



## **PUBLIC WORKS DEPARTMENT**

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### **STAFF FOLLOW-UP REPORT**

#### Subject

Report on the Relocation of the Bus Stop at Stevens Creek Boulevard and Mary Avenue

#### Discussion

At the November 16<sup>th</sup>, 2021 City Council meeting for consideration of the Westport final map, City Council requested that staff:

- 1) Provide a written explanation for the relocation of the bus stop from the eastside (nearside) of the Stevens Creek Boulevard/Mary Avenue intersection, to the westside (farside) of the intersection.
- 2) Investigate the usage of the bus stop at Mary Avenue and Stevens Creek Boulevard by patrons of the Cupertino Senior Center.
- 3) Report back to Council on potential additional measures that may help enhance the safety of pedestrians using the Stevens Creek Boulevard/Mary Avenue intersection.

#### Background

The Westport project has submitted two separate tentative map applications with the City in recent years.

The first tentative map submittal was recommended for approval by the Planning Commission on July 14, 2020, and was approved by City Council on August 18, 2020. This tentative map proposed the relocation the existing westbound bus stop on Stevens Creek Blvd from the east side of the intersection with Mary Ave to the west side of the intersection. The project was further conditioned to coordinate with VTA to receive their input and approval on the final bus stop location. VTA recommended that the bus stop be placed on the west side of the intersection.

The project applicant submitted a second tentative map application, after the first tentative map was approved. The second application made some revisions to the project entitlements but also requested that a third parcel be added to development. The second tentative map was recommended for approval by the planning commission on July 27, 2021, and was approved by City Council on September 7, 2021. The second

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tentative map approval proposed relocation of the bus stop from the east side of the Stevens Creek Blvd/Mary Ave intersection, to the west side of the intersection.

### Relocation of the VTA Bus Stop

As a condition of the approved Westport project, the City required that the developer relocate the existing westbound Valley Transportation Authority (VTA) bus stop on Steven Creek Blvd near Mary Ave, adjacent to the Cupertino Senior Center, from the east side of the intersection to the west side. The purpose of the condition was two-fold; to enhance the safety of the intersection, and to make the bus stop location consistent with VTA standards and the Stevens Creek Boulevard Class IV Bike Lane Concept Plan.

Per VTA's "Bus Stop and Passenger Facilities Standards" dated March 2010, Section 1.A., "Bus stop areas are provided in three basic formats: Farside Stops, Nearside Stops, and Mid-Block Stops... Under normal conditions a Farside Stop is standard. Any other location must be approved as an exception..." ([VTA's Bus Stop and Passenger Facilities Standards](#)).

Farside bus stops are those bus stops located immediately after an intersection. Farside bus stops allow buses to transition more easily into vehicular travel lanes after making a stop. As part of the Stevens Creek Boulevard Class IV Bike Lane Concept Plan, the VTA requested the existing bus stop on Stevens Creek Boulevard at Mary Avenue be relocated from the nearside (east side) to the farside (west side) of the intersection. Refer to the [Class IV Bike Lane Design Memos](#).

Additionally, intersection safety is typically enhanced when bus stops are located on the farside of intersections. When a bus stop is located on the nearside of an intersection, any bus at the stop will obstruct the view of oncoming traffic from vehicles waiting at the intersection on the adjacent side street. When the vehicle on the side street attempts to make a right-turn, sight visibility is obstructed, making the movement more difficult. In this case, if a vehicle on Mary Avenue at this intersection was preparing to make a right-turn onto Stevens Creek Boulevard, a bus at the nearside bus stop (in front of the Cupertino Senior Center) would obstruct the view of oncoming vehicles or bicycles traveling westbound on Stevens Creek Blvd.

Further, sight visibility concerns exist at nearside bus stops for vehicles planning to turn right on to side streets after the bus stop. In these situations, some drivers will attempt to maneuver around a stopped bus to turn onto the side street. Any bus stopped at a nearside stop will obstruct these driver's view of the intersection and the crosswalk. If a pedestrian is located within the crosswalk in this situation, a driver turning right in front of the bus may collide with the pedestrian. Any other vehicles behind this driver must also quickly stop, increasing the likelihood of rear-end collisions.

For the reasons listed above, farside bus stops typically enhance safety and allow for more efficient operation of public transportation.

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### Existing Bus Stop Usage

The City does not have bus stop usage data for patrons of the Cupertino Senior Center. However, VTA's pre-COVID usage data shows that, on average, the existing bus stop experienced 28 boardings and 13 alightings daily. While VTA does not have the demographics for these riders, it should be noted that De Anza College has its own transit area, so it may be assumed that many of the users of the bus stop are Cupertino Senior Center patrons.

The approved Westport project will result in construction of 88 townhomes, 48 senior below market rate (BMR) units, 131 assisted living units, as well as mixed retail uses. The City anticipates increased usage of the public transportation network at this location due to the development, and expects a high proportion of the residents of the 48 senior BMR units to utilize the buses as their primary form of transportation. This could result in residents of the development potentially surpassing the current number of users of the existing bus stop.

### Potential Additional Measures to Enhance Safety

When the Westport project is completed, the pedestrian crossings at the Stevens Creek Blvd/Mary Ave intersection will have high visibility ladder striping, pedestrian push buttons, and adequate timing to allow pedestrians of all ages to cross the street. These facilities will all comply with the Manual of Uniform Traffic Control Devices (MUTCD) standards and requirements. Further, the mid-block crossing on Mary Ave north of Stevens Creek Blvd, between the Westport project and Memorial Park/Cupertino Senior Center, will be enhanced with high visibility ladder striping and pedestrian warning signs, as well as a pedestrian push button-actuated rapid flashing beacons to further alert drivers of pedestrians using the crosswalk. All pedestrian facilities will be compliant with industry standard safety measures.

Additional measures that may enhance pedestrian safety at intersections are typically considered unnecessary, are cost prohibitive, or result in significant delays to vehicular traffic flow. Some of these enhancements would be:

- 1) Grade Separated Crossings (sky bridge)
  - Pros: Pedestrian-vehicle conflicts are eliminated.
  - Cons: High initial construction cost.  
Typically require additional right of way.  
Often go unused by pedestrians due to the increases travel lengths needed to gain elevation.
- 2) Employment of Crossing Guards
  - Pros: Crossing Guards can provide additional visibility and further alert drivers of the presence of pedestrians.
  - Cons: Ongoing expenses to employ guards.

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### 3) Pedestrian Scramble Traffic Signal Phasing

Pros: Pedestrians are provided their own crossing phase while all vehicles are required to stop, reducing the potential of vehicular conflicts.

Cons: Results in congestion and significant delays to traffic through-put.

### 4) 4-second Leading Pedestrian Interval

Pros: Allows pedestrians to proceed prior to vehicles being allowed to proceed on a green light, allegedly enhancing visibility of pedestrians to drivers.

Cons: Effectiveness at enhancing pedestrian safety is unproven. Results in an increase to vehicle delays (though significantly less than would result from the implementation of a pedestrian scramble phase).



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11/19/2021

Date