



MEMORANDUM

Public Works Department

DATE: April 20, 2021

TO: Council Transportation Committee

FROM: Ria Hutabarat Lo, Transportation Manager
Damian Skinner, Assistant Public Works Director

VIA: Dawn S. Cameron, Public Works Director

SUBJECT: AccessMV: Comprehensive Modal Plan

RECOMMENDATION

Recommend that the City Council approve the Draft Report for AccessMV, Mountain View's Comprehensive Modal Plan (Attachment 1 to the memorandum).

BACKGROUND

The concept of developing a Comprehensive Modal Plan (Plan) was first identified to help fulfill the City Council's Fiscal Years 2017-18 through 2018-19 major goal: "Develop and implement comprehensive and coordinated transportation strategies to achieve mobility, connectivity, and safety for people of all ages." Due to staff shortages and heavy workloads, the Plan was not completed by the end of Fiscal Year 2018-19, and the project was carried over for Council's Fiscal Years 2019-20 through 2020-21 major goal for transportation.

At the [September 19, 2017](#) Study Session, the City Council concurred that the purpose of the Plan is to consolidate and integrate existing and current transportation plans, studies, and services within a single, cohesive framework. Council also supported a focus on major corridors and last-mile connections with the primary outcome of the Plan being to prioritize corridors for infrastructure improvements and services. On [June 4, 2019](#), the City Council approved a contract with TJKM Transportation Consultants, with Alta Planning + Design, Inc., as a subconsultant, to develop the Plan.

The Comprehensive Modal Plan (also known as AccessMV) aims to prioritize improvements from over 31 City and regional plans affecting transportation in Mountain View. AccessMV does not identify new projects but provides a consolidated, objective

framework for prioritizing the hundreds of infrastructure projects already identified within the various plans. In addition to addressing transportation infrastructure, AccessMV also assesses transportation services within the City of Mountain View and identifies transit service priorities. To this end, the City Council considered and approved the Shuttle Study, undertaken as part of AccessMV, on [February 25, 2020](#).

AccessMV was set in motion with considerable input from the community and stakeholders. The City's Bicycle/Pedestrian Advisory Committee (B/PAC) reviewed several initial deliverables, including an updated interactive bikeway map, on [February 26, 2020](#); an analysis of Pedestrian Quality of Service (QOS) and Bicycle Level of Traffic Stress (LTS) on [June 24, 2020](#); analysis of network overlaps, inconsistencies, gaps, and prioritization criteria on [September 30, 2020](#); and analysis of priority corridors, project prioritization, and the Draft Report on [March 31, 2021](#). The project team also engaged community members on prioritization criteria via an online survey and a virtual community meeting held on October 22, 2020. The project team held a second virtual community meeting to consider priority corridors on February 18, 2021. Additionally, the City Council reviewed the AccessMV project analysis and prioritization criteria on [November 10, 2020](#).

DISCUSSION

Updated Corridor Prioritization Criteria and Metrics

As outlined in the November 10, 2020 Council Study Session memo, prioritization criteria for AccessMV were based on General Plan goals related to:

- Connectivity;
- Equity;
- Mobility;
- Safety; and
- Sustainability.

These goals were used to shape prioritization criteria and metrics, which are listed in Table 1 as updated based on input from community members, B/PAC, and Council. Key updates include the following:

- Updated Equity criterion to represent Median Household Income instead of exposure to environmental hazards or pollution;
- Suggested Routes to School were added as a Safety criterion;

- VTA’s Across Barrier Connection (ABC) and Cross-County Bikeway Corridor (CCBC) was added as a Consistency criterion;
- Regional transit priority corridors (as shown in Figure 1) were added as a Mobility criterion; and
- Weights associated with specific criteria were amended.

Table 1: Prioritization Criteria and Metrics

Goals	Criteria	Points	Metrics
Connectivity/ Walkability/ Bikeability (38 max.)	Corridor connects residents to major destinations.	0	Not within 1/2 mile of any destinations.
		3	Within 1/2 mile of 1 destination.
		6	Within 1/2 mile of 2-4 destinations.
		9	Within 1/2 mile of 5+ destinations.
Planned improvements for the corridor close a gap in the existing network.		0	Does not close a gap.
		3	Closes a gap (has existing facility).
		6	Closes a gap (no existing facility).
		9	Reduces number of low-stress islands.
Corridor improves first- and last-mile connections.		0	Not within 1/2 mile of any transit.
		5	Within 1/2 mile of shuttle or bus.
		10	Within 1/2 mile of Caltrain, light rail, or El Camino Real.
Corridor improves directness of travel to destinations.		0	Low density of 4-way intersections.
		5	Medium density of 4-way intersections.
		10	High density of 4-way intersections.
Equity (20 max.)	Corridor serves disadvantaged residents.	4	Lowest 50% Median Household Income: Upper Quartile; Upper Middle Quartile; Lower Middle Quartile; and Lower Quartile.
		6	
Corridor has a high transit propensity score.		8	
		10	
Mobility (29 max.)	Corridor is a high-priority corridor for the mode (cumulative).	0	Transit Propensity Score 1.
		5	Transit Propensity Score 2-3.
		10	Transit Propensity Score 4-5.
		1	N/A
		2	Low
		3	Medium
		4	High

Goals	Criteria	Points	Metrics
	Corridor accommodates all modes.	1 3 5	Accommodates 1 mode. Accommodates 2-3 modes. Accommodates all modes.
	Corridor is a transit priority corridor.	0 2 4 6 8	Not a transit corridor. Potential transit corridor. Basic transit corridor. Priority transit corridor. High-capacity transit corridor.
Safety (25 max.)	Planned improvements make corridor accessible to all ages and abilities.	0	None of corridor meets All Ages and Abilities (AAA) threshold.
		5	Some of corridor meets AAA threshold.
		10	All of corridor meets AAA threshold.
	Corridor is part of the high-injury network (HIN).	0	None of the corridor is on the HIN.
		5	Some of the corridor is on the HIN.
		10	All of the corridor is on the HIN.
	Corridor is on a suggested route to school.	0	Not on a suggested route to school.
		5	On suggested route to school.
Sustainability (10 max.)	Planned improvements for the corridor reduce VMT and greenhouse gas emissions.	0	Vehicular project that results in increased/unchanged VMT.
		5	Vehicular project that reduces VMT.
		10	Bike, pedestrian, or transit project.
Consistency (10 max.)	Corridor is identified in multiple previous plans.	1	Identified in 1 other plan.
		3 5	Identified in 2-3 previous plans. Identified in 4+ previous plans.
	Corridor is Across Barrier Connection (ABC) or Cross-County Bikeway Corridor (CCBC)	0 5	Not on an ABC or CCB. Is on an ABC or CCB.
Max. Points		132	

B/PAC and community members also recommended the addition of data related to ridership or system usage as a prioritization metric. This metric was not added due to a lack of comprehensive Citywide usage data.

Additionally, community members and Council also recommended analysis of tree canopy and green streets elements, which have been added to the analysis of pedestrian conditions in Section 3.1.2 of the Draft Report (Attachment 1).

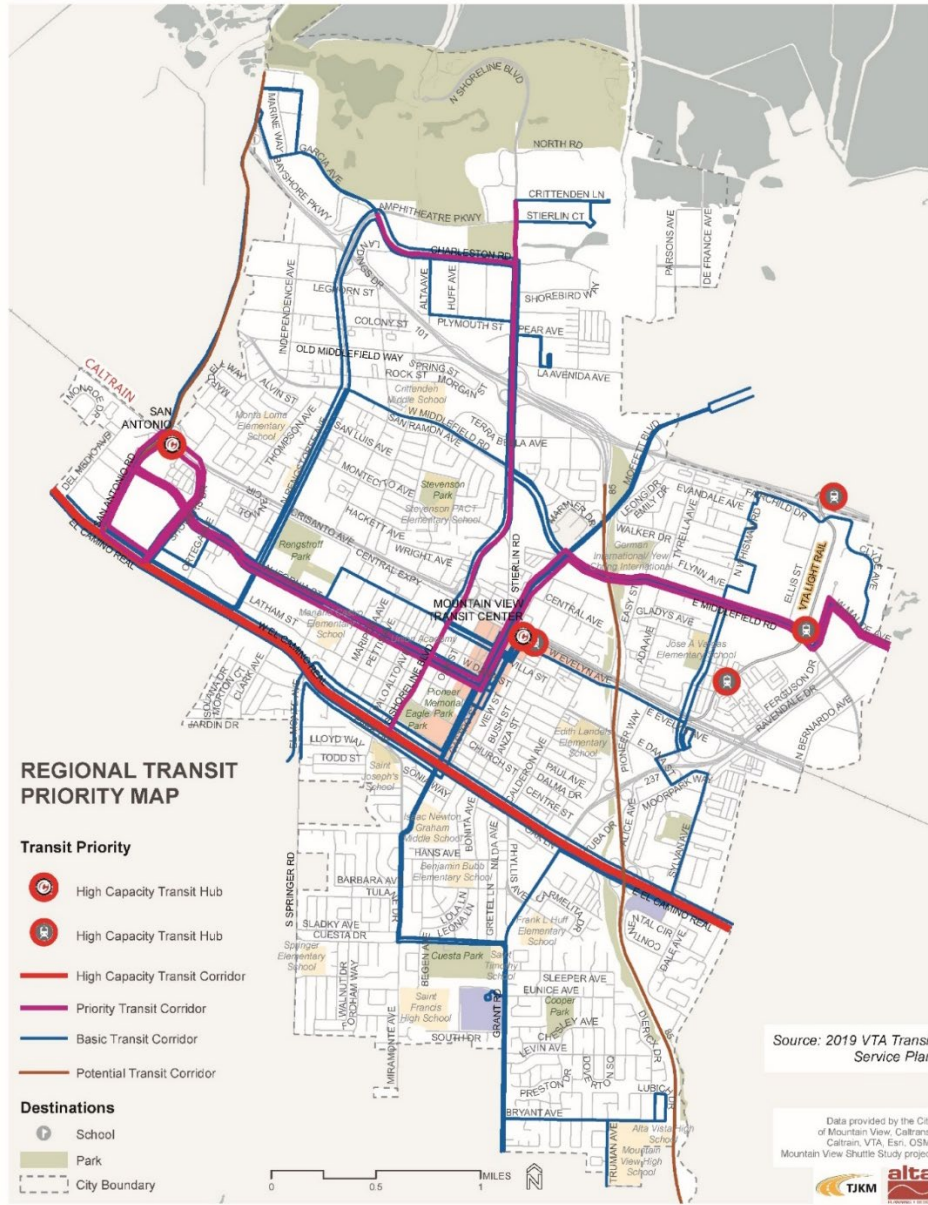


Figure 1: Regional Transit Priority Corridors

Priority Corridors

Based on the above metrics and analysis, the Citywide transportation network was analyzed. This analysis highlighted the following corridors as the highest priority for transportation investment:

1. El Camino Real from Rengstorff Avenue to State Route 85;
2. Rengstorff Avenue from Central Expressway to El Camino Real;
3. Shoreline Boulevard from Montecito Avenue to El Camino Real;
4. El Camino Real from City limit (west) to Rengstorff Avenue;
5. Rengstorff Avenue from Middlefield Road to Central Expressway;
6. San Antonio Road from Central Expressway to El Camino Real;
7. California Street from Rengstorff Avenue to Castro Street;
8. California Street from San Antonio Road to Rengstorff Avenue;
9. El Camino Real from State Route 85 to City limit (east);
10. Showers Drive from San Antonio Road to El Camino Real;
11. Sierra Vista Avenue from Leghorn Street to Montecito Avenue;
12. Shoreline Boulevard from Amphitheatre Parkway to Montecito Avenue;
13. Moffett Boulevard from Middlefield Road to Central Expressway;
14. Rengstorff Avenue from Charleston Road to Middlefield Road; and
15. Middlefield Road from Sierra Vista Avenue to Shoreline Boulevard.

B/PAC members concurred with this list of priority corridors, which are shown as Tier 1 in red in Figure 2 below.

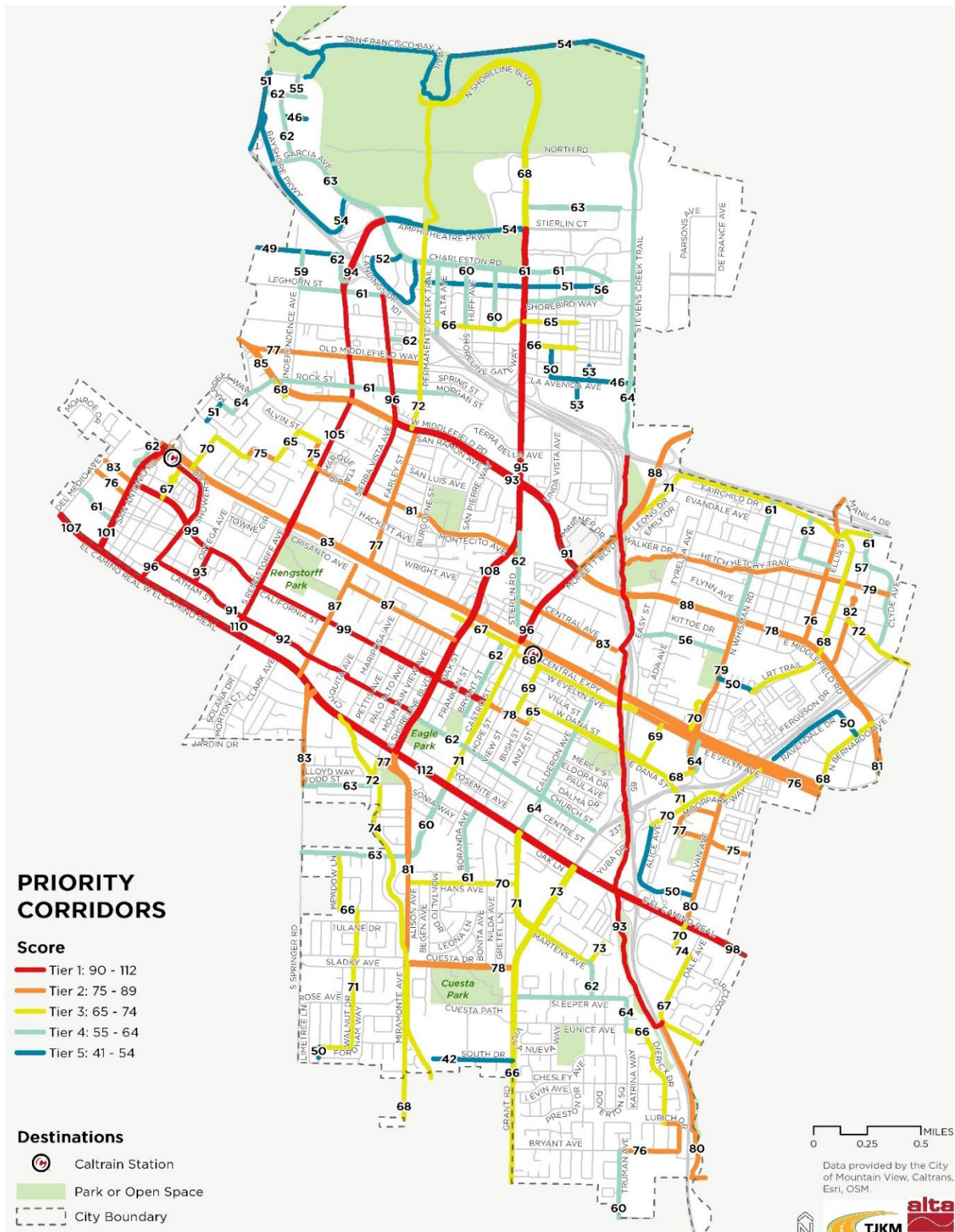


Figure 2: Priority Corridors (TO UPDATE)

Precise Plans/General Plan Change Areas Corridors

The metrics from Table 1 and subsequent analysis that generated the priority corridors shown in Figure 2 were primarily based on existing conditions. As a consequence, certain corridors essential to support the future growth associated with the Precise Plans and General Plan Change Areas did not score high as priority corridors. While these corridors are not listed as high-priority corridors under existing conditions, they will still warrant public or private investment in transportation improvements in preparation for future housing and employment growth planned for these areas. The implementation of these transportation improvements will be determined by the pace of the build-out of these Precise Plan or Change Areas and are generally considered and funded in connection with specific developments within those areas. The Precise Plan or Change Areas are illustrated in Figure 3.

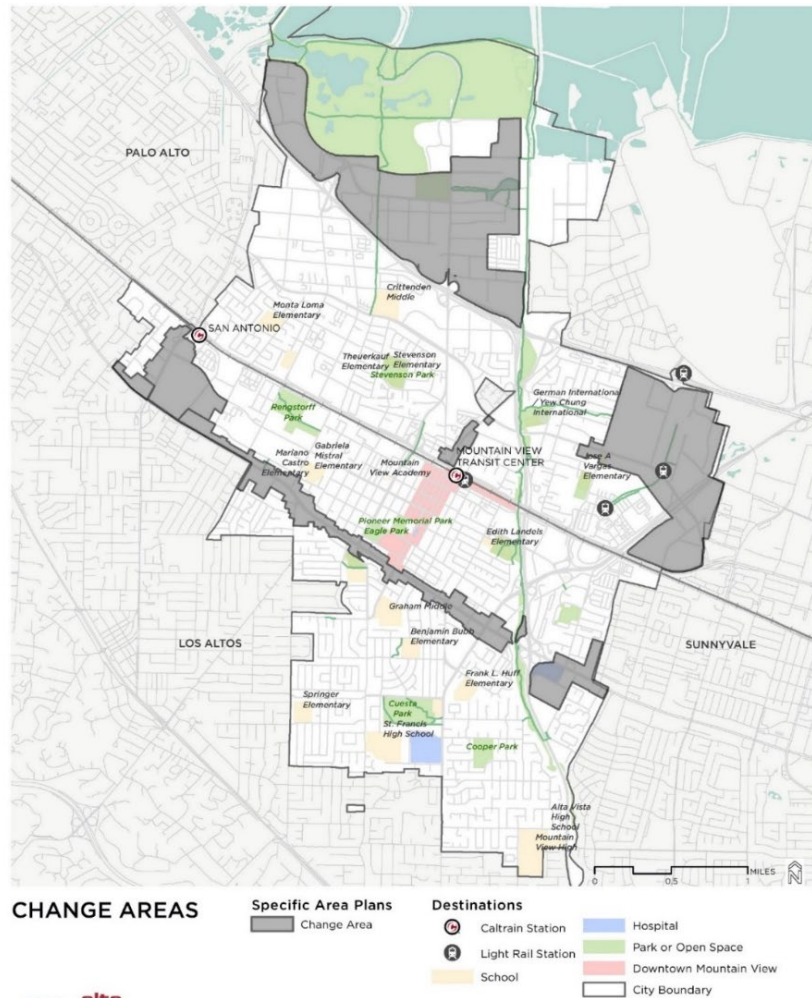


Figure 3: Change Areas

Project Prioritization Process

Individual projects listed in prior City plans were evaluated in consideration of corridor priority score. Ranking criteria for projects builds upon corridor prioritization and adds new criteria for cost-effectiveness, geographic distribution, feasibility, potential for cost savings, funding opportunities, community support, and strategic importance. These criteria are presented in Table 2 below.

Table 2: Project Prioritization Criteria

GOALS	CRITERIA	POINTS	METRICS
Corridor Priority Score	Network priority score.	Network Priority Score (41-112)	Actual Network Priority Score (38-103).
Project Cost	Project is relatively low cost.	0 5 10	High cost (\$\$\$). Medium cost (\$\$). Low cost (\$).
Geographic Distribution	Project would provide a new route or improved access for the neighborhood.	Minus 5 0	Similar or parallel project exists within the same neighborhood. No similar or parallel project exists within the same neighborhood (preference to higher-ranking project).
Feasibility	Project is relatively easy to implement (limited easements, acquisitions, interagency coordination).	0 5 10	Difficult to implement. Somewhat difficult to implement. Relatively easy to implement.
Cost Savings Potential*	Opportunities for project implementation to be combined with other City or regional efforts.	0 5	<2 years or 10+ year City repaving schedule. In 2-10 year City repaving schedule.

GOALS	CRITERIA	POINTS	METRICS
Funding Opportunities	Opportunities for several potential project funding sources.	0	Unlikely to be eligible for competitive grant funding.
		5	May be eligible for some competitive grants (improvement to limited facility).
		10	Project likely to be eligible for competitive grants (new facility; gap closure).
Community Support	Historical community feedback for project.	Minus 5	Project has received negative community feedback.
		0	Project has not received any negative community feedback.
		Plus 5	Project has received positive community feedback.
Strategic Importance	Project serves as a strategic gateway project.	0	Not a strategic gateway project.
		5	Strategic gateway project.
MAXIMUM POSSIBLE POINTS		157	

* Data is preliminary.

Priority Projects

A list of priority projects has been developed as part of the Draft Report. This list represents an initial ranking that will be refined as the Pavement Management Plan is finalized. Alignment of some of the listed projects with pavement management operations through proactive design and outreach work will allow for cost savings associated with integrating planned improvements into upcoming repaving work.

As seen in the preliminary ranking of projects by mode (Figures 4, 5, and 6), the quantity of projects identified in source plans vary considerably:

- **Bicycle** – The large number of bicycle improvement projects in Figure 4 reflects the extensive list of projects outlined in the City’s Bicycle Transportation Plan, VTA Countywide Bike Plan, and Caltrans District 4 Bike Plan.
- **Pedestrian** – For pedestrian-related capital projects, there is no map because major projects (such as pedestrian/bicycle bridges or undercrossings) are ranked with bicycle projects, and the City’s Pedestrian Master Plan did not include a list of specific pedestrian projects. Pedestrian improvements are also incorporated into

intersection improvements, Citywide ramp and repaving projects, and development conditions of approval.

- **Roadway/Vehicular**—For roadways, the limited number of capital projects highlights the built-out nature of the vehicular network, which means most of the roadway improvements projects focus on intersection and interchange improvements, signal systems, and streetscape/complete streets modifications. New streets are generally limited to the Precise Plan/Change Areas (Figure 3).
- **Transit**—The only transit-related capital project in the City’s current plans is the Charleston Transit Corridor in North Bayshore (Figure 4). The Shoreline Boulevard Reversible Transit Lane is under construction and, therefore, was not evaluated for prioritization. Transit supportive treatments are consistent with General Plan goals and could be incorporated into planned projects, such as traffic signal upgrades and complete street redesigns for the transit priority corridors shown in Figure 1.

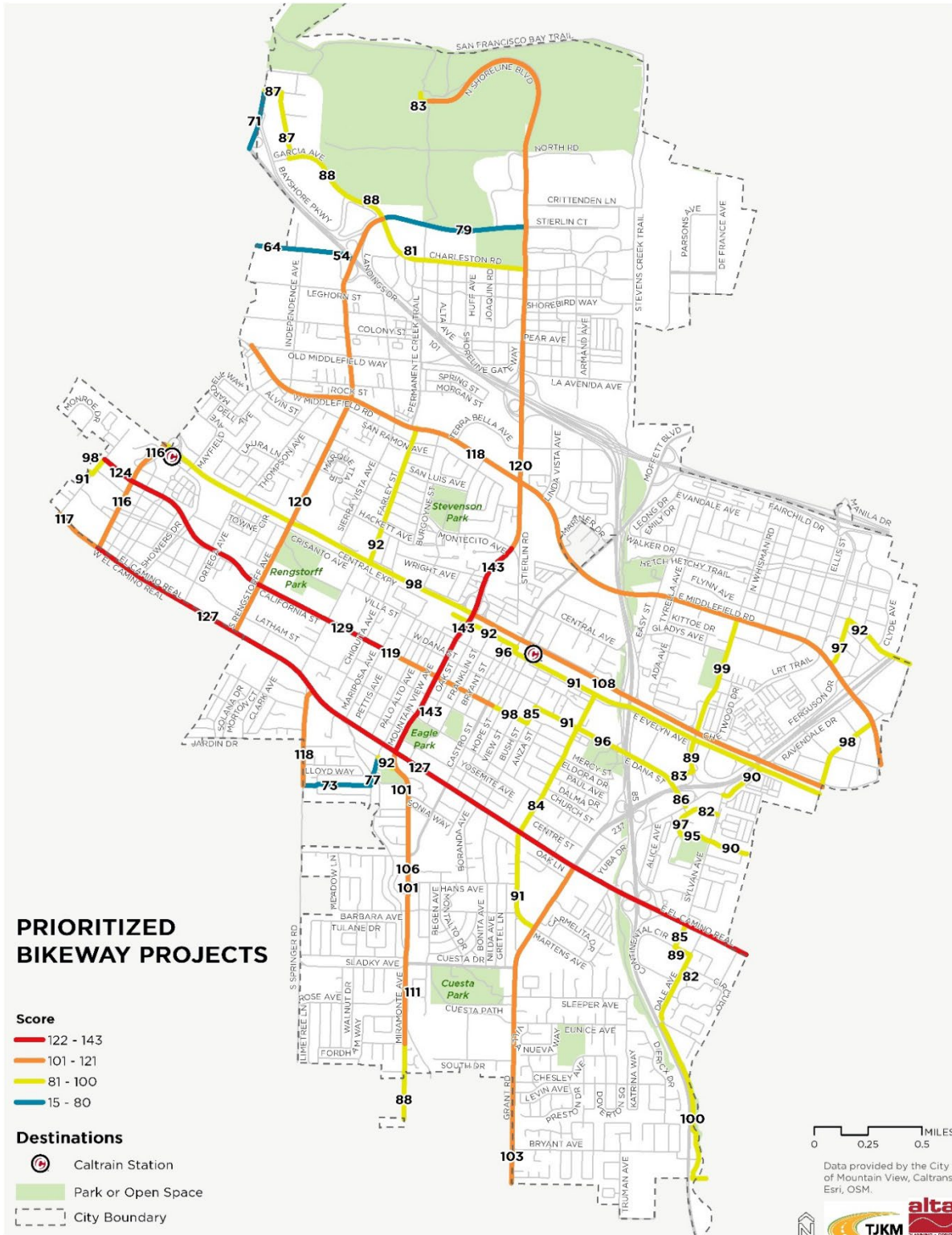


Figure 4: Prioritized Bicycle Projects

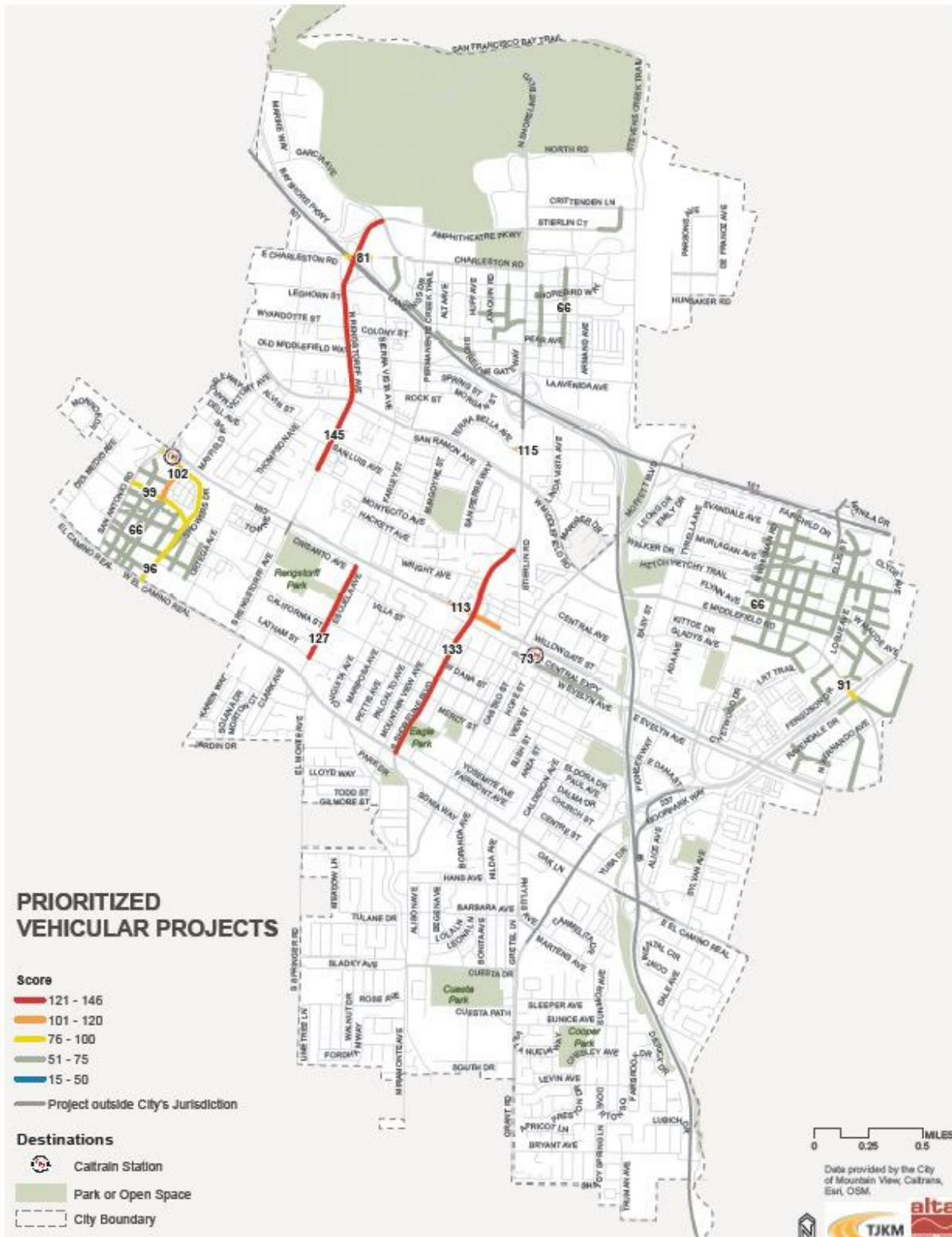


Figure 5: Prioritized Vehicular Projects

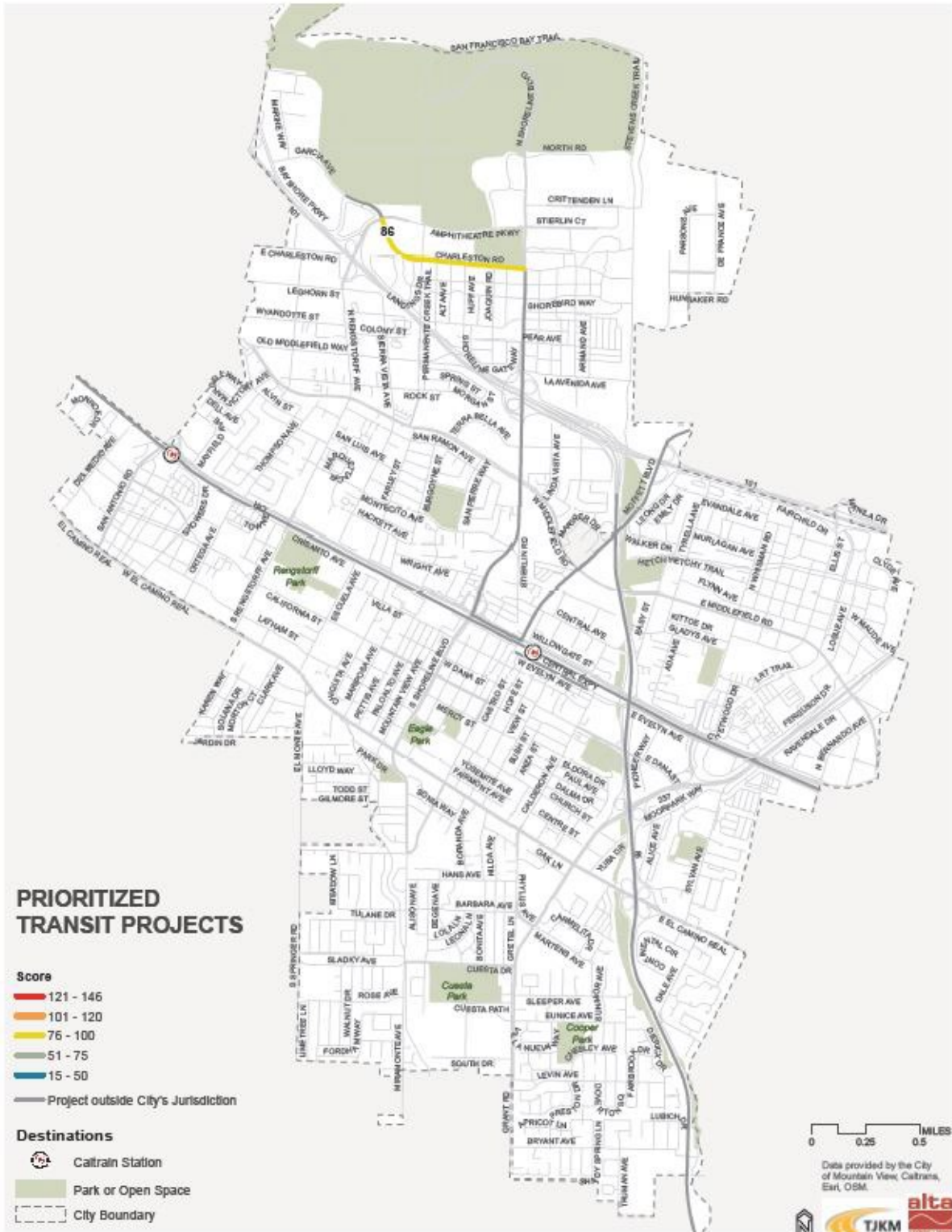


Figure 6: Priority Transit Projects

AccessMV Priorities Implementation

Capital Improvement Program (CIP)

The project findings and spreadsheet tools will assist in ranking and scheduling Capital Improvement Program (CIP) projects from numerous plans and studies over the coming decades.

In looking at corridors and projects identified as the highest priority by AccessMV, it should be noted that many of these projects have already been included in the existing Five-Year CIP. These priority projects include pedestrian and bicycle improvements along El Camino Real, complete streets projects for Shoreline Boulevard and California Street, and complete street improvements associated with grade separations at Rengstorff Avenue and Castro Street/Moffett Boulevard (including a ramp to Shoreline Boulevard).

Priority projects that have not been included in the current Five-Year CIP will be submitted for consideration for future CIPs and will be prioritized consistent with AccessMV as additional funding becomes available.

Transit Services

Transit service gaps within the City will also be addressed through shuttle enhancements, which were identified in the Shuttle Study. Initial funding for this work has been obtained from the Measure B Innovative Transit grant. Staff will also continue to work with the Valley Transportation Authority (VTA), Caltrain, and the Transportation Management Association (TMA) to coordinate on transit service planning to help fill in gaps, improve overall transit service levels in the City, and avoid duplication of services.

Active Transportation Plan

A number of infrastructure elements that have been identified as gaps in AccessMV will also be addressed in the upcoming Pedestrian Master Plan/Bicycle Transportation Plan update, which is proposed to be completed as an integrated Active Transportation Plan. This plan update will coordinate with the City's Community Tree Master Plan. This plan will also help to prioritize trade-offs in use of limited City right-of-way for motor vehicles, parking, bicycles, pedestrians, and green elements, such as canopy trees and sustainable stormwater infrastructure based on street typologies and the overall bicycle and pedestrian networks.

NEXT STEPS

Staff requests that the Council Transportation Committee review the primary corridors and project prioritization criteria used to develop the Draft AccessMV Report and recommend approval of the Draft AccessMV Report to the City Council. Based on the Council Transportation Committee's comments and recommendations, staff will finalize the report and bring it to the City Council for approval as a consent item in June 2021.

RHL-DS/6/PWK

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- Attachments:
1. AccessMV Draft Report
 2. AccessMV Draft Report Appendices