure the effects of the project. If post-project studies identify unanticipated traffic problems, VTA should commit to provide additional traffic mitigation.

Future planned growth in the corridor is likely to impact traffic flow regardless of the presence of BRT. Utilizing projections from the Association of Bay Area Governments, the VTA estimates 93% growth in employment and 30% growth in population within ¼ mile of El Camino Real in Sunnyvale by the year 2035. Seven intersections are forecast to reach level of service "F" without any BRT improvements. With BRT, the VTA estimates that level of service will fall to "F" at only four locations, due to diversion of traffic to other routes and modes.

It should be noted that according to the Balanced Growth Index, which tracks the provision of infrastructure to support growth in the community, the City has invested approximately \$550,000 since 2003 of an estimated \$47 million in transportation capacity investment needed through the year 2025 to support the planned growth in the community. Most of this investment is planned to come from transportation impact fees and mitigation generated by development in the City. The BRT project represents not only a potentially significant outside investment opportunity in transportation in and of itself, but also an

opportunity to fund other planned and unplanned transportation capacity improvements from non-locally generated sources.

El Camino Real Access

As currently proposed, the project would eliminate a series of mid-block left-turn pockets that allow drivers and bicyclists to make left and u-turns at unsignalized locations. The spacing of full access signalized intersections in Sunnyvale is fairly lengthy, generally $\frac{1}{4}$ mile with more than $\frac{1}{2}$ mile between signals at one location, between Fair Oaks Avenue and Maria Lane. A landscape median restricts turns and crossings between intersections, with the exception of the mid-block left turn pockets. Elimination of these turn pockets would shift turning vehicles to signalized intersections. The VTA's studies do not anticipate any significant increases in left/u-turn movements as a result, which may be a deficiency in the VTA's preliminary traffic study. The BPAC considered this issue and noted that elimination of the left-turn pockets between Fair Oaks Avenue and Maria Lane could result in a up to one mile detour for a cyclist wishing to cross the street.

The VTA has indicated that they are willing to include construction of new left/u-turn only signalized intersections in the BRT project. The intersections would need to be signalized to avoid conflicts with BRT vehicles traveling in their exclusive right of way. It is unknown at this time what the specific impact would be to through traffic flow, but new mid-block signalized intersections would likely introduce some additional delay to El Camino Real through traffic. Should the City desire construction of new mid-block left/U-turn intersections, there would need to be negotiations between Caltrans, VTA and the City as to who would have operating and maintenance responsibilities. Traffic signals typically have about a \$5,000 annual operating cost. Should the City provide maintenance or otherwise be required to pay maintenance costs in order to facilitate construction of the intersections, these costs could be as high as \$35,000/year.

There are 14 unsignalized left turn pockets in Sunnyvale, seven in each direction. There are four locations where the distance between signalized intersections exceeds 1,500 feet. Three of these four locations are located 900 feet or more from a signalized intersection. All other locations are 600 feet or less from a signalized intersection. Also, the intersection of Helen Avenue and El Camino Real has unsignalized left turn access and a crosswalk. The three areas with signals widely spaced and the El Camino Real/Helen intersection may be the most likely candidates for construction of new signalized mid-block intersections. Construction of new signalized intersections would potentially slow traffic on El Camino Real by introducing a new source of delay to traffic. Newly signalized turn pockets would include crosswalks, making pedestrian travel easier. Further study is necessary to determine the potential impact to traffic of new signalized intersections.

The VTA's current project concept also proposes elimination of the signalized left turn at El Camino Real and Murphy Avenue. This is because of its close proximity to another signalized intersection at Sunnyvale Avenue, which therefore potentially introduces some delay to bus rapid transit service. The VTA staff indicates that they are willing to discuss retaining this left turn access.

Land Use Planning/Urban Design

The El Camino Real BRT project would provide the El Camino Real corridor with an efficient public transit system that could further many of the goals of the Precise Plan for El Camino Real. The Precise Plan encourages the inclusion of all modes of transportation, which the BRT project would attempt to meet. The BRT project would also redesign the way El Camino Real feels and operates, by including lanes dedicated to transit and bike lanes. The proposed BRT stops are located at the designated Node locations, which will better serve the higher density mixed-use projects anticipated and planned at those locations, and would bring life and energy to the Node areas. The BRT project is also anticipated to provide a more integrated streetscape design, incorporating landscaping and pedestrian improvements to each BRT stop, important goals which are difficult to require on private projects.

On the other hand, the Precise Plan also recognizes El Camino Real as a neighborhood street well used by residents in addition to being a State highway capable of moving a high number of vehicles. The increased focus on County-wide transit improvements would make it easier for people to commute to, from or through Sunnyvale, but could make the use of the Sunnyvale portion of the street more difficult by the community. The Precise Plan anticipates that much of the corridor will maintain existing types of businesses and services, and that the reduction of traffic lanes and the removal of unsignalized left turns could impact that use. Finding a good balance between providing an efficient area-wide transit system and the use of the corridor by local residents will be an important aspect of the plan.

The El Camino Real BRT project has been linked to efforts by the Grand Boulevard Initiative (GBI), which is a cooperative effort amongst various public agencies and interest groups to conceptually plan land use and roadway design features for El Camino Real throughout Santa Clara and San Mateo Counties. The Grand Boulevard Initiative envisions creation of significant streetscape, public space, and other amenities coinciding with redevelopment of properties along the roadway. The El Camino Real BRT project is a separate transit-focused initiative. It does not provide the high level of amenities advocated by the GBI. It proposes to provide crosswalk and pedestrian improvements near BRT stations at certain select intersections. GBI features would need to be provided by redevelopment efforts or other actions independent of the BRT project. BRT can be considered a catalyst for change of the character of El Camino Real consistent with the GBI vision for a walkable, bikeable street.

Encouraging development of pedestrian and transit friendly nodes may be the most significant beneficial characteristic of BRT in Sunnyvale that would otherwise be difficult to realize without a major regional transit service serving the corridor.

City Operations

Currently the City maintains certain elements of the El Camino Real right of way, by agreement with Caltrans. Median landscaping, street lights, and all features behind the roadway curb are maintained by the City. The City and Caltrans also jointly operate the Mathilda Avenue/El Camino Real traffic signal but Caltrans operates and maintains all other traffic signals on El Camino. The BRT project would alter the median, removing some landscaping and possibly impacting median streetlighting. At City staff's direction, consistent with City policies for a lush median parkway, the VTA's design concept attempts to retain as much existing landscaping as possible. It is not clear to what degree City-maintained facilities would be affected, but generally speaking there would be less landscaping to maintain, and the VTA would maintain any landscaping at BRT stations. The VTA is potentially proposing some improved sidewalk facilities at intersections with BRT stations.

Parking

The VTA's preferred preliminary strategy assumes elimination of on-street parking in Sunnyvale and provision of bike lanes. This is consistent with the City's street space allocation policies. There are currently 337 on-street parking spaces on El Camino Real, and typical peak occupancy is around 25% of spaces, although some areas are more heavily utilized than others. There are 6,575 off-street and side-street parking spaces along El Camino Real that typically realize low parking occupancy, around 35%. Staff believes that elimination of on-street parking on El Camino Real could be absorbed by existing unoccupied off-street and side street parking. If areas are identified where on-street parking is critical, it may be possible to modify the project geometry, for example by reducing median or travel lane widths, so that parking is retained. Detailed parking study information is available on the VTA's bus rapid transit web site at <http://www.valleyrapid.org/el-camino-real-parking-survey/>

When staff met with representatives of several car dealerships, removal of on-street parking was a major concern. A more detailed review of on-street parking needs along El Camino could be incorporated into the next phase of design. Some areas of parking could be retained by reconfiguring other roadway features such as the width of medians.

Right of Way

The VTA's design objective for the current conceptual design was to eliminate or avoid the acquisition of private right of way for the BRT project. The current concept would likely require narrow areas of right of way acquisition along the

street frontage near the intersections of Hollenbeck Road, Wolfe Road, and Remington Drive. The preliminary design also shows short segments at the same intersections where the bike lane would be dropped due to right of way constraints. This assumes the four lanes plus two bus rapid transit lanes plus bike lanes configuration. While right of way needs would not ultimately be known until detailed design was initiated, it currently appears that the project would impact private property. There is still the potential to further minimize right of way impacts, which is the VTA's objective. It may be possible to modify the project geometry to provide bike lanes and minimize right of way impacts. Further evaluation of the tradeoffs between right of way needs and desire for certain roadway features such as medians, busway width, and bike lanes is needed if the project moves forward.

Bicycles and Pedestrians

The project would install bike lanes, high visibility crosswalks, and potentially some curb extensions at crosswalks. These would constitute improvements to bicycle and pedestrian conditions. El Camino Real experiences the highest rate of bicycle and pedestrian collisions of any street in Sunnyvale. These features may provide a significant safety improvement to the roadway, and should increase the level of bicycling along the corridor.

If the City were to support construction of additional signalized mid-block left/U-turn intersections, these would further improve pedestrian conditions by providing new controlled crossing locations for pedestrians. Currently the road experiences jaywalking due to the distance between legal controlled pedestrian crossings.

The VTA projects in 2035 that there would be an 84% increase in transit ridership on El Camino Real routes with BRT over the existing level of transit service. This would create a fairly significant increase in the transit plus pedestrian mode share. Currently pedestrian travel constitutes about 2% of trips in Sunnyvale. The projected transit use increase with BRT will also increase the number of pedestrian trips along El Camino Real. Pedestrian trips would remain a relatively small percentage of the overall mode share, however.

At its March 15, 2012 meeting the Bicycle and Pedestrian Advisory Commission considered the bicycle and pedestrian aspects of the BRT project. Commissioners indicated that the spacing of signalized, full access intersections is so great that it necessitates crossings between the intersections, and that safe crossings for bicycles and pedestrians can address the current danger of crossing El Camino Real at mid-block locations.

Climate Action

With the passage of AB 32 and SB 375, jurisdictions in California are required to meet greenhouse gas emissions targets. The El Camino Real BRT project, by virtue of affecting a shift of travelers from the automobile mode to the transit

mode, would have a positive effect on greenhouse gas emissions. The VTA estimates in 2035 that the project would provide a reduction in greenhouse gas emissions of 4,555 tons per year. This would constitute approximately 2% of the City's required level of reduction to meet AB 32 requirements.

The pending Climate Action Plan for Sunnyvale contains a number of proposed measures that support creating hubs for regional transit, transit signal priority, and general transit service improvements that the El Camino Real Bus Rapid Transit project would be consistent with.

Environmental Review

The El Camino Real BRT Project is at an early preliminary design stage. Should sufficient support be realized from cities along the corridor, the VTA would then pursue preparation of environmental documents and Federal transit funding, which likely would mean preparation of an Environmental Impact Report/Statement. Currently much information is not available on the impacts of a potential project, including detailed traffic impacts on roadways that would realize diverted traffic, impacts to mature landscaping, and detailed analysis of El Camino Real traffic operations. Preparation of environmental documentation provides another opportunity for the City to closely review and evaluate the project. The VTA envisions completing this work by 2014.

Should the environmental report discover greater traffic impacts than the current level of analysis, City staff believes that mitigation or other forms of offsetting transportation improvements should be negotiated with the VTA. While detailed traffic information is not yet available, this may include improvements to travel corridors outside of the El Camino Real corridor, such as Central Expressway, Evelyn Avenue, Remington Drive, and/or Highway 101.

FISCAL IMPACT

There is no commitment of funding on the part of the City by taking a position on the El Camino Real Bus Rapid Transit project at this time. Should a project be implemented, there may be unknown associated City operating costs for maintenance of streetscape, lighting, and traffic signal or other elements of a project.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin boards outside City Hall, in the Council Chambers lobby, the City Clerk's office, at the Library, Senior Center, Community Center, and Department of Public Safety; posting the agenda and report on the City's Web site; and making the report available at the Office of the City Clerk.

Also, the Bicycle and Pedestrian Advisory Commission held two public meetings on the BRT topic on May 26, 2011 and March 15, 2012. Minutes of the meetings are attached (Attachments D and E). City Council heard a

presentation by VTA staff on the El Camino Real BRT at its March 29, 2011 meeting. The City has hosted two community meetings, both on April 17, 2012. A meeting summary is attached (Attachment F). Additionally, the Santa Clara Valley Transportation Authority held a series of meetings and open houses in Sunnyvale on the project, for interested groups, including businesses along El Camino Real. Staff also met with several representatives of car dealerships located on El Camino to understand their concerns.

On May 8, 2012, City Council held a joint study session with the Planning and Sustainability Commissions. City staff and representatives from VTA made a presentation and answered questions from the Council and Commissions.

ALTERNATIVES

1. Take a formal position to support the El Camino Real Bus Rapid Transit Project with dedicated bus lanes as proposed by the Santa Clara Valley Transportation Authority.
2. Take action to conditionally support the El Camino Real Bus Rapid Transit Project with a configuration of four travel lanes, two dedicated bus lanes, and two bicycle lanes in Sunnyvale. Staff suggests that at a minimum the following conditions be placed on Sunnyvale's support for the project:
 - a. Mitigate or offset to the satisfaction of the City of Sunnyvale any environmental impacts caused by the project within Sunnyvale identified in subsequent environmental documentation including the potential impacts of traffic diverted from El Camino to other roadways in Sunnyvale.
 - b. Develop and execute an operations and maintenance agreement establishing responsibilities for maintenance of landscaping, lighting, decorative crosswalk features, traffic signals and interconnect, and other project elements, and parameters of signal and BRT operations which does not increase Sunnyvale's current maintenance obligations to the mutual satisfaction of the VTA, the California Department of Transportation, and the City of Sunnyvale.
 - c. Study, secure California Department of Transportation approval, construct, and maintain new mid-block signalized left turn and pedestrian crossing intersections at up to seven locations, as approved by the City of Sunnyvale.
 - d. Conduct pre-project and post-project (initiated within 6 months of project opening) traffic studies with a goal to maintain corridor speeds on El Camino Real, and on the corridors of Mathilda Avenue, Remington/Fair Oaks Avenue, Mary Avenue and Wolfe Road at their intersection with El Camino Real to the maximum extent feasible. If post-project traffic studies show a degradation of intersection level of service from pre-project conditions of one grade level or more at any

location, or if corridor travel times degrade greater than 5% from pre-project conditions, VTA shall utilize all reasonable and feasible measures including but not limited to state of the art signal operations systems, intersection capacity enhancements, management of transit pre-emption to maximize corridor speeds and person-throughput.

- e. Work with the City to evaluate opportunities and tradeoffs to minimize right of way acquisition and provide continuous bike lanes through modification of the project design.
 - f. Initiate a Community-Based Transportation Study in Sunnyvale upon VTA Board approval of a Preliminary Investment Strategy for El Camino Real Bus Rapid Transit. Such a study shall consider at a minimum, potential sources of transit ridership and trip linkages within Sunnyvale, and make recommendations for specialized service such as community bus or shuttles from City trip generators and neighborhoods to major transit corridors such as Caltrain, Tasman West light rail, or a future BRT corridor on El Camino Real. Recommendations from the Study shall be included as recommendations in the draft environmental document for the El Camino Real Bus Rapid Transit Project as potential project mitigation.
 - g. Evaluate existing curb-side bus stops on El Camino with a goal to reduce delay to through traffic while local buses are boarding. Make improvements such as creating or extending bus duck outs to minimize delays.
 - h. Work with the City to further evaluate the need for on-street parking for businesses including, car dealerships. Prepare alternatives for the City's consideration as part of the preliminary engineering phase that would modify roadway features, such as median widths, in selected locations so that on-street parking could be retained.
 - i. Other conditions as identified by the City Council.
3. Take a formal position to support the El Camino Real Bus Rapid Transit Project with the condition that six lanes of traffic be retained on El Camino Real and BRT vehicles operate in mixed flow lanes in Sunnyvale.
 4. Do not take action at this time.

RECOMMENDATION

Staff recommends Alternative No. 2 with conditions a through h: Take action to conditionally support the El Camino Real Bus Rapid Transit Project with a four travel lane plus two dedicated bus lane configuration in Sunnyvale.

Staff finds that the El Camino Real Bus Rapid Transit Project achieves many of the City's policy objectives for El Camino Real. Those elements of the project that are potentially in conflict with City policy, notably roadway service levels can be addressed through a series of conditions placed upon the City's support for the project. To the extent that these are met, and staff believes that the identified conditions are realistic and achievable within the bounds of the proposed project, then it can be concluded that the El Camino Real Bus Rapid Transit project would largely address City interests and provide a significant asset for modal shift, reduction of vehicle miles traveled, emissions/greenhouse gas reductions, and bicycle and pedestrian access and safety.

The proposed project was considered by the City's Bicycle and Pedestrian Advisory Commission on March 15, 2012. The Commission voted unanimously to support a four lane plus dedicated bus lanes plus bicycle lanes alternative with the provision that existing cross street access is maintained for bicycles and pedestrians.

Reviewed by:

Kent Steffens, Director of Public Works

Prepared by: Jack Witthaus, Transportation and Traffic Manager

Approved by:

Gary M. Luebbbers,
City Manager

ATTACHMENTS

- A. Additional City Policies Germane to the Bus Rapid Transit Project
- B. Sunnyvale Station Locations Map
- C. Diverted Traffic Charts
- D. BPAC Meetings Minutes of May 26, 2011
- E. BPAC Meeting Minutes of March 15, 2012
- F. Community Meetings Summary of April 17, 2012 1:30 PM and 7:00 PM

Attachment A
Additional City Policies Germane to the El Camino Real Bus Rapid Transit Project

General Plan

Policy LT-1.1 Advocate the City's interests to regional agencies that make land use and transportation system decisions that affect Sunnyvale.

Policy LT-1.2 Support coordinated regional transportation system planning and Improvements.

Policy LT-1.4 Achieve an operation level of service (LOS) "E" or better for all regional roadways and intersections as defined by the City functional classification of the street system.

Policy LT-1.7 Contribute to efforts to minimize region-wide average trip length, and single-occupant vehicle trips.

Policy LT-1.8 Support statewide, regional and sub-regional efforts that provide for an effective transportation system.

Policy LT-1.9 Support flexible and appropriate alternative transportation modes and transportation system management measures that reduce reliance on the automobile and serve changing regional and City-wide land use and transportation needs.

Policy LT-4.5 Support a roadway system that protects internal residential areas from City-wide and regional traffic.

Policy LT-4.10 Provide appropriate site access to commercial and office uses while preserving available road capacity.

Goal LT-5 Effective and Safe Transportation — Attain a transportation system that is effective, safe, pleasant, and convenient.

Policy LT-5.1 Achieve an operating level-of-service (LOS) of "D" or better on the City-wide roadways and intersections, as defined by the functional classification of the street system.

Policy LT-5.2 Integrate the use of land and the transportation system.

Policy LT-5.5 Support a variety of transportation modes.

Policy LT-5.6 Minimize expansion of the current roadway system, which maximizing opportunities for alternative transportation systems and related programs.

Policy LT-5.8 Provide a safe and comfortable system of pedestrian and bicycle pathways.

Policy LT-5.9 Appropriate accommodations for motor vehicles, bicycles, and pedestrians shall be determined for City streets to increase the use of bicycles for

transportation and to enhance the safety and efficiency of the overall street network for bicyclists, pedestrians, and motor vehicles.

Policy LT-5.10 All modes of transportation shall have safe access to City streets.

Policy LT-5.12 City streets are public space dedicated to the movement of vehicles, bicycles and pedestrians. Providing safe accommodation for all transportation modes takes priority over non-transport uses. Facilities that meet minimum appropriate safety standards for transport uses shall be considered before non-transport uses are considered.

Policy LT-5.13 Parking is the storage of transportation vehicles and shall not be considered a transport use.

Policy LT-5.14 Historical precedence for street space dedicated for parking shall be a lesser consideration than providing street space for transportation uses when determining the appropriate future use of street space.

Policy LT-5.17 Bike retrofit projects shall be evaluated based on the merits of each project in the context of engineering and planning criteria.

Policy LT-5.18 The City Council shall make the final decisions on roadway space reconfiguration when roadway reconfiguration will result in changes to existing accommodations.

Policy LT-5.19 Public input on roadway space reconfiguration shall be encouraged and presented independently of technical engineering and planning analyses.

Policy LT-5.21 Safety considerations of all modes shall take priority over capacity considerations of any one mode.

Policy LT-6.2 Balance land use and transportation system carrying capacity necessary to support a vital and robust local economy.

Policy LT-6.3 Consider the needs of businesses as well as residents when making land use and transportation decisions.

Policy CC-2.1 Maintain and provide attractive landscaping in the public right-of-way to identify the different types of roadways and districts, make motorists more comfortable and improve the enjoyment of residential neighborhoods.

Policy CC-2.2 Minimize elements which clutter the roadway and look unattractive.

Policy HE-6.3 Continue a high quality of maintenance for public streets, rights-of-way, and recreational areas, and provide safe pedestrian, bike, and transit linkages (accessibility) between jobs, residences, transportation hubs, and goods and services.

Policy EM-11.5 Reduce automobile emissions through traffic and transportation improvements.

Policy EM-11.6 Contribute to a reduction in Regional Vehicle Miles Traveled.

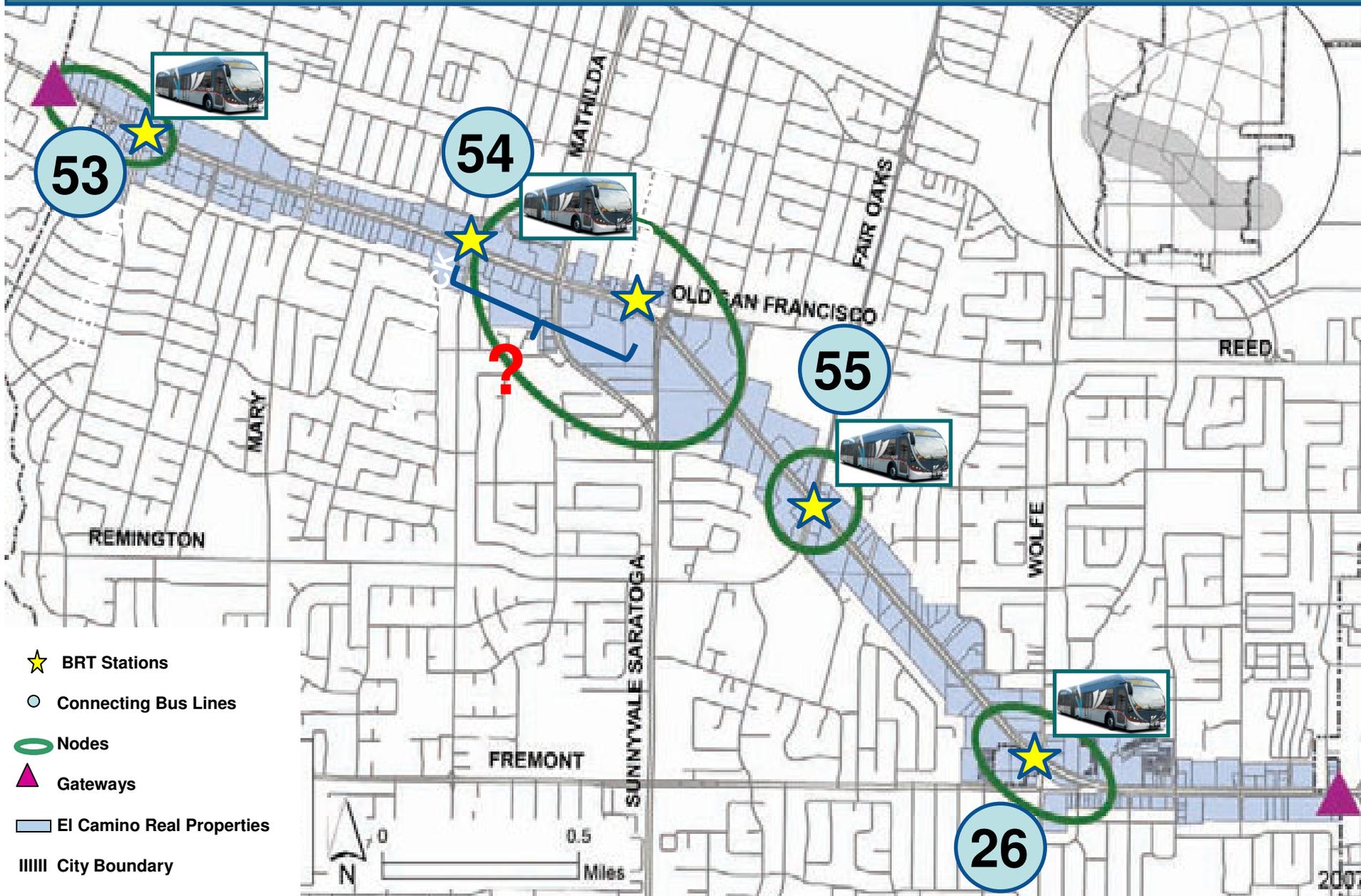
El Camino Real Precise Plan

Goal 3.2.3 To maintain and enhance the capacity of the street to accommodate automobile and transit traffic, while providing improved facilities for bicyclists and pedestrians.

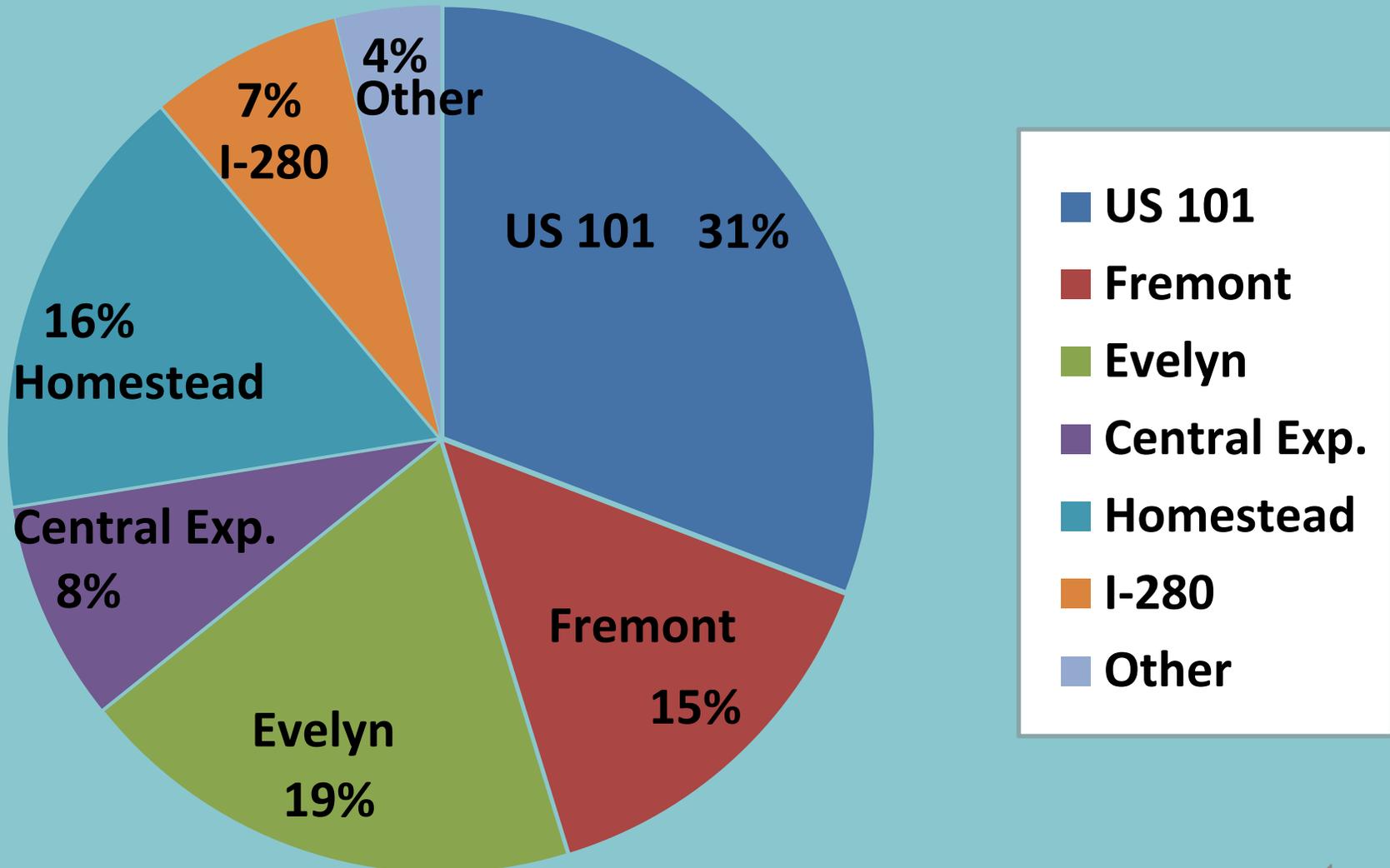
Goal 3.2.8 T Encourage development which supports the use of public transit.

Policy 3.4.6 Utilize an integrated design of median landscaping, street trees, directional signage, parkway landscaping, and sidewalks and crosswalks to unify and create a distinctive character for Sunnyvale's El Camino Real.

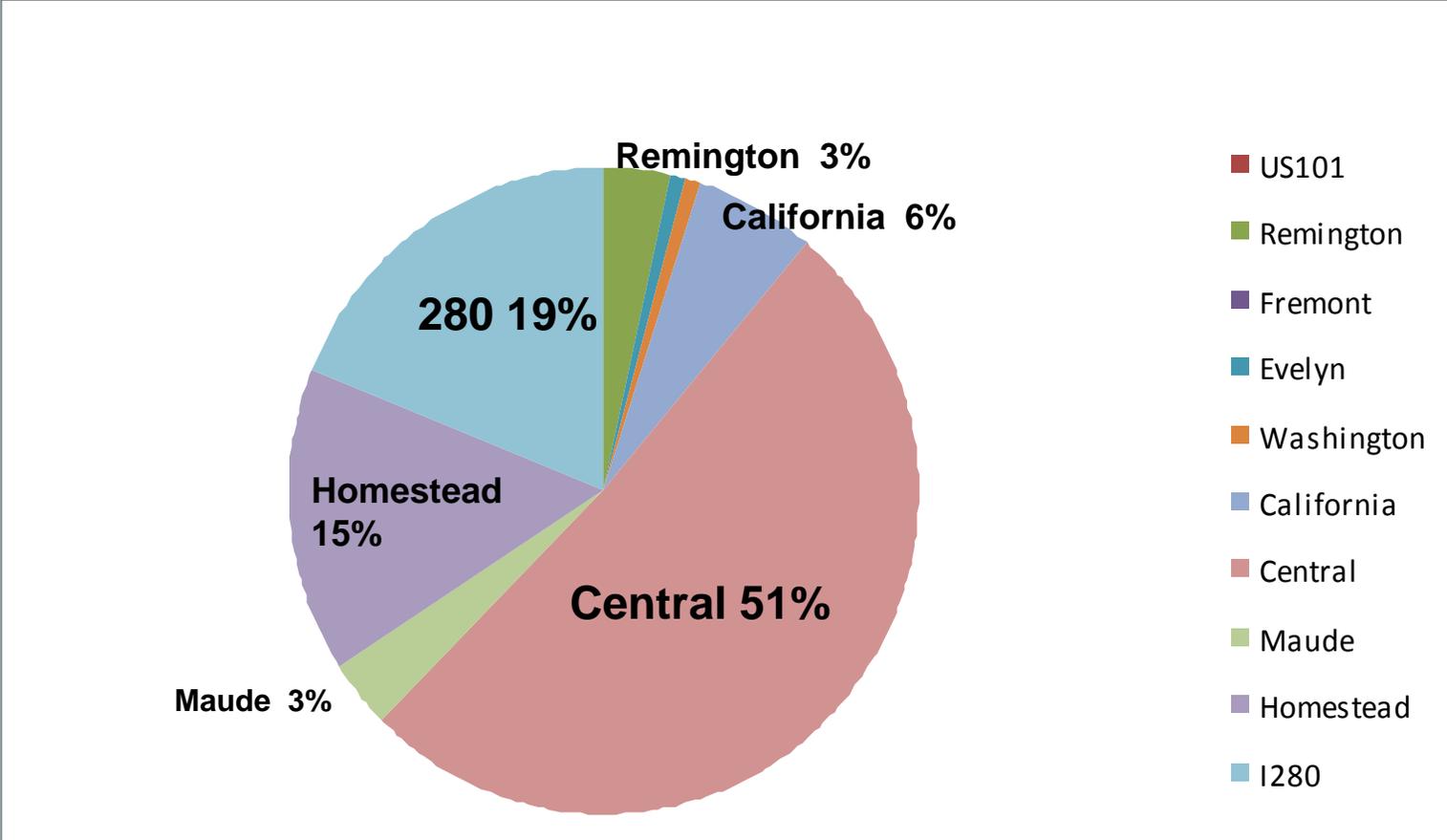
Proposed BRT Station Locations



Attachment C - Distribution of 415 Eastbound Diverted Auto Trips at Mathilda



Attachment C - Distribution of 117 Westbound Diverted Auto Trips at Mathilda





FINAL

**SUNNYVALE BICYCLE AND PEDESTRIAN ADVISORY COMMISSION
Special Meeting Minutes – May 26, 2011**

The Sunnyvale Bicycle and Pedestrian Advisory Commission met at 6:35 p.m. on May 26, 2011 with Commission Chair Patrick Walz presiding. The meeting was held in the West Conference Room, City Hall, 456 West Olive Avenue, Sunnyvale.

ROLL CALL/CONSIDERATION OF ABSENCES

Members Present: Andrea Stawitcke
Angela Rausch
Cathy Switzer
David Gandrud
James Manidakos
Patrick Walz
Ralph Durham

Members Absent: None

Staff Present: Jack Witthaus, Transportation and Traffic Manager, Department of Public Works
Officer Scott Cortese, Department of Public Safety

PUBLIC ANNOUNCEMENTS

Chair Walz announced that he and Commissioner Durham would be participating in a team triathlon.

Kevin Jackson, member of the public and the Horizon 2035 Committee, announced that transportation policies are being developed by staff and the Horizon 2035 Committee. He summarized events at a recent meeting of the Stevens Creek Trail Working Group.

CONSENT CALENDAR

1.A) Approval of Draft Minutes of the April 28, 2011 Meeting – Item pulled by Commissioner Durham

1.B) Approval of the 2011 BPAC Calendar Update

Commissioner Durham moved and Commissioner Stawitcke seconded the motion to approve Consent Calendar item 1.B.

Motion passed: 7-0.

1.A) Approval of Draft Minutes of the April 28, 2011 Meeting – Under Non-Agenda Items and Comments, Commissioner Durham clarified that he wants Share the Road signs on Tasman Drive replaced with Bikes Allowed Full Use of Lane signs.

The public hearing was opened. Kevin Jackson asked if it could be specified under item 2 that the road diet better accommodates adult tricycles and baby trailers. Under item 6, he asked if “all users” could read “all transportation users”, and that moving vehicles should have higher priority.

Commissioner Durham moved and Commissioner Stawitcke seconded the motion to approve Consent Calendar item 1.A as amended by BPAC members and with public comments.

Motion passed: 7-0.

PUBLIC COMMENTS

Mark Aubin presented traffic concerns in his neighborhood at San Diego Avenue and Hemlock Street. He was concerned about vehicles parking on corners and at fire hydrants. He sought the Commission’s support for allowing volunteers to paint red curb. He expressed concerns about speeding vehicles as well. Chair Walz directed him to the City’s Traffic Calming Program and requested that staff provide information.

Patty Duke spoke on the same issue, and asked for a simple solution.

Michael Rose spoke on the same issue, and stated that utilizing volunteers is an opportunity for the City.

Steven Chan spoke on the same issue and relayed his observations of traffic.

The aforementioned public members expressed their dissatisfaction with the City’s level of attention to the issue, and their willingness to paint the curb red on their own expense.

PUBLIC HEARINGS/GENERAL BUSINESS

2. DISCUSSION: Santa Clara Valley Transportation Authority (VTA) Presentation and Discussion of the Bus Rapid Transit (BRT) Project along El Camino Real

Stephen Fisher and Adam Burger of the VTA staff gave a Powerpoint presentation on the scope and goals of the El Camino Real Bus Rapid Transit project. The project is in the conceptual engineering phase.

Commissioners asked questions regarding universal ticketing, supporting land uses, bicycle data, extension of the project to San Mateo, the type of buses, the uniformity of design from jurisdiction to jurisdiction, and whether there would be a Citizens Advisory Board.

The public hearing was opened. Kevin Jackson stated that bikes on buses should be maximized. He believes that a lower number of travel lanes provides better accommodation for transit-friendly modes. He discouraged the use of bulbouts.

3. ACTION: Closing Murphy Avenue - Study Issue DPW 11-06 (Draft RTC)

Jack Witthaus gave the staff report. The Commission discussed the level of support from businesses, the effect of closure on access for the less mobile and for delivery vehicles, parking availability in the area, the type of bollards, creating drop off and delivery parking near Murphy Avenue, and a limited period closure or trial closure. Commissioner Rausch indicated that limiting use of the street for walking only was not a sufficient benefit for limiting overall access. Commissioner Gandrud stated that since only about one half of the Murphy Avenue businesses provided feedback, follow-up contact should be made to seek input from non-respondents.

The public hearing was opened. Kevin Jackson stated the he believes that closure supports bicycle and pedestrian use, issues with drop off and delivery could be addressed, and that there is a high number of supporters for a trial closure.

Commissioner Manitakos moved and Commissioner Durham seconded the motion to approve Alternative 1, Direct staff to prepare a specific proposal to close Murphy Avenue to automobile traffic at a time period designated by the City Council. Friendly amendment by Stawitcke to indicate a preference by the BPAC for a trial closure.

Motion passed: 5-2, with friendly amendment accepted. Commissioners Rausch and Gandrud opposed.

5. DISCUSSION: Draft BPAC Letter to DPS with regard to Traffic Enforcement

Item 5 taken out of order. Commissioners Durham and Switzer presented the output of a sub-committee formed to identify key traffic violations for bicyclists and pedestrians. The Commission discussed the contents of the draft letter and suggested additions. Commissioner Durham indicated that he would donate bike lights as incentive for the Department of Public Safety to promote conformance to traffic laws. Officer Cortese discussed current Department efforts and bicycle training.

The public hearing was opened. Kevin Jackson commented on bicycle lights.

Staff indicated that the sub-committee suggestions would be formatted into a memorandum from the BPAC liaison to the Department of Public Safety for a response. The BPAC requested that the memorandum be reviewed by BPAC prior to being sent to the Department of Public Safety.

4. DISCUSSION: Review of the Detailed Two-Year Budget

Jack Witthaus gave the staff report. The Commission discussed the pavement maintenance budget.

The public hearing was opened. Kevin Jackson supported increased pavement maintenance for bike lanes only.

NON-AGENDA ITEMS AND COMMENTS

- BOARD MEMBERS OR COMMISSIONERS ORAL COMMENTS

Chair Walz commented on taking photos to be used for the utility bill stuffer. June 7 at 6 PM was indicated by consensus as a possible date for taking the photos.

Commissioner Manidakos relayed observations of low parking demand on Pastoria Avenue.

Chair Walz and Commissioner Switzer summarized participation and issues on Bike to Work Day.

Commissioner Durham commented on illegal u-turns at Moffett Park Drive and Caribbean Drive.

Commissioner Switzer commented on Share the Road signs on Tasman Drive.

- STAFF ORAL COMMENTS

Staff announced the retirements of Director of Public Works, Marvin Rose, and Public Safety Chief, Don Johnson. Former Chief Johnson took on a similar position in another state.

INFORMATION ONLY ITEMS

6. BPAC E-mail messages and/or letters since circulation of the agenda packet of the April 28th meeting.

7. BPAC Active Items List.

Accepted as submitted.

ADJOURNMENT

Meeting adjourned at 8:49 p.m.

Respectfully submitted by:

Jack Witthaus
Transportation and Traffic Manager



**SUNNYVALE BICYCLE AND PEDESTRIAN ADVISORY COMMISSION
Meeting Minutes – March 15, 2012**

The Sunnyvale Bicycle and Pedestrian Advisory Commission met at 6:35 p.m. on March 15, 2012 with Commission Chair Ralph Durham presiding. The meeting was held in the West Conference Room, City Hall, 456 West Olive Avenue, Sunnyvale.

ROLL CALL/CONSIDERATION OF ABSENCES

Members Present: Andrea Stawitcke
Angela Rausch
David Gandrud
James Manidakos
Ralph Durham

Members Absent: Cathy Switzer (excused)

**Council Liaison
Present:** Chris Moylan

Staff Present: Kent Steffens, Director of Public Works, Department of Public Works
Jack Witthaus, Transportation and Traffic Division Manager, Department of Public Works

Visitors: Kevin Jackson, Horizon 2035 Committee member
Camie Hackson, Stevens Creek Neighbors
Robynn MacNeal, Safe Routes to School representative

SCHEDULED PRESENTATION

None.

PUBLIC ANNOUNCEMENTS

Commissioner Stawitcke announced that she would not be able to attend the April BPAC meeting.

Kevin Jackson discussed an upcoming Silicon Valley Bicycle Coalition and City of Mountain View bicycle education seminar, to be presented in Spanish. He announced that the County/City Safe Routes to School project will be holding bike rodeos at Sunnyvale schools and announced that a bike ride is being planned for the Ponderosa School area on May 19, and volunteers are welcomed. The first rodeo will be at Ellis School on April 5. He announced a public meeting on the Draft Horizon 2035 Plan on March 15 at Fair Oaks Park. He announced bicycle events associated with the City Centennial celebration on August 25, and 26. He stated that he had contact with representatives of Apple and Google and that they were interested in bicycling initiatives. He announced that the City of Cupertino had received an American Council of Engineering Companies award for its Stevens Creek restoration project.

CONSENT CALENDAR

- 1.A) Approval of Draft Minutes of the February 16, 2012 Meeting
- 1.B) Approval of the 2012 BPAC Calendar Update

Item 1.A was pulled by Commissioner Gandrud. Commissioner Gandrud clarified that under Public Hearing item 3, he had stated that he was concerned that there could be liability to the City if there were significant adverse impacts from removal of on-street parking.

Motion by Manidakos, second by Stawitcke to approve the minutes as amended and accept the BPAC Master Calendar. Motion approved, 5-0.

PUBLIC COMMENTS

Kevin Jackson stated that with regard to the Pastoria Avenue bike lanes project, he believes that staff should make a case for residents getting by without on-street parking. He believes that staff recommendations should be made on engineering and policy judgment, independent of public input.

PUBLIC HEARINGS/GENERAL BUSINESS

- 1. ACTION: Transportation Development Act Article 3 Funding Recommendation

Chair Durham recused himself from the meeting on account of his residence' proximity to one of the proposed project locations to be considered for a funding recommendation. Vice-Chair Manidakos assumed the Chair's role.

Staff gave a report.

Acting Chair Manidakos indicated concern that the Sunnyvale Avenue/Old San Francisco Road was primarily to benefit auto traffic. He indicated support for the Duane Avenue bike lanes project.

The public hearing was opened. Kevin Jackson indicated support for the Duane Avenue project. He suggested two other candidate projects, placement of Bikes Allowed Use of Full Lane signs and funding for establishing no parking zones at signalized and stop controlled intersections.

The public hearing was closed.

Motion by Stawitcke, second by Manidakos, for a funding recommendation to rank the Duane Avenue bike lanes project first, Pedestrian Safety and Opportunities Study improvements second, and Old San Francisco/Sunnyvale Avenue improvements third. Commissioners indicated that they support the exclusive bike focus of the Duane Avenue project, that the Pedestrian Safety and Opportunities Study improvements were primarily curb retrofits that did not provide new facilities, and that the Old San Francisco Road/Sunnyvale Avenue project was too car-oriented. Motion passes, 4-0.

- 2. ACTION: El Camino Real Bus Rapid Transit Conceptual Engineering/Alternatives Study Recommendation

Chair Durham assumed the Chair.

Staff gave a report summarizing where the Santa Clara Valley Transportation Authority (VTA) is in their process to consider Federal funding for El Camino Real bus rapid transit (BRT) and why the City is being solicited for a position. Staff indicated that the BPAC should consider the project as a whole, and specific elements of the project alternatives, from a bicycle and pedestrian perspective. Staff stated that a community meeting would be held on April 17 at the Community Center at 7 p.m.

Council Liaison Moylan provided some history on the development of BRT planning and light rail development in Sunnyvale and Santa Clara County. At Council Liaison Moylan's request, staff explained that Federal funding requires that 50% of the project corridor be dedicated bus lanes, and that only Santa Clara has indicated support for dedicated lanes. Sunnyvale and Mountain View have not taken formal positions, but their support would be necessary to qualify the project for Federal funds.

Vice-Chair Manitakos expressed concern about bike space at station locations. He noted that 14' lanes at bulb outs would meet the VTA Bicycle Technical Guidelines. He presented an analysis concluding that 9 of 24 unsignalized crossings or turn pockets would be closed by a dedicated lane option, which would require detours of over 1 mile at some locations for cyclists to cross the street. He indicated he did not support dedicated lanes without provisions to maintain access across the street. He supports BRT with dedicated lanes if it is appropriately designed and implemented and maintains or addresses access across the street. He questioned the precision of detailed greenhouse gas and traffic projections.

Commissioner Rauch inquired about rider demographics. Council Liaison Moylan indicated that Alum Rock BRT users would be mostly transit dependent, lower income citizens, while El Camino bus service serves a more mixed demographic, including a high number of commuters.

Commissioner Stawitcke stated that the project would likely be a good thing for El Camino corridor traffic, but not good for bicycle access across the corridor, and may even discourage bicycle riding. She indicated opposition to bulb outs. She believes that the cities not supporting dedicated lanes should be encouraged to support dedicated lanes throughout the corridor.

Commissioner Gandrud asked for an independent analysis of the VTA's findings.

Chair Durham pointed to Tasman Drive bicycle and pedestrian impacts of light rail as an example of how dedicated lanes could become a barrier to travel in the City and a deterioration of bicycle conditions. He stated that the project should address the significant existing pedestrian safety issues on El Camino Real. He stated that El Camino Real is a major travel corridor accessing the entire Peninsula, and it needs bike lanes. He believes that off-street parking supply can easily absorb the on-street demand, and on-street parking should be eliminated to provide bike lanes. He questioned travel diversion statistics. He believes that bulb outs would need to be demarcated. He indicated that he does not support mixed flow lanes because of the lack of transit benefit.

The public hearing was opened. Robynn MacNeal indicated that schools for residents north of El Camino are located south of El Camino, and the roadway presents a major barrier for school kids to walk and bike to school. She asked for improved bike and pedestrian conditions to cross El Camino. Council Liaison Moylan indicated that at a recent forum a representative of the County Health Department had indicated that dedicated lane BRT would improve bicycle and pedestrian safety.

Kevin Jackson indicated that mixed flow and six lane alternatives did not provide transit, urban design, and bicycling benefits. He believes that providing dedicated lanes by removing a travel lane in each direction address all aspects of the roadways current travel problems.

The public hearing was closed.

Motion by Manidakos, second by Gandrud, to support a four lane plus dedicated bus lanes alternative with the provision that existing cross street access, particularly left and U-turn access at existing unsignalized turn pockets, is maintained for bicycles and pedestrians. Commissioners indicated that the spacing of signalized, full access intersections is so great that it necessitates crossings between the intersections, and that safe crossings for bicycles and pedestrians can address the current danger of crossing El Camino Real at mid-block locations. Motion passes, 5-0.

NON-AGENDA ITEMS AND COMMENTS

- COMMISSIONERS ORAL COMMENTS

Commissioner Stawitcke inquired about Bike to Work Day.

Commissioner Rausch indicated that she would not be able to attend the April BPAC meeting. She inquired about noticing for the Pastoria Avenue bike lanes neighborhood meeting.

Commissioner Gandrud stated that he would not be able to attend the May meeting.

Vice-Chair Manidakos inquired about bike counts on El Camino Real, and the traffic volume on Pastoria Avenue.

- STAFF ORAL COMMENTS

Staff provided an update on developer-funded bicycle projects on Moffett Park Drive and Fair Oaks Avenue.

INFORMATION ONLY ITEMS

1. BPAC E-mail messages and/or letters since circulation of the agenda packet of the January 19, 2012 meeting.
2. BPAC Active Items List.

Commissioner Stawitcke inquired about an email message about a sidewalk obstruction.

Director Steffens reiterated that there would be a community meeting on the El Camino Real BRT project on April 17 at 7 p.m. at the Community Center.

The Information Only items were accepted as submitted.

ADJOURNMENT

Meeting adjourned at 8:22 p.m.

Respectfully submitted by:

Jack Witthaus
Transportation and Traffic Manager

**El Camino Real BRT Conceptual Engineering
Sunnyvale Q&A Meeting Notes**

DATE/TIME: April 17, 2012 1:30 and 7:00 PM
LOCATION: Sunnyvale Community Center
SUBJECT: El Camino Real BRT Questions and Answers

MEETING NOTES BY: Carla Vincent, Parsons

ATTENDEES: Kevin Connolly (evening), Steve Fisher, Adam Burger – VTA
 Jack Witthaus, Joel Arreola, Kent Steffens, Chris Moylan (evening) – City of Sunnyvale
 Terry Klim – DKS
 Carla Vincent – Parsons
 Members of the Public

Jack Witthaus opened the meetings explaining that VTA has proposed a Bus Rapid Transit (BRT) project and will provide a brief presentation, followed by a series of questions prepared in advance by the City of Sunnyvale staff based on what they have heard from the public as well as their own issues. These questions were provided to VTA in advance so VTA could prepare responses. The presentation can be downloaded from www.valleyrapid.org. Questions from the members of the public were taken throughout the presentation as well as afterward. These notes combine the two meetings since many of the questions and topics were repeated. Further these notes summarize the discussions rather than present a verbatim record, but these notes strive to capture all the questions. Steve Fisher made the presentation for VTA in the afternoon session; Kevin Connolly made the presentation in the evening.

Overview of BRT and El Camino Real BRT Project

VTA began with a definition of BRT. BRT is a form of transit that provides faster, more reliable service than standard bus service, at a lower cost than light rail transit. It uses specially-branded buses; VTA will use hybrid (diesel-electric) 60-foot articulated (“bendable”) buses. It has enhanced stations with amenities such as benches and trash cans, but also real-time information displays and ticket vending machines; the canopies are similar to those found at light rail stations. Off-board fare collection speeds up travel times. In some areas BRT uses dedicated bus-only lanes.

In 2009 VTA adopted a BRT Strategic Plan that identified three corridors for implementation— Santa Clara-Alum Rock from Eastridge to HP Pavillion in San José is in final design and will start service in 2014; El Camino Real from HP Pavillion to the Palo Alto Transit Center is in the conceptual engineering phase with a target start of service in 2016; a contract for Stevens Creek detailed planning will be awarded in May.

VTA’s recommended strategy for the El Camino Real BRT includes dedicated lanes from Showers Drive in Mountain View to Lafayette Street in Santa Clara, with stations in the median of El Camino Real. In other portions, buses would travel in mixed flow traffic and stop at curbside stations where the sidewalk is extended into the roadway.

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Prepared Questions and Answers see www.valleyrapid.org.

Ridership

How many more people will use the BRT?

VTA expects the ridership in the corridor to nearly double from its current level.

Have rider surveys been done?

Yes, VTA did a comprehensive operations analysis based on rider surveys. It indicates that increasing the speed of service and adding amenities such as wi-fi, will yield more riders.

I've worked on El Camino Real for 25 years. 99% of the buses are empty. (Some members of the public agreed, others disagreed.)

El Camino Real is VTA's highest ridership corridor, with approximately 20% of all riders.

Traffic Projections

What's the basis of the traffic projections?

Traffic projections are based on the VTA's countywide calibrated travel demand model which uses employment and population forecasts and land use data.

How long are the trips taken on BRT?

Typically 8 miles, while local bus trips are in the 3-4 mile range.

Are there year 2025 traffic projections?

No, the horizon years studied are 2015 and 2035.

Traffic Flow/Level of Service

Most people prefer independent travel. Has VTA done an analysis of the time cost of using the dedicated lane for just buses?

No, but initial level of service analysis indicates that delays on El Camino Real will be similar to a "No Project" scenario.

You mean you'll remove 33% of the capacity?

Yes, the dedicated lanes would remove 33% of the *automobile* capacity, but BRT will add service and provide a good transit choice.

What happens if there is a breakdown?

The same as happens today.

What happens to LOS in a mixed flow configuration?

Buses run in a mixed flow configuration today; there would be almost no change in LOS with BRT in mixed flow.

Could VTA do a real-time study to see what happens to traffic with just two lanes on El Camino Real—that is, close a lane for a week?

It wouldn't provide a realistic or accurate picture of the long-term situation. This type of study would be treated as an incident and people react differently to an incident than to a known condition—they plan their trips differently.

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Aren't there other places that have implemented BRT in dedicated lanes? What has happened there?

Cleveland's Health Line BRT saw ridership increase and it's become a thriving corridor. Eugene's Emerald Express also had immediate ridership increases and business thrives. Los Angeles used an abandoned rail right of way.

LRT took lanes from First Street and the corridor continues to attract businesses and the LOS works.

A member of the public offered that in Arlington, VA, lanes were taken for the Washington Metro and LOS did not deteriorate.

If the LOS is F, how do we know it doesn't change?

The intersection may stay at F and experience more delay.

The intersection of northbound El Camino Real at SR 85 needs improvement.

Noted.

Would it be possible to add more lanes since cars are smaller these days?

Caltrans controls the width of lanes—the minimum width would be 11 feet. Additional lanes would require right of way.

If the east-west bus has signal priority, that won't be good for the north-south movements.

Buses on El Camino Real have had signal priority at most locations since 2005.

Operations

What kind of fuel is used?

Diesel electric hybrid—gets 25% better mileage. VTA also operates approximately 10% of fleet using bio fuels.

Waiting for buses is a time sink. Why can't VTA just use smaller buses more frequently?

The BRT buses *will* be more frequent—they will run every ten minutes, 18 hours a day. Dedicated lanes allow faster travel times, which mean fewer buses are needed and therefore operating costs are lower.

How much time does the BRT save?

BRT will be 30% faster than the local bus.

Is there less predictability for BRT if it is running curbside (in mixed flow)?

Yes.

Costs

The photosimulations look great, but what's included in the project?

BRT lanes, stations, lighting at stations, signals, wider sidewalks, high visibility crosswalks, median landscaping, not the buildings, the café tables.

What's the cost in Sunnyvale?

Approximately \$56 million for the dedicated lane configuration.

Do residents get to vote on this expenditure?

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This is not a City of Sunnyvale capital cost. VTA is paying for the BRT project through grants and sales tax. BRT was one of the items included in Measure A when voters approved it by 70%.

How is the project funded?

VTA assumes the project will qualify for federal funding (up to \$75 million). The remainder would be from Measure A sales tax revenues.

Who funds the maintenance?

Maintenance responsibilities would continue to be shared between the City and the State (Caltrans); VTA will maintain the transit elements.

How much money each year does Sunnyvale get in grant funding for bike lanes and other projects?

It fluctuates depending on the project and the program, but \$3.5 million is a reasonable average expectation. A single bridge rehabilitation project may bring in \$30 million.

Bikes

Will there be bike lanes without dedicated lanes?

That's up to the city. With the dedicated lanes, VTA will pay for striping bike lanes; with a mixed flow configuration, VTA will build just spot improvements at stations, and no bike lanes.

How much of the project cost is for bike lanes?

In Sunnyvale, about \$100,000.

How many bikes will fit on the buses? Will BRT have the same experience as Caltrain where there is frequently not enough room for all the bikes?

Up to 7—5 inside and 2 outside.

What's the usage of bike storage on the LRT?

VTA prefers that bikes go on-board, rather than provide bike storage at the stations because real estate is expensive.

Does the five-foot bike lane include the gutter? So, effectively, it's a three-foot bike lane next to the gutter?

Yes and yes.

Could you have different treatments of the bike lanes, say, a different color or raised pavement?

Yes, color could be used. Raised pavement may conflict with driveways.

Greenhouse Gases

Doesn't slowing down traffic increase carbon dioxide emissions?

Preliminary studies show that the BRT project decreases the overall vehicles miles traveled (VMT), which in turn reduces carbon dioxide emissions.

If left turns are eliminated, will there be an increase in carbon dioxide emissions?

This will be studied in the environmental phase.

Left turns

Will left turns into shopping centers be closed?

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No existing signalized intersections are proposed to be closed, except at Murphy Avenue, which is deemed to close to the Sunnyvale Avenue intersection.

There's no increase in congestion with the LRT, but you have to go far to turn left.
Adding signals could reduce the out-of-direction travel.

Signals

Will there be signal improvements in Sunnyvale?

Yes.

Are the signals demand-based signals?

Yes.

If the BRT project has signal improvements, and No Project does not, does that mean if the city improved the signals, El Camino Real would improve?

Yes.

Why not just fix the traffic signals? (Others from the public commented that pedestrian improvements are needed)

Other time savings are achieved with station improvements and dedicated lanes.

Why does BRT require signalized intersections?

To facilitate safe left turns. A left turning vehicle would have not just on-coming traffic to watch, but through traffic on the left (the buses). So left turn movements must be controlled with a signal.

Can BRT use a signal only for left turns? Could there be mid-block left turns for bikes only?

There are permissive signals and this could be considered in later stages of design. Traffic signal standards haven't caught up to BRT yet. Adding signals doesn't necessarily affect the transit operations because transit will have signal priority. If the City wants to add signals to increase the permeability of El Camino Real, VTA will support that request to the State.

Parking

Is there parking?

With the VTA's recommended strategy, which responds to cities' requests to preserve the existing 16-foot median, the city may choose either bike lanes or parking in a dedicated lane configuration—there isn't enough room for both. Santa Clara has chosen to reduce the width of the median (which would require removal of existing mature trees in Sunnyvale) in order to have both parking and bike lanes with dedicated lanes.

Where are the parking lots? Will people drive to the bus?

There are no parking lots needed; most people will walk to the BRT. Park

What distance from El Camino Real was used to count the side street parking?

Side street parking was counted within 500 feet of El Camino, which is a reasonable walking distance for most people.

What if you have FedEx deliveries? They use the parking lane.

It is legal for them to use the bike lane as a shoulder.

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Population/Growth/Jobs/Land use

With growth, will traffic be bad anyway?

Congestions increases with or without the project.

How much has population changed in the last three years? We won't see population increases. There's been a downward trend over 10-20 years. (Others commented that population is still growing in the state, even with people leaving the state; and that even if Sunnyvale doesn't grow, other cities do grow.)

VTA is required to use the regional (Association of Bay Area governments, or ABAG) forecasts for population and employment, which do show increases.

What if population doesn't grow?

The required analysis of near-term and long-term horizon years "bookends" no-growth and growth scenarios. The BRT project is still beneficial in the near-term.

If population grows, it will be high-density development because we don't have more land. Look at Town Center.

There are some areas where land uses are converting to higher density.

We have to talk about high density and BRT with the same voice. If City were to limit growth, would we need BRT?

VTA's plan is not inconsistent with Sunnyvale's general plan assumptions about growth. If there's congestion, BRT provides an option for mobility.

Is Sunnyvale doing an independent analysis of population forecasts?

The Sunnyvale planning staff reviewed the ABAG forecasts and concurred with them.

Didn't Palo Alto notify VTA they didn't accept the population forecasts?

Yes, that comment was made. Nevertheless, VTA is required to use the regional (ABAG) forecasts for population and employment.

Aren't the jobs in Sunnyvale in the north areas, away from El Camino Real?

El Camino Real is VTA's highest ridership corridor; it deserves improvements.

Process

How far along is the El Camino Real BRT project?

The project is in the conceptual engineering stage to get to approximately 10% design.

What is the decision process?

At this time, VTA is asking the cities to indicate an initial preference for dedicated lanes or no dedicated lanes. Once there is this level of project definition, VTA will prepare an environmental impact report (EIR). Also, Caltrans, as the owner of the state highway that is El Camino Real, has an approval process. If Caltrans doesn't approve, VTA will return to the cities.

Mountain View "voted against BRT"—how do you deal with cities that don't want BRT?

This spring and summer each city is being asked to endorse (or not) the VTA recommended strategy for El Camino Real BRT. Mountain View City Council has not yet taken a formal position on the VTA recommended strategy. Dedicated lanes and mixed flow with bulbout stations are both BRT. While the dedicated lane configuration provides more reliability and faster service, it is largely up to each city as to which configuration works best in that

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community. If a city decides it does not want the dedicated lanes, VTA could build bulbout stations and operate the BRT in mixed flow traffic.

How are projects prioritized?

The larger and more transformative projects tend to get grants.

Is Los Altos involved in this project?

Yes.

Other Corridors

If BRT serves commuters, why can't they take Caltrain?

Caltrain serves longer trips. Both are needed and both are expected to see increases in ridership.

Why not use Central Expressway for BRT?

Central Expressway is designed to be an expressway for automobile traffic. There are no rider-generating land uses within walking distance. On El Camino Real, there are lots of both residences and business within walking distance.

Most commute problems in Sunnyvale are on north-south routes; why does El Camino Real, an east-west route, have priority?

This is not the only project VTA will ever do. VTA recognizes that it may even boost ridership on crossing routes and improvements to those would be evaluated.

BRT

Is it just buses that can use the dedicated lanes?

Yes.

Will there still be local bus service on El Camino?

Yes.

Why can't BRT improvements be demand-based? What if the riders don't come?

There's a level of infrastructure that has to be built to if it's going to be BRT. VTA is constantly reviewing overall operations and adjusts service to meet demands.

Can BRT be a precursor to LRT?

Only in a dedicated lane configuration.

Has VTA looked at podcars?

Podcars would not be good in this corridor.

Is this project part of the Grand Boulevard Initiative? Land use regulations make me drive.

The project is consistent with the goals of the Grand boulevard initiative, but the project is not dependent on future land use—it provides benefit today. The project is consistent with the El Camino Real Precise Plan for transit-supportive development at nodes.

Do stations target BART?

There will be a connection with the future BART station in Santa Clara and in downtown San Jose.

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Why aren't dedicated lanes proposed in Palo Alto?

There are several reasons. One element of the decision regards funding—the federal “Small Starts” program has a cap of \$250 million; with 10 miles of dedicated lanes, the project cost is at \$240 million, and that cap would be exceeded if the project added more miles of dedicated lanes. Palo Alto is “one-sided” in its street network, with Stanford dominating the other side. So there would be a substantial impact on one location (Alma Street) from diversion traffic. And operationally, the BRT must leave the center-running lane at some point and move to the curb lane to turn to the Palo Alto Transit Center.

Impacts

Is VTA studying the economic impacts of the project? What are the long-term impacts on business?

That will be done in the Environmental Impact Report.

Although it's not necessarily a cause and effect relationship, typically, where there has been infrastructure investment, it has attracted private development. For example, on North First Street and along the LRT in north Sunnyvale development has occurred.

Has VTA looked at the impacts of construction activities?

That will be evaluated in the Environmental Impact Report.

Mitigations

Aren't "mitigations" likely to slow things down when the goal is to speed things up?

Mitigations would be the subject of further study. Intersections are typically the choke points and may require improvements so things don't slow down.

Would mitigations slow response by emergency services?

Sunnyvale's Department of Public safety always reviews improvements. There are methods to accommodate emergency response vehicles—for example, speed bumps were installed with channels designed to match the spacing of emergency vehicle wheels.

Configuration

Will the project mix dedicated lane and mixed flow configurations? Should we be doing dedicated lanes everywhere on El Camino Real in Sunnyvale, or have different treatments in different locations?

Yes, the VTA staff recommendation has both dedicated lane and mixed flow configurations. It is not possible to switch back and forth from dedicated lanes to mixed flow every other block, but some transitions are possible.

Are other corridors a combination of dedicated lanes and mixed flow?

Santa Clara-Alum Rock is a combination. The configurations on other corridors in Santa Clara County have yet to be determined.

Fare Collection

What's the penetration of Clipper card now and in the future.

Less than 20% now, expected to be 100% in the future.

Landscaping

Statistically, how will landscaping be replaced?

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The Santa Clara Alum Rock project provided replacement landscaping (trees) at a 3:1 ratio. On El Camino Real VTA is trying not to remove trees, but replacement ratio would be determined in the environmental process.