



**DATE:** March 9, 2022

**TO:** Urban Forestry Board

**FROM:** Ashok Aggarwal, Senior Traffic Engineer  
Lorenzo Lopez, City Traffic Engineer  
Edward Arango, Assistant Public Works Director/City Engineer  
Dawn S. Cameron, Public Works Director

**SUBJECT:** **Northbound Shoreline/101 Off-Ramp Realignment and Computer History Museum Driveway Phase, Project 20-37—Heritage Tree Mitigation**

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### **RECOMMENDATION**

Review the proposed Heritage tree mitigation for Northbound Shoreline/101 Off-Ramp Realignment and Computer History Museum Driveway Phase, Project 20-37, and recommend the City Council approve the staff-recommended mitigation for the removal of 19 Heritage trees at a 2:1 tree replacement ratio with 15-gallon trees and a contribution of \$23,400 to the Tree Mitigation Fund.

### **BACKGROUND**

Northbound Shoreline/101 Off-Ramp Realignment (the Project) will realign the northbound U.S. 101 off-ramp to intersect with La Avenida to improve intersection geometry and traffic operations at the interchange and local circulation in the North Bayshore Precise Plan (NBPP) Area. The Project was identified as a Priority Transportation Improvement in the NBPP to facilitate anticipated growth in the North Bayshore Area. The five-legged intersection at the northbound U.S. 101 off- and on-ramps/Shoreline Boulevard/La Avenida carries more than 35% of the traffic accessing the NBPP Area. On weekday mornings, vehicle queues on North Shoreline Boulevard can extend south from the off-ramp to, and beyond, West Middlefield Road, and long queues are persistent at the northbound off-ramp extending to the U.S. 101 mainline, causing congestion and long delays.

The Project (as seen in Figure 1) is a critical and key project to adjust the circulation for anticipated development in the area. Certain development projects have been tied to the completion of this project via conditions of approval, including 2000 North Shoreline Boulevard (595,000 square feet of new office) and 1255 Pear Avenue (231,210 square feet of new office and 635 residential units).

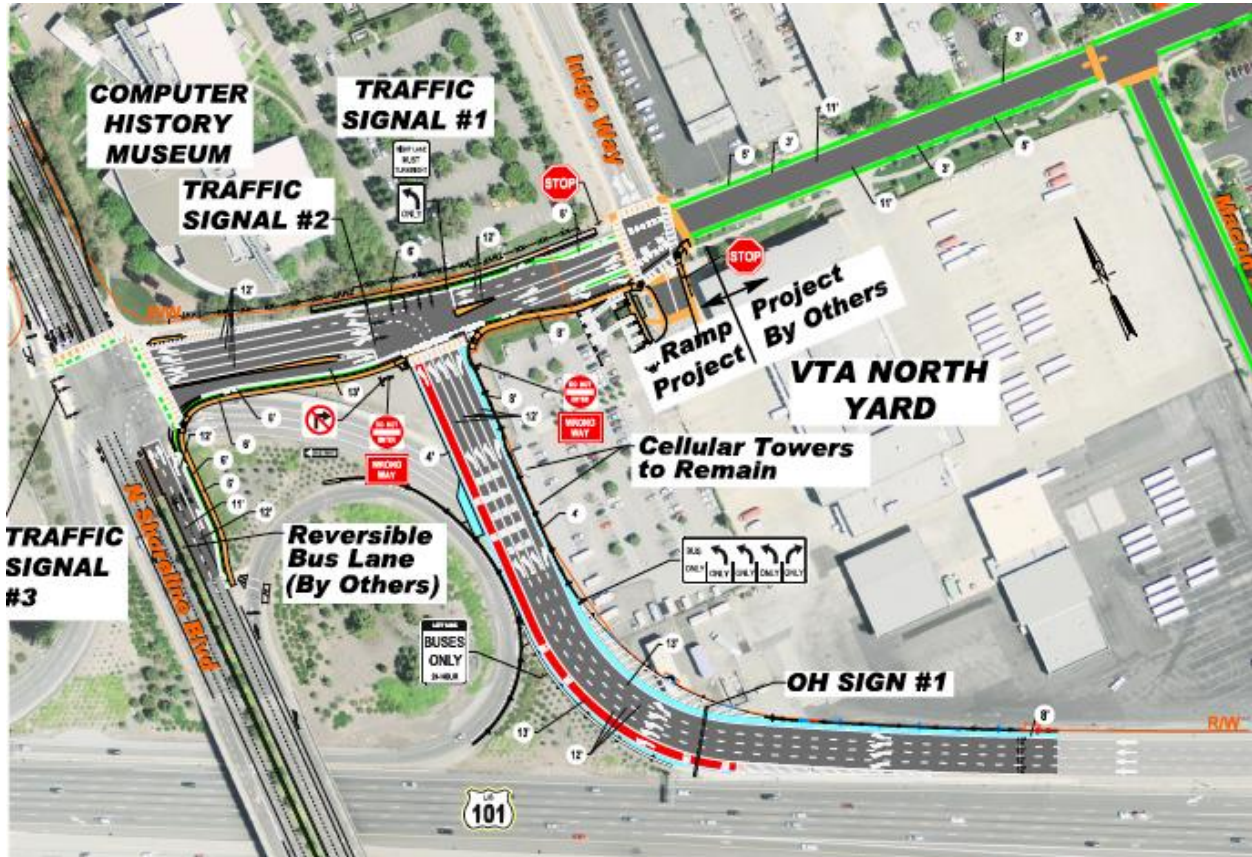


Figure 1: Project Location and Layout

The Project will realign the existing northbound U.S. 101 off-ramp to intersect as a T-intersection with La Avenida and modify the five-legged intersection at Shoreline Boulevard to a four-legged protected intersection by removing the U.S. 101 off-ramp connection. This realignment will reduce the number of vehicles on North Shoreline Boulevard by rerouting vehicles needing to access sites east of North Shoreline Boulevard onto La Avenida. The reduction of vehicles on North Shoreline Boulevard will improve traffic operations at the interchange, the North Shoreline Boulevard/Pear Avenue intersection, and local circulation in the NBPP Area.

Other project improvements include a new traffic signal at the new off-ramp at La Avenida, widening La Avenida from three lanes to five lanes, converting La Avenida to a two-way street (four westbound lanes and one eastbound lane) and widening North Shoreline Boulevard to accommodate a right-turn lane from northbound North Shoreline Boulevard to eastbound La Avenida. The Project adds new bike lanes on La Avenida, between Shoreline Boulevard and Inigo Way, that will connect to the existing bike lanes on La Avenida east of Inigo Way and to the existing bike lanes on Shoreline Boulevard. This will provide a continuous and direct connection

for cyclists to the Stevens Creek Trail and businesses along La Avenida, such as the Valley Transportation Authority (VTA), Google, and Microsoft. The Project also includes a new 700' long dedicated bus lane with the queue jump signal phase on the new off-ramp. Buses on Shoreline Boulevard and buses from the off-ramp will have direct access to the businesses along La Avenida and will no longer need to travel on Pear Avenue or Inigo Way to get to these destinations. Sidewalks exist along Shoreline Boulevard and La Avenida and will be maintained or reconstructed.

The City is required to follow Caltrans standards, guidelines, and project development procedures due to the Project modifying a Caltrans facility. On June 13, 2017, Council approved an agreement between the City and Caltrans for Caltrans' review of the Project Study Report/Project Report (PSR/PR) and Environmental Clearance phase of the Project. This phase was approved by Caltrans on August 7, 2020 and resulted in their approval of the preliminary design shown above in Figure 1. On April 30, 2019, Council approved the co-op agreement with Caltrans for the design and construction of the Project, including right-of-way (ROW) acquisition. The City is funding all project costs for design, ROW acquisition, and construction and has received a grant from the VTA Measure B sales tax program to use toward construction.

Staff requests that the Urban Forestry Board provide a recommendation to the City Council for the number, size, and location of replacement trees, which is the focus of the Urban Forestry Board's purview, as defined in the following Municipal Code Section 32.33, City Capital Improvement Projects:

“City capital improvement projects which propose the removal of any heritage tree shall be submitted by the city project staff to the city's arborist for review and recommendation of appropriate mitigation measures. The arborist's recommendations shall be forwarded by city project staff to the urban forestry board for their recommendation on the number, size and location of replacement trees. The recommendation of the urban forestry board shall be forwarded by city project staff to the city council for their consideration with the approval of the project.”

## **ANALYSIS**

The Project will be constructed in two phases: relocation of the existing Computer History Museum driveway at La Avenida and the off-ramp realignment/La Avenida improvements.

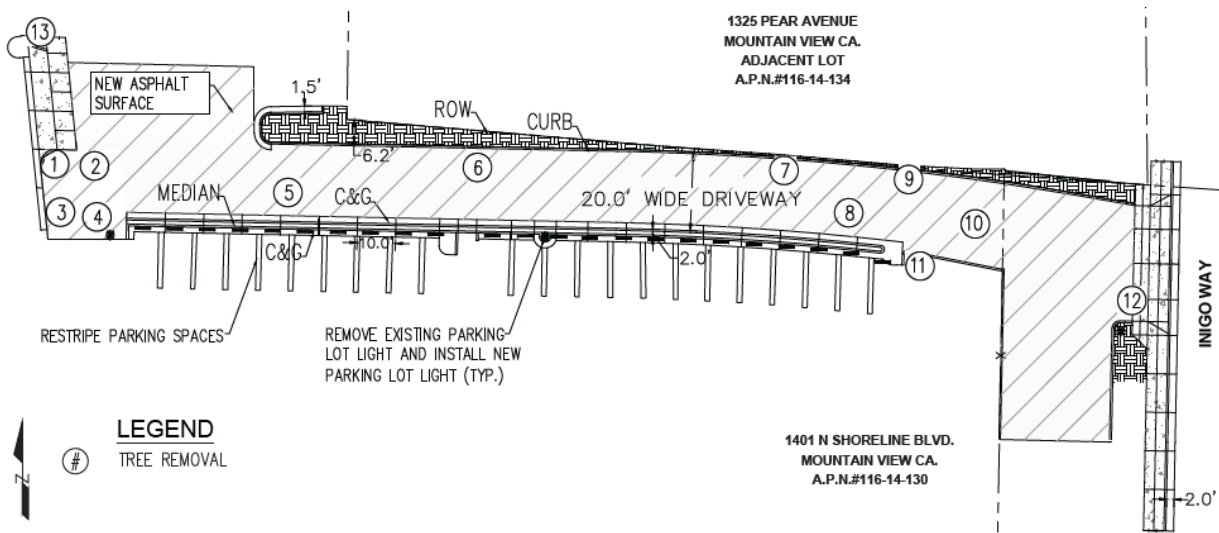
## Computer History Museum

Caltrans is requiring the closure of the existing driveway access to the Computer History Museum (Museum) at La Avenida for access control. Access control is the full or partial restriction of access to owners or occupants of abutting lands to or from a highway and will prohibit all vehicular movements from the Museum property onto La Avenida and Shoreline Boulevard within Caltrans ROW. To provide an alternative access, the City has designed and will construct a new driveway access to the Museum. The driveway from Inigo Way (see Figure 2) was determined to be the most feasible location to meet the desired outcomes of the project and the access requirements for the Museum.



**Figure 2: Museum Driveway Location**

Construction of the driveway aisle will include removing and replacing existing parking lot lighting, restriping parking spaces adjacent to the new driveway aisle, and installing concrete curb and gutter as shown in Figure 3. There are a total of 13 trees required to be removed, 12 Heritage trees and one non-Heritage tree, as identified in Table 1. The 12 Heritage trees will be replaced at a 2:1 ratio with 15-gallon trees, and the one non-Heritage tree will be replaced at a 1:1 ratio with a 15-gallon tree. The size justification of the new trees is explained further below. This results in 25 new trees. There is no space to accommodate new trees on the Museum property; therefore, the planting of 25 new trees will be incorporated into the La Avenida construction phase of the Project.



**Figure 3: Museum Driveway Layout**

**Table 1: Museum Driveway Tree Removal Details**

TREE #	DIA. (IN)	SPECIES	HERITAGE
①	10	REDWOOD	YES
②	14	REDWOOD	YES
③	9	REDWOOD	YES
④	12	REDWOOD	YES
⑤	12	DEODAR CEDAR	YES
⑥	12	DEODAR CEDAR	YES
⑦	13	DEODAR CEDAR	YES
⑧	11	DEODAR CEDAR	YES
⑨	17	DEODAR CEDAR	YES
⑩	17	DEODAR CEDAR	YES
⑪	10	DEODAR CEDAR	YES
⑫	3	UNKNOWN	NO
⑬	13	REDWOOD	YES

**La Avenida**

The second phase of the Project includes the off-ramp realignment and La Avenida improvements as previously outlined. The widening of La Avenida will require the removal of seven Heritage trees. Figure 4 and Table 2 identify the tree removals along La Avenida.

The seven Heritage trees will be replaced at a 2:1 ratio with 15-gallon trees, for a total of 14 new trees. As mentioned above, the 25 new trees for the Museum driveway phase of the Project will be planted on La Avenida, resulting in a total Project inclusion of 39 new 15-gallon native tree plantings, as shown in Figure 5. The species include box elder, Western redbud, California sycamore, Coast live oak, and Valley oak. These trees will be planted within Caltrans’ ROW, and the locations may be modified as conditions in the field are verified. Caltrans will only allow 15-gallon trees to be planted on their property due to Caltrans’ position that 15-gallon trees have a shorter establishment period and, thus, better chances of survival as compared to 24” box trees. The Project will contribute the cost difference between 15-gallon (\$150) and 24” box (\$750) trees via an in-lieu fee for 39 trees ( $\$750 - \$150 = \$600$  per tree  $\times 39 = \$23,400$ ), for a total contribution of \$23,400 to the Tree Mitigation Fund.

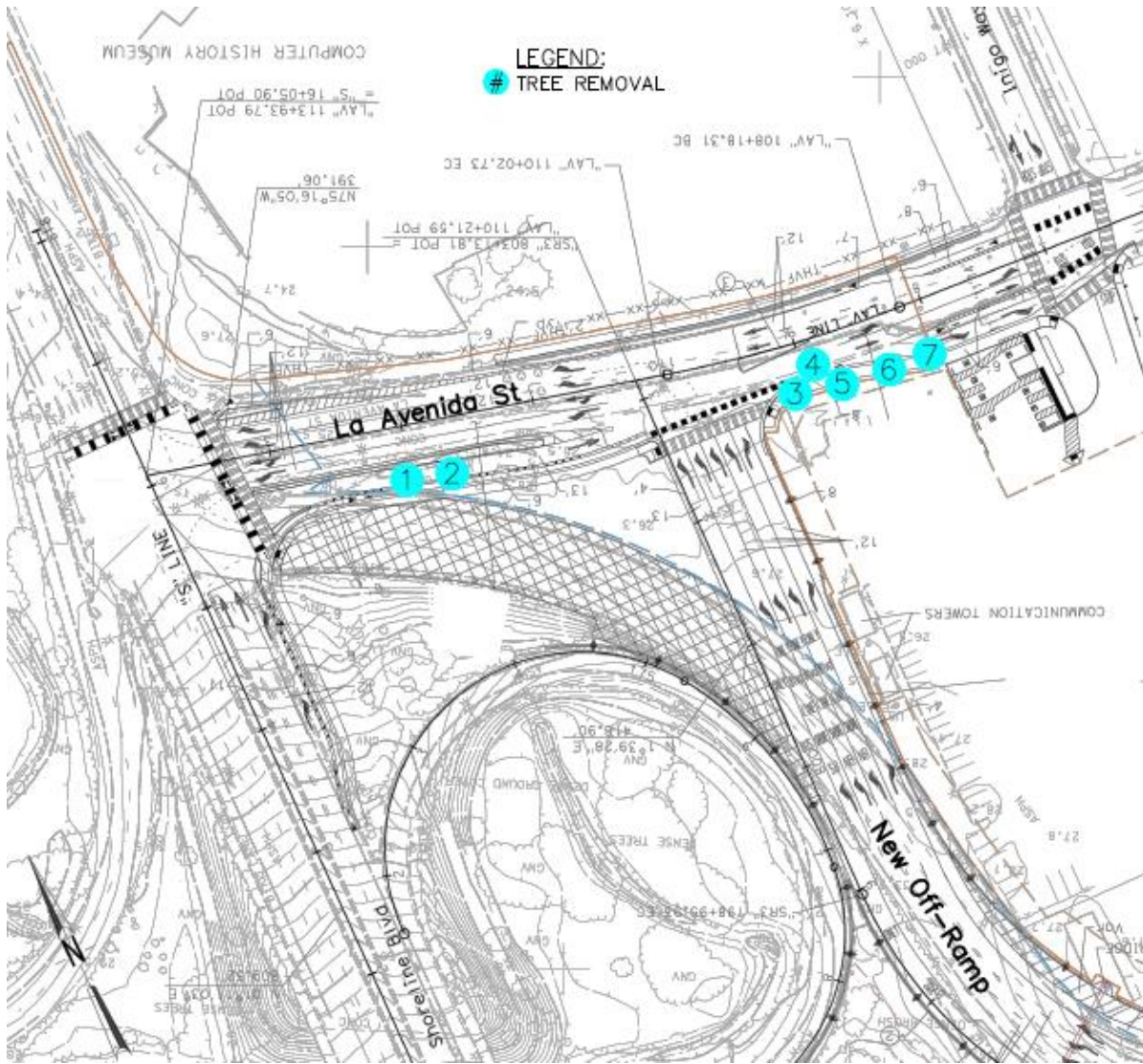


Figure 4: La Avenida Tree Removal

Table 2: La Avenida Tree Removal Details

TREE #	DIA. (IN)	SPECIES	HERITAGE
①	12	VALLEY OAK	YES
②	13	VALLEY OAK	YES
③	9	REDWOOD	YES
④	12	REDWOOD	YES
⑤	8	REDWOOD	YES
⑥	9	REDWOOD	YES
⑦	9	REDWOOD	YES

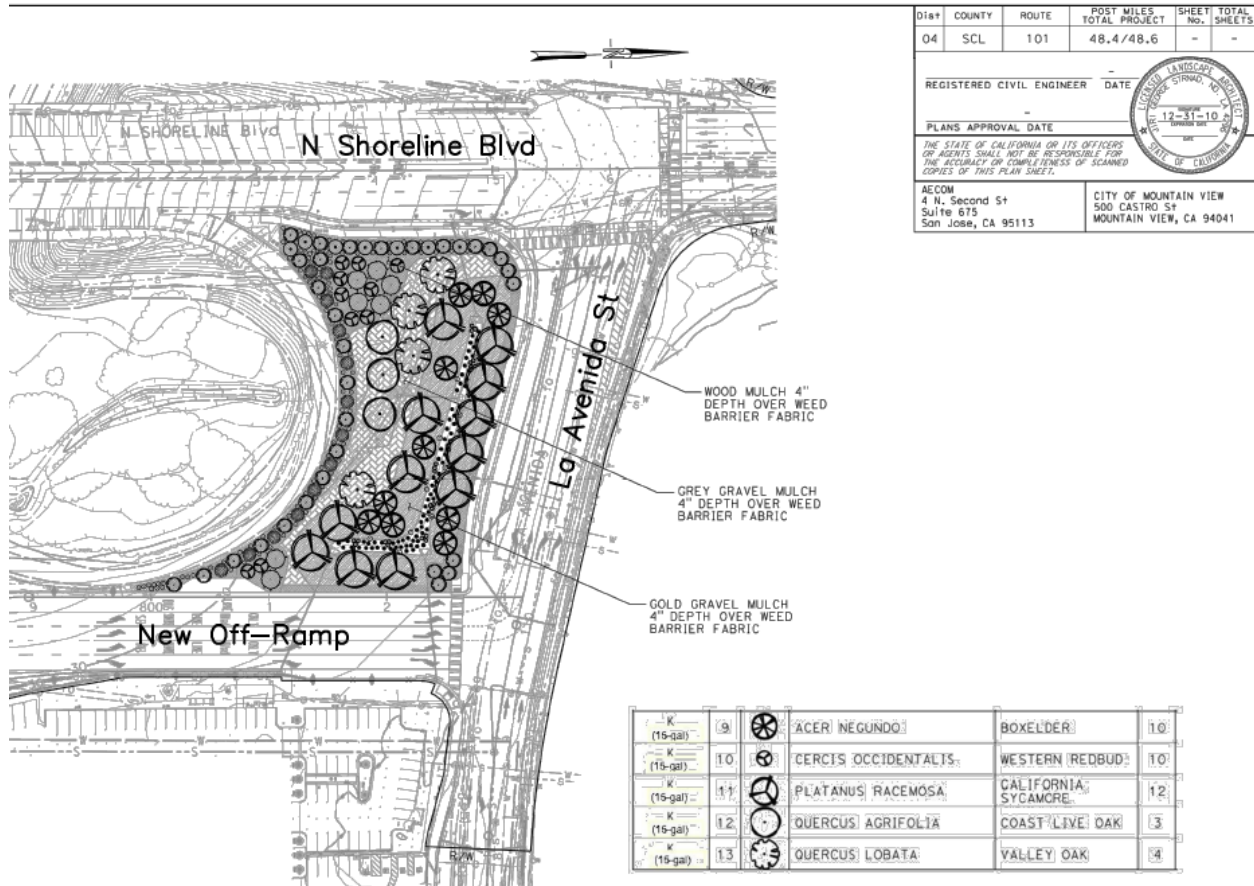


Figure 5: La Avenida Preliminary Planting Plan

### Summary

The Project is a large and complex infrastructure project, requiring coordination and approval from multiple agencies and property owners, and will provide improved circulation at this high-volume and critical intersection to serve anticipated growth in the NBPP Area. Staff recommends the mitigation for the removal of 19 Heritage trees at a 2:1 ratio with 15-gallon native trees (as shown in Figure 5) as part of the Northbound Shoreline/101 Off-Ramp Realignment, Construction, Project 20-37, and contribution of the difference between 15-gallon and 24" box trees via an in-lieu fee of \$23,400 to the Tree Mitigation Fund.

### FISCAL IMPACT

As part of the Fiscal Years 2018-19 and 2019-20 Capital Improvement Programs (CIP), the City Council approved funding for Northbound Shoreline/101 Off-Ramp Realignment, Design, Project 19-59, and Construction, Project 20-37, respectively. Northbound Shoreline/101 Off-Ramp



Realignment, Construction, Project 20-37, is funded in the amount of \$8.95 million from the Shoreline Regional Park Community Fund and \$14,050,000 from the Shoreline Community Bond Fund for total funding of \$23 million. In addition, the project is receiving \$5 million from a VTA Measure B sales tax program grant for a total construction phase budget of \$28 million.

Tree mitigation will be included in the construction documents and funded from the construction budget, including the in-lieu fee.

**PUBLIC NOTICING**

In addition to the standard agenda posting, staff posted notices on the Heritage trees identifying them for removal and provided information for attending this meeting. Notices were mailed to property owners and residents within 750' of the project site.

AA-LL-EA-DSC/1/PWK  
909-03-09-22M

cc: PWD, APWD—Arango, CTE, STE—Aggarwal, F/c