



MEMORANDUM

Public Works Department

DATE: March 31, 2021

TO: Bicycle/Pedestrian Advisory Committee

FROM: Aruna Bodduna, Transportation Planner
James Lightbody, Project Manager

SUBJECT: North Bayshore Circulation Feasibility Study

RECOMMENDATION

Receive, review, and provide feedback on the North Bayshore Circulation Study recommendations for active transportation facilities.

BACKGROUND

The North Bayshore Circulation and Feasibility Study (Circulation Study) is focusing on potential transportation strategies to serve the full development of the North Bayshore Precise Plan (NBPP) (2014 and amended 2017). Alta Planning + Design (Alta), a member of the TJKM¹ consulting team, has been conducting a Pedestrian and Bicycle Use study to explore existing and future active transportation use and to develop potential improvements to achieve the NBPP mode targets. To achieve the 45 percent single-occupancy vehicle (SOV) goal, the NBPP set a target of 10 percent bicycle and pedestrian commute trips.

On December 2, 2020, the B/PAC provided feedback on the analysis conducted as a part of the Pedestrian and Bicycle Use study. This analysis included assessment of existing network and usage, review of existing and planned Bicycle Level of Traffic Stress (LTS), existing Pedestrian Quality of Service (PQOS),² future year 2040 demand estimates, and assessment of the future year 2040 network capacity based on the planned active transportation infrastructure improvements within the NBPP.

¹ On December 11, 2018, Council approved a contract with TJKM Transportation Consultants to conduct the Circulation Study.

² PQOS relies, in part, on existing Walk Score data. See AccessMV for additional information on PQOS and assessing future conditions.

ANALYSIS

The North Bayshore Precise Plan already includes robust bicycle and pedestrian infrastructure recommendations. The Alta study supported these recommendations and concluded that they will greatly enhance active transportation use in North Bayshore. The study also identified improvements and/or modifications to the NBPP strategies for bicycle and pedestrian infrastructure in order to help meet the mode-share goals and provide sufficient capacity. These recommendations are listed below, shown on Figures 1 and 2, and further described in detail in Attachment 1.

Network Recommendations:

- **Increase minimum sidewalk widths from 5' to 6' on all roadways classified as "Access Streets."**

While the NBPP calls for 6' wide sidewalks for most roadways, a 5' sidewalk is recommended when roadways are classified as Access Streets. A minimum 6' sidewalk is recommended whenever sidewalks are constructed or reconstructed to help facilitate a world-class pedestrian experience in North Bayshore regardless of the roadway classification.

- **Increase bicycle capacity on Charleston Road and Shorebird Way east of Shoreline Boulevard through a combination of protected bike lanes and cycle tracks.**

An increase in bicycle capacity is recommended to maintain a high-quality user experience on these roadways that were identified to operate at a deficient capacity (volume-to-capacity ratio over 1). This could be accomplished through increasing facility width or improvement of parallel routes.

- **Ensure better bicycle connections to the areas east (NASA) and west (Palo Alto) of North Bayshore.**

The City should continue to investigate feasibility of a bicycle/pedestrian bridge at Charleston Road, connecting to NASA on the east. The City should also continue to coordinate with VTA (currently under way) to upgrade the San Antonio Road/U.S. 101 interchange to improve connections to the west into Palo Alto, including better access to the new Adobe Creek bridge.

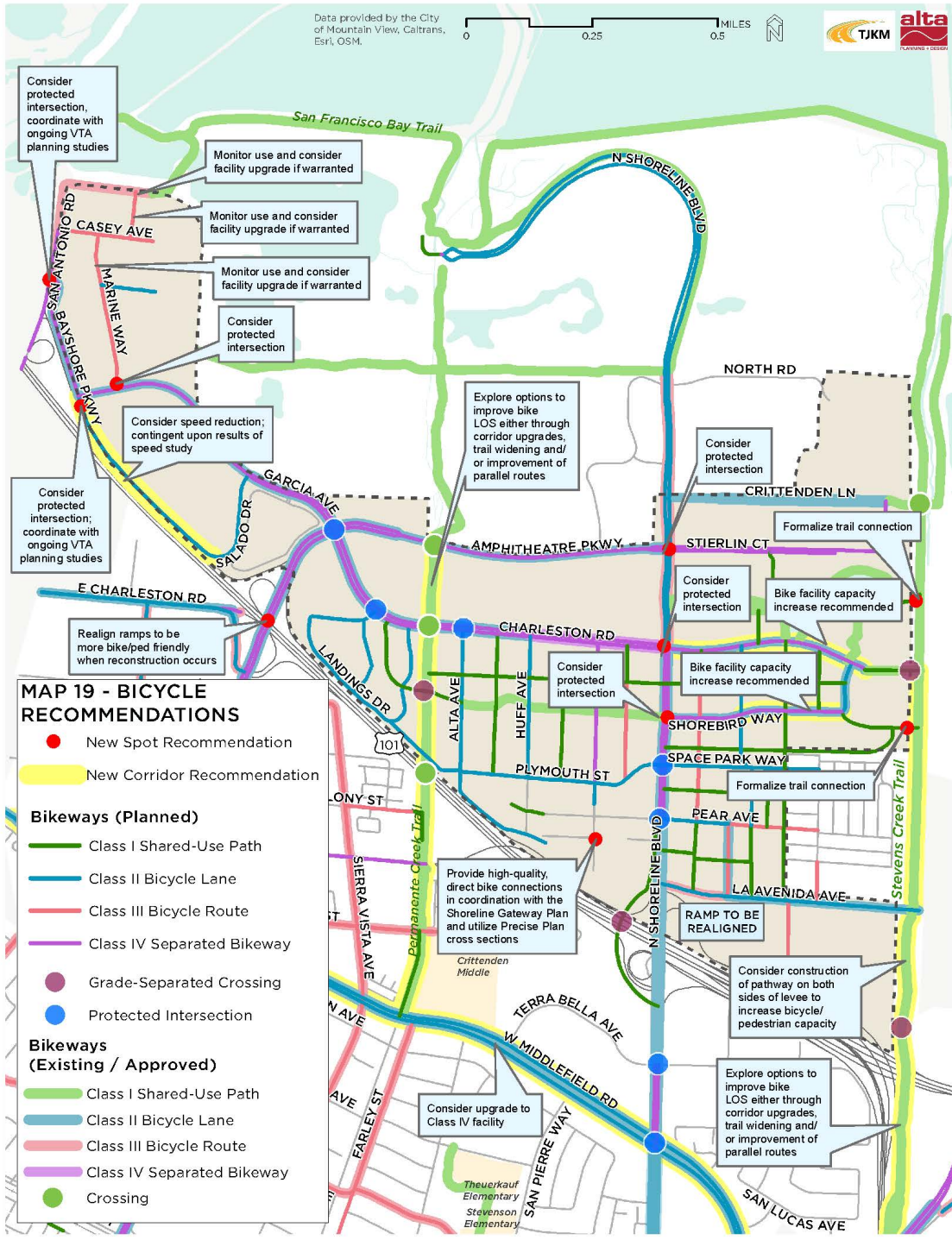


Figure 1 – Bicycle Infrastructure Recommendations

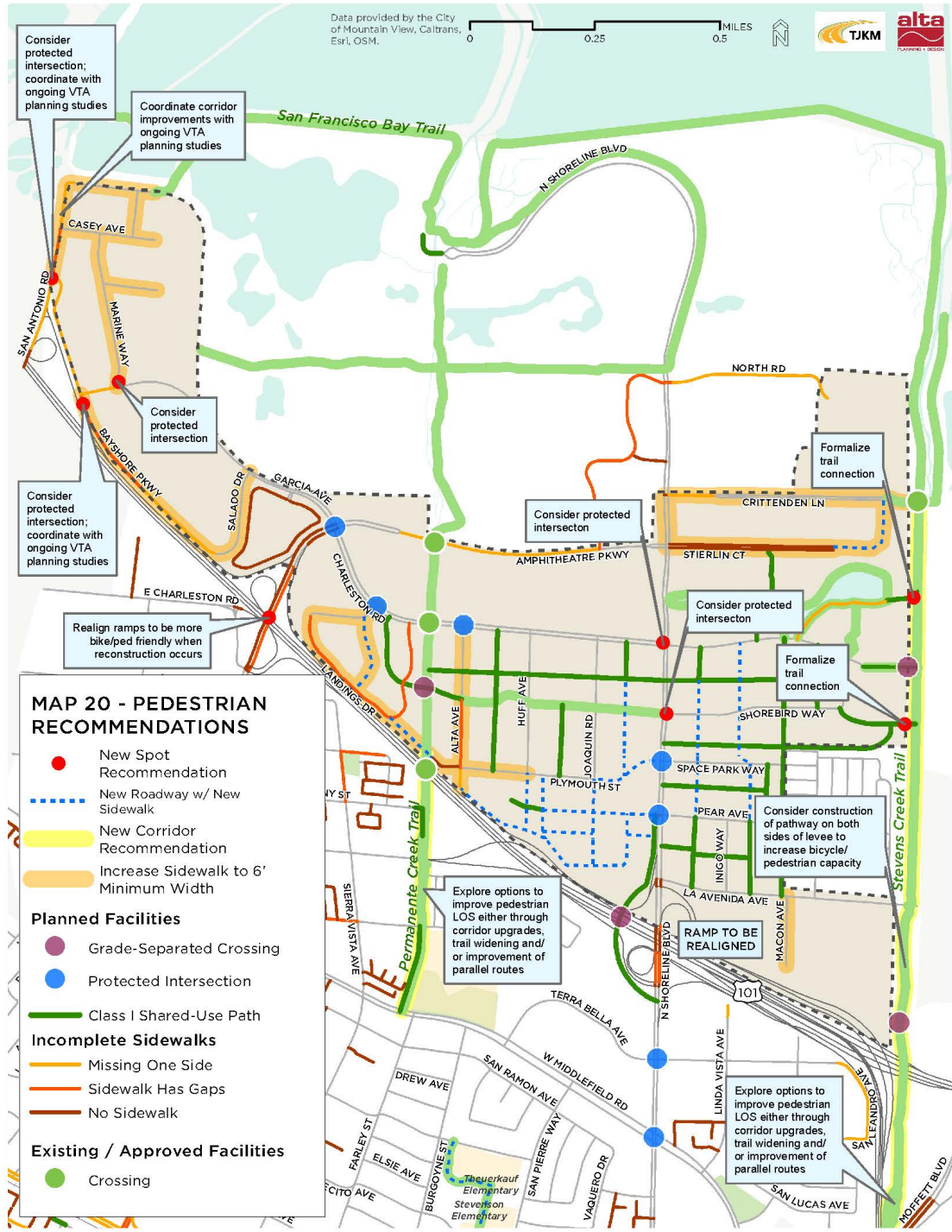


Figure 2 – Pedestrian Infrastructure Recommendations

- **Implement additional protected intersections.**

Protected intersections separate bicyclists and pedestrians from vehicular traffic, creating better visibility between people on bikes and people driving. While several Class II and IV bicycle facilities and protected intersections have been identified along several corridors within the North Bayshore Area, this study recommends additional locations for such improvement.

- **Provide cycle tracks only on one side of streets where additional capacity is not needed.**

The future demand and capacity analysis conducted by Alta identified several areas in North Bayshore where potential excess bicycle capacity was called for in the NBPP. Where opportunities exist, capacity reduction should be considered for such facilities and reallocate the cost savings to other bicycle and pedestrian improvements in the area. This strategy is currently reflected in the design for Shoreline Boulevard and Charleston Road corridor improvements.

- **Explore strategies to address capacity constraints along Stevens Creek and Permanente Creek Trails, including improvements to parallel routes.**

A key finding of the capacity analysis is the expected low level of service (LOS) for bicyclists and pedestrians on many portions of the Stevens Creek and Permanente Creek Trails. These impacts can be partially relieved by directing more users to the planned Shoreline Bike/Pedestrian Bridge across U.S. 101. The following strategies should also be considered:

- Remove centerline striping along the trail to slightly improve bicycle LOS by making bicyclists more willing to leave their demarcated lane when passing other users.
- Install comprehensive and consistent warning and wayfinding signs as well as consistent trimming of vegetation to maintain sight lines and pathway shoulders.
- Provide high-quality connections, such as a Class IV facility along West Middlefield Road, to allow users to easily access multiple gateways, thus balancing the bicycle or pedestrian traffic.
- Consider opportunities to provide connections to the Terra Bella neighborhood. Specific development and detailed site planning for

developments like the Shoreline Gateway should consider opportunities to construct high- quality bicycle and pedestrian connections both through the neighborhood and to North Bayshore that can provide access to the area via the proposed North Shoreline Boulevard bicycle and pedestrian overcrossing.

- On the Stevens Creek Trail, consider utilizing both sides of the levee to construct separated bicycle and pedestrian pathways. The construction of a parallel pathway would allow user flows to disperse and could substantially improve the user experience for both bicyclists and pedestrians, while increasing the overall transportation potential of the corridor. Construction of an additional trail would require the permission of the Santa Clara Valley Water District, which is currently opposed to the idea.

DISCUSSION

B/PAC input is sought on the following questions:

- Does the B/PAC concur with the proposed active transportation network recommendations?
- Does the B/PAC have any other comments?

NEXT STEPS

Staff will incorporate feedback from B/PAC into the study that will be included in the final North Bayshore Circulation Study. The Circulation Study recommendations will be prepared in summer 2021.

~~AB-JL/1/PWK~~

~~903-03-31-21-M~~

Attachment: 1. North Bayshore Bicycle and Pedestrian Capacity Analysis Results for 2040 and Infrastructure Recommendations – Draft Report

cc: PWD