

El Monte Avenue Corridor Study

September 2023

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El Monte Avenue Corridor Study



Final Report

September 2023

Issue and revision record

Revision	Date	Originator	Checker	Approver	Description
1	04/03/2020	RN	TC	TA	Admin Draft Report
2	09/24/2020	RN	TC	TA	Final Draft Report
3	06/28/2023	RN	JC	TA	Revised Draft Report
4	09/12/2023	RN	JC	TA	Draft Final Report
5	09/21/2023	RN	JC	TA	Final Report

Document reference:

Information class: Standard

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Executive Summary

Following neighborhood concerns over the years related to multimodal traffic safety and operations, the City of Mountain View initiated a planning study in 2019 to explore the feasibility of 'Complete Streets' improvements through the El Monte Avenue corridor that connects between El Camino Real (a Caltrans route) at the north end and the City of Los Altos limits at the south end. The corridor presently has a four-lane undivided roadway cross-section with limited bike and pedestrian features and a history of traffic collisions and safety concerns. The El Monte Avenue Corridor Study proposes to identify and incorporate improvements along the El Monte Avenue (from Springer Road to El Camino Real) and along El Camino Real (from El Monte Avenue to Escuela Avenue) to improve the overall safety for all modes of travel within and through the corridor.

Upon a high-level evaluation of traffic operational characteristics and constraints and opportunities, multiple high-level improvement concepts were put forth for the project, that may be broadly categorized as "five-lane", "four-lane" and "three-lane" cross-section options. Through a series of public meetings, stakeholder meetings and online community surveys conducted by the City over the course of the study process from 2019 through 2023, it was identified that the community's preferred improvement alternative is the 'road diet' option which essentially incorporates multimodal improvements under a reduced three-lane cross-section (i.e. one vehicular travel lane in each direction, a two-way median lane, and bike lanes in each direction and enhanced pedestrian features).

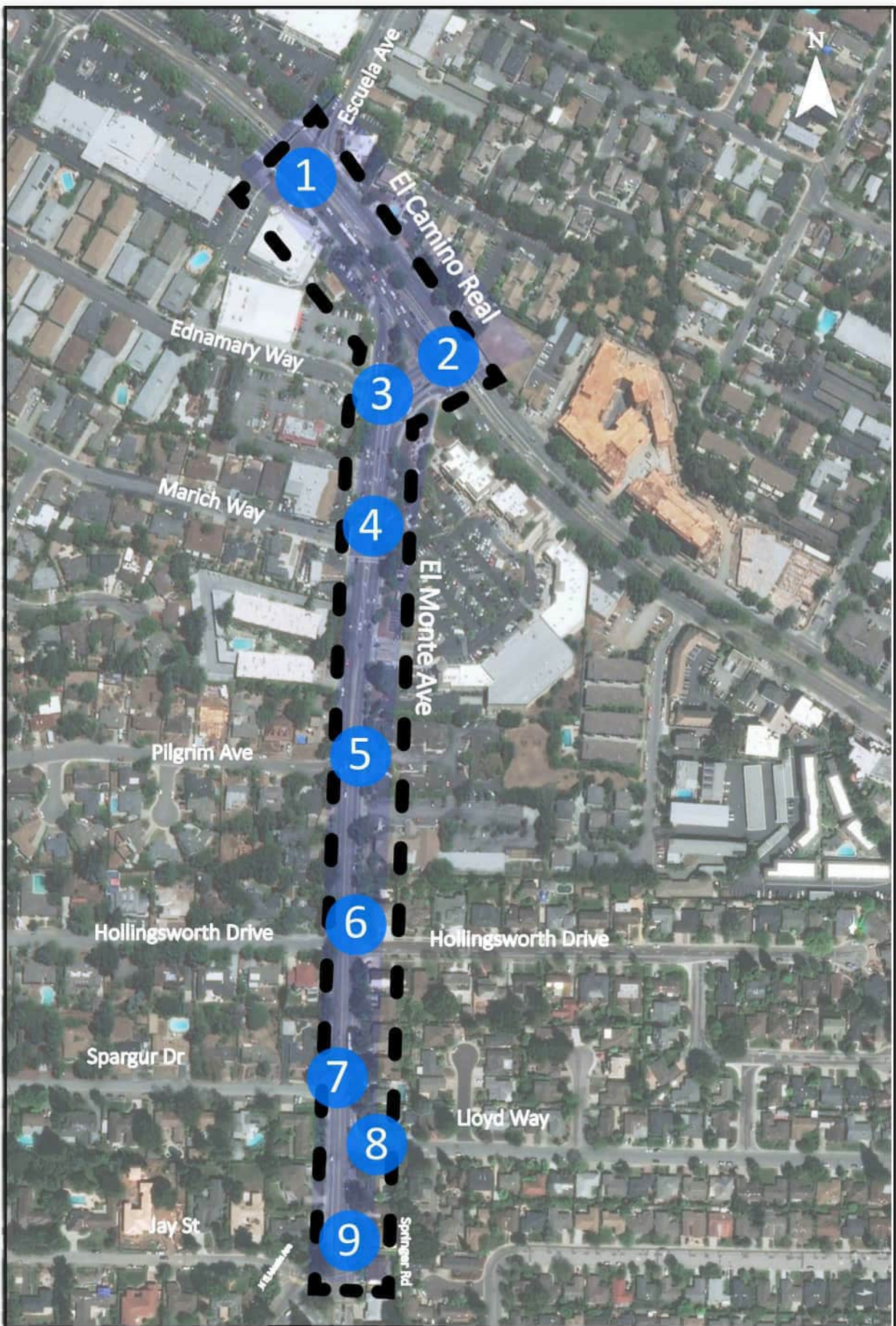
Upon City Council approval, the road diet alternative is recommended to be carried forward for detailed design and Caltrans approval phase.

1 Introduction and Background

The purpose of the El Monte Avenue Corridor Study is to develop multimodal transportation improvement solutions for addressing traffic safety and operations through the study corridor. The study limits includes the entire segment of El Monte Avenue within the City of Mountain View limits, beginning north from El Camino Real and extending south through Springer Road/Jay Street intersection at/near the limits of the City of Los Altos. The limits also include the segment of El Camino Real between El Monte Avenue and the adjacent intersection with Escuela Avenue, that fall within Caltrans right-of-way jurisdiction. **Figure 1** shows the study location and vicinity map. **Figure 2** shows the existing facilities within the study corridor.

This study process began originally in 2019 with an evaluation of existing field conditions, traffic data collection, opportunities and constraints analysis, and improvement concept development. Initially developed high-level ‘complete streets’ improvement concepts were shared in early public outreach meetings conducted in 2020. Subsequently, the study process further involved in response to project feedback from the City Bike/Pedestrian Advisory Committee (BPAC) in 2022, which resulted in the development of a ‘road diet’ concept that was then further vetted with the community through 2023. The intent of this report is to summarize the overall study methodology and study process and present the conceptual alternatives developed from the overall study process and present the community’s preferred alternative at this time. This report is organized as follows:

- Study Methodology: This section first summarizes initial project data collection and research as well as field reconnaissance activities. This section then provides a brief summary of the detailed technical Traffic Operations Analysis (TOA) completed for the project corridor. The TOA also includes description of the project’s background setting and a description of regulatory environment for the project.
- Public Outreach Summary: This section summarizes the Public Outreach process undertaken over the course of the study.
- Constraints & Opportunities Analysis: Based on the evaluation process outlined in the sections noted above, constraints and opportunities identified within the study corridor are summarized.
- Conceptual Improvements Plans: The conceptual improvement alternatives and the community’s preferred improvement alternative are then presented.
- Preferred Alternative and Cost Estimates: Preliminary opinion of project cost estimates for the project alternatives including preferred alternative, and recommendations for next steps are summarized.



El Monte Avenue

FIGURE 1

Project Location & Vicinity Map

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MOTT
MACDONALD

Figure 2 - Existing Study Facilities

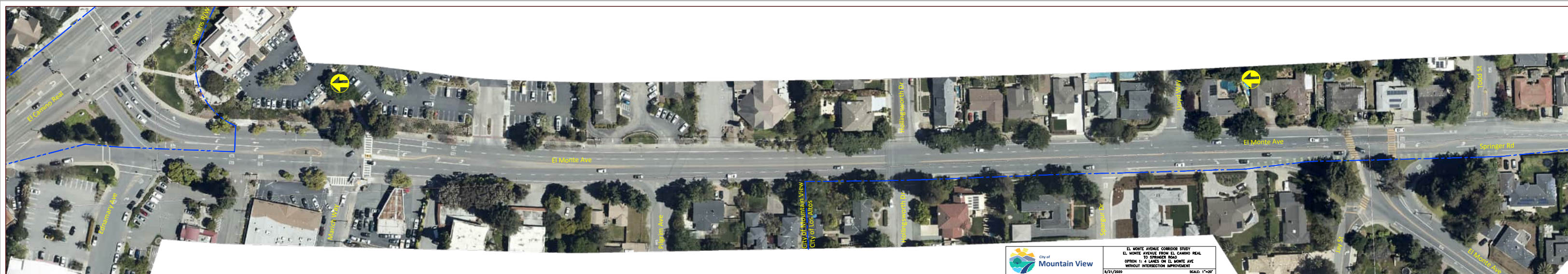


Figure 2 - Existing Study Facilities (Continued)



2 Study Methodology

2.1 Field Reconnaissance and Initial Activities

In November-December 2019, Mott MacDonald engineering staff conducted site reconnaissance of the El Monte Avenue project corridor. The visual field assessment of existing site conditions included the following:

- Review of existing surface facilities such as roadway width and striping, pavement markings, above-ground and underground utilities, monuments, traffic signals, street furniture, traffic signs, and trees.
- Field observation of vehicular and pedestrian behavior at intersections and through the corridor.
- ADA accessibility along the project corridor.

Furthermore, as part of initial project data compilation, record drawings, as-built plans, right of way maps, and utility information maps provided by the City were reviewed.

2.2 Traffic Operations Analysis

The Traffic Operations Analysis (TOA) for the Study was originally initiated in 2019 that evaluated existing traffic conditions. High-level improvement concepts initiated at that time did not involve a reduction in vehicular travel lanes *per se*, and therefore, a traffic operational evaluation of “with project” conditions was not originally undertaken. Subsequently in 2021, in response to public/stakeholder comments, the City initiated an evaluation of a ‘road diet’ option (i.e. a three-lane cross-section) for the study corridor that involved a reduction in number of vehicular travel lanes through the study corridor. A supplemental traffic operations analysis was then completed that evaluated traffic operations associated with the ‘road diet’ option.

Attachment A-1 contains the detailed Traffic Operations Analysis memorandum (dated June 2020) originally prepared for this study. The existing regulatory/policy settings that are relevant or applicable to the subject project corridor are summarized in the TOA as well. In the June 2020 TOA, existing transportation setting and background multimodal traffic conditions, as well as technical analysis methodologies used are described. For purposes of the TOA, the City provided new traffic count data collected in October 2019 for critical intersections along the study corridor. For use in the TOA, traffic signal timing data for Caltrans-controlled intersections along the El Camino Real corridor were obtained from Caltrans District 4. Essentially the TOA focused on existing typical weekday AM and PM peak hour traffic operating conditions at the following critical study intersections that govern traffic operations through the study corridor.

1. El Camino Real / Escuela Avenue
2. El Camino Real / El Monte Avenue
3. El Monte Avenue / Ednamary Way
4. El Monte Avenue / Marich Way
5. El Monte Avenue / Pilgrim Avenue

6. El Monte Avenue / Hollingsworth Drive
7. El Monte Avenue / Spargur Drive
8. El Monte Avenue / Lloyd Way
9. El Monte Avenue / Springer Road / Jay Street

The peak hour operational level of service and peak-hour-volume based traffic signal warrant evaluation (for currently all-way-stop or two-way-stop controlled intersections) and all-way-stop control warrant (for currently two-way stop-controlled intersections) along the study corridor are summarized in the TOA. Furthermore, the TOA includes a description and summary of recent three-year collision data for intersections and segments within the study corridor.

Attachment A-2 contains the supplemental traffic operations analysis of the ‘road diet’ concept that was completed in December 2021.

2.3 Public Outreach

A Public Outreach process was undertaken for the Study in order to provide the community an opportunity to have their issues, concerns and perspectives regarding the study corridor be heard, and to ensure that the proposed project improvements reasonably meet the community’s needs. The Mott MacDonald team in conjunction with City staff completed the first Public Outreach meeting on January 15, 2020 at the study initiation stage and a follow-up Virtual Public Outreach meeting was held on August 18, 2020 to present two conceptual project alternatives (i.e. the four-lane option and the five-lane option) and receive public comments. During the December 2020 Bicycle/Pedestrian Advisory Committee (BPAC) meeting, to address the community’s concerns with high vehicle speeds and volumes, the BPAC requested staff to explore the feasibility of a ‘road diet’ alternative along El Monte Avenue, between El Camino Real and the City limits at Springer Road and Jay Street.

Subsequently, Mott MacDonald staff assisted City staff at public/community outreach meetings and presentations conducted in July 2022, which included a third conceptual alternative for the project, which was the three-lane (‘road diet’) option. In this meeting, the community indicated support for the ‘road diet’ option over other alternatives. In December 2022, City staff administered online community surveys (questionnaire responses), as a result of which the ‘road diet’ option was identified and confirmed as the community’s single most preferred concept. City staff further presented the ‘road diet’ concept as the community’s preferred concept at the BPAC meeting on April 26, 2023, and at the City Council Transportation Committee (CTC) meeting in May 15, 2023.

Attachment B contains the full description of the Public Outreach meetings and comments received from Public Outreach #1 and Public Outreach #2 meetings. Attachment B also contains the City’s July 2022 Outreach meeting presentation and minutes, a summary of the December 2022 online community survey results, and the City’s April 2023 presentation before BPAC.

3 Constraints & Opportunities Analysis

3.1 Opportunities and Constraints

Based on the technical studies, processes and evaluation referenced/summarized in the above sections, the following key “Opportunities and Constraints” for improving the multimodal traffic flow and safety characteristics of the study corridor were identified:

Vehicular Level of Service is no longer a key performance criterion: Latest City General Plan based mobility policies as well as State mandates (such as *Senate Bill 743*) shift focus towards multi-modal transportation, therefore vehicular level-of-service (LOS) based capacity considerations should not be the only or primary considerations when evaluating improvement concepts for the study corridor. This presents a key opportunity that enhances the feasibility of multimodal solutions for the study corridor from a regulatory/policy context.

Key operational improvement opportunities and constraints for the study corridor that were considered/evaluated over the course of the study include the following items:

- The right-turn traffic movement from eastbound El Camino Real to southbound El Monte Avenue currently operates like a *defacto* “free right-turn” movement that is encouraging speeds and potential for wrong-way movements. The *El Camino Streetscape Plan* had already developed concepts for this improvement, that includes reconfiguring the subject eastbound right-turn movement as a signal-controlled traditional right-turn movement. This reconfiguration was further integrated in all the project options evaluated in this study.
- With the planned reconfiguration of the El Camino Real/El Monte Avenue eastbound right-turn movement, there is also an opportunity to eliminate the mid-block stop-sign controlled northbound left-turn access from El Monte Avenue to Ednamary Way and re-route this movement as a northbound-to-southbound U-turn movement at the downstream El Camino Real/El Monte Avenue signalized intersection. However, feedback obtained from subsequent community outreach meetings indicated that the community is opposed to eliminating left-turn access to Ednamary Way.
- The existing 60-foot traveled way width on El Monte Avenue may be encouraging vehicular travel speeds (beyond the posted speed limit of 35 mph), that must be reduced. A multimodal or ‘Complete Street’ cross-section would by itself tend to reduce vehicular travel speeds. A general reduction of vehicular travel lane widths was therefore considered as part of Complete Street cross-section development.
- Reduction in vehicular traffic capacity on El Monte Avenue (i.e. reducing the number and width of travel lanes to help reduce pedestrian crossing times) was considered. The existing 60-foot traveled way width on El Monte Avenue offers opportunities for multiple cross-section options that could accommodate continuous median treatments and dedicated Class II bike lanes. Addition of two-way-left-turn median lane was also considered.

- The Escuela Avenue/El Camino Real (ECR) intersection is currently using 'permitted' left-turn phasing on Escuela/Walgreens Driveway (N-S) approach, and there are constant conflicts between the left-turns and the crosswalks across ECR. Modifying signal phasing at the El Camino Real/Escuela Avenue intersection to a full 'eight-phase' configuration would improve pedestrian and bike movements at/through this intersection. This improvement, which was included with the project options, will require dedicated left-turn lane striping on the northbound and southbound approaches which appear feasible.
- Where multiple access routes are available and access-restrictions are acceptable to the community, elimination of left-turn ingress/egress movements from minor side streets was considered, while weighing in traffic operations and emergency access impacts. Pilgrim Avenue is connected to Marich Way via Blackfield Way as well, and therefore Pilgrim Avenue approach to El Monte Avenue could be left-turn access-restricted. Similarly, Spargur Drive and Hollingsworth Drive represent a continuous loop, hence Spargur Drive approach to El Monte Avenue could be access-restricted. However, feedback obtained from subsequent community outreach meetings indicated that the community is opposed to side-street access restrictions in general.
- The El Monte Avenue study corridor appears to have a demand for additional safe pedestrian crossings. A Complete Street cross-section may also attract a 'latent demand' for pedestrians that may be currently avoiding crossing the street. Providing additional pedestrian crosswalks on El Monte Avenue between Marich Way and Springer Street crossings was considered. Ideally such mid-block crossing opportunities should be equitably spaced between existing pedestrian crossings. Therefore, crosswalks at Hollingsworth Drive intersection were recommended.
- There is a need to connect northbound-southbound bike movements on El Monte Avenue with Escuela Avenue to continue north/south. Caltrans is already in the process of implementing bicycle facilities along El Camino Real through the corridor limits. Facilities to provide safe passage of bike movements through the El Camino Real/El Monte Avenue intersection (Caltrans intersection) was considered as part of this Study. The El Camino Real/El Monte Avenue intersection signal will also be modified to accommodate a leading pedestrian interval, which increases pedestrian safety at the intersection by giving pedestrian a head start to enter the intersection before vehicles are given a green indication.

3.2 Community Feedback

Note that Attachment B contains detailed information on Public Outreach meetings conducted as part of the study process. Public outreach meetings #1 and #2 completed in 2020 formally introduced the Study to the community, and helped identify the community's high-level concerns and opinions on issues related to the study corridor. Public outreach meeting #3 and the subsequent online community surveys completed in 2022 helped identify and then confirm the community's general preference for a 'road diet' option as part of the complete streets project improvements. Based on specific feedback obtained through online

community surveys, the following key elements were identified that were taken into account in the constraints and opportunities evaluation and project alternatives development process:

- The community rated safety of pedestrians (26%), safety of bicyclists (23%) and speed of vehicular traffic (23%) as the three highest traffic-related concerns along El Monte Avenue.
- The community rated vehicular speeds (30%) as the highest contributing factor to (lack of) traffic safety along the project corridor. Pedestrian crossing challenges (26%) and lack of bike lanes (11%) were rated as the second and third highest contributing factors, respectively.
- The community (69%) supported construction of a two-way left-turn median lane on El Monte Avenue.
- The community (75%) did not support reduction of number of left-turn lanes from westbound El Camino Real to southbound El Monte Avenue.
- The community (66%) was generally opposed to left-turn access restrictions at Pilgrim Avenue, Ednamary Way and Spargur Drive intersections along El Monte Avenue.
- The community (42%) identified the 'road-diet' option (i.e. two-lane cross-section with a center turn lane) as the most preferred design concept for the El Monte Avenue Complete Streets project.

4 Conceptual Improvement Plans

4.1 Conceptual Alternatives

Based on the study process and findings summarized in Sections 2 and 3 of this report, Mott MacDonald in coordination with City staff, developed three (3) preliminary options for the El Monte Avenue corridor-wide improvements over the course of the study process. These options are listed as follows:

Option 1 – Four-lane section – Provides four 11' wide vehicular lanes and a 5' buffered Class II bike lane in each direction. This option also provides refuge islands at certain intersections.

Option 2 – Five-lane section – Provides five 10' wide vehicular lanes and a 5' Class II bike lane in each direction. This option keeps two vehicular through lanes in each direction and adds a two-way left-turn median lane.

Option 3 – Three-lane section ('Road Diet' option) – Drops one vehicular through lane in each direction and provides 6' buffered Class II bike lanes in each direction, and a 14' two-way left turn median lane.

The five-lane section (Option 2) was originally developed in 2020, but eliminated due to safety hazards with 10' wide narrow lanes and no buffer between vehicular travel lanes and bike lanes, and also lack of community support. The four-lane cross section introduced in 2020 was retained after initial community meetings, and further refined per considerations for side-street access restrictions. The three-lane option was formally introduced to the community in 2021-22 and also refined upon community feedback. Additional intersection-level improvements at the El Camino Real intersections with El Monte Avenue and Escuela Avenue were also included under each of the El Monte Avenue improvement options noted above.

Finally, three well-defined project "alternatives" were developed and presented for community feedback in 2023. Alternative 1 would have a four-lane section with no access restriction on side-streets and Alternative 2 would have a four-lane section that includes left-turn access-restriction at some side-street approaches. Alternative 3 would be the 'road diet' alternative (three-lane section). The latest refined alternatives under consideration at this time are summarized as follows:

Alternative 1 – Four-lane section with no side-street access restrictions

Alternative 2 – Four-lane section with some side-street access restrictions

Alternative 3 – 'Road Diet' (three-lane section) with no side-street access restrictions

The pros and cons of the aforementioned four-lane and three-lane (i.e. road diet) alternatives are summarized in the following table:

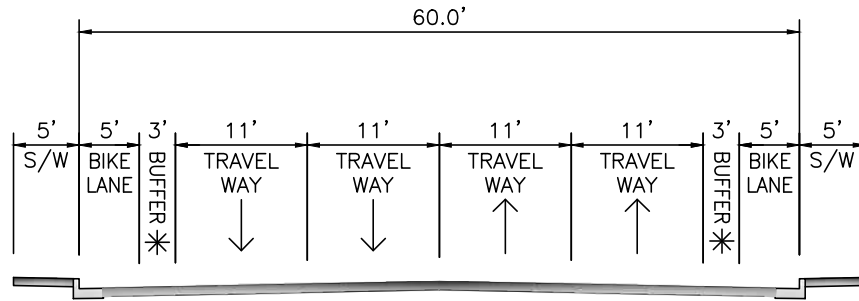
Alternative	Pros	Cons
Four-lane Alternative(s)	- Existing vehicular travel capacity and demand is not significantly altered - Does not create potential for diversion of El Monte Avenue traffic to other routes	- Does not allow for two-way left-turn median lane - Side-street left-turning traffic will retain relatively high delays - May only reduce vehicular travel speeds marginally
Three-lane Alternative (‘Road Diet’ Option)	- Two-way left-turn median lane gives median storage space for safer ingress/egress of left-turning vehicles - Wider Class II bike lanes and wider buffer between travel lanes and bike lanes can be accommodated - Reduced crosswalk times, and overall enhanced safety for pedestrians/bikes - Traffic volume demand may be significantly reduced on El Monte Ave - Traffic speeds will likely be reduced because of traffic filing through a single lane	- Created potential for traffic diversion impacts to other routes or local streets. - Should substantial traffic diversion from El Monte Avenue not occur, side-street left-turn movements could actually experience greater delays in finding gaps across increased traffic across a single through lane in either direction.

The typical cross-section on El Monte Avenue for Alternatives 1, 2 and 3 are shown in **Figure 3**. Figure 3 also includes the originally considered, but dropped, five-lane cross-section concept, for reference purposes.

Attachment C includes conceptual design layouts for Alternative 1, Alternative 2 and Alternative 3.

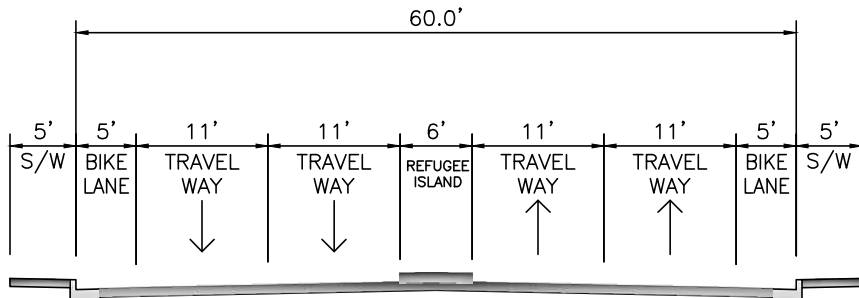
4.2 Agency Coordination

The preliminary concepts were reviewed with Caltrans District 4 staff and City of Los Altos staff through project meetings and outreach meetings. Caltrans has advised that an appropriate permit (or oversight) process must be undertaken towards formal Caltrans approval of project improvements within Caltrans right-of-way. The City intends to initiate a formal Caltrans process subsequently upon City Council’s approval of the community’s preferred alternative. The City of Los Altos has acknowledged the City of Mountain View’s ongoing Study process for El Monte Complete Streets project, and indicated that Los Altos will “take into consideration and utilize the conceptual planning work provided in order to allow for an appropriate transition for multiple transportation modes between the jurisdictions.”



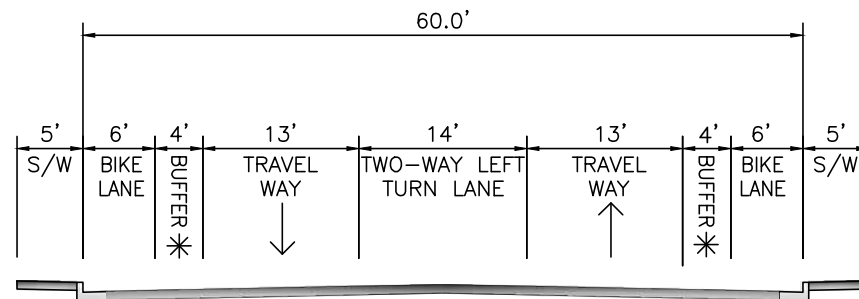
ALTERNATIVE 1: 4 LANES ON EL MONTE AVE

No Access restriction on side-streets



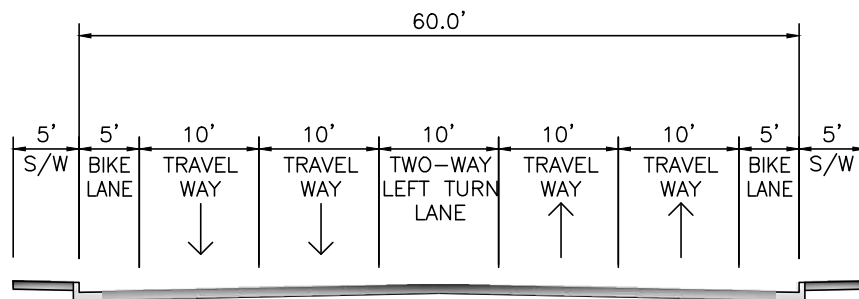
ALTERNATIVE 2: 4 LANES ON EL MONTE AVE WITH REFUGE ISLAND

Side-street access restrictions at some locations
(Buffered Bike Lane outside of refuge island areas)



ALTERNATIVE 3: ROAD DIET - 3 LANES WITH MEDIAN LEFT-TURN LANE

BETWEEN MARICH WAY AND JAY ST./SPRINGER RD



FIVE LANE SECTION ON EL MONTE AVE (DISCARDED OPTION)

BETWEEN MARICH WAY AND JAY ST./SPRINGER RD

* COULD BE STRIPED BUFFER FOR CLASS II BIKE LANE OR FLEXIBLE POSTS
OR INFLATABLE PHYSICAL BARRIER FOR CLASS IV BIKE LANE

5 Preferred Alternative and Cost Estimates

5.1 Preferred Alternative

Alternatives 1, 2 and 3 that were developed by the study team were all considered feasible project alternatives, that were vetted by City staff with the community and project stakeholders over the course of the overall study process. Through the course of this study development process, Alternative 3, 'Road Diet' option (as shown in Attachment C) emerged as the community's preferred alternative. The merits of the 'road diet' alternative are summarized as follows:

- While vehicular traffic capacity is reduced, vehicular traffic speeds would also be reduced because of reduced number of travel lanes and lane widths that allows for enhanced accommodation of bikes and pedestrians.
- The road diet alternative would cause reduced traffic weaving and increase operational safety for left-turning vehicles because of the presence of a median left-turn lane. This would result in a reduction in the number and severity of vehicle-to-vehicle collisions. Additionally, the vehicle speed differential (i.e. difference in vehicle speeds between two adjacent through lanes) would be eliminated, and the lane speeds on the single through lanes would be limited by the speed of the lead vehicle in the platoon.
- Easier pedestrian crossings would be facilitated since pedestrians have one fewer vehicle lane to cross, and also a shorter time of exposure to vehicular movements.
- Vehicular traffic volume demands through El Monte Avenue study corridor would likely reduce proportional to reductions in number of through travel lanes, however vehicular traffic diversions/rerouting via parallel corridors and/or local streets may also occur.
- The use of multi-modal facilities provides a dedicated space for different users, which can increase motorists' recognition and, with the addition of buffered bike lanes and pedestrian refuge islands, provides cues that improve driver awareness and safety.

5.2 Preliminary Cost Estimates

Preliminary opinion of cost estimates were developed for Alternatives 1, 2 and 3, and these costs were broadly categorized as costs within Caltrans right-of-way and within City right-of-way. **Attachment D** contains detailed cost estimate worksheets for these alternatives. The following table summarizes the cost estimates.

Summary of Preliminary Opinion of Cost Estimates

#	El Monte Avenue Improvement Option	Exhibit Title	Costs within Caltrans Right-of-Way	Costs within City Right-of-Way & Private Property	Total Project Cost
1	Four-lane Option	Alternative 1	\$ 686,000.00	\$ 701,000.00	\$ 1,387,000.00
2	Four-lane Option with side-street access control	Alternative 2	\$ 742,000.00	\$ 1,004,000.00	\$ 1,746,000.00
3	Three-lane (Road Diet) option	Alternative 3	\$ 824,000.00	\$ 926,000.00	\$ 1,750,000.00
<i>Notes:</i> Costs are indicated in 2023 dollars. Cost estimate worksheets are included in the Appendix. All costs include right-of-way acquisition costs (if applicable) and 30% contingencies.					

The preliminary cost estimates associated with the Preferred Alternative (Alternative 3, Road Diet option) will be refined further as the project study is carried forward through the subsequent detailed design phase.

5.3 Next Steps

As summarized in this report's previous sections, Alternative 3, the Road Diet Alternative, has emerged as the community's preferred alternative, and it is recommended and anticipated at this time that formal City Council approval of the Road Diet alternative be secured. Subsequently the project design and relevant Caltrans approval processes would be initiated.

6 Appendix

- **Attachment A-1** – Traffic Operations Analysis Memorandum (dated June 2020)
- **Attachment A-2** – ‘Road Diet’ Alternative Traffic Operations Analysis Memorandum (dated December 2021)
- **Attachment B-1** – Public Outreach Comments (from January 15, 2020 and August 18, 2020 meetings)
- **Attachment B-2** – Public Outreach Comments (from July 21, 2022 meeting), Online Survey (December 2022) Results, and City’s BPAC Presentation (April 26, 2023)
- **Attachment C** – Conceptual Design Layouts (Alternatives 1, 2 and 3)
- **Attachment D** – Cost Estimates (Alternatives 1, 2 and 3)

Technical Memorandum

To: City of Mountain View – Public Works/Engineering
Attn: Darwin Galang, Lorenzo Lopez
Cc: Mott MacDonald - Teferi Abere, P.E., Shruti Malik, T.E.
From: Ravi Narayanan, P.E., T.E. **Date:** 06/18/2020
Subject: El Monte Avenue Corridor - Traffic Operations Analysis
Project #: 507302313-001

1 Introduction

This Technical Memorandum was prepared in order to summarize a Traffic Operational Analysis (TOA) of the El Monte Avenue study corridor within the City of Mountain View (the 'City'). Specifically, this memorandum summarizes data, analysis, and findings from a technical evaluation of existing traffic operations and safety conditions at key study intersections along the corridor. The purpose and intent of this memorandum is to provide a traffic engineering related "opportunities and constraints analysis" summary for the study corridor.

Appendix Exhibit 1 illustrates the location of the project study corridor and vicinity.

2 Regulatory Setting

The study limits of El Monte Avenue corridor includes the entire segment of El Monte Avenue within the City of Mountain View limits, beginning north from El Camino Real and extending south through Springer Road/Jay Street intersection at/near the limits of the City of Los Altos. Note that the segments evaluated in this study also include the segment of El Camino Real between El Monte Avenue and the adjacent intersection with Escuela Avenue. The following impacted public agencies' regulatory policies will govern the evaluation and recommendations made from this study.

City of Mountain View

The City of Mountain View is the lead agency for the El Monte Avenue corridor study improvements. The current City of Mountain View 2030 General Plan (adopted July 2012) states the following:

This [2030] General Plan presents a strategy to measure multi-modal system performance to consider new mobility priorities, and to more effectively balance the needs of all travel modes. New indicators could include shifts from drive-alone trips to other travel modes, lower LOS thresholds at locations beyond Downtown and San Antonio and per-capita measurements of greenhouse gas

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emissions and vehicle miles traveled. Performance could also be measured by carrying out improvement projects identified in master plans such as the Bicycle Transportation Plan or Pedestrian Master Plan. New performance measures will consider a balanced range of solutions to unfavorable conditions, instead of focusing solely on vehicular-carrying capacity. Solutions could include pedestrian and bicycle improvements, traffic calming, public transit service enhancements and transportation demand management (TDM). This forward-thinking strategy will yield a better understanding of the quality of the city's multi-modal transportation facilities and the ways to improve overall system performance.

Consistent with the above, the City of Mountain View is currently transitioning to not using a vehicular LOS policy threshold/standard for study intersections. The City General Plan Mobility Goal related to transportation performance measures is quoted as follows:

Goal MOB-8: *Transportation performance measures that help implement larger City goals.*

Policies

MOB 8.1: *Multi-modal performance measures. Develop performance measures and indicators for all modes of transportation, including performance targets that vary by street type and location.*

MOB 8.2: *Level of service. Ensure performance measurement criteria optimize travel by each mode.*

MOB 8.3: *Multi-modal transportation monitoring. Monitor the effectiveness of policies to reduce vehicle miles traveled (VMT) per service population by establishing transportation mode share targets and periodically comparing travel survey data to established targets.*

City of Los Altos

The segment of the El Monte Avenue study corridor extending to the south and west of the intersection with Hollingsworth Drive falls under the jurisdiction of the City of Los Altos. The City of Los Altos General Plan Circulation Element (dated November 2002) notes that “*the performance criterion for evaluating operations at City-controlled intersections is LOS D.*” Furthermore, the City of Los Altos Circulation Element Policy C-7 notes that the City policy is to “*Identify minimum Levels of Service for intersections shared with adjacent communities and pursue agreements with adjacent communities to maintain those intersections at the agreed upon Level of Service.*”

State Regulation

California Department of Transportation (Caltrans) is the primary State agency responsible for the construction, operations and maintenance of the State highway system. As the owner-operator of the State highway system, Caltrans approves the planning, design, and construction of improvements for State Route 82 (i.e. El Camino Real) facilities through the study area. Caltrans has established standards for roadway traffic flow and developed procedures to determine if State-controlled facilities require improvements. For projects that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken. For projects that would not physically affect Caltrans facilities, but may influence traffic flow and levels of services at such facilities, Caltrans may recommend measures to mitigate the traffic impacts of such projects. The following Caltrans procedures and directives are relevant to this project:

- **Level of Service Target.** Per the *Caltrans Traffic Impact Analysis Guidelines* (dated December 2002) Caltrans maintains a minimum level of service (LOS) at the transition between LOS C and LOS D for all of its facilities. Where an existing facility is operating at less than the LOS C/D threshold, the existing measure of effectiveness should be maintained.

- *Caltrans Project Development Procedures Manual (PDPM)* outlines pertinent statutory requirements, planning policies, and implementing procedures regarding transportation facilities. It is continually and incrementally updated to reflect changes in policy and procedures. For example, the most recent revision incorporates the Complete Streets policy from Deputy Directive 64-R1, which is detailed below.
- *Caltrans Deputy Directive 64* requires Caltrans to consider the needs of non-motorized travelers, including pedestrians, bicyclists, and persons with disabilities, in all programming, planning, maintenance, and construction. This includes incorporation of the best available standards in all of Caltrans' practices.
- *Caltrans Deputy Directive 64-R1* requires Caltrans to provide for the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system. Caltrans supports bicycle, pedestrian, and transit travel with a focus on "complete streets" that begins early in system planning and continues through project construction and maintenance and operations.
- *Caltrans Director's Policy 22* establishes support for balancing transportation needs with community goals.

Caltrans seeks to involve and integrate community goals in the planning, design, construction, and maintenance and operations processes, including accommodating the needs of bicyclists and pedestrians.

California Complete Streets Act, 2008 (AB 1358) which was originally passed in 2008 came into force in 2011 and requires local jurisdictions to plan for land use transportation policies that reflect a "complete streets" approach to mobility. The Complete streets act comprises a suite of policies and street design guidelines which provide for the needs of all road users, including pedestrians, bicyclists, transit operators and riders, children, the elderly, and the disabled. From 2011 onward, any local jurisdiction – County or City – that undertakes a substantive update of the circulation element of its General Plan must consider complete streets and incorporate corresponding policies and programs. The City of Mountain View 2030 General Plan (adopted July 2012) notes that complete streets strategies "*can apply to new streets or to the redesign of existing streets such as El Camino Real or streets within North Bayshore, East Whisman, or other change areas.*"

California Senate Bill 743 (SB 743, Steinberg, 2013) requires the California Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to LOS as the metric for evaluating transportation impacts under CEQA. Particularly within areas served by transit, the alternative criteria must promote the reduction of greenhouse gas (GHG) emissions, development of multimodal transportation networks, and diversity of land uses. Measurements of transportation impacts may include quantitative measures such as VMT, VMT per capita, automobile trip generation rates, automobile trip volumes generated, or context-based qualitative criteria such as location of projects in infill or redevelopment areas, and proximity/accessibility to public transit and alternate modes of travel. Commensurate with the SB 743 mandate, the new/updated requirements for VMT based analysis procedures for traffic impact evaluation under CEQA take effect from July 1, 2020.

3 Existing Conditions

3.1 Existing Setting

The El Monte Avenue study corridor is located in the central part of the City of Mountain View, in relative close proximity to the City of Los Altos. Key study area roadways are described as follows:

El Monte Avenue is a north-south roadway that provides connectivity between the east-west El Camino Real corridor and Interstate-280 in the City of Los Altos to the south. The City of Mountain View General Plan (July 2012) Mobility chapter functionally classifies the entire study segment of El Monte Avenue as a “Residential Collector”, where walking and bicycling should be prioritized. The City of Los Altos 2002 General Plan Circulation Element identifies the segment of El Monte Avenue south of Hollingsworth Drive as a “collector”. The El Monte Avenue segment between El Camino Real and Marich Way is provided with a four-lane section plus median left-turn lanes (75-foot wide traveled way). Extending south from Marich Way to Jay Street/Springer Road at/near City of Los Altos limits, El Monte Avenue is provided with a four-lane undivided section (no median left-turn lane), with an approximately 60-foot wide traveled way. El Monte Avenue is posted for 35 miles per hour (mph) speed limit. According to the Mobility chapter, the short segment of El Monte Avenue between El Camino Real and Marich Way is considered a Class 3 bike route, and south of Marich Way the roadway is considered a Class 2 bike lane facility. El Monte Avenue is a designated bus route as well. There are sidewalks on both sides of El Monte Avenue.

The El Monte Avenue intersection with El Camino Real is a major signalized T-intersection, with the eastbound El Camino Real to southbound El Monte Avenue movement operating like a *de facto* “free right” turning slip lane that intersects with El Monte Avenue at Ednamary Way. The El Monte Avenue study intersections south of El Camino Real are all unsignalized (either two-way stop-controlled or all-way stop-controlled) intersections. Per October 2019 traffic counts conducted by the City, the El Monte Avenue study segments currently carry an average daily traffic (ADT) volume of approximately 18,000 vehicles per day.

El Camino Real (State Route 82) is a Caltrans facility that traverses in a generally east-west direction across the City of Mountain View. As a regional thoroughfare that spans across many cities, the El Camino Real corridor carries external ‘through’ traffic across the City as well as local traffic within the City, with the demand composition including inter-City commuter traffic as well as commercial traffic. The City General Plan Mobility chapter functionally classifies El Camino Real as a “Boulevard” (i.e. Major Arterial) within the City. The El Camino Real segment through El Monte Avenue signalized intersection is a six-lane arterial facility with median dual left-turn lane channelization for the westbound movement. The posted speed limit on El Camino Real segments through the study area is 35 mph. VTA lines 22 and 522 run through El Camino Real. Per Caltrans’ 2017 traffic count data, the El Camino Real segment through El Monte Avenue carries an annual average daily traffic (AADT) volume of over 45,000 vehicles per day.

Escuela Avenue is a City street that intersects with El Camino Real approximately 550 feet north/west of the El Camino Real/El Monte Avenue intersection. The City General Plan Mobility chapter classifies Escuela Avenue as a “Major Retail Street”, and as a Class 3 bike route. The study segment of El Monte Avenue, the short segment of El Camino Real between El Monte Avenue and Escuela Avenue, and the Escuela Avenue segment between El Camino Real and California Street represent a continuous biking connection between the City of Los Altos to the south and the California Street bike corridor to the north. The El Camino Real/Escuela Avenue intersection is a four-legged signalized intersection, with the south leg of the intersection providing driveway access to/from a shopping center. Escuela Avenue currently carries approximately 7,000 vehicles per day.

All study area streets that intersect with the El Monte Avenue study corridor, such as **Ednamary Way, Marich Way, Pilgrim Avenue, Hollingsworth Drive, Spargur Drive, Lloyd Way, and Jay Street** are functionally classified as two-lane “residential streets” in the City General Plan. There is pedestrian and bike crossing activity on El Monte Avenue at the side-street intersections with these residential streets. Except at El Monte Avenue intersections with Marich Way and Jay Street/Springer Road, there are no marked crosswalks at other residential street intersections.

3.2 Analysis Methodologies

3.2.1 Level of Service Definitions

For purposes of vehicular operations analysis, this study utilized intersection Level of Service (LOS) definitions and analysis procedures described in the latest version of the Transportation Research Board (TRB) publication *Highway Capacity Manual, 6th Edition, 2016* (HCM 6th Edition). For two-way-stop-controlled (TWSC), all-way-stop-controlled (AWSC) and signalized intersection analysis, the HCM 6th Edition analysis procedures were implemented using *Synchro 10* software. For the signalized and all-way-stop controlled (AWSC) intersections, an average control delay for each intersection movement is computed and then an overall intersection LOS expressed in seconds per vehicle is reported. For two-way-stop-controlled (TWSC) intersections, the LOS is reported based on delays for the ‘worst-case’ movement/approach. The LOS thresholds for signalized, TWSC and AWSC control types are summarized in Table 1.

Table 1: Level of Service Definitions and Criteria for Intersections

Level of Service	Flow Type	Operational Characteristics	Intersection Control Delay (seconds/vehicle)	
			Signal Control	Two-Way-Stop or All-Way Stop Control
"A"	Stable Flow	Free-flow conditions with negligible to minimal delays. Excellent progression with most vehicles arriving during the green phase and not having to stop at all. Nearly all drivers find freedom of operation.	≤ 10	0 – 10
"B"	Stable Flow	Good progression with slight delays. Short cycle-lengths typical. Relatively more vehicles stop than under LOS "A". Vehicle platoons are formed. Drivers begin to feel somewhat restricted within groups of vehicles.	10 – 20	10 – 15
"C"	Stable Flow	Relatively higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, although many still pass through without stopping. Most drivers feel somewhat restricted.	20 – 35	15 – 25
"D"	Approaching Unstable Flow	Somewhat congested conditions. Longer but tolerable delays may result from unfavorable progression, long cycle lengths, and/or high volume-to-capacity ratios. Many vehicles are stopped. Individual cycle failures may be noticeable. Drivers feel restricted during short periods due to temporary back-ups.	35 – 55	25 – 35
"E"	Unstable Flow	Congested conditions. Significant delays result from poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures occur frequently. There are typically long queues of vehicles waiting upstream of the intersection. Driver maneuverability is very restricted.	55 – 80	35 – 50
"F"	Forced Flow	Jammed or grid-lock type operating conditions. Generally considered to be unacceptable for most drivers. Zero or very poor progression, with over-saturation or high volume-to-capacity ratios. Several individual cycle failures occur. Queue spillovers from other locations restrict or prevent movement.	> 80	> 50
Source: Highway Capacity Manual, 6 th Edition, 2016				

3.2.2 Traffic Signal Warrant Criteria

Above and beyond intersection control delay evaluation for the study intersection, a supplemental traffic signal warrant analysis was completed under existing traffic counts and current geometric and unsignalized control conditions. The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the need for installation of a traffic signal at an unsignalized intersection location. This Study employed signal warrant criteria presented in the *California Manual on Uniform Traffic Control Devices* (CA-MUTCD, Revision 4, Effective March 29, 2019). The CA-MUTCD signal warrant criteria (as described in *Chapter 4C* of the aforementioned manual) are based upon several factors including continuous and peak hour vehicular traffic volumes, pedestrian traffic, location of school areas, system criteria, frequency of accidents, proximity to railroad crossings, etc. This study evaluated peak hour volume based warrants for purposes of a preliminary evaluation. The CA-MUTCD notes that *"the satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal."*

Note further that the City of Mountain View also uses two-way and four-way (i.e. all-way) stop-sign control warrant evaluation procedures. In this study, the currently unsignalized (i.e. two-way stop controlled) study intersections were also evaluated for four-way stop-sign warrants.

3.2.3 Technical Parameters

The following criteria are utilized in the analysis in order to reasonably reflect intersection operating conditions.

- Current field-observed peak hour factors (PHF) and peak hour truck composition percentages by intersection were used in this study for evaluation of existing intersection traffic operating conditions.
- For operational evaluation of El Camino Real signalized intersections with El Monte Avenue and Escuela Avenue, signal phasing and timing plans as provided by Caltrans District 4 were used.

3.3 Traffic Count Data Collection

The City (through a traffic count data collection vendor firm) collected weekday AM and PM peak hour multi-modal traffic volume data counts (including automobiles, bikes, pedestrians, trucks and buses) at the following key study intersections in October 2019:

1. El Camino Real / Escuela Avenue
2. El Camino Real / El Monte Avenue
3. El Monte Avenue / Ednamary Way
4. El Monte Avenue / Marich Way
5. El Monte Avenue / Pilgrim Avenue
6. El Monte Avenue / Hollingsworth Drive
7. El Monte Avenue / Spargur Drive
8. El Monte Avenue / Lloyd Way
9. El Monte Avenue / Springer Road / Jay Street

From these counts, the AM peak one-hour and PM peak one-hour period counts were extracted and used in the operational analysis. Average weekday daily traffic counts (continuous 24-hour bi-directional counts recorded at 15-minute intervals) were also obtained for the El Monte Avenue segments through the study corridor. **Appendix Exhibit 2A** illustrates existing (2019) conditions' vehicular AM and PM peak hour traffic volumes at the study intersections. **Appendix Exhibit 2B** shows existing (2019) pedestrian and bike traffic volumes at the various study intersection crossings.

4 Existing Conditions Traffic Operations

4.1 Traffic Operations

Vehicular traffic operations at study intersections were evaluated under existing intersection geometric and control conditions, and existing (2019) weekday AM and PM peak hour traffic volumes. The resulting Level of Service (LOS) results are summarized in Table 2. The LOS results are also graphically illustrated in **Appendix Exhibit 3**.

Table 2: Existing Conditions Intersection Operations

#	Study Intersection	Control Type	AM PEAK HOUR			PM PEAK HOUR		
			Delay (sec/veh)	LOS	Signal Warrant Met?	Delay (sec/veh)	LOS	Signal Warrant Met?
1	El Camino Real / Escuela Avenue	Signal	27.2	C	N/A	31.6	C	N/A
2	El Camino Real / El Monte Avenue	Signal	72.5	E	N/A	42.1	D	N/A
3	El Monte Avenue / Ednamary Way	TWSC	11.4	B	No	14.1	B	No
4	El Monte Avenue / Marich Way	TWSC	161.9	F	No	125.1	F	No
5	El Monte Avenue / Pilgrim Avenue	TWSC	48.9	E	No	43.8	E	No
6	El Monte Avenue / Hollingsworth Drive	TWSC	66.7	F	No	69.3	F	No
7	El Monte Avenue / Spargur Drive	TWSC	30.5	D	No	33.1	D	No
8	El Monte Avenue / Lloyd Way	TWSC	45.9	E	No	37.9	E	No
9	El Monte Avenue / Springer St / Jay St	AWSC	33.2	D	No	25.1	D	No

Notes:
 TWSC = Two-way-Stop Control; AWSC = All-way-Stop Control; LOS = Level of Service; Sec/Veh = Seconds/Vehicle
 LOS evaluation methodologies per HCM 6th Edition were used. All reported delay and LOS values are computed values using Synchro 10 software.
 For TWSC intersections, average control delays and LOS for the worst-case (side-street) movement/approach are reported.
 For Signalized and AWSC intersections, average control delay and LOS for the overall intersection are reported.
 "Signal Warrant" refers to Peak Hour Volume based "Warrant 3" (Urban Areas) as defined in the CA-MUTCD (2014)

As shown in Table 2, the El Camino Real / El Monte Avenue signalized intersection (Caltrans facility) is currently operating at peak hour LOS "D" or worse conditions. This intersection is a five-phased signalized T-intersection that includes protected phasing for the westbound left-turn movement and a "free right" type phasing that allows the eastbound right-turn movement to essentially operate outside of the main intersection control, while creating a merge conflict downstream at the El Monte Avenue/Ednamary Way intersection. The El Camino Real / Escuela Avenue intersection (Caltrans facility) is a six-phased signalized intersection that includes 'permitted' left-turns from the north-south approaches (i.e. Escuela Avenue and Shopping Center driveway approaches), however this intersection is currently operating at peak hour LOS "C" conditions.

As also shown in Table 2, several unsignalized intersections along the El Monte Avenue corridor (City facilities) are currently experiencing AM and/or PM peak hour LOS "E" or worse for the critical minor street (i.e. side-street) approach/movements. Per guidance from the latest City General Plan mobility definitions, note that no "significance" findings are to be made based solely on these vehicular delay and LOS characteristics. Also note that none of the unsignalized study intersections along the El Monte Avenue corridor currently meet CA-MUTCD based traffic signal warrant criteria based on peak hour volume of side-street traffic demands. The currently two-way-stop controlled intersections within the study corridor were also evaluated for four-way (i.e. all-way) stop-sign control

It appears that the peak hour LOS E or worse conditions experienced by the stop-sign controlled side-street approaches to El Monte Avenue may be mainly attributed to these minor street left-turn egress movements experiencing difficulty in finding acceptable “gaps” on the high-volume north-south traffic stream on El Monte Avenue. The prevailing traffic speeds of 35 mph or more on El Monte Avenue north-south through movements may also be a contributing factor. Furthermore, the undivided four-lane section (i.e. no median left-turn lane) on El Monte Avenue segments south of Marich Way may also be encouraging north-south through speeds, and contributing to the higher levels of delay experienced by the side-street left-turn movements.

4.2 Traffic Safety Analysis

Traffic Accident Surveillance and Analysis System – Transportation Systems Network (TASAS – TSN, Table B) accident data summary and *TASAS Selective Record Retrieval (TSAR)* data records for the El Camino Real (SR 82) intersections with El Monte Avenue (postmile 20.670) and Escuela Avenue (postmile 20.752) were obtained from Caltrans District 4 for the most recently available 36-month data period (extending from 01/01/2016 through 12/31/2018) and summarized as shown in **Table 3**.

Table 3: Collision Data Summary (01/01/2016 through 12/31/2018)

TASAS Table B Summary															
State Route 82 (El Camino Real) Location	Number of Accidents							Persons		Actual Accident Rates (# of accidents/ MVM)			Average Accident Rates (# of accidents/ MVM)		
	Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark	Kld	Inj	Fat	F+I	Tot	Fat	F+I	Tot
04-SCL-082 PostMile 020.670 EL MONTE AVENUE	7	0	5	5	3	0	3	0	6	0.000	0.09	0.12	0.001	0.09	0.19
04-SCL-082 PostMile 020.752 ESCUELA AVENUE	4	0	4	4	1	0	0	0	5	0.000	0.08	0.08	0.001	0.09	0.19

Note: MVM = Million Vehicle Miles, Fat = Fatalities, Inj = Injuries, Veh = Vehicle, Kld = Killed, F+I = Fatalities + Injuries, Tot = Total

Date Range: 01/01/2016 - 12/31/2018 (36 months)

Source: Caltrans District 4

TSAR Data Summary									
Intersection	Primary Collision Factor (PCF)								
	Influence of Alcohol	Following too Close	Failure to Yield	Improper Turn	Speeding	Other Violations	Improper Driving	Other Than Driver	Total
El Camino Real at El Monte Avenue (PM 20.67)	1	0	2	2	1	1	0	0	7
El Camino Real at Escuela Avenue (PM 20.752)	0	0	1	1	1	1	0	0	4
Intersection	Type of Collision								
	Head-On	Sideswipe	Rear End	Broadside	Hit Object	Over Turn	Auto/Peds	Other	Total
El Camino Real at El Monte Avenue (PM 20.67)	0	1	1	2	0	0	2	1	7
El Camino Real at Escuela Avenue (PM 20.752)	0	0	1	1	0	0	1	1	4

TSAR Data - Date Range: 01/01/2016 - 12/31/2018 (36 months)

Source: Caltrans District 4

Furthermore *Statewide Integrated Traffic Records System* (SWITRS) based collision data was obtained through the City and summarized for the same three-year data period (2016-2018). The SWITRS database includes accident data on state facilities as well as local facilities under City jurisdiction. Based on review of SWITRS data, two (2) accidents were reported at the El Monte Avenue intersection with Marich Way within the three-year data period. Both of these accidents involved “injury”, with one (1) of them involving a pedestrian. No other accidents were reported in the SWITRS database within the study area for the same data period. The accident data evaluated in this study are also graphically illustrated in **Appendix Exhibit 4**.

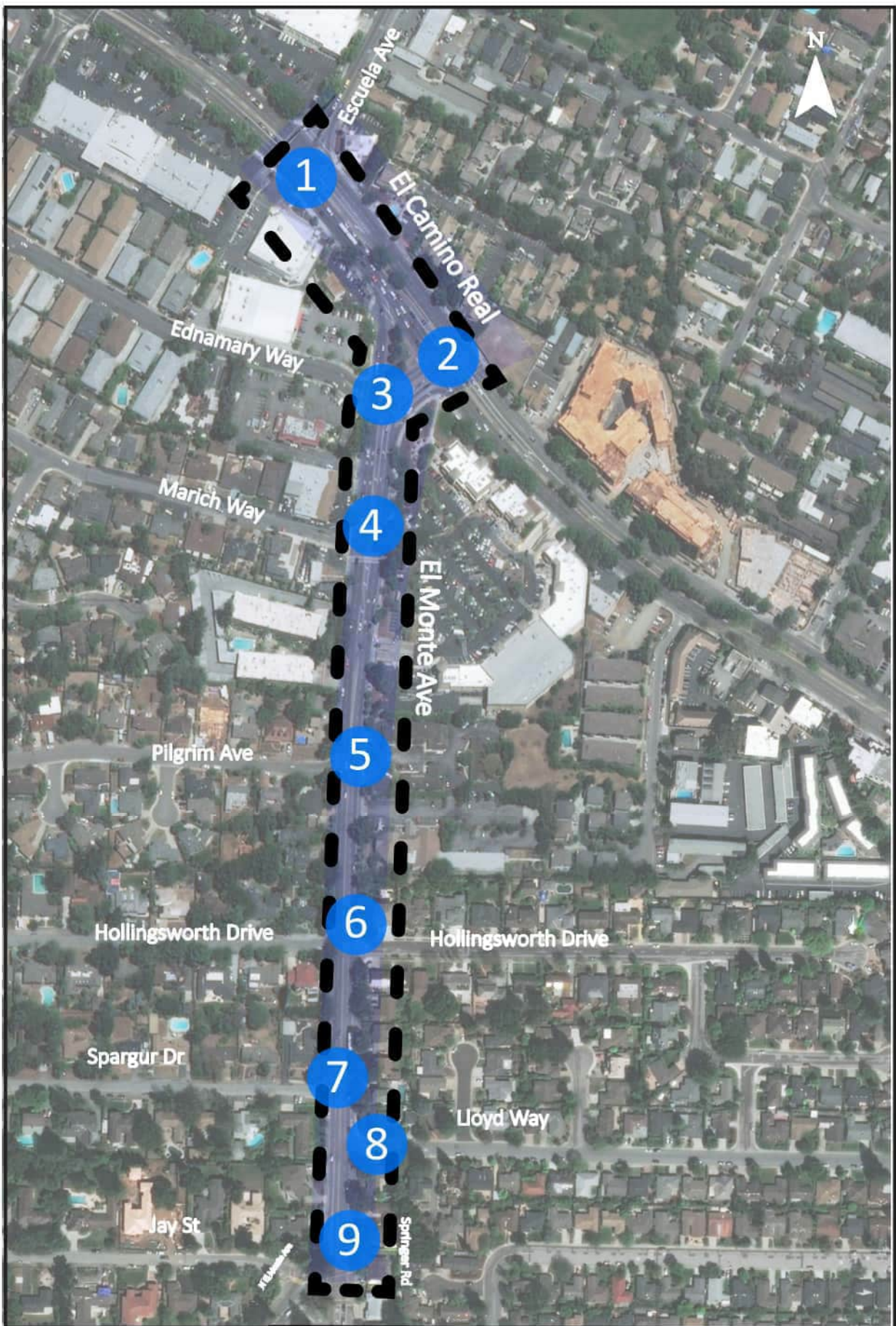
As shown in Table 3, the El Camino Real intersections with both El Monte Avenue and Escuela Avenue experienced actual rates for fatal, fatal+injury, and total number of accidents that were at or below the statewide average rates for similar facilities, within the three-year data period. As such, no findings of accident data significance is therefore made for these Caltrans intersections along the El Camino Real corridor. At the El Monte Avenue/Marich Way intersection, a fatal¹ accident was actually reported in October 2015, before the three-year data period used in this study. The City subsequently completed some improvements at this intersection (such as installing radar speed feedback signs, removing the northern crosswalk, adding a small median on the southern leg and installing pedestrian activated, LED-enhanced signs on the right side, in the new median and overhead on mast arms). Although accident rates may have decreased at this intersection since these improvements were installed, this intersection appears to remain the only local street intersection within the study corridor that is experiencing accidents of any type.

¹ According to information provided by the City, in October 2015, while crossing El Monte Avenue at Marich Way, a woman was struck by a vehicle and killed.

Appendix

- Exhibit 1 – Project Location and Vicinity Map
- Exhibit 2A – Existing (2019) Study Intersections' Vehicular Traffic Volumes
- Exhibit 2B – Existing (2019) Study Intersections' Pedestrian and Bike Traffic Volumes
- Exhibit 3 – Existing Conditions Intersection Levels of Service
- Exhibit 4 – Collision Data Summary

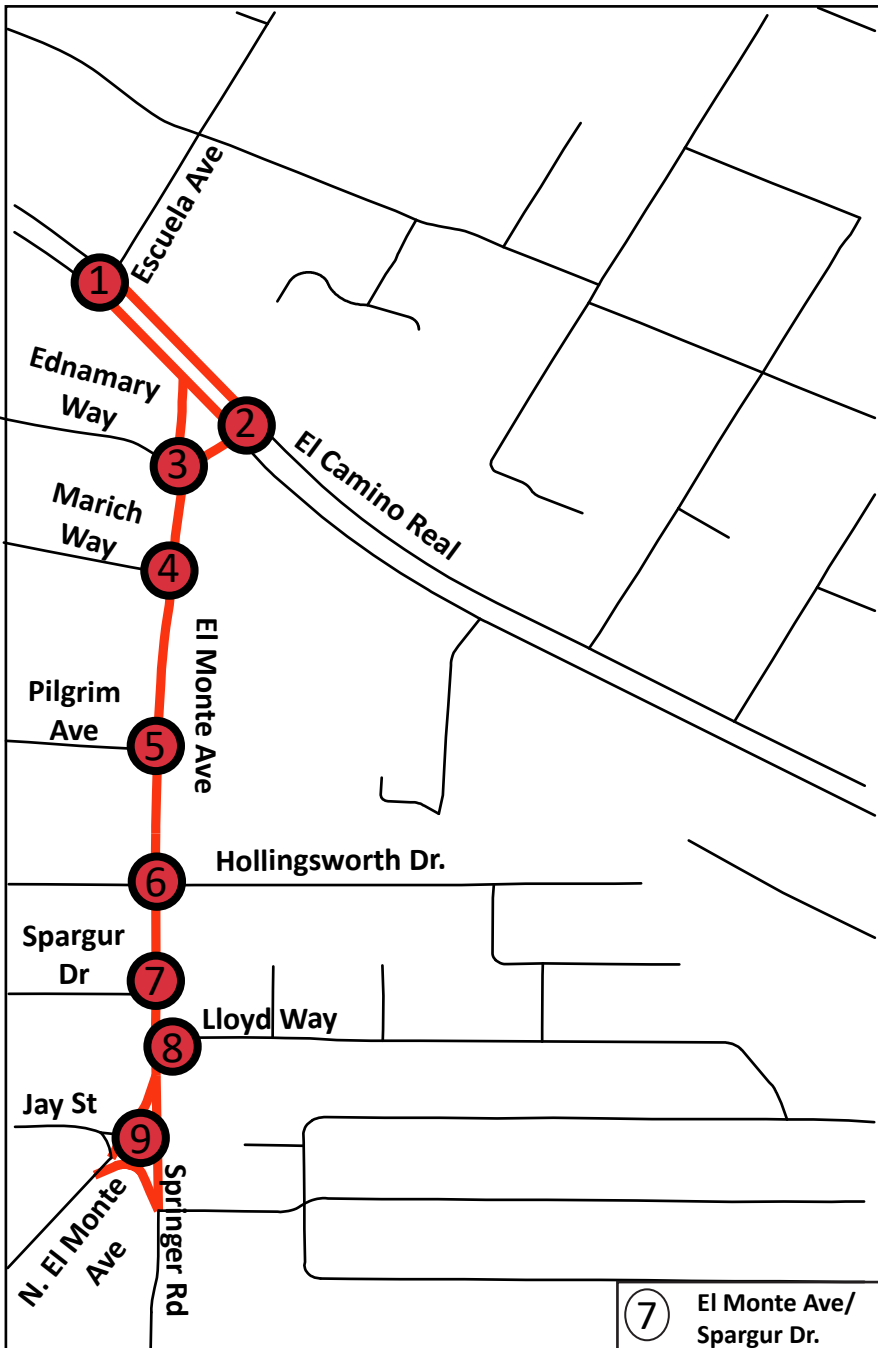
Traffic Count Data, Level of Service Analysis and Warrant Analysis Worksheets (provided upon request)



El Monte Avenue
Exhibit 1

**Project Location
&
Vicinity Map**

M
M
MOTT
MACDONALD



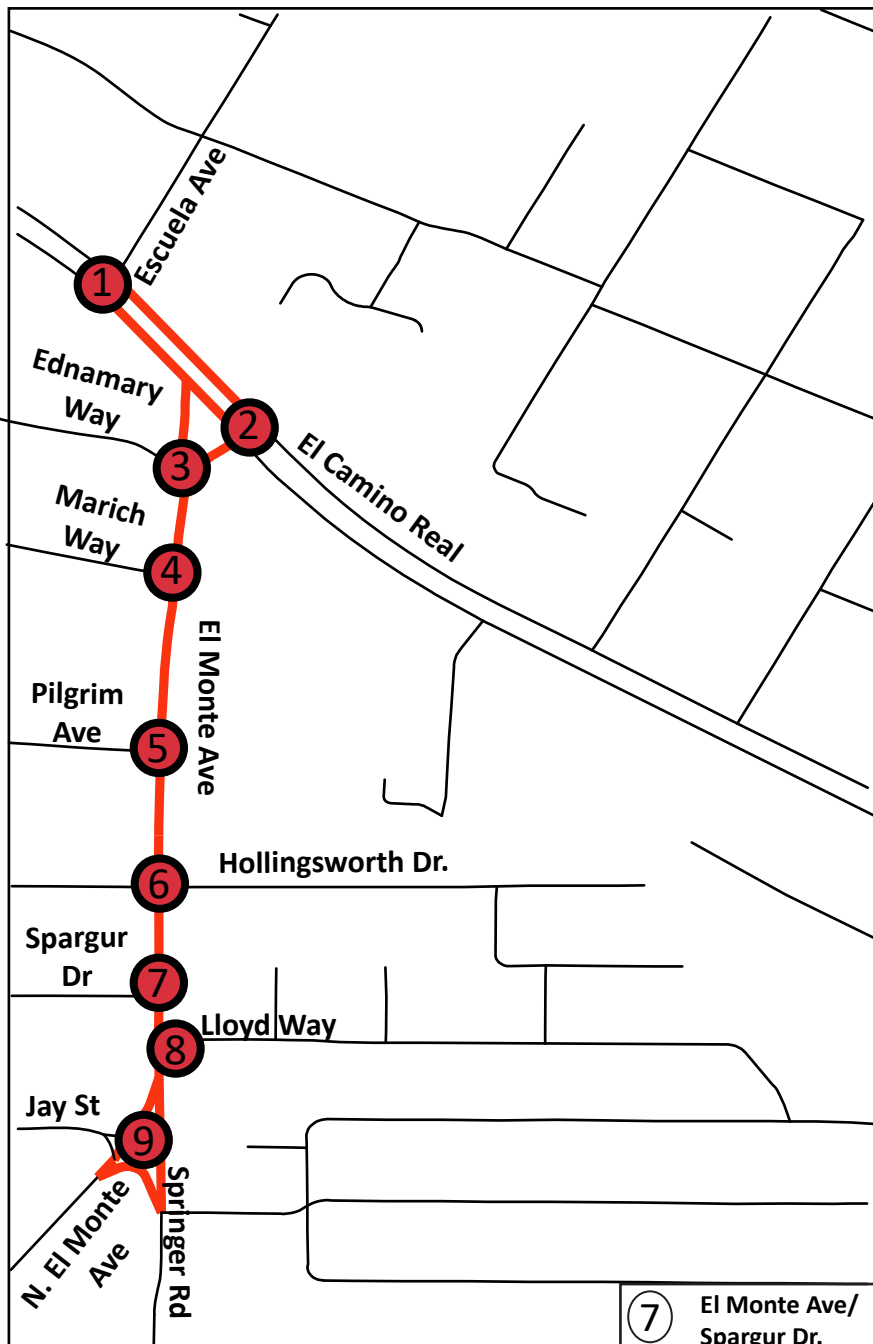
1 El Camino Real/ Escuela Ave 67 (69) 7 (15) 182 (161) Escuela Ave 220 (228) 1,917 (1,608) 58 (53) El Camino Real 137 (207) 1,350 (1,883) 7 (21) Driveway 18 (40) 18 (26) 20 (52)	2 El Camino Real/ El Monte Ave 1,809 (1,492) 459 (624) El Camino Real 1,014 (1,667) 310 (412) El Monte Ave 383 (410) 429 (308)	
3 El Monte Ave/ Ednamary Way 70 (78) 673 (869) El Monte Ave 32 (61) Ednamary Way 32 (40) 812 (717)	4 El Monte Ave/ Marich Way 46 (50) 701 (944) El Monte Ave 26 (20) 41 (50) Marich Way 49 (40) 908 (721)	
5 El Monte Ave/ Pilgrim Ave 15 (22) 594 (897) 9 (12) El Monte Ave 32 (8) 20 (13) Pilgrim Avenue 13 (10) 916 (725) 0 (3) Driveway	6 El Monte Ave/ Hollingsworth Dr. 4 (9) 668 (888) 3 (10) El Monte Ave 10 (6) 7 (6) Hollingsworth Dr 7 (7) 6 (3) 2 (5) 826 (702) 1 (8)	
7 El Monte Ave/ Spargur Dr. 4 (4) 675 (896) 2 (5) El Monte Ave 4 (3) 8 (2) Spargur Dr 441 (402) 37 (87) N. El Monte Ave	8 El Monte Ave/ Lloyd Way 666 (884) 16 (18) El Monte Ave 31 (29) 17 (14) Lloyd Way 796 (693) 8 (13)	9 El Monte Ave/ Springer Rd/Jay St 4 (4) 437 (498) 239 (373) El Monte Ave 366 (301) 98 (53) Jay St 3 (1) Springer Rd 441 (402) 37 (87) N. El Monte Ave

El Monte Avenue
Exhibit 2.A

LEGEND	
XX	AM PEAK HOUR VOLUME
(XX)	PM PEAK HOUR VOLUME
	STUDY AREA
	STUDY INTERSECTIONS
	STREETS

Existing (2019) Vehicular Traffic Volumes

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1 El Camino Real/ Escuela Ave 	2 El Camino Real/ El Monte Ave
3 El Monte Ave/ Ednamary Way 	4 El Monte Ave/ Marich Way
5 El Monte Ave/ Pilgrim Ave 	6 El Monte Ave/ Hollingsworth Dr.
7 El Monte Ave/ Spargur Dr. 	8 El Monte Ave/ Lloyd Way
9 El Monte Ave/ Springer Rd/Jay St 	

El Monte Avenue
Exhibit 2.B

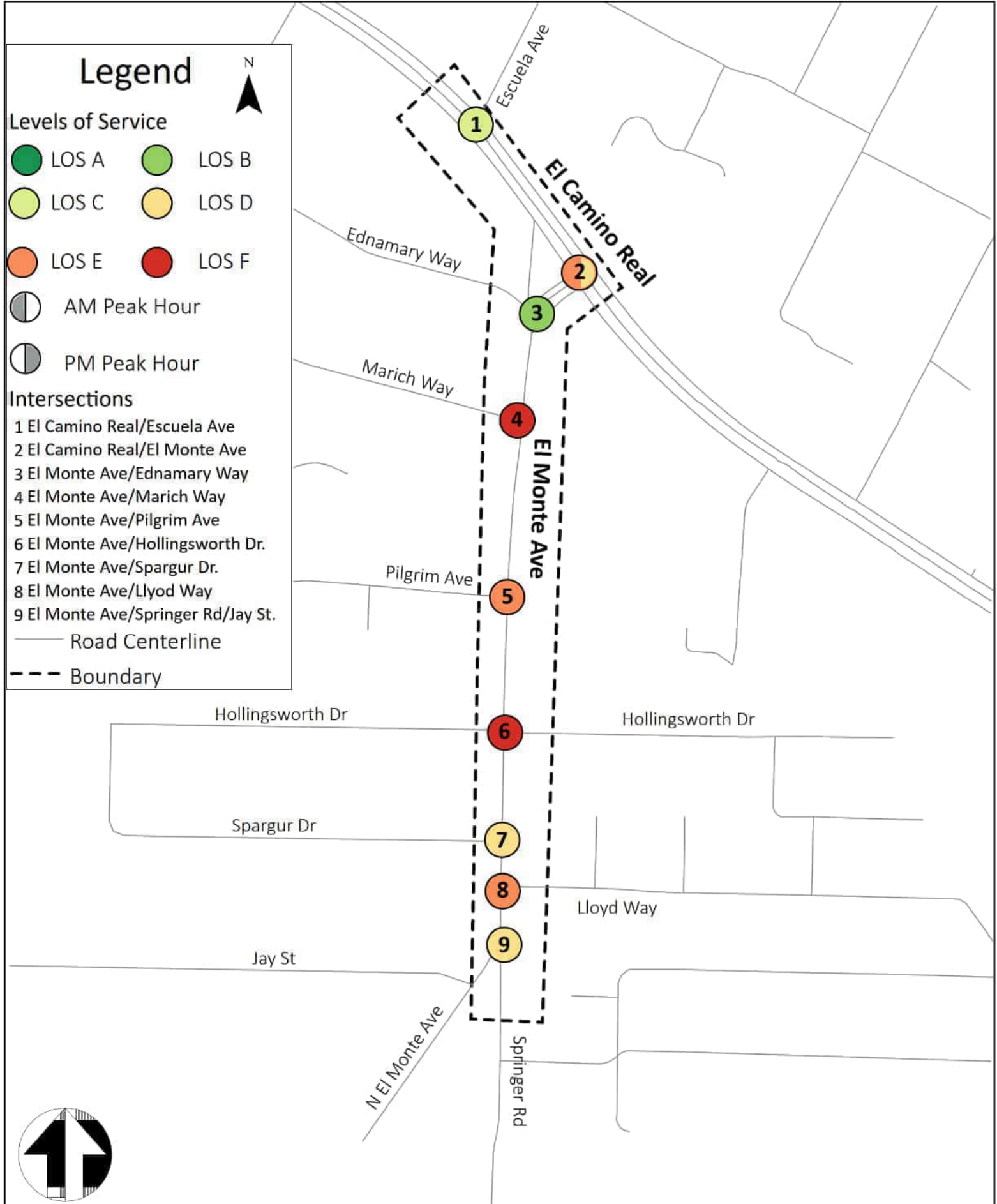
LEGEND

- XX AM PEAK HOUR VOLUME
- (XX) PM PEAK HOUR VOLUME
- STUDY CORRIDOR
- STUDY AREA
- STREETS
- Pedestrian Volumes
- Bike Volumes

*Pedestrian & Bike Volume included by movement at each intersection

**Existing (2019)
Pedestrian
& Bike
Traffic Volumes**

M
**MOTT
MACDONALD**



Legend

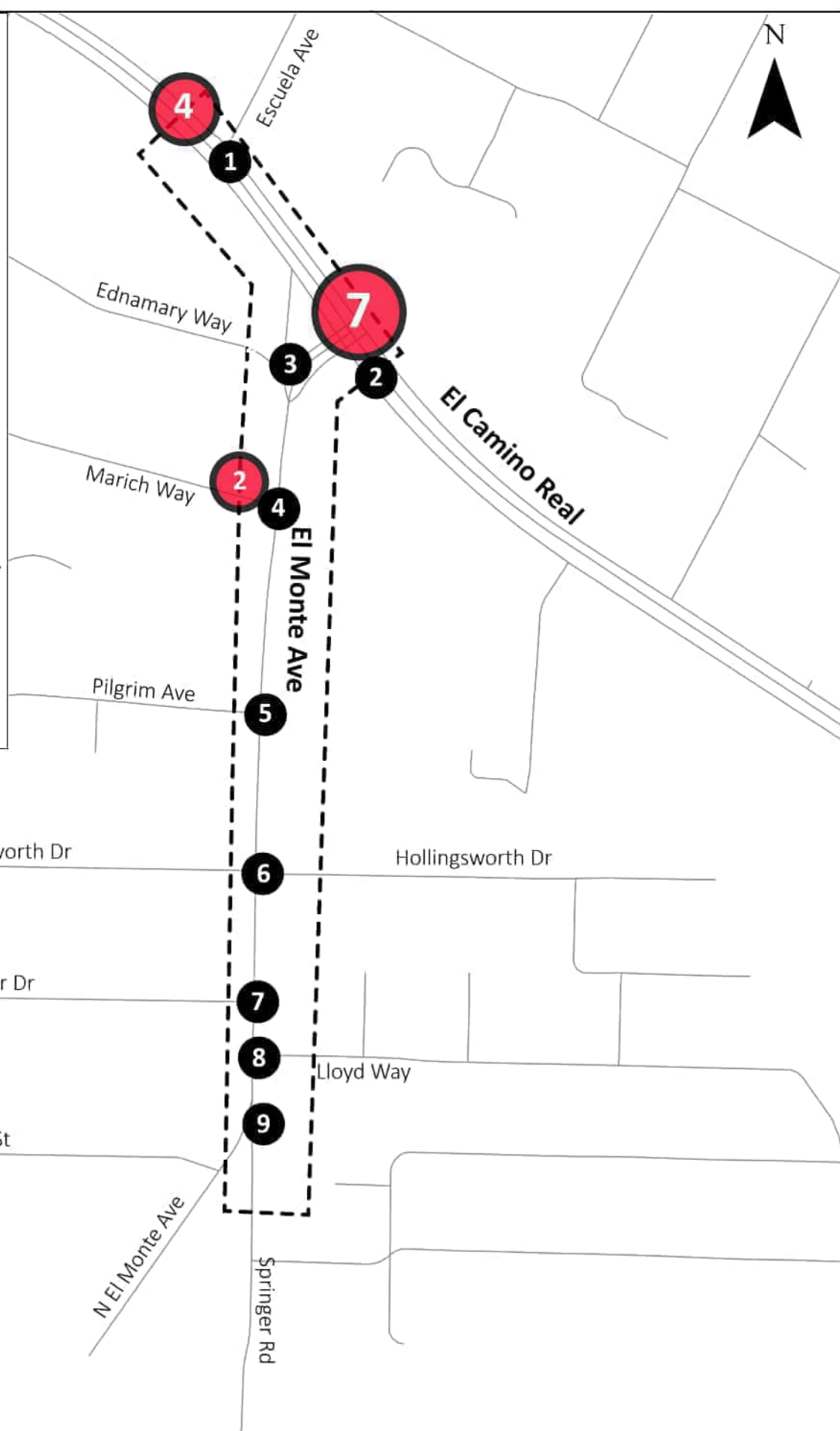
of Collisions

— Road Centerline

- - - Boundary

Intersections

- 1 El Camino Real/Escuela Ave
- 2 El Camino Real/El Monte Ave
- 3 El Monte Ave/Ednamary Way
- 4 El Monte Ave/Marich Way
- 5 El Monte Ave/Pilgrim Ave
- 6 El Monte Ave/Hollingsworth Dr.
- 7 El Monte Ave/Spargur Dr.
- 8 El Monte Ave/Lloyd Way
- 9 El Monte Ave/Springer Rd/Jay St.



Attachment A-2

Road Diet Alternative Traffic Operations Analysis Memorandum
(dated December 2021)



Technical Memorandum

To: City of Mountain View – Public Works/Engineering
Attn: Darwin Galang, Lorenzo Lopez
Cc: Teferi Abere, P.E.
From: Ravi Narayanan, P.E., T.E. **Date:** 12/09/2021
Jordan Cho, E.I.T.
Subject: El Monte Avenue Corridor – ‘Road Diet’ Alternative Traffic Operations Analysis
Project #: 504100556

1 Introduction & Background

In 2019, the City of Mountain View initiated a feasibility level evaluation of ‘Complete Streets’ improvements for the El Monte Avenue corridor segment beginning north from El Camino Real and extending south through Springer Road/Jay Street intersection at/near the limits of the City of Los Altos. The study corridor also included the segment of El Camino Real between El Monte Avenue and the adjacent intersection with Escuela Avenue, that fall within Caltrans right-of-way jurisdiction.

A feasibility study report (Mott MacDonald, July 2020) was submitted that evaluated preliminary project options, that included three high-level options for roadway cross-sections, listed as follows: Three-lane section, four-lane section, and five-lane section. In that report, the three-lane and five-lane options were considered but eliminated, and the four-lane option was the only option that was developed further to the level of two detailed project alternatives. At the present time, the City has indicated a need to undertake a closer evaluation of the three-lane “road diet” option and investigate the design and operational impacts of that option at the level of a detailed alternative as well. To that end, this technical memorandum has been prepared primarily to summarize traffic operational impacts anticipated with the three-lane section (i.e. road diet) alternative.

This technical memorandum may be considered a supplement to the July 2020 study report. Unless otherwise stated, note that the regulatory context as well as analytical procedures and technical methodologies/software used in this supplemental memorandum are those used/referenced in the original July 2020 study.

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

2 ‘Road Diet’ Alternative

2.1 Alternative Description

The proposed alternative envisions a general ‘three-lane’ cross-section (i.e. one vehicular travel lane and buffered bike lane in either direction, and a center median left-turn lane) on El Monte Avenue segment within the study limits. Since this alternative proposes a reduced number of vehicular travel lanes relative to the existing four-lane cross-section, this alternative essentially represents a reduction in vehicular travel-carrying capacity of the study segment relative to the existing facility, and for this reason this alternative is referred to as the “road diet” alternative.

Appendix Exhibit 1 illustrates a conceptual layout of the road diet alternative.

2.2 Traffic Count Data Collection

Since the envisioned ‘road diet’ alternative reduces vehicular travel capacity along the El Monte Avenue study corridor, the alternative is anticipated to cause a small-scale localized vehicular traffic demand diversion to parallel corridors within the immediate neighborhood vicinity of the study corridor. In order to assess the likely traffic routing diversions, additional ground traffic count data collection effort was undertaken as part of this supplemental study. The following types of data collection was completed:

Tracking of Through Trips: When a corridor’s travel capacity is reduced, the “through” traffic traversing the corridor is known to be the primary component of the corridor traffic demand that is most likely to divert to alternate routes. Therefore, in order to track the proportion of such through trips traversing the corridor, Mott MacDonald used the services of NDS, a field traffic count data collection vendor firm, to conduct origin-destination surveys of vehicular traffic along the study corridor. Specifically, NDS conducted vehicular license-plate surveys (using video equipment) of traffic through the study corridor, in both northbound and southbound directions of travel, under AM and PM peak hour periods on Tuesday, September 14, 2021, considered a typical weekday. The corridor gateway endpoints, i.e. El Camino Real intersection at the north end of the study corridor and Mountain View – Los Altos limit line at the south end of the corridor were regarded as the origin-destination points for the “through” trips. Any vehicular trip that traversed through both gateway points was considered a through trip, and all other trips on the corridor were considered local or non-through traffic that were either entering or leaving the corridor via the minor side streets. **Table 1** presents a summary of the origin-destination data.

Table 1 – El Monte Avenue “Through Traffic Volume” Data Summary

Time Period	El Monte Avenue Corridor "Through Traffic" Volumes as a Percentage of Total Corridor Volumes	
	Southbound	Northbound
AM Peak Hour	55.5%	42.9%
PM Peak Hour	63.9%	25.6%

Note: The above percentages are based on origin-destination field data surveys collected on Tuesday, September 14, 2021. The El Monte Avenue Sept.2021 traffic count volumes were however observed to be 30%-45% lower than the October 2019 traffic volumes, likely attributable to Covid-19 pandemic impacts. For purposes of this study, only the "through traffic percentage" extracted from the Sept.2021 surveys was used. The "pre Covid-19" traffic volume demands from October 2019 was retained as the existing conditions volumes baseline in this study.

Current Average Daily Traffic Demands on Parallel Routes: In order to help assess unutilized traffic-carrying capacity that may be available on parallel routes in the vicinity of the El Monte Avenue study corridor, existing traffic demands on those vicinity facilities was evaluated. Specifically, 24-hour bi-directional traffic volume count data was collected by NDS on Tuesday, September 14, 2021 at the following vicinity roadway segments:

- Clark Avenue (segment between El Camino Real and Jardin Drive)
- Mountain View Avenue (segment between El Camino Real and Vista Grande Avenue)

Based on the count data, the existing Average Daily Traffic (ADT) demand on Clark Avenue segment between El Camino Real and Jardin Drive was observed to be 2,800 vehicles per day, and the estimated ADT demand on the Mountain View Avenue segment between El Camino Real and Vista Grande Avenue was observed to be 700 vehicles per day. Both of these streets were determined to have adequate available and unused travel capacity that could accommodate potential traffic diversions from El Monte Avenue study corridor.

2.3 'Road Diet' Alternative Traffic Forecasts

Utilizing the database of through traffic volume demands on El Monte Avenue study corridor, and existing traffic demands on other parallel routes in the vicinity as described in the previous sections were used as inputs to develop study intersections' traffic volume forecasts under the 'road diet' alternative. Note that the local area traffic diversions and rerouting of El Monte Avenue corridor traffic with the proposed 'road diet' alternative is based on the anticipated travel demand routing behavior that "through traffic" volumes would divert (either fully or partially) to other local/vicinity routes of travel, as travel capacity on the study corridor itself is reduced.

Note that September 2021 (i.e. post *Covid-19* pandemic) field traffic count data indicated El Monte Avenue corridor traffic demands were significantly lower than the field traffic count data from October 2019 (i.e. pre *Covid-19* pandemic) conditions that were used as the existing conditions baseline in the July 2020 study report. According to Caltrans *Traffic Operations Policy Directive* (TOPD 20-04), "[...] *traffic analysis conducted for all projects on the State Highway System (SHS) shall not use traffic data collected after March 13, 2020.*" Based on these observations and directives, and for purposes of general consistency with the 2020 study, the year 2019 (i.e. "pre *Covid-19*") traffic counts baseline continues to be regarded as the most reasonable baseline for evaluation of traffic operations with and without proposed project improvement alternatives. For this reason, traffic volume forecasts under the 'road diet' alternative were essentially modeled under a hypothetical condition wherein the 'road diet' project is implemented under existing (2019) traffic volume demands.

Appendix Exhibit 2 illustrates the estimated redistributed existing (2019) conditions' AM and PM peak hour traffic volumes for critical intersections along the study corridor, with the proposed 'road diet' alternative in place. At an ADT level, the El Monte Avenue corridor traffic volume demands are projected to decrease to approximately 10,000 vehicles per day (total of both directions) with the travel lane and capacity reductions envisioned with the 'road diet' alternative, relative to the existing (2019) "No Project" conditions' traffic demand of 18,000 vehicles per day.

3 Traffic Operations with ‘Road Diet’ Alternative

3.1 Traffic Operations

Vehicular traffic operations at study intersections were evaluated under the ‘road diet’ alternative’s intersection geometric and control conditions (as illustrated in Appendix Exhibit 1), and weekday AM and PM peak hour traffic volumes (as illustrated in Appendix Exhibit 2). The resulting Level of Service (LOS) results are summarized in **Table 2**. For ease of reference purposes, Table 2 also includes the “No Build” (i.e. “No Project”) conditions’ study intersection LOS as reported in the July 2020 study.

Table 2: Study Intersection Operations under “No Build” Conditions and “Road Diet” Alternative

#	Study Intersection	Control Type	"NO BUILD" CONDITIONS				"ROAD DIET" ALTERNATIVE			
			AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		PM PEAK HOUR	
			Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1	El Camino Real / Escuela Avenue	Signal	27.2	C	31.6	C	28.2	C	37.9	D
2	El Camino Real / El Monte Avenue	Signal	72.5	E	42.1	D	17.6	C	20.0	C
3	El Monte Avenue / Ednamary Way	TWSC	11.4	B	14.1	B	10.1	B	10.4	B
4	El Monte Avenue / Marich Way	TWSC	161.9	F	125.1	F	19.0	C	17.5	C
5	El Monte Avenue / Pilgrim Avenue	TWSC	48.9	E	43.8	E	13.6	B	12.0	B
6	El Monte Avenue / Hollingsworth Drive	TWSC	66.7	F	69.3	F	15.2	C	18.0	C
7	El Monte Avenue / Spargur Drive	TWSC	30.5	D	33.1	D	11.4	B	12.6	B
8	El Monte Avenue / Lloyd Way	TWSC	45.9	E	37.9	E	13.1	B	13.7	B
9	El Monte Avenue / Springer St / Jay St	AWSC	33.2	D	25.1	D	11.3	B	12.1	B

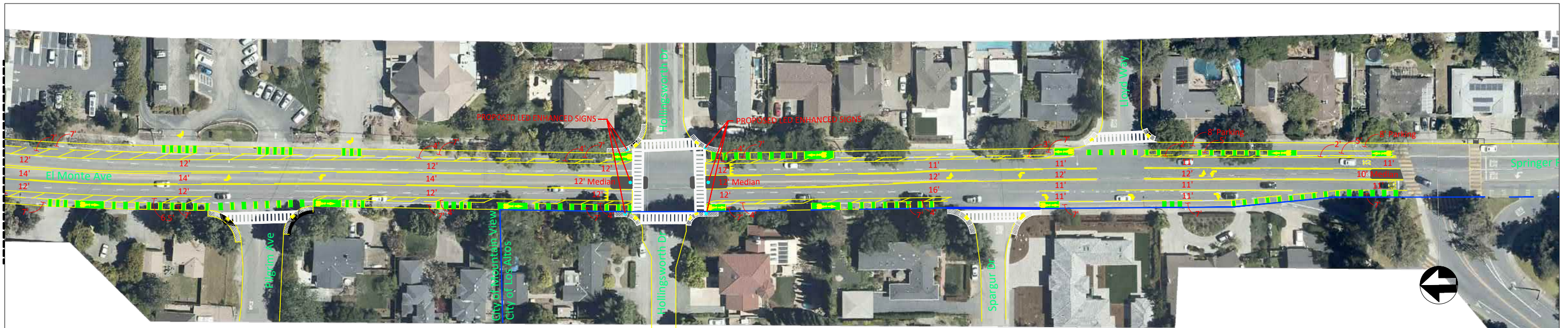
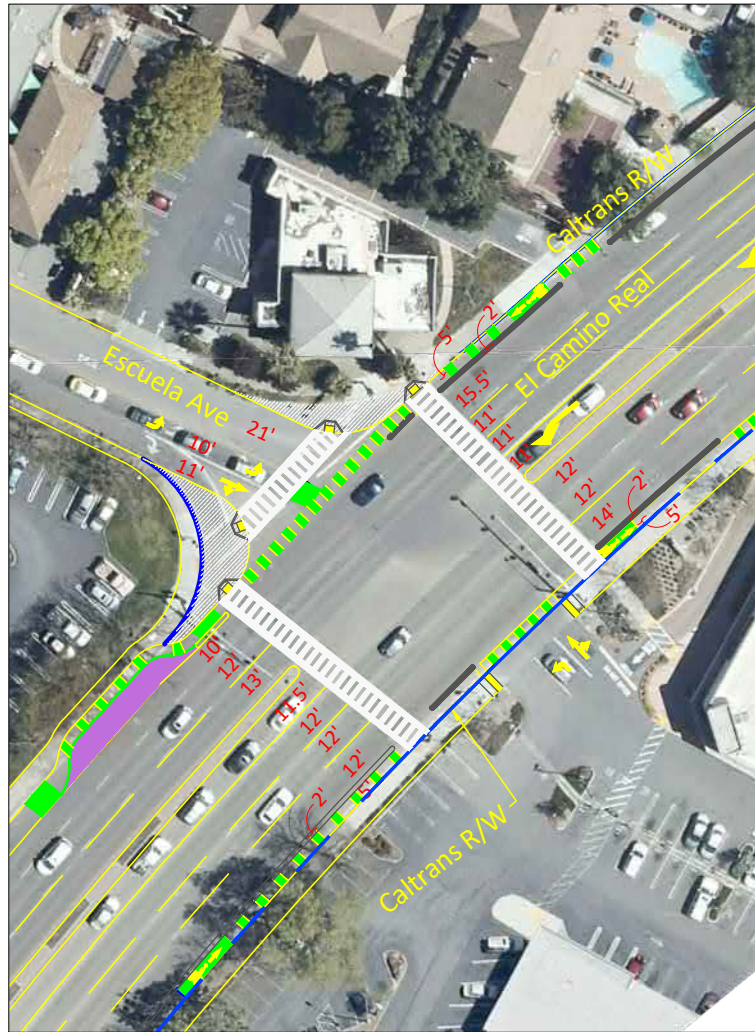
Notes:
 TWSC = Two-way-Stop Control; AWSC = All-way-Stop Control; LOS = Level of Service; Sec/Veh = Seconds/Vehicle
 LOS evaluation methodologies per HCM 6th Edition were used. All reported delay and LOS values are computed values using Synchro 10 software.
 For TWSC intersections, average control delays and LOS for the worst-case (side-street) movement/approach are reported.
 For Signalized and AWSC intersections, average control delay and LOS for the overall intersection are reported.
 "Signal Warrant" refers to Peak Hour Volume based "Warrant 3" (Urban Areas) as defined in the CA-MUTCD (2014)

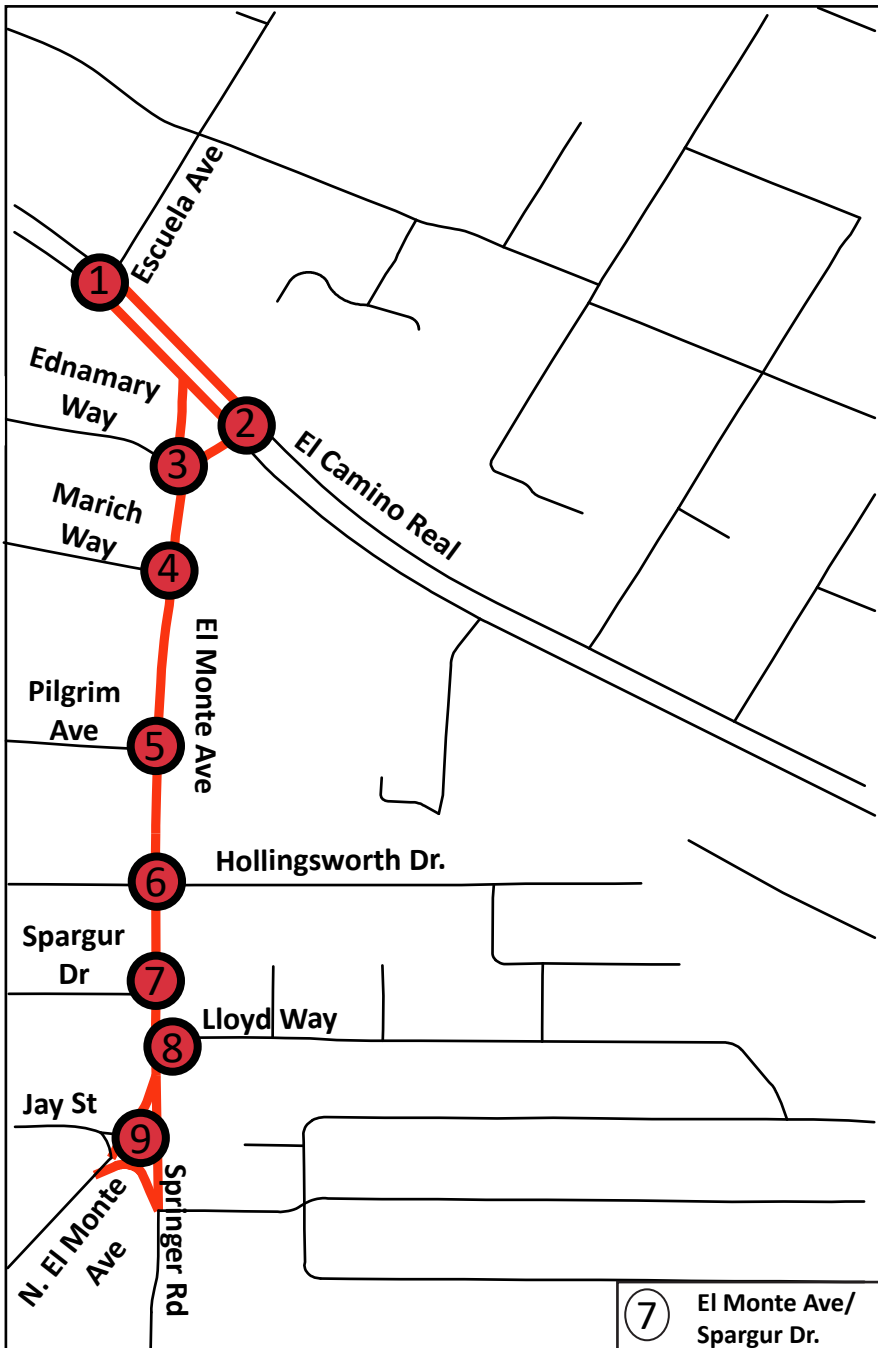
As shown in Table 2, all study intersections located along El Monte Avenue are projected to operate at peak hour LOS “C” or better conditions with the “road diet” alternative in place. A comparison of the El Monte Avenue intersections’ projected “road diet” peak hour LOS operations with the existing (“No Build”) conditions peak hour LOS operations indicates that the proposed road diet alternative would reduce vehicular average intersection traffic delays at practically all El Monte Avenue intersections from peak hour LOS “D” or worse conditions to peak hour LOS “C” or better conditions.

Appendix

- Exhibit 1 – ‘Road Diet’ Alternative Conceptual Layout
- Exhibit 2 – ‘Road Diet’ Alternative Traffic Volume Forecasts

Traffic Count Data, Level of Service Analysis Worksheets (provided upon request)





1 El Camino Real/ Escuela Ave 	2 El Camino Real/ El Monte Ave
3 El Monte Ave/ Ednamary Way 	4 El Monte Ave/ Marich Way
5 El Monte Ave/ Pilgrim Ave 	6 El Monte Ave/ Hollingsworth Dr.
7 El Monte Ave/ Spargur Dr. 	8 El Monte Ave/ Lloyd Way
9 El Monte Ave/ Springer Rd/Jay St 	

El Monte Avenue

Exhibit 2

- LEGEND**
- XX AM PEAK HOUR VOLUME
 - (XX) PM PEAK HOUR VOLUME
 - STUDY AREA
 - STUDY INTERSECTIONS
 - STREETS

**ROAD DIET
ALTERNATIVE**

Vehicular Volumes
(2019 Conditions)

M

**MOTT
MACDONALD**

Attachment B-1

Public Outreach Comments
(from January 15, 2020 and August 18, 2020 meetings)

ATTACHMENT B - PUBLIC OUTREACH

El Monte Avenue Corridor Study Public Meeting #1

The first public meeting for the project was held on January 15, 2020 at the Mountain View Community Center's Redwood Hall. The meeting was held in a charette style format where attendees were invited to participate and provide input during the event window (6:00 p.m. to 8:00 p.m.). Approximately thirty-five (35) members of the public attended the meeting with thirty (30) people signing-in during the event. The goals of the meeting were to introduce members of the public to the project and the project team and to gather feedback from residents regarding concerns/issues along the corridor.

The meeting layout commenced with a sign-in table to give the residents the option to provide their contact information. Facilitation tables were setup throughout the room with aerial maps of the study area and two meeting facilitators at each table to record the comments received from the residents. Attendees were provided a comment card at each facilitation table which listed each of the study intersections and inquired into their experience traveling along the corridor. Attendees were asked to return the comment cards before leaving so that their comments could be recorded and summarized. Flip charts were provided for each of the nine study intersections to record comments from the public. Additionally, exhibit boards were setup across the room illustrating aerial maps for the study area, a collision history map for the corridor, improvements at the El Monte/Marich Way intersection, and conceptual plans for the El Camino Streetscape Plan. City staff and the project consultant team were available at the various tables/exhibits to facilitate the discussion, provide input, and answer questions.

To initiate the discussion, the City of Mountain View's Project Manager, Darwin Galang, addressed the audience by providing a brief overview of the project, describing the goals of the project, and stating the objectives of the first public outreach meeting. Lorenzo Lopez, City Traffic Engineer, then addressed the public and provided an overview of the El Camino Streetscape Plan, recently implemented improvements at the El Monte Ave/Marich Way intersection, and ongoing improvement studies at the intersections of: El Camino Real/Escuela Avenue, El Camino Real/El Monte Avenue, and El Monte Avenue/Ednamary Way. Shruti Malik, public outreach lead from Mott MacDonald, guided the public on the structure of the charette and the process for recording feedback from the attendees. Shruti's introduction was followed by a charette-style discussion at the meeting tables with facilitators recording individual feedback from residents about the corridor. The charrette lasted for approximately an hour and was moderated by facilitators at each table.

To wrap up the meeting, a brief Question/Answer session followed where attendees voiced their questions and received responses from City staff. Shruti then provided input regarding the next steps for

the project including the timeline for the next public meeting which is tentatively planned to be held in March/April 2020. Lastly, Darwin provided input on the target timeline for the completion of the study which is in fall/winter of 2020.

Comments received from residents and members of the public through the comment cards are summarized below along with a summary of the comments received at the facilitation tables. Additionally, the completed comment forms received at the event are provided on the project web site https://www.mountainview.gov/depts/pw/projects/el_monte_corridor_study.asp along with photos taken at the event.

Summary of Responses Received from Comment Cards:

Q1) Which intersections do you regularly travel through?

Response:

No.	Intersection Name	Percentage
1	El Camino/Escuela Ave	61%
2	El Monte Ave/Marich Way	68%
3	El Monte Ave/Spargur Drive	39%
4	El Camino/El Monte Ave	71%
5	El Monte Ave/Pilgrim Ave	68%
6	El Monte Ave/Lloyd Way	54%
7	El Monte Ave/Ednamary Way	50%
8	El Monte Ave/Hollingsworth Dr.	50%
9	El Monte Ave/Springer Rd/Jay St.	68%

Q2) What is your primary mode of travel?

Response:

No.	Mode	Percentage
1	Walk	44%
2	Bike	30%
3	Transit	4%
4	Car	85%
5	Other	0%

*Two respondents said they would walk and bike more if traffic was less or conditions were safer on El Monte Avenue.

Q3) Do you feel safe crossing the El Monte Corridor?

Response	Percentage
Yes	8%

Response:

No	92%
----	-----

Q4) Have you concerns?

Response	Percentage
Yes	64%
No	36%

ever avoided crossing the El Monte Corridor due to safety

Response:

Below is an outline of feedback from the comment cards¹ & discussion from the charrette²

Overall themes

There were six major themes that came up in the comment cards and during the charrette of what community members perceived as contributors to an unsafe environment in the corridor and they are:

1. High Vehicle Volumes
2. Vehicle Speeds
3. Unclear Signage
4. Lighting
5. Crosswalk Visibility
6. Lack of Protected Bicycle Infrastructure

High vehicle volumes pose a challenge to pedestrians and cyclists along the corridor with residents discussing increases in population increasing the volume across the corridor, amplifying safety challenges. Some participants shared that they fear “crossing El Monte on foot or by bike”, during commute times so they choose to wait for other times of the day to cross the corridor. The vehicle speeds create higher perceptions of unsafe conditions for pedestrians, with a resident sharing, “I don’t trust cars to stop, and the four-lane road” encourages cars to move fast.

Unclear signage makes traveling through the corridor difficult and create perceptions of unsafe conditions. Participants expressed a confusion at the ends of the corridor on the north end at El Camino Real/El Monte and on the south end at El Monte/Springer Rd/Jay St. Trees were also observed to be blocking electronic speed signs and flashing signs. In addition to unclear signage, lack of appropriate lighting poses a safety issue to people

¹ Qualitative responses from Question 3, 4 & 5 from the comment cards

² Notes collected of participants discussion with facilitators using guide to foster the discussion

moving along the corridor with observations being that “lighting along this corridor is at automotive scale, which is much higher above the roadway than necessary to illuminate pedestrians”.

Crosswalk visibility and lack of bicycle infrastructure is a concern for community members with participants sharing that they don’t think there are enough marked crosswalks or protected bike lanes along the corridor. Several residents do not bike through the corridor because it feels unsafe due to speeding cars, difficulty making left turns due to lack of gaps in vehicular traffic.

Themes by Intersection

1. El Camino Real/Escuela Ave

Uncoordinated Signal Timing

Participants noted that at times it is dangerous to cross from Escuela across El Camino towards El Monte as a pedestrian and as a driver because of the traffic signals, and that sometimes they “cross at the same time drivers are told to go”.

Signage

Pedestrians exiting the Walgreens at this intersection suggested adding a left arrow to help with crossing at the intersection.

Lack of Bicycle Infrastructure

Protected bicycle infrastructure was discussed with residents discussing the awkward connection on “the other side of El Camino Real because Escuela dead-ends into no bicycle infrastructure” causing cyclists to have to ride with cars or on the sidewalk to get onto El Monte.

Left turns

Left turns at the intersection of El Camino Real/Escuela Avenue conflict with pedestrians.

2. El Camino Real/El Monte Ave

Vehicle Speeds

“Car traffic is moving too fast” community members noted, that cars traveling south on El Monte from El Camino are traveling too fast and because of that they don’t adhere to the pedestrian right of way and often stop within the pedestrian crosswalks.

Lighting

Other observations noted the lack of lighting at the El Monte/El Camino Real eastbound cross, citing it “too dark to see” especially with the speed of vehicles moving down El Monte.

3. El Monte Ave/Ednamary Way

Crosswalk Visibility & Vehicle Volumes

The crosswalks at this intersections pose a safety challenge with residents sharing that “the blinking red lights at Ednamary Way are confusing to people who are unfamiliar” with the area and that when cars cross El Monte the crosswalk is a surprise as they exit off El Camino, also the volume of traffic that moves across this crosswalk serves as a deterrent to people who want to cross at that intersection.

Signage

At the El Monte and Ednamary intersection, many cars were seen to run the red-light because the traffic light is “ill-situated”. Other observations included concerns with the blinking light which wasn’t clear to people in automobiles moving through the intersection.

4. El Monte Ave/Marich Way

Left turns

Vehicle traffic coming from the CVS parking lot “is often a challenge” especially for the vehicles exiting and turning left onto El Monte.

Crosswalk Visibility

Community members noted the crosswalk at Marich and El Monte saying that not all moving traffic stops for pedestrians at that crosswalk because “drivers that do stop typically see the pedestrians to their left but miss if someone is also crossing from the right”.

Lack of Protected Bicycle Infrastructure

Other people mentioned how difficult it is existing the CVS shopping center onto El Monte when heading south because there is no clearly defined bike lane.

5. El Monte Ave/Pilgrim Ave

Vehicle Speeds

At El Monte and Pilgrim intersection, community members noted that it is difficult to turn left because of the fast-moving cars and that “space in traffic is hard to find” due to the vehicle speeds.

6. El Monte Ave/Hollingsworth Dr.

Vehicle Speeds

“Car move too fast”, also the lack of a crosswalk at this intersection make this intersection unsafe for people who move through the corridor.

7. El Monte Ave/Spargur Dr.

Crosswalk

Lack of sufficient crosswalks on El Monte beyond Marich Way; crosswalks are needed at this intersection.

Left turns

With cars traveling fast on the corridor, making left-turns on to El Monte is very difficult as a bicyclist.

Lane Configuration

Right turn lane is confusing which results in a lot of lane switching.

8. El Monte Ave/Lloyd Way

Left turns & multiple lanes

Turning left from Lloyd onto El Monte is hard due to the intersecting streets, rolling traffic and multiple lanes, residents noted that even with the stop signs “cars accelerate....and (the) multiple lanes make the crossing hard especially if you are biking or walking”. One community member shared that “making a left turn is a nightmare coming out of Lloyd, my son was nearly hit many times at the Springer/El Monte "fork" while going to school via bike or by foot”.

9. El Monte Ave/ Springer Rd/Jay St.

Crosswalk Visibility

Motorists are perceived to not “anticipate pedestrians to cross” at this location and because of that they usually do not stop for pedestrians attempting to make a crossing, the intersecting streets also pose a challenge to pedestrians. Community members also noted that “if you are using the south crosswalk, cars headed north on Springer don't see pedestrians if cars are parked by the houses on Springer” this blocks views of pedestrians crossing.

Left turns

Other observations were that “the intersection of El Monte Avenue/Springer Road/Jay St. is a mess for pedestrians” and that the northmost crosswalk does not provide enough visibility for left-turning vehicles from El Monte who are traveling northbound. For the southmost crosswalk, north bound left turning vehicles from Springer to El Monte “don’t stop”.

Vehicle Speeds

The high vehicle speeds also create negatives perceptions of safety for pedestrians moving through the intersection.

Signage

Signage was another challenge to safety that came across during the meeting with one participant noting that at the “El Monte Ave/Springer Rd/Jay St intersection school crossing signage is needed” to alert vehicles of children moving through the area. Residents expressed concern related to turning into their driveways and

mentioned they often take detours to avoid this movement. Some suggested “Keep Clear” pavement markings in front of driveways to help residents walking, biking and in vehicles on El Monte Ave.

Lack of Bicycle Infrastructure

Other discussion centered around a designated protected bike lane at the Springer/El Monte/Jay St intersection that is “better marked” and alerts that right lane is right turn only because so many people “are surprised and switch to the left lane last minute to continue south on Springer from El Monte”.



PUBLIC WORKS DEPARTMENT
500 Castro Street • Post Office Box 7540 • Mountain View • California • 94039-7540
650-903-6311 • Fax 650-962-8503

December 30, 2019

PUBLIC OUTREACH MEETING (CHARRETTE*) NOTICE EL MONTE AVENUE CORRIDOR STUDY

Area Resident/Property Owner:

You are invited to a public outreach meeting (charrette*) for the Capital Improvement Project (CIP) 19-61 El Monte Avenue Corridor Study, on:

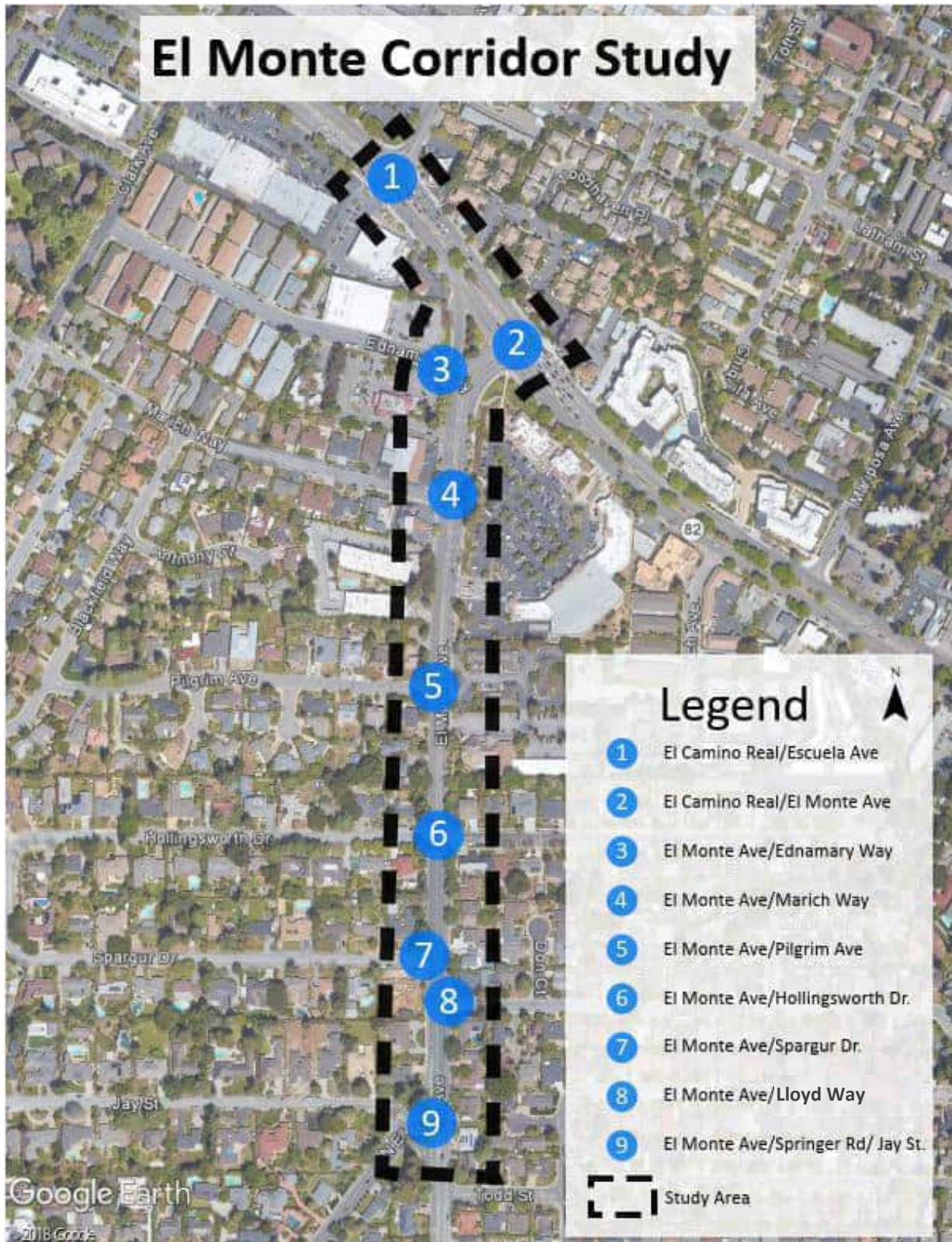
**Wednesday, January 15, 2020 from 6:00 p.m. to 8:00 p.m.
Redwood Hall
Mountain View Community Center
201 S. Rengstorff Avenue, Mountain View 94040**

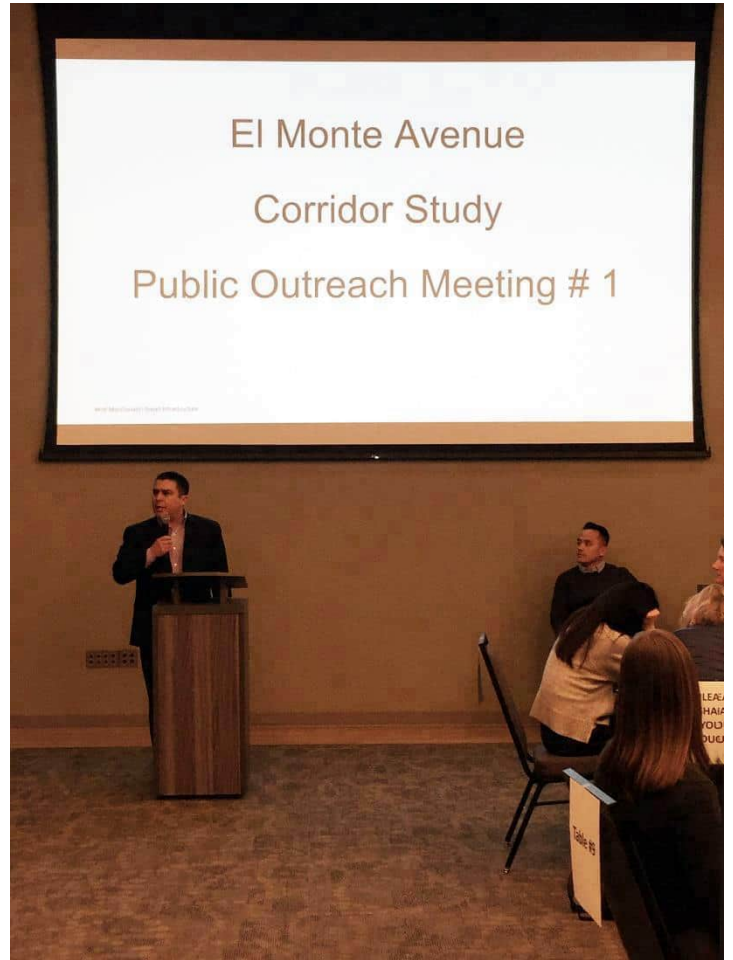
The El Monte Avenue Corridor Study proposes to identify and incorporate improvements along the El Monte Avenue corridor (from Springer Road to El Camino Real) and along El Camino Real (from El Monte Avenue to Escuela Avenue) to improve the overall safety for all modes of travel within the study area. The nine intersections being evaluated as part of this study are listed on the project map (see next page).

Please join us to learn more about the study. City staff and consultant team members will be available to gather recommendations on corridor improvements, provide information, and respond to any questions or concerns you may have. For questions in advance of the meeting, call Public Works 650-903-6311 or email us at public.works@mountainview.gov.

Traffic Section
Public Works Department

*A design charrette is a short, collaborative meeting during which members of a team collaborate and sketch designs to explore and share a broad diversity of design ideas.





El Monte Avenue Corridor Study
Public Meeting #2
Virtual Community Input Meeting Minutes
August 18, 2020

The main goal of the El Monte Avenue Corridor study is to develop multimodal conceptual plans to improve pedestrian and bicycle safety and improve traffic operations along the corridor. A summary of the virtual community input meeting is provided here.

The second public meeting was held virtually via Zoom on Tuesday, August 18th, 2020, from 6:00 pm to 7:00 pm to discuss and gather community feedback for the El Monte Avenue Corridor Study. Notification of the virtual meeting and directions on how to register for the meeting was provided to the residents within the study area including residents of the City of Los Altos via postcard mailers as shown in Figure 1. A total of 25 participants attended the meeting.

Building on the comments and feedback received from the community at the first public meeting that was held on Wednesday, January 15, 2020, the project team developed two proposed conceptual plans/alternatives to improve access, mobility, and safety for pedestrians and bicyclists along the corridor. The purpose of the virtual public input meeting was to present improvement alternatives, gather public input/comment, and address questions raised during the meeting.

Darwin Galang, Associate Civil Engineer for the City of Mountain View, welcomed the attendees to the virtual meeting and introduced Teferi Abere, Project Manager with Mott MacDonald, as his co-presenter. Lorenzo Lopez, the City Traffic Engineer, and Shruti Malik, Community Outreach Lead, were also present at the meeting. Darwin kicked-off the meeting stating the project goals and purpose of the meeting. He also described the study area extent for the nine study intersections evaluated. Two intersections are along El Camino Real from Escuela Avenue to El Monte Avenue; whereas the remaining seven intersections extend from El Camino Real in the north to the City limits at Springer Road and Jay Street in the south.

Teferi then presented the corridor-wide and intersection-specific proposed improvements along the corridor and a summary of the similarities and differences between the two improvement alternatives. Both alternatives provide four 11-ft wide travel lanes with 5-ft wide buffered bike lanes and accommodate high visibility crosswalks, enhanced street lighting, and ADA compliant curb ramps for all study intersections along the project corridor. Alternative 1 proposes to keep all existing intersections open to traffic movement similar to current conditions while Alternative 2 proposes new concrete median islands at some of the intersections to restrict access in and out of the side streets to enhance pedestrian and bicycle

safety along the corridor. Coordination with Caltrans and the City of Los Altos has been conducted for the proposed improvements at intersections that are within their respective jurisdictions.

A summary of the pros and cons of each alternative was provided by Darwin followed by a short discussion of other alternatives considered for the study. Before Darwin opened the Question & Answer session, he briefly discussed the project schedule and introduced some prompt questions to the public. Approximately 50 questions and comments were submitted via the zoom chat. In general, the public supported the bicycle and pedestrian proposed improvements. Five attendees stated that they were in favor of Alternative 2 while one attendee was in favor of Alternative 1. In advance of the meeting, the City received comments and questions via email which were responded to at the meeting as well.

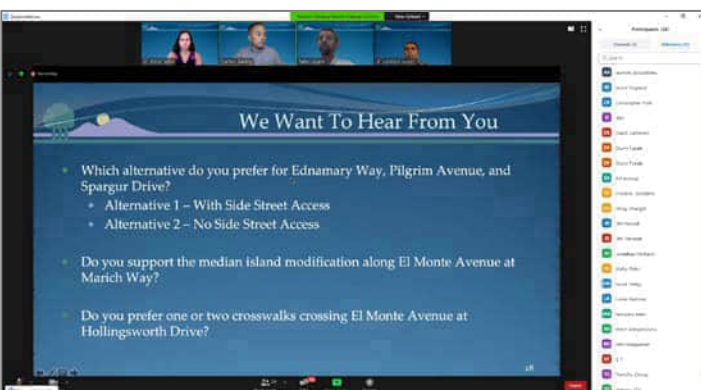
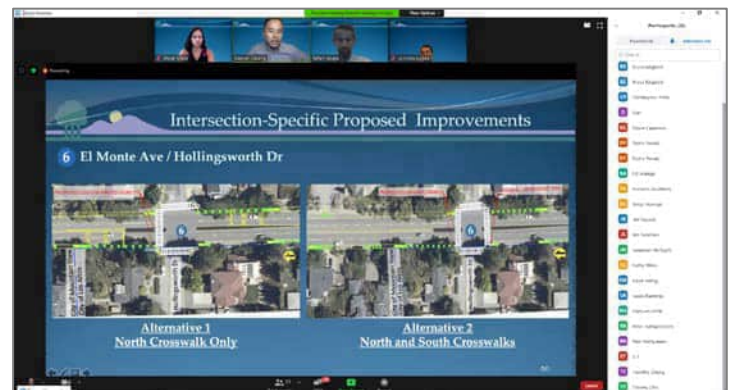
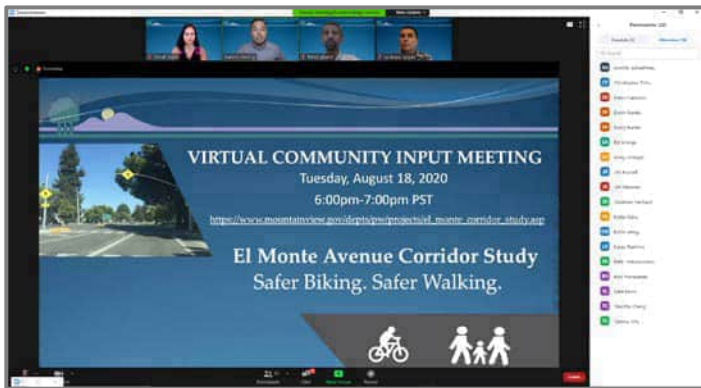
Following the meeting, the recording of the meeting and the presentation slides were made available on the City's Project site¹. Screenshots of the zoom meeting are provided below as Exhibit A.



Figure 1. Meeting Postcard Notice

¹ https://www.mountainview.gov/depts/pw/projects/el_monte_corridor_study.asp

Exhibit A. Screenshots from the Virtual Community Input Meeting



El Monte Avenue Corridor Study
Questions & Answers
August 18, 2020

1. Question: Will street lighting be enhanced at newly added crosswalks?
Answer: Yes, street lighting will be improved as part of this project at all the crosswalks that will be installed as part of the project.
2. Question: For cars existing McDonald's in Alternative 2 what prevents people from illegally turning left or north on El Monte?
Answer: The median island north of the intersection will be extended to prevent any illegal left turning movement from the McDonald's driveway.
3. Question: Will it be possible to turn right on red going El Camino Real east turning to El Monte southbound?
Answer: Yes, as proposed this option will be presented to Caltrans. Depending on Caltrans' approval a right turn on red will be allowed at El Camino Real.
4. Question: What prevents cars exiting St. Paul from turning left, it's marked as painted with an arrow, but I don't see a median.
Answer: If Alternative 2 is supported by the public, we could potentially look into extending the median island to include St. Paul's driveway to prevent left turning movement out of the driveway.
5. Question: Will U-turns be allowed southbound on El Monte at Hollingsworth?
Answer: No U-turns will be allowed along El Monte Ave except at El Camino Real and El Monte Ave.
6. Question: Does staff believe either of these plans will encourage additional cars, to use either Hollingsworth or Lloyd as cut throughs to El Camino or Shoreline Miramonte given that some traffic starting on Spargur or Pilgrim in Plan 2 will not be allowed northbound El Monte turns.
Answer: Hollingsworth Dr does not have direct connection to El Camino Real. There is a possibility that people could use Lloyd Way as a detour route to El Camino Real because of closure of Spargur Dr. in Alternative 2. As mentioned there will be additional side street traffic if we choose to go with Alternative 2.
7. Question: Is there a specific CIP funding for executing on this project? When will work commence? When will it be completed?
Answer: There is CIP funding earmarked for the design and construction phase of this project. It is programmed for fiscal year 2021. The target completion date for the study is spring of 2021. Once we obtain council approval on the proposed improvements, design and construction phase will continue with a target completion date of 2022.
8. Question: Will the speed limit will be lowered through that area if necessary, traffic calming in advance might be needed.

Answer: Another speed survey could be conducted separate from this project to see if reducing speed limit is warranted for El Monte Corridor. This could be done before any improvements are implemented as part of this project.

9. Question: The bike crossing southbound from Escuela to El Camino headed east, still looks poor as it is today, can there be lane markings added for left turning bikes at least be added?

Answer: We are adding a bike box at that intersection to accommodate southbound left turning cyclists heading to eastbound El Camino Real. With the new high visibility crosswalk, and the new bike box to accommodate left turning bicyclists, it will improve the situation at that intersection.

10. Question: How extensively are you working with Los Altos to best ensure consistency in the travel experience between the two cities?

Answer: We have reached out to City of Los Altos three or four times and have discussed all the project and the design concepts with them. The designs will be further coordinated between the two cities and refined during the final design. We have been coordinating with the city's transportation engineer and other staff so they are aware of the improvements recommended at the intersection of Springer Rd and El Monte Ave.

11. Question: Bike lanes need to be 18-24" wider, the cement gutter should not be counted as part of the bike lane, because the discontinuity between tar and cement is a traction hazard for bicycles.

Answer: Ideally we would like to add more width to the bike lane but there really is not enough space and Caltrans Highway Design Manual recommends Class 2 bike lanes to have 5' ft width from face of curb or 3' ft minimum width from the lip of gutter due to the right of way constraints. Wider bikeway widths could not be provided. The proposed design will have a buffer next to the bike lanes.

12. Question: West of Springer Rd, El Monte is initially 1 lane wide, but then widens to two? This seems unnecessary unless that's supposed to be a center island, but it isn't marked as a turn island. I would suggest keeping it down to one lane until the width is required at El Camino for the two left turn lanes.

Answer: The one left turn lane turning traffic from El Monte and the through traffic from Springer Rd require continuous two northbound lanes on El Monte Ave. The center lane north of the Springer Rd is closed by the median island for a short length just to improve pedestrian safety at the intersection. The volumes are too high for one lane because of the combination of traffic that feeds into El Monte. This is the traffic that comes from Los Altos through Springer Rd and El Monte and traffic from Los Altos and I-280. El Monte is one of our few north and south connections from the City of Mountain View to Los Altos and the I-280 freeway.

13. Question: The focus should be on protecting pedestrians who want to walk to facilities across the street, not on prioritizing car velocity. Besides, speed is not well correlated with travel times, despite what people think.

Answer: We are balancing all modes. This is a multimodal transportation project; the design improves pedestrian and bicyclists safety while also accommodating traffic volumes along El Monte Ave.

14. Question: Are we to vote now on your three questions?

Answer: We would like to get feedback instead of voting on these questions. Let us know what you think about the alternatives. If you support it let us know, if you're against it let us know, and why so we can further evaluate our design and proposed alternatives.

15. Question: Why not use the 3-lane option, there's only one lane at the springer intersection? Is there really that much traffic coming from springer plus el monte to warrant the extra lane.

Answer: Yes, like I mentioned El Monte Avenue is one of the few north and south connections between the City of Mountain View and the City of Los Altos and I-280 with traffic from Springer Rd and El Monte Ave feeding into El Monte Ave on the City of Mountain View side.

16. Question: Do you see an increase in U-turns in Alternative 2? Turning left out of Hollingsworth in the morning is often difficult to impossible. The alternative was to turn right to Pilgrim which would be blocked. What do you see as the alternative? (Either right to on El Monte to U-turn on El Camino, or backstreets to the far side of the El Monte-Springer intersection).

Answer: Alternative routing was indicated in the slideshow indicating the options to make left turns. So, residents who are trying to make left on Pilgrim Ave right now would have to go west on Pilgrim Ave, make a left on Blackfield Way and make a right on Marich Way and that's where they could head north on El Monte Ave. Similarly, residents who are making a left on Spargur Dr right now, would have to head west on Spargur Dr and make a U-turn around Spargur and come to Hollingsworth Dr and make a left turn on Hollingsworth Dr to head northbound on El Monte. So there's going to be some additional side street movement because of the closure of the intersection, both at Pilgrim and Spargur Dr.

17. Question: Many drivers along El Monte travel at higher than the speed limit. Is it possible to add traffic calmers (speed bumps) along this section?

Answer: For Streets like El Monte Ave we do not recommend speed humps. Speed humps are typically installed in residential streets to slow down traffic, this is a main corridor with high speed traffic, and we do not recommend having speed humps on these streets.

18. Question: How long will construction last once it starts?

Answer: With the amount of new improvement along the corridor including two Caltrans intersections, we foresee about 8-12 months of construction for the traffic signal and all the improvements along El Monte Ave.

19. Question: Thanks for the session. Speed remains a BIG problem. No additional study is needed to determine that. PLEASE change speed limit to 25mph. Especially with 5 crosswalks (according to the new plan) it makes no sense to maintain the current speed limit.

Answer: Thank you for the comment, again we can do a separate speed survey before and even after the improvements are implemented to see if a reduction of speed limit is warranted along El Monte Ave.

20. Question: Will anything be done to tackle the funky intersection El Monte / Springer?

Answer: El Monte and Springer that intersection is located between the City of Mountain View and the City of Los Altos to come up with a better solution the two cities will have to coordinate the design and reconfigure the intersection. There is a concept that we have developed that is to

be further coordinated between the two cities to refine the intersection into one intersection instead of right now. There is a free right turn lane that is also creating some problems which might create additional accidents because that right turn slip lane. We have developed an option where we can rearrange the intersection to one intersection at Springer and El Monte and avoid the intersection at Jay St and El Monte but then that design must be coordinated between the two cities.

Yes – and just to reiterate that intersection is Los Altos intersection, that's why our improvements only show up to that one crosswalk north of the intersection. Los Altos previously had plans but the neighborhood did not want the proposed improvements, we have gone back to them with our proposed improvements and they are aware of our improvements and per their response they would be taking a look at our improvements to check if they can improve their side of the intersection. But we'll continue working with them as we move forward with this project.

21. Question: It would be helpful to put up each intersection alternative side by side and then take questions on that specific intersection.

Answer: We can do that, I would just like to go through the questions that we have received so far, then we can go to intersection by intersection, if that helps.

22. Question: Is it possible to add speed cameras to encourage drivers to obey speed limits in this section of El Monte Ave?

Answer: Currently I believe it's our policy not to have speed cameras within the city, but we can take a look at that option if that's within our policy.

23. Question: Are all of these intersections decided on as a whole, or individually? I.e., if restricting left turn on Hollingsworth, then that also means restricted on Pilgrim

Answer: We are not restricting left turn movement at Hollingsworth; Hollingsworth is going to remain open for both alternatives, but we are recommending closing only the Pilgrim Ave intersection in Alternative 2. So, each intersection is decided on its own. So, we can have Alternative 1 for one intersection and then Alternative 2 for the other. We just have to look at each intersection as its own design because the corridor-wide improvement goes along with each type of intersection improvement so a decision has to be looked at per intersection basis.

24. Question: Thanks for answering my previous comment. I appreciate it. I'm sorry, but what is the argument against reducing the speed limit? It won't hinder traffic flow.

Answer: For reducing speed limit, it requires a traffic speed radar survey; we can't just reduce speed limit from 35 mph to 20 mph or 25 mph, and it won't be enforceable by PD without this traffic survey. So, we can't just reduce it without doing any of these surveys.

25. Question: Is the traffic heading north on El Monte from Los Altos, and turning left onto Springer under Los Altos' jurisdiction, or Mountain View's? The pedestrian crossing at that point is a mess, as left turners from El Monte onto Springer never see the pedestrians.

Answer: We can go back to that portion of it on the slide show. As you can see our improvement only goes up until the north crosswalk, and that is our city right of way, anything south of this crosswalk would be Los Altos and any improvement would have to go through Los Altos and not the City of Mountain View, that is why the project limit ends at the city limit.

26. Question: At El Camino/El Monte (item 2), in the large yellow area ... will it be landscaped with soil/plants or will it remain hardscaped (concrete) but with car barriers?
Answer: Apparently, we don't have a final design at this area, currently we say this is a landscaped area. But we will still bring it to council and see what final design will be implemented at this location. It could be a hardscaped area, or it could be just landscaped with soils and plants. That will be determined during the design phase of the project.
27. Question: At El Monte / Springer intersection. The large concrete barrier to reduce the number of northbound lanes -- it doesn't look like it is "protecting" pedestrians. Can you describe it more -- and show it please?
Answer: The reason why we are proposing a median at this location is currently the eastbound El Monte traffic making northbound left turn lane can happen at the same as the traffic making a through movement from Springer Road. So if you are trying to cross El Monte Ave at the northern crosswalk, you would have to watch for these two streams of traffic, because those two traffic movements could happen at the same time even though it's a stopped controlled intersection. Because there are two receiving lanes, vehicles can choose to go at the same time and pedestrians must watch for both vehicle movements when crossing El Monte Ave. But once we place a median island in the center lane, that means only one vehicle can head northbound on El Monte Ave, and pedestrians crossing El Monte only have to focus on one movement at a time. So that's how it can increase pedestrian safety. Otherwise when you are crossing this intersection, you'd have to watch which vehicle is coming. With both turning movements allowed at the same time, it isn't safe with the current situation, so that's what we are trying to improve.
We'll work with the City of Los Altos to further improve this design during the design phase. We can make this as a refuge island to protect pedestrians as they cross. Again, the benefit with this is, pedestrians crossing now they're only looking at one receiving lane here instead of two before, and we'll work with Los Altos with our design to further improve this intersection.
28. Question: For BPAC meeting, council meeting, etc., will there be postcards sent to same people who received notifications for tonight's meeting? Will you also explicitly reach out by email to all people who registered for tonight's meeting, regardless of whether they received postcard?
Answer: We will check with our IT department. I don't have a list of the registered attendees or any registered residents for this meeting but in terms of BPAC and Council Meeting we would do the same notices for those meetings as we have done for this meeting and the previous community meeting.
29. Question: Other than the intersection at El Monte/Springer, what approval from Los Altos is necessary to execute on the plan chosen by the study?
Answer: Let me go to the slide show. As you can see from this map, the City limits of Mountain View are on the west side of El Monte beginning north of Hollingsworth and one thing that will definitely need Los Altos approval would be restricting left turn access, to and from Spargur Dr for Alternative 2 because this will affect Los Altos residents with this alternative. And again, we have been reaching out to the City of Los Altos and are in communication with them. We're working with them on these designs and we are getting comments and feedback from them and any proposals that we get, we are considering as part of this design.

30. Question: Clarification on El Monte/Springer question. Other crosswalks across El Monte that are "protected" have a mini porkchop thing between the crosswalk and the traffic. Right now, what prevents a northbound car turning from los altos onto el monte ... they cut into the crosswalk, and a person "waiting" mid crossing ... doesn't have protection.

Answer: I think I answered that, but again we will work with Los Altos with that design and we can make that a refuge island to protect pedestrians crossing that crosswalk. All these details will be reevaluated during the design phase of the project.

31. Question: Where can we see the recording for the presentation, later?

Answer: Good question, I think the recording will be up on the city website, we have a YouTube page and the recording should be up there maybe by the end of tonight if not tomorrow, we'll check with IT. If you have any questions, if you don't see any videos uploaded, I'll have my email on my screen right now, and that's also the project webpage where you can access more information and my contact detail if you'd like to send an email regarding the project. Again, all these questions, if not answered, even the prior questions we received prior to the meeting or even after the meeting, we'll have them posted on the webpage with written responses.

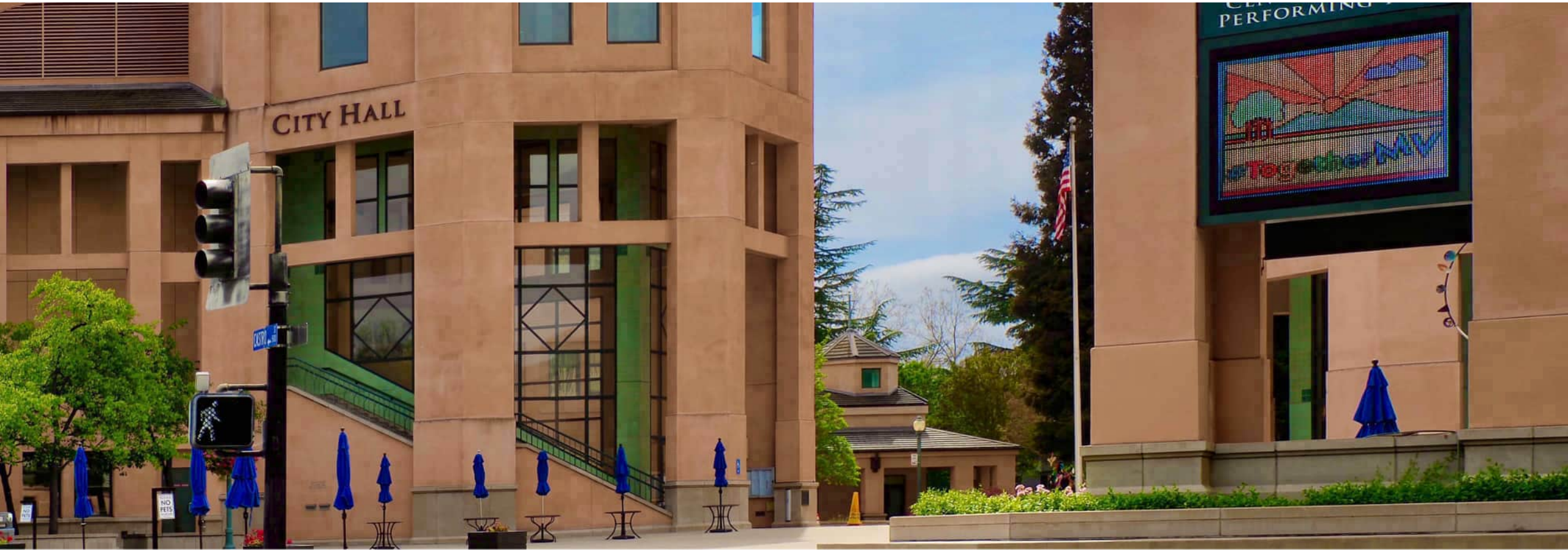
Questions Received via Email

1. Question: For cars exiting McDonalds in plan 2, what prevents people from illegally turning left (north) on El Monte? (As background, prior to McKelvey project, and porkchop change at Park Drive/Miramonte, sometimes people would weave turning left/North from Park onto Miramonte.) In the plans shared it looks like it might be possible to do such a thing.

Answer: Median island north of the intersection will be extended to prevent illegal left turning movement.

Attachment B-2

Public Outreach Comments (from July 21, 2022 meeting)
Online Survey (December 2022) Results
City's BPAC Presentation (April 26, 2023)



City of
**Mountain
View**

El Monte Avenue Corridor Study
Community Outreach Meeting
July 21, 2022

El Monte Avenue Corridor Study

Community Outreach Meeting
July 21, 2022

Presented by

Darwin Galang

Project Manager

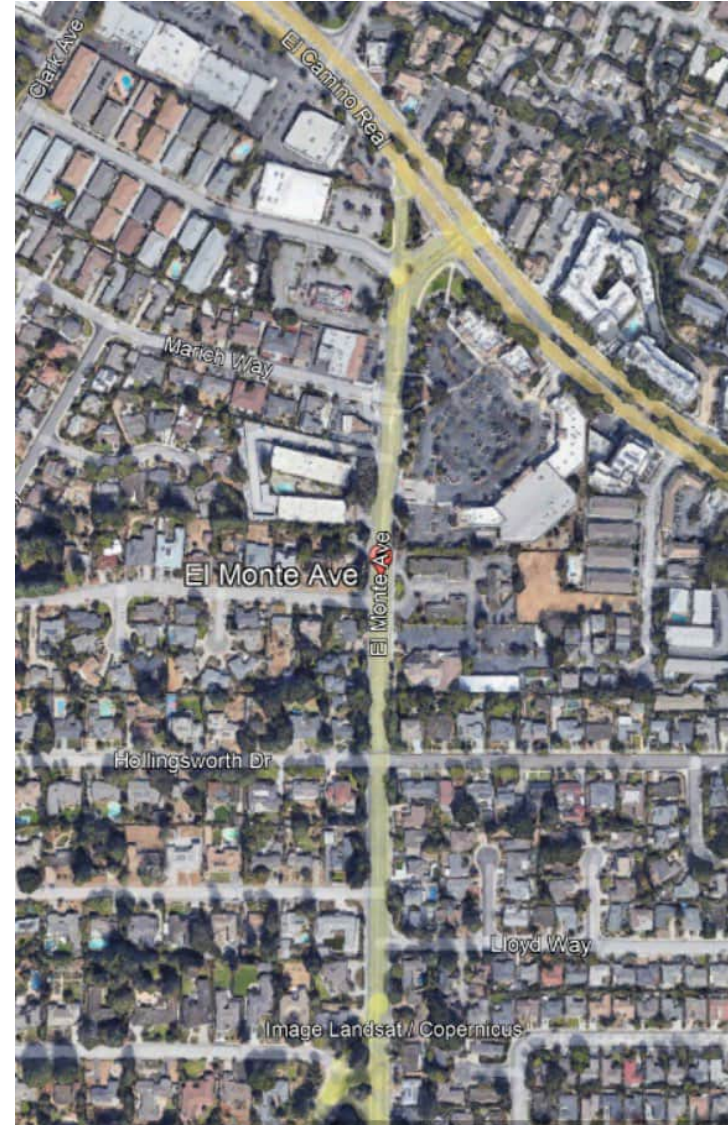
City of Mountain View

Navi Narayanan

Project Consultant

Mott MacDonald

- Project Goals
- Background
- Road Diet Analysis
- Pros and Cons
- Traffic Impact
- Project Schedule



- Project Goals
 - Develop a multimodal transportation conceptual plan for pedestrian and bicycle safety
 - Improve traffic operations along the corridor

Previous Meetings:

- Public Outreach Meeting 1 – January 15, 2020
- Public Outreach Meeting 2 (Virtual) – August 18, 2020
- Bicycle/Pedestrian Advisory Committee Meeting –
December 2, 2020

Top six challenges:

1. High Vehicle Volumes
2. High Vehicle Speeds
3. Unclear Signage
4. Inadequate Street Lighting
5. Crosswalk Visibility
6. Lack of Protected Bicycle Infrastructure

Alternative 1:

- Four-lane section
- Buffered bike lanes
- ***No side street restrictions***

Alternative 2:

- Four-lane section
- Buffered bike lanes
- ***Some side street restrictions***

Corridor-wide improvements:

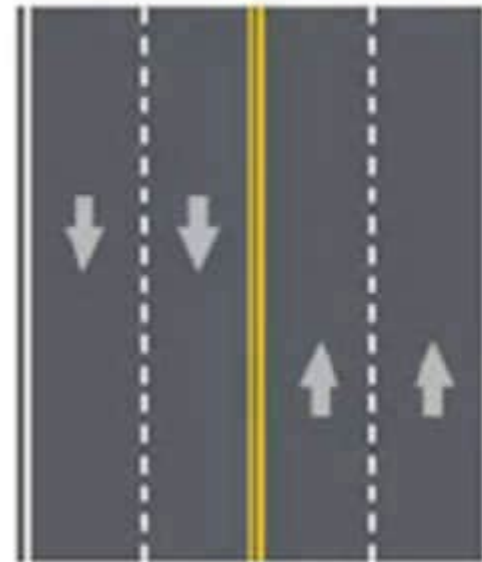
- High visibility crosswalk
- Enhanced street lighting
- ADA compliant curb ramps
- Green bike lanes
- Striping and signage improvement



What is a “road diet”?



BEFORE

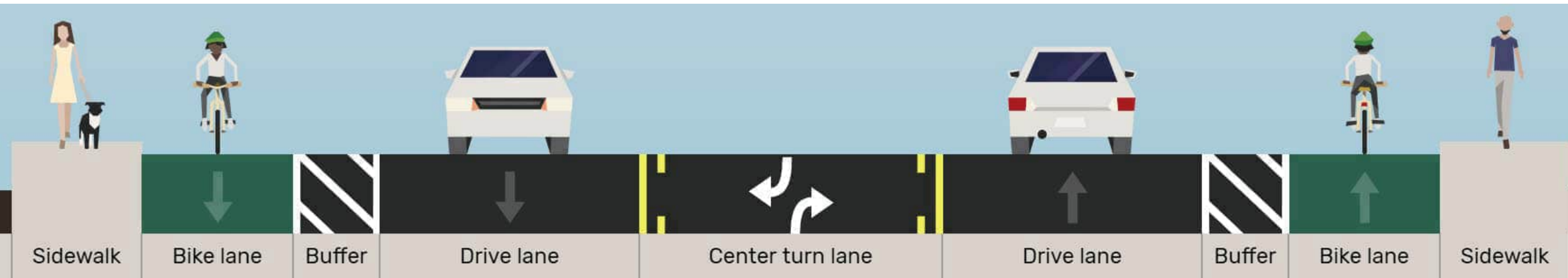


AFTER

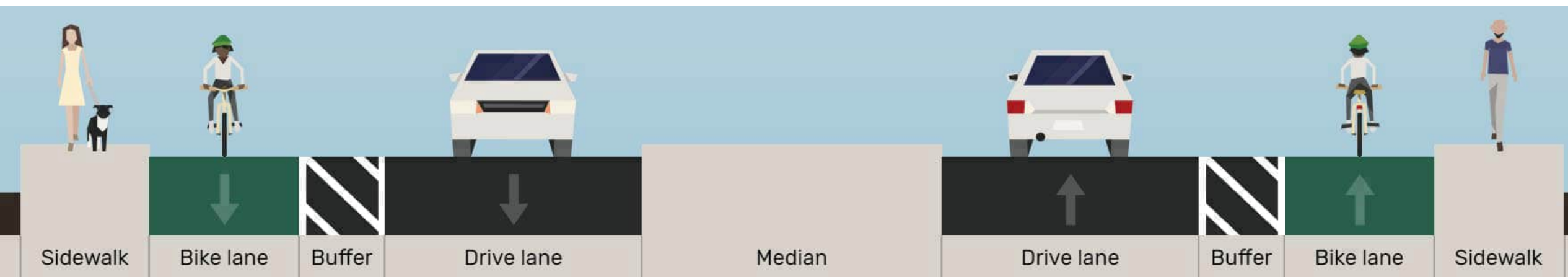


Typical Road Diet Basic Design

Pros	Cons
• Increased mobility, safety, and comfort level for bicyclists and pedestrians • Reallocated space for other uses • Reduced traffic volume, speed, and frequency of traffic collisions	• Traffic diverted to other local streets • Turning movements may be more difficult due to fewer breaks in traffic • Reduces roadway capacity



Three-Lane Street on El Monte Ave (Center Lane vs Refuge Island/Median)







Road Diet Conceptual Plan



- Community Outreach – September 2022
- Bicycle/Pedestrian Advisory Committee – December 2022
- Council Transportation Committee – March 2023
- Council – June 2023
- Complete study by August/September 2023

- Verbal Remarks
- Comment Cards
- Post-its
- Email: Darwin.Galang@mountainview.gov
- Phone Call: 650-903-6311

Questions?

For more information/Para mas informacion:

Darwin.Galang@mountainview.gov

(650) 903-6311

mountainview.gov/ElMonteCS



El Monte Avenue Corridor Study Public Outreach Meeting #3 (Minutes)

The third public meeting for the El Monte Ave Corridor Study was held on Thursday, July 21st, 2022, at the Mountain View Community Center's Redwood City Hall from 6:30 pm – 7:30 pm. Darwin Galang, Associate Civil Engineer for the City of Mountain View presented three alternatives to the public for comment which included: Alternative 1 – No Side Street Restriction, Alternative 2 – Some Side Street Restriction, and Alternative 3 – Road Diet. Ravi Narayanan the Project Consultant from Mott MacDonald was also present to answer technical questions raised during the meeting.

At 7:00 pm, participants of the meeting were invited to share their comments and questions on the proposed alternatives as well as their perceptions of moving through the corridor as a pedestrian, cyclist, or motorist. Approximately thirty (30) members of the public attended the meeting. The goal of the meeting was to gather and record public comments on the proposed alternatives.

The meeting layout consisted of a sign-in table to give residents the option to provide their contact information. The plans of the three project alternatives were displayed on the wall of the room during the presentation, and meeting participants were invited to write their comments on the plan or on post-it notes on the plans. Additionally, signs with a QR code were posted throughout the room so participants could visit the project website as well as provide them with Darwin Galang's contact details.

The following outlines the public comments heard during the July 21st meeting on the El Monte Avenue Corridor Study regarding proposed project alternatives.

Comments:

- **Meeting Participant:** In this diagram, you show that traffic is going to increase on some roads and decrease on other roads. How did you find that out?
- **Ravi Narayanan, Project Consultant:** Traffic data collection, specific to this road diet concept and we then measured the volume of through traffic from El Camino real to the Community of Los Altos. The remainder of the through traffic is headed to the side streets. Anticipating a reduction in roadway traffic. Going from 4 lanes to 2 lanes will reduce the capacity of the corridor and will reduce the traffic going through the corridor. We also did a license plate origin-destination (O-D) survey and tracked them in the AM and PM peak hours. The O-D survey occurred in November 2021. The finding is there is a substantial number of through traffic, with up to 60% peak hour directional traffic that may get diverted to other corridors should 'road diet' be implemented.
- **Meeting Participant:** The pandemic has really underestimated this traffic. I think you're really underestimating the impacts of the pandemic. Anyone in this area will tell you that. Because traffic has diminished, the traffic is increasing now that people are going back to work. I think you need to revisit these numbers.

- **Ravi Narayanan, Project Consultant:** The baseline of traffic counts we have is pre-pandemic volumes. What we did was decipher in November 2021 (post pandemic) was the % of through traffic that the corridor is using. We couldn't have gone back. We are doing the best we can with these specific data points that are available.
- **Meeting Participant:** You cannot make left turns easily during those hours
- **Ravi Narayanan, Project Consultant:** Our traffic analysis is confirming that left-turn side street movements are currently experiencing high delays.
- **Meeting Participant:** Who and when is the decision being made for the two alternatives. Both scenarios are an improvement. Both scenarios are a great alternative to what we currently have. I have a preference for one of both. Can I vote for them?
- **Darwin Galang, Project Manager:** We have three alternatives, and we have these meetings to get more feedback from the community. With community feedback from these meetings, we can compile a report to the BPAC and from there come up with recommendations to the CTC.
- **Meeting Participant:** This is the first time I've seen the road diet option. I want to understand the proposal, so at Springer, it will be a 1-lane road on each side. The middle lane will be a turn lane. The dark areas are the median lanes.
- **Meeting Participant:** I don't believe the medians are helpful. We can turn left on the median lane. I also don't at all agree with the single lane left turn because that intersection drives the traffic. Going south on El Monte, when you are coming home and trying to get in the streets. A road diet is easier to turn left because with all the traffic you can't make the left turn. It is hard to turn left especially during peak hours. I'd like you to post the details of the study, want to see the 4-7 pm range and 7-9 am. There is a really a narrow window of the day where it's just awful to turn left.
- **Meeting Participant:** We bike walk and drive along El Monte. I've driven north on EL Monte at 6 pm and I've done the left turn onto Hollingsworth at 6 pm. I am afraid of getting rear-ended because I'm stopped in the lane. Blocking left turns onto Spargur would increase more cars turning onto Hollingsworth. Also, I don't see the points of the two pedestrian sidewalks at Hollingsworth Dr, but I think the LED signs are great.
- **Meeting Participant:** I'm worried about the race car drivers rear-ending us when making a left turn.
- **Meeting Participant:** We really appreciate the work you are doing and support slowing down traffic along El Monte.
- **Meeting Participant:** Garbage collectors and cell phone drivers and delivery vehicles will stop and wait in the bike lane. All of this stuff has to be integrated into the improvements.
- **Meeting Participant:** Where are the danger points for bicyclists and pedestrians?
- **Ravi Narayanan, Project Consultant:** Marich Way had a very high collision rate. Enhanced crosswalk has improved the collisions along the corridor. Only two collisions have been reported in the last 5-years, but it has not necessarily improved perceptions of safety.
- **Meeting Participant:** Northbound Right turns from El Monte onto El Camino Real are not safe. The drivers making the right turn, stop short at my ankles and don't see me in the crosswalk. Southbound right turn.

- **Meeting Participant:** A lot of people cross there. People are going across to the CVS/Panera and they don't see the pedestrians. I've had a bunch of near misses.
- **Darwin Galang, Project Manager:** There are recommendations to Caltrans to move the poles at that intersection.
- **Meeting Participant:** I agree the medians take away the benefits of having this road diet and left-hand turns. Can you explain to me why you want to put two crosswalks at Hollingsworth and El Monte? Why are the crosswalks so close together?
- **Meeting Participant:** As a driver, you're not watching one crosswalk, you're watching two.
- **Meeting Participant:** The left turn for El Camino onto El Monte, if you merge, that really does a significant amount in reducing the traffic. If you keep this as two turn lanes. One lane going south, that would be a lot more reasonable. People switching lanes are less likely to pay attention.
- **Darwin Galang, Project Manager:** That would require a lengthy Caltrans review to remove the left turn pocket.
- **Meeting Participant:** At the Spargur location, I'm here to express strong opposition to Alternative 2. I bought a house because it has very little traffic. If left turns are blocked out of Spargur. What you instead will have people on Spargur will have to drive a quarter mile to take a left. Double traffic on Spargur. I have two toddlers, and this will increase traffic with more danger to pedestrians. I don't understand how it would calm traffic. I don't see the logic of blocking lefts onto Spargur.
- **Meeting Participant:** I had one question on the diagram. What about the mid-block crossings? People are completely stopped when it's blinking. I didn't see data for the smaller streets.
- **Meeting Participant:** My concern is the speed of the traffic coming down El Monte. Have you considered speed bumps? If you reduce the speed, it'll make it safer for pedestrians and cyclists.
- **Darwin Galang, Project Manager:** Typically, the road diet will slow down traffic. Four lanes to two lanes.
- **Lorenzo Lopez, Project Team:** We need to be careful with speed bumps because of emergency vehicles and El Monte is an arterial route. Also, if you don't have a chance to speak, you can email Darwin and we will compile your comments. Thanks for coming and the feedback.
- **Meeting Participant:** I live near 9 on the map. We did have an accident a couple of months ago. The southbound car failed to stop. What is the plan for the senior center there? What will the traffic look like and how this will impact the flows?
- **Meeting Participant:** To that point, the people who have planned that development have not taken traffic into consideration. is an omission that needs to be corrected.
- **Meeting Participant:** I live on Pilgrim Ave, and I have trouble making left-hand turns. Many of my fellow residents have had a problem, and one had her car annihilated. We are afraid of taking left turns onto Pilgrim. What is this going to do on that street? Also, Marich and El Monte is our death corner, in 2015 a lady died because someone wasn't watching. There are near misses with a car or truck not paying attention. I live on Pilgrim which will be directly across this 4-story thing, and cars fly down Pilgrim. What's the diet going to do on Pilgrim Ave? You guys are only taking care of your part, and not the total picture. You don't live there, we do.
- **Meeting Participant:** Do not prevent left turns off of Spargur. There will be increased traffic on Hollingsworth. Also, I have a comment on the corner for the left turn for El Camino onto El Monte.

The car on the left turn part of it will want to take a right turn and need to prevent dangerous change of lanes.

- **Meeting Participant:** The right turn for El Camino onto El Monte. Is the slip lane bath for bikes? Remove the slip lane for cars but keep it for bikes.
- **Meeting Participant:** The biggest danger is getting rear-ended. Why two crosswalks at Hollingsworth? Also, I am strongly opposed to eliminating left turns at Spargur. If you can't turn left onto Spargur you're going down Hollingsworth. If you go down Hollingsworth, sometimes the sun is in your eyes and it's hard to see.
- **Meeting Participant:** Have you thought about reducing the speed limit from 35 to 30?
- **Darwin Galang, Project Manager:** We will be doing an engineering speed survey after the road diet alternative is implemented, that will help determine if the posted speed limit should be reduced.

El Monte Corridor Study – Online Survey Response Summary

Q3 Age Group		
18-24	1.59%	7
25-34	8.20%	36
35-44	13.21%	58
45-64	47.38%	208
65 and over	29.61%	130
TOTAL RESPONSES – 439		

Q4 Home zip code			
84096	0.23%	1	Herriman, Utah
94010	0.23%	1	Burlingame
94015	0.23%	1	Daly City
94022	22.83%	100	Los Altos
94023	0.23%	1	
94024	14.16%	62	
94025	0.23%	1	Menlo Park
94040	44.98%	197	Mountain View
94041	10.50%	46	
94043	5.02%	22	
94061	0.23%	1	Redwood City
94070	0.23%	1	San Carlos
94087	0.23%	1	Sunnyvale
94110	0.23%	1	San Francisco
94940	0.23%	1	Marshall
95051	0.23%	1	Santa Clara
TOTAL RESPONSES – 438			

Q6 Household size		
1	13.07%	57
2-4	81.19%	354
5-6	5.28%	23
More than 6	0.46%	2
TOTAL RESPONSES – 436		

Q7 Number of children (ages 3-17) at home		
0	67.42%	269
1	12.78%	51
2	17.04%	68
3	2.01%	8
4	0.50%	2
10	0.25%	1
TOTAL RESPONSES - 399		

El Monte Corridor Study – Online Survey Response Summary

Q8 Current work arrangement		
Telecommute or Work from Home	36.87%	139
In-office	18.57%	70
Hybrid	44.56%	168
TOTAL RESPONSES – 377		

Q9 Number of days in a week commuting to work		
1-2	13.07%	57
3-5	81.19%	354
6-7	5.28%	23
Do not commute to work	0.46%	2
TOTAL RESPONSES – 436		

Q10 Employer zip code			
89451	0.43%	1	Incline Village, Nevada
93923	0.43%	1	Carmel
94010	0.87%	2	Burlingame
94015	0.43%	1	Daly City
94022	6.09%	14	Los Altos
94024	1.74%	4	
94025	2.61%	6	Menlo Park
94027	0.43%	1	Atherton
94035	2.17%	5	Mountain View
94040	9.57%	22	
94041	2.17%	5	
94043	14.78%	34	Redwood City
94062	0.43%	1	
94065	1.30%	3	
94070	0.43%	1	San Carlos
94080	0.43%	1	South San Francisco
94085	3.04%	7	Sunnyvale
94086	1.74%	4	
94087	0.87%	2	
94089	4.78%	11	San Francisco
94103	0.87%	2	
94105	1.30%	3	
94111	1.74%	4	Palo Alto
94301	1.74%	4	
94303	2.17%	5	
94304	6.09%	14	
94305	3.48%	8	

El Monte Corridor Study – Online Survey Response Summary

94306	1.30%	3	
94401	0.43%	1	San Mateo
94404	1.30%	3	Foster City
94560	0.87%	2	Newark
94705	0.43%	1	Berkeley
94901	0.43%	1	San Rafael
95002	0.43%	1	San Jose
95014	5.22%	12	Cupertino
95030	0.43%	1	Los Gatos
95050	0.87%	2	
95051	1.30%	3	
95052	0.87%	2	Santa Clara
95053	0.43%	1	
95054	3.04%	7	
95070	0.43%	1	Saratoga
95110	0.43%	1	
95112	0.43%	1	
95113	0.87%	2	
95117	0.43%	1	
95123	0.43%	1	San Jose
95124	0.87%	2	
95125	0.43%	1	
95128	0.43%	1	
95129	0.43%	1	
95131	0.87%	2	
95134	3.48%	8	
95192	0.43%	1	
95370	0.43%	1	Sonora
TOTAL RESPONSES – 230			

Q11 Number of days in a week riding a bike outside		
1-2	24.73%	69
3-5	24.73%	69
6-7	13.98%	39
Do not bike outside	36.56%	102
TOTAL RESPONSES – 279		

El Monte Corridor Study – Online Survey Response Summary

Q12 Number of days in a week riding a bike along El Monte Ave		
1-2	28.32%	79
3-5	11.47%	32
6-7	6.09%	17
Do not bike outside	54.12%	151
TOTAL RESPONSES – 279		

Q13 Number of days in a week walking along El Monte Ave		
1-2	29.27%	120
3-5	17.32%	71
6-7	11.22%	46
Do not walk along El Monte	42.20%	173
TOTAL RESPONSES – 410		

Q14 Form of transportation used to travel through El Monte Ave		
Walk	54.28%	222
Bike/Scooter	42.30%	173
Private Vehicle	91.69%	375
Public Bus	3.18%	13
Other	4.65%	19
TOTAL RESPONSES – 409		

Q15 Aware of El Monte Ave Corridor Study		
Yes	28.92%	118
No	71.08%	290
TOTAL RESPONSES – 408		

Q16 Number of days in a week making commute trips along El Monte Ave Corridor Study limits		
1-2	17.00%	68
3-5	25.00%	100
6-7	6.50%	26
Do not make commute trips along El Monte Ave	51.50%	206
TOTAL RESPONSES – 400		

Q17 Number of days in a week making non-commute trips along El Monte Ave Corridor Study limits		
1-2	30.52%	123
3-5	33.25%	134
6-7	30.77%	124
Do not make non-commute trips along El Monte Ave	5.46%	22
TOTAL RESPONSES – 403		

El Monte Corridor Study – Online Survey Response Summary

Q18 Rate traffic-related concerns along El Monte Ave in order of concern importance		
Safety of Pedestrians	4-HIGHEST CONCERN	8.02%
Safety of Bicyclists	3	23.03%
Speed of Vehicular Traffic	2	23.05%
Volume of Vehicular Traffic	1-LEAST CONCERN	26.29%
TOTAL RESPONSES – 374		

Other: Noise, Transit Access, Road Surface Condition

	1 - LEAST CONCERN	2	3	4	5	6 - HIGHEST CONCERN	TOTAL
Volume of Vehicular Traffic	10.80% 35	17.90% 58	37.04% 120	12.65% 41	13.58% 44	8.02% 26	324
Speed of Vehicular Traffic	5.76% 19	6.67% 22	18.48% 61	30.61% 101	15.45% 51	23.03% 76	330
Safety of Bicyclists	3.74% 12	7.17% 23	15.89% 51	21.81% 70	28.35% 91	23.05% 74	321
Safety of Pedestrians	2.00% 7	5.43% 19	11.14% 39	24.00% 84	31.14% 109	26.29% 92	350
Other	17.33% 13	17.33% 13	8.00% 6	13.33% 10	16.00% 12	28.00% 21	75

El Monte Corridor Study – Online Survey Response Summary

Q19 Rate contributing factors to traffic safety issues along El Monte Ave in order of concern importance		
Vehicular Speeds	8-HIGHEST CONCERN	29.93%
Pedestrian Crossing Challenges	7	25.61%
Bike Lanes	6	11.15%
Left-turning vehicles	5	9.27%
Vehicular Volumes	4	8.84%
Lack of Signage/Striping	3	3.94%
# of Vehicular Lanes	2	3.36%
Width of Vehicular Lanes	1-LEAST CONCERN	0.38%
TOTAL RESPONSES – 409		

Other: Driver Behavior, Design of the Intersection

	1 - LEAST CONCERN	2	3	4	5	6	7	8	9 - HIGHEST CONCERN	TOTAL
Vehicular Speeds	4.08% 12	3.06% 9	6.46% 19	4.76% 14	8.84% 26	14.29% 42	12.93% 38	15.65% 46	29.93% 88	294
Vehicular Volumes	3.74% 11	9.18% 27	7.48% 22	14.29% 42	16.67% 49	13.95% 41	11.22% 33	14.63% 43	8.84% 26	294
Number of Vehicular Lanes	8.21% 22	13.43% 36	19.40% 52	16.04% 43	10.82% 29	10.07% 27	11.19% 30	7.46% 20	3.36% 9	268
Width of Vehicular Lanes	15.71% 41	21.84% 57	18.39% 48	14.94% 39	11.11% 29	10.34% 27	4.60% 12	2.68% 7	0.38% 1	261
Lack of Signage of Striping	9.68% 27	15.77% 44	13.98% 39	15.77% 44	15.41% 43	10.39% 29	9.68% 27	5.38% 15	3.94% 11	279
Bike Lanes	5.74% 17	6.76% 20	9.46% 28	14.53% 43	14.86% 44	15.54% 46	9.80% 29	12.16% 36	11.15% 33	296
Pedestrian Crossing Challenges	3.35% 11	2.44% 8	4.88% 16	5.49% 18	10.06% 33	10.37% 34	17.38% 57	20.43% 67	25.61% 84	328
Left-turning Vehicles	9.27% 29	14.06% 44	11.82% 37	10.86% 34	8.95% 28	9.90% 31	14.70% 46	11.18% 35	9.27% 29	313
Other	22.03% 13	3.39% 2	5.08% 3	3.39% 2	11.86% 7	8.47% 5	5.08% 3	15.25% 9	25.42% 15	59

El Monte Corridor Study – Online Survey Response Summary

Q20 Attended any public meetings on this project in the past

Yes	14.44%	55
No	85.56%	326
TOTAL RESPONSES – 381		

Q21 Support narrower vehicular travel lanes on El Monte Ave

Yes	45.97%	171
No	54.03%	201
TOTAL RESPONSES – 372		

Q22 Support reducing number of through vehicular travel lanes along El Monte Ave

Yes	47.30%	175
No	52.70%	195
TOTAL RESPONSES – 370		

Q23 Support a two-way median left-turn lane along El Monte Ave

Yes	69.01%	245
No	30.99%	110
TOTAL RESPONSES – 355		

Q24 Support reducing the number of left-turn lanes from WB El Camino Real to SB El Monte Ave

Yes	25.41%	92
No	74.59%	270
TOTAL RESPONSES – 362		

Q25 Support left-turn access restriction to/from Pilgrim Ave, Ednamary Way and Spargur Dr along El Monte Ave

Yes	33.98%	122
No	66.02%	237
TOTAL RESPONSES – 359		

Q26 Bike improvements along El Monte Ave

Buffered Bike Lanes (striped)	60.57%	212
Separated Bike Lanes (protected)	58.86%	206
Other	14.86%	52
TOTAL RESPONSES – 350		

El Monte Corridor Study – Online Survey Response Summary

Q27 Pedestrian improvements along El Monte Ave		
Lighted crosswalk system (pedestrian activated)	80.11	286
One crosswalk at an intersection (north/south side crossing El Monte Ave)	41.74%	149
Two crosswalks at an intersection (north+south side crossing El Monte Ave)	36.69%	131
Other	15.97%	57
		TOTAL RESPONSES – 357

Q28 Additional strategies besides 'Complete Street' along El Monte Corridor to improve safety		
Traffic Calming Devices	53.14%	186
Increased Enforcement	46.57%	163
Driver Education	19.71%	69
Other	19.14%	67
None	14.00%	49
		TOTAL RESPONSES – 350

Q29 Rank design concept cross-sections in order of preference		
Option C: Road diet option – two-lane section with buffered bikes lanes (No access restriction on side-streets)	3-MOST PREFERRED	41.35%
Option B: Four lane section with buffered bike lanes (Some access restriction on side-streets)	2	31.34%
Option A: Four lane section with buffered bike lanes (No access restriction on side-streets)	1-LEAST PREFERRED	27.08%
		TOTAL RESPONSES – 346

	1	2	3	TOTAL	SCORE
OPTION A: Four lane section with buffered bike lanes (no access restriction on side-streets)	33.04% 111	39.88% 134	27.08% 91	336	2.06
OPTION B: Four lane section with buffered bike lanes (some access restriction on side-streets)	32.84% 110	35.82% 120	31.34% 105	335	2.01
OPTION C: Road diet option - two-lane section with buffered bike lanes (no access restriction on side-streets)	35.48% 121	23.17% 79	41.35% 141	341	1.94

DATE: April 26, 2023

TO: Bicycle/Pedestrian Advisory Committee

FROM: Darwin Galang, Senior Traffic Engineer
Lorenzo Lopez, City Traffic Engineer
Edward Arango, Assistant Public Works Director/City Engineer

VIA: Dawn S. Cameron, Public Works Director

SUBJECT: El Monte Avenue Corridor Study, Project 19-61

RECOMMENDATION

Review and comment on the El Monte Avenue Corridor Study conceptual plans and recommend Alternative 3, a road diet from four lanes to three lanes with buffered bikes lanes, to the Council Transportation Committee as the preferred conceptual plan.

BACKGROUND AND ANALYSIS

El Monte Avenue is a four-lane street with two travel lanes and a bicycle lane in each direction, a posted speed limit of 35 miles per hour (mph), and an Average Daily Traffic (ADT) volume of approximately 20,000 vehicles per day (vpd) based on data collected in 2019. Recent data collected in March 2023 shows an ADT of approximately 14,000 vpd.

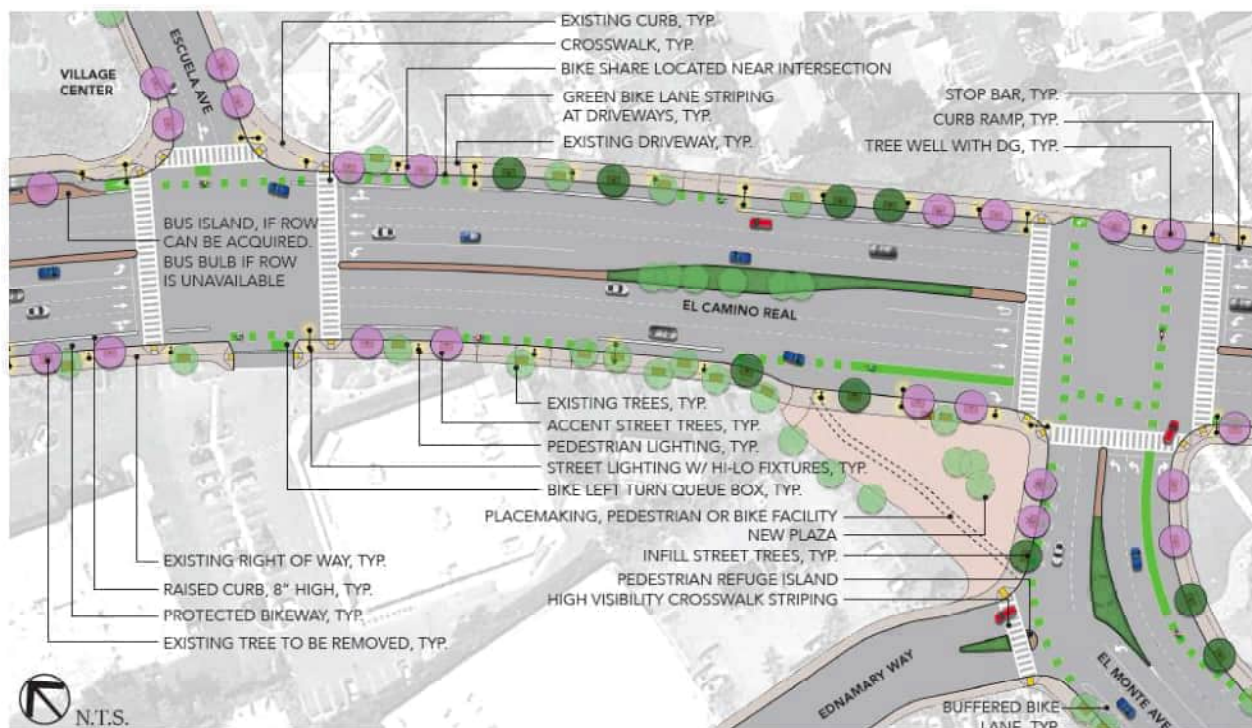
The El Monte Avenue Corridor Study (Study) focuses on nine intersections: two intersections along El Camino Real at Escuela Avenue and El Monte Avenue and seven intersections along El Monte Avenue from El Camino Real to the City limits at Springer Road and Jay Street (see Figure 1). The Study also includes evaluating various improvements throughout the corridor.



Figure 1: Project Area

The main goals of the Study are to develop a multi-modal transportation conceptual plan for pedestrian and bicycle safety and improve traffic operations along the corridor. The conceptual plans are intended to evaluate the corridor to determine space allocation for new improvements within the available roadway width.

On [December 2, 2020](#), staff presented two proposed corridorwide alternatives to the Bicycle/Pedestrian Advisory Committee (BPAC). Consistent with the design concept from the El Camino Real Streetscape Plan, both alternatives provided the same suggested improvements on El Camino Real between Escuela Avenue and El Monte Avenue that include: high-visibility crosswalks at each intersection, Americans with Disabilities Act (ADA)-compliant curb ramps, green bike lanes at conflict areas, and striping and signage improvements. Additionally, the right-turn vehicular movement from eastbound West El Camino Real to southbound El Monte Avenue currently operates as “free right-turn” that poses potential conflicts with pedestrians and bicyclists. Both alternatives remove this free right-turn and redirect right turning vehicles to turn onto El Monte Avenue with a much tighter turn radius resulting in one less crossing for pedestrians and encourages reduced speeds of vehicles turning right from West El Camino Real to El Monte Avenue (see Figure 2).



**Figure 2: Design Concept for El Monte Avenue /El Camino Real Intersection
from El Camino Real Streetscape Plan**

The differences between the two alternatives were to El Monte Avenue and are described as follows:

- **Alternative 1:** This alternative keeps all existing four vehicle lanes and bicycle lanes, adds a buffered area to the bicycle lanes by narrowing the widths of the vehicle lanes, and maintains the intersections as unrestricted to traffic movement, similar to current conditions (see Attachment 1). Figure 3 shows a typical cross-section of Alternative 1.



Figure 3: Typical Cross-Section—Alternative 1 (No Side Street Restriction)

- **Alternative 2:** This alternative also keeps all existing four vehicle lanes and bicycle lanes and adds concrete median islands at some of the intersections to restrict access in and out of those side streets (see Attachment 2). Figure 4 shows a typical cross-section of Alternative 2 at some intersections where left-turn access is prohibited.



Figure 4: Typical Cross-Section—Alternative 2 (Some Side Street Restriction)

Both Alternatives 1 and 2 provide El Monte Avenue with narrower travel lanes. In addition, corridorwide improvements, such as ladder-style crosswalks, enhanced street lighting, ADA-compliant curb ramps, green bike lanes at conflict areas, and striping and signage at all intersections, are included.

During the December 2020 BPAC meeting, to address the community's concerns with high vehicle speeds and volumes, the BPAC requested staff explore the feasibility of a road diet alternative along El Monte Avenue, between El Camino Real and the City limits at Springer Road and Jay Street.

In September 2021, the City's design consultant conducted a road diet analysis. The road diet alternative envisions a three-lane cross-section consisting of one vehicular travel lane and buffered bicycle lane in each direction with a center median two-way left-turn lane and median islands at the intersection of El Monte Avenue and Hollingsworth Drive. This alternative allows

the vehicle lane space to be reallocated for other uses—in this case, bicycle buffer areas and pedestrian crossing median islands. The buffered area would be raised in locations that do not conflict with driveways or crossings. Attachment 3 provides the full layout of the corridor improvements, and Figure 5 shows a typical cross-section of the road diet alternative.

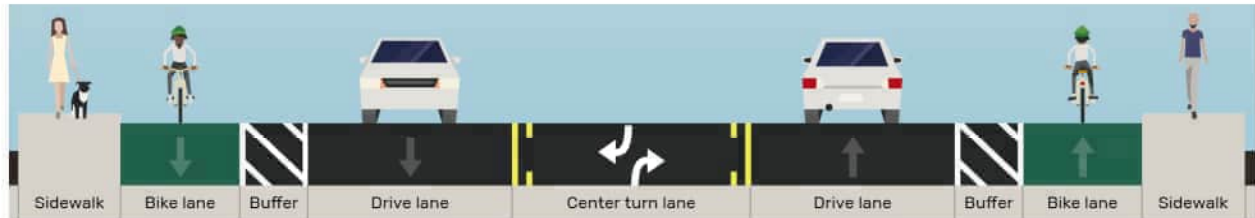


Figure 5: Typical Cross-Section—Alternative 3 (Road Diet)

The analysis generally found value to applying a road diet and included the following conclusions:

- While vehicular capacity is reduced, benefits may include reduced weaving, left-turn conflicts, and vehicle interactions along with calming traffic along the corridor. This can result in a reduction in the number and severity of vehicle-to-vehicle collisions. Additionally, the vehicle speed differential, those vehicle speeds between two adjacent through lanes, would be eliminated, and the lane speed would be limited to the speed of the lead vehicle in the single through lane.
- Easier pedestrian crossings would be facilitated where pedestrians have one fewer vehicle lane to cross and, in turn, a shorter time of exposure to moving vehicles.
- Traffic may divert to parallel corridors and local streets.
- The use of multi-modal facilities provides a dedicated space for different users, which can increase motorists' recognition and, with the addition of buffered bicycle lanes and pedestrian refuge islands, provides cues that can improve driver awareness.

Staff agrees with the conclusions of the road diet analysis.

Community Feedback

Prior to conducting the road diet analysis, staff held two public outreach meetings in 2020. Feedback received from these meetings was incorporated into the concept for the first two corridorwide alternatives.

On July 21, 2022, staff held a third community meeting for the residents immediately adjacent and accessing El Monte Avenue to present the road diet alternative and obtain community

feedback and comments. In general, the community showed great support for the road diet alternative, with approximately 30 members of the public attending the meeting.

Following the community meeting, on December 16, 2022, staff launched a public online survey to gain information on the public's support and feedback to the alternatives. The survey was sent to approximately 10,000 households within approximately one-half mile of the Study area and posted on the City's Facebook page and website. The 30-question survey included commute and travel modes/patterns along the corridor, traffic-related concerns, support of or opposition to proposed improvements, and measures to improve safety. Responses received provided staff with wider feedback and information to recommend to the BPAC, Council Transportation Committee (CTC), and City Council a preferred alternative. Staff received a total of 448 online survey responses with key feedback summaries outlined in Table 1.

Table 1: Online Survey Summary

Rate the following contributing factors to traffic safety issues along El Monte Avenue in order of concern importance:		
Vehicular Speeds	HIGHEST CONCERN	30%
Pedestrian Crossing Challenges		26%
Bike Lanes		11%
Left-turning vehicles		9%
Vehicular Volumes		9%
Lack of Signage/Striping		4%
Number of Vehicular Lanes		3%
Width of Vehicular Lanes	LEAST CONCERN	1%

Other concerns: Driver Behavior, Design of the Intersection

Rate the following traffic-related concerns along El Monte Avenue in order of concern importance:		
Safety of Pedestrians	HIGHEST CONCERN	26%
Safety of Bicyclists		23%
Speed of Vehicular Traffic		23%
Volume of Vehicular Traffic	LEAST CONCERN	8%

Other concerns: Noise, Transit Access, Road Surface Condition

Do you support a two-way median left-turn lane along El Monte Avenue?	
Yes	69%
No	31%

Do you support reducing the number of left-turn lanes from westbound El Camino Real to southbound El Monte Avenue?	
Yes	25%
No	75%

Do you support left-turn access restriction to/from Pilgrim Avenue, Ednamary Way, and Spargur Drive along El Monte Avenue?

Yes	34%
No	66%

Rank the following design concepts in order of preference:

Option C: Road diet option—two-lane section (and center turn lane) with buffered bike lanes (no access restriction on side-streets).	MOST PREFERRED	42%
Option B: Four-lane section with buffered bike lanes (some access restriction on side streets).		31%
Option A: Four-lane section with buffered bike lanes (no access restriction on side streets).	LEAST PREFERRED	27%

As shown in Table 1, the key community concerns identified were vehicle speeds and safety of pedestrians and bicyclists. A large majority supported a center median two-way left-turn lane on El Monte Avenue but did not support reducing the number of left-turn lanes from westbound El Camino Real to southbound El Monte Avenue or restricting left-turn access along El Monte Avenue to/from side streets. Lastly, the most preferred alternative was the road diet alternative, Alternative 3.

CONCLUSION

Based on an analysis identifying several benefits to the road diet alternative, including traffic-calming effects of reduced speed and conflicts, improved safety for other modes of travel, and the strong support from the third community meeting and survey results, staff recommends Alternative 3 as the preferred alternative for the Study. Alternative 3 includes:

- **El Camino Real, from Escuela Avenue to El Monte Avenue:**
 - High-visibility crosswalks at each intersection;
 - Removal of the slip lane from eastbound El Camino Real to southbound El Monte Avenue; and
 - Maintaining two left-turn lanes from westbound El Camino Real to southbound El Monte Avenue.
- **El Monte Avenue, from El Camino Real to the City limits at Springer Road and Jay Street:**
 - Road diet from four vehicle lanes to three lanes, consisting of one vehicle lane in each direction and a center median two-way left-turn lane;
 - Buffered bicycle lanes with green striping at conflict areas;

- High-visibility crosswalks and pedestrian refuge islands at the intersection of El Monte Avenue and Hollingsworth Drive;
- Lighting improvements; and
- No access restrictions on side streets.

Staff will present the community feedback and BPAC's input and recommendation to the CTC in May 2023 and, if necessary, to the City Council. The Study completion date is anticipated in summer 2023. As part of the preliminary design following approval of a preferred alternative, staff will assess the existing vegetation along the corridor and identify opportunities to include green street elements into the project, including new trees and other landscaping treatments. Design and construction of the improvements would be combined with the recent successful One Bay Area Grant (OBAG) Cycle 3 program grant received for the El Camino Real/El Monte Avenue/Escuela Avenue Intersection Improvements that include those improvements outlined above as part of the Study. Design is anticipated to start in 2024 and construction in late 2025.

PUBLIC NOTICING

In addition to agenda posting, notices were mailed to the residents and property owners along the El Monte Avenue corridor and residents of the City of Los Altos who live adjacent to the Study area.

Project information can also be found on the project webpage at mountainview.gov/emcs.

DG-LL-EA/LL/6/PWK
979-04-26-23M

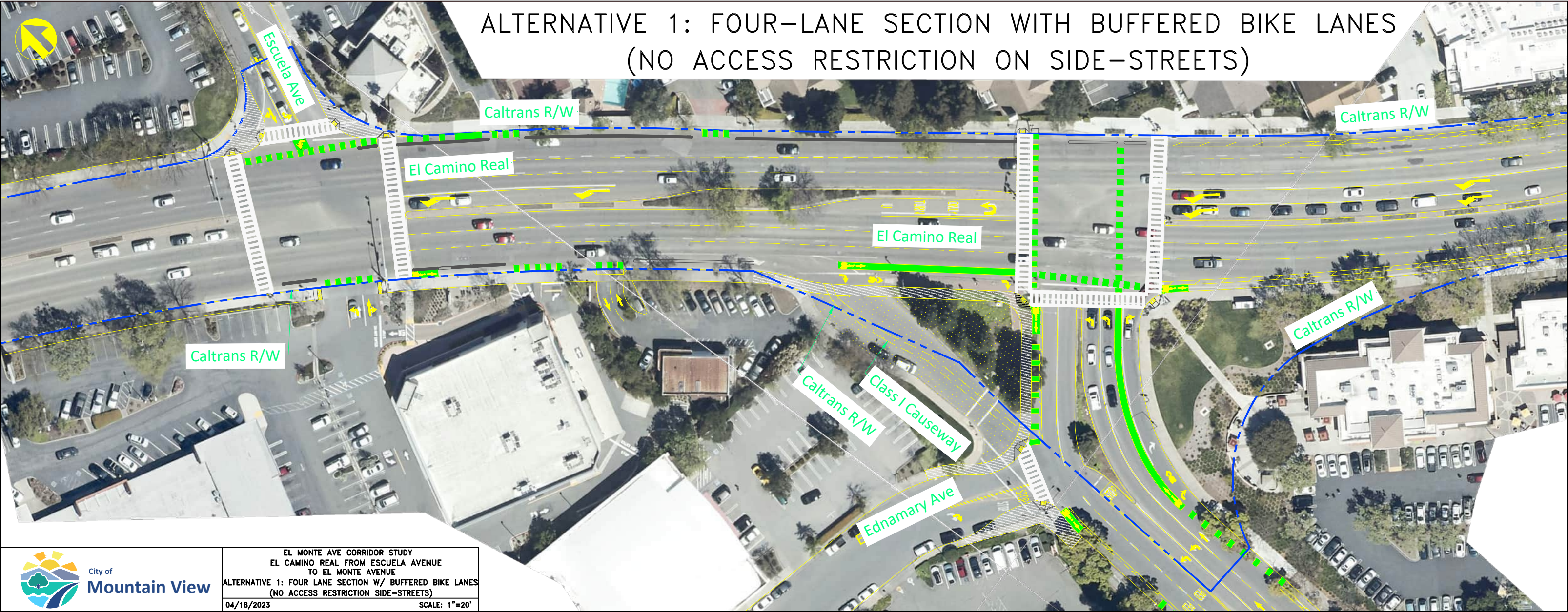
Attachments: 1. [Conceptual Plan Alternative 1](#)
 2. [Conceptual Plan Alternative 2](#)
 3. [Conceptual Plan Alternative 3](#)

cc: PWD, APWD—Arango, CTE, STE—Galang

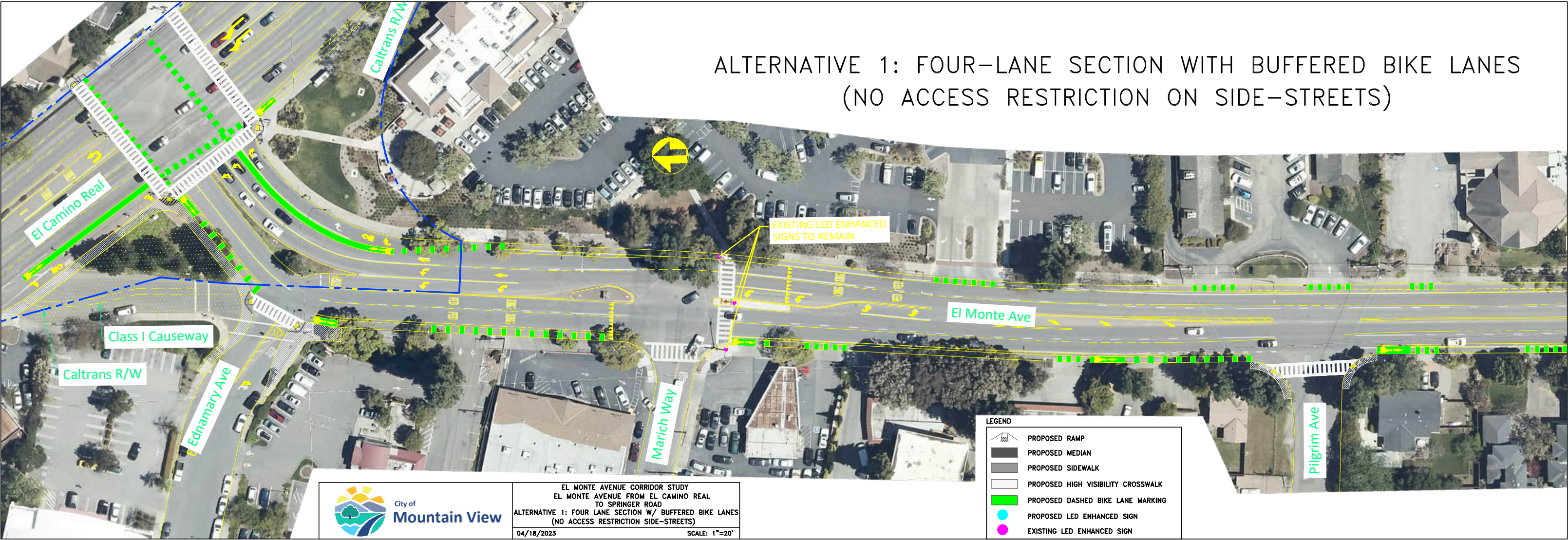
Attachment C

Conceptual Design Layouts – Alternatives 1, 2 and 3

ALTERNATIVE 1: FOUR-LANE SECTION WITH BUFFERED BIKE LANES
(NO ACCESS RESTRICTION ON SIDE-STREETS)



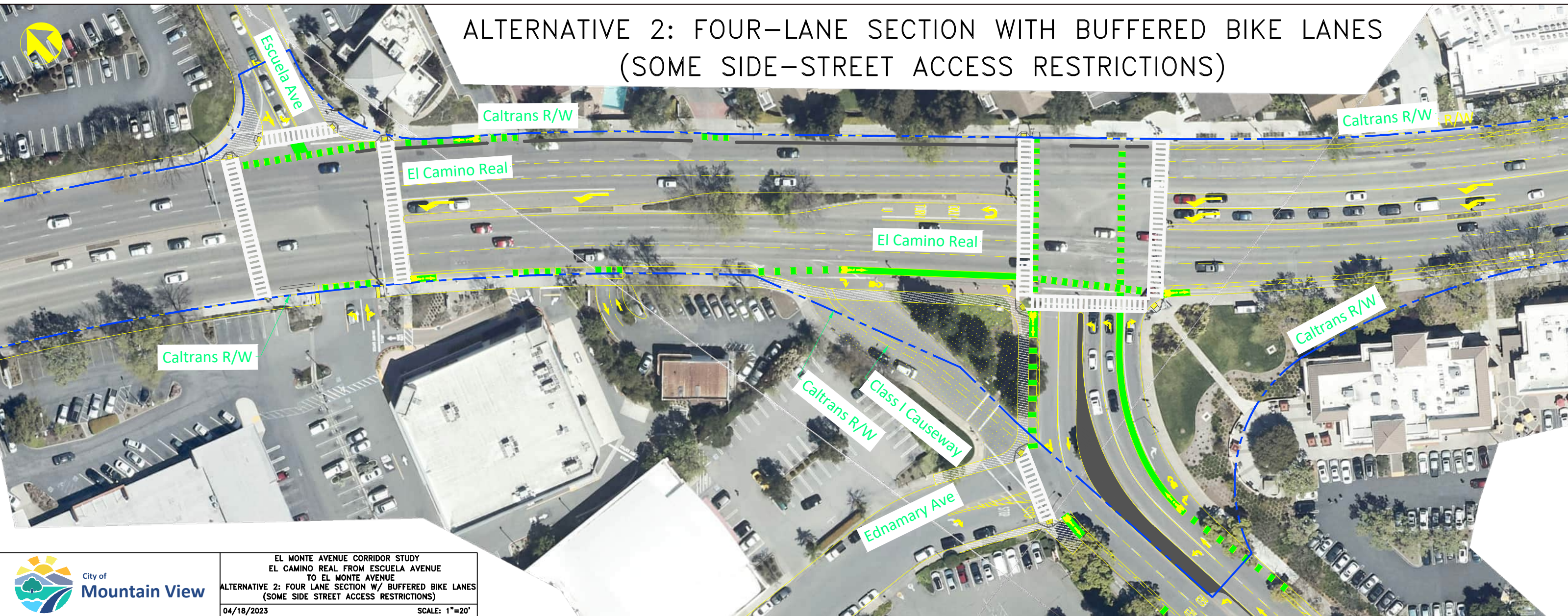
ALTERNATIVE 1: FOUR-LANE SECTION WITH BUFFERED BIKE LANES
(NO ACCESS RESTRICTION ON SIDE-STREETS)



ALTERNATIVE 1: FOUR-LANE SECTION WITH BUFFERED BIKE LANES
(NO ACCESS RESTRICTION ON SIDE-STREETS)



ALTERNATIVE 2: FOUR-LANE SECTION WITH BUFFERED BIKE LANES
(SOME SIDE-STREET ACCESS RESTRICTIONS)

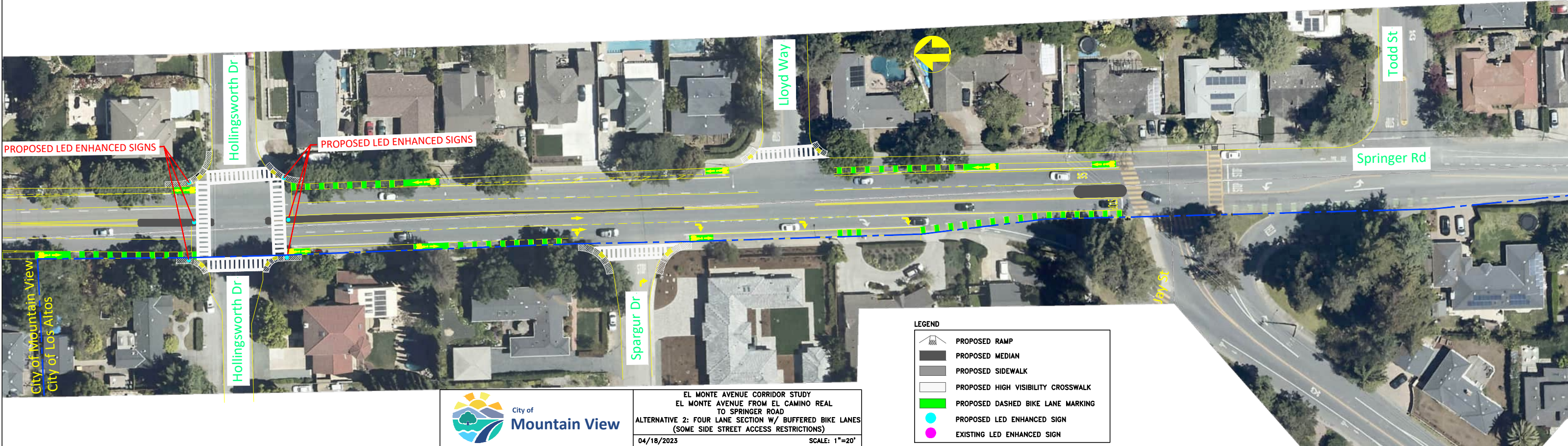


ALTERNATIVE 2: FOUR-LANE SECTION WITH BUFFERED BIKE LANES
(SOME SIDE-STREET ACCESS RESTRICTIONS)

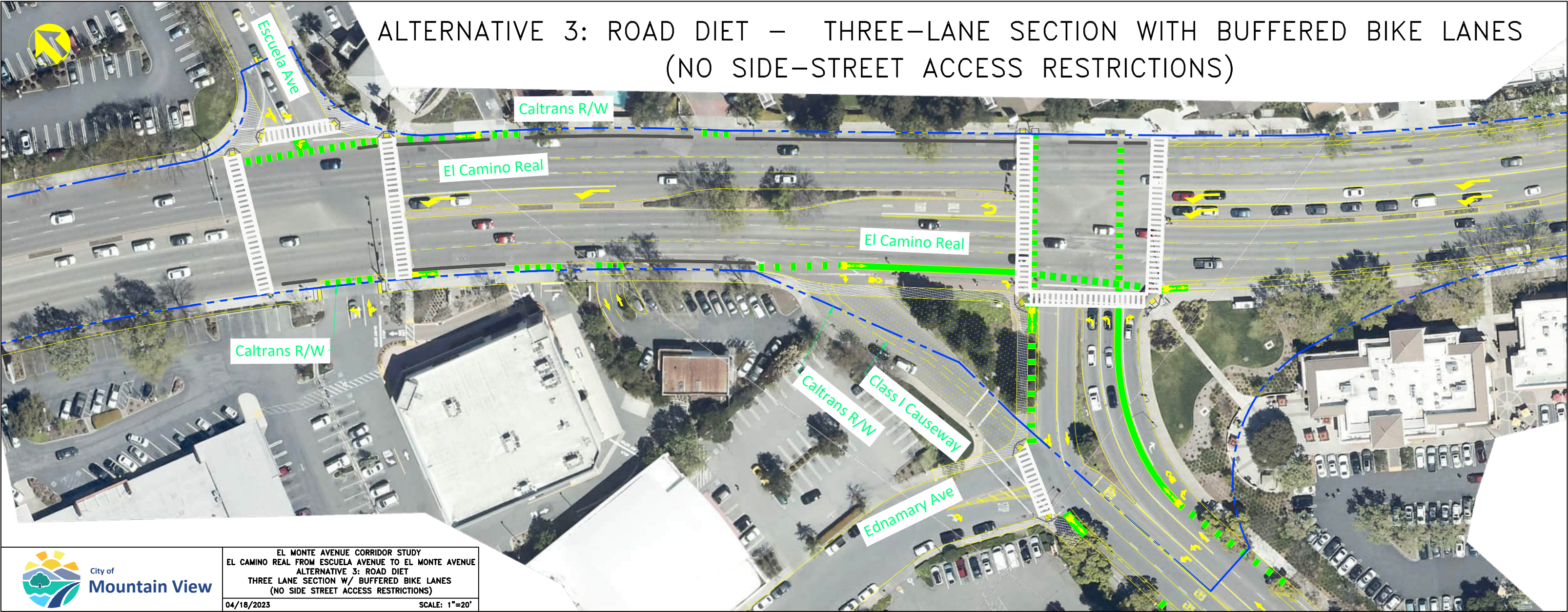


EL MONTE AVENUE CORRIDOR STUDY
EL MONTE AVENUE FROM EL CAMINO REAL
TO SPRINGER ROAD
ALTERNATIVE 2: FOUR LANE SECTION W/ BUFFERED BIKE LANES
(SOME SIDE STREET ACCESS RESTRICTIONS)
04/18/2023 SCALE: 1"=20'

ALTERNATIVE 2: FOUR-LANE SECTION WITH BUFFERED BIKE LANES
(SOME SIDE-STREET ACCESS RESTRICTIONS)



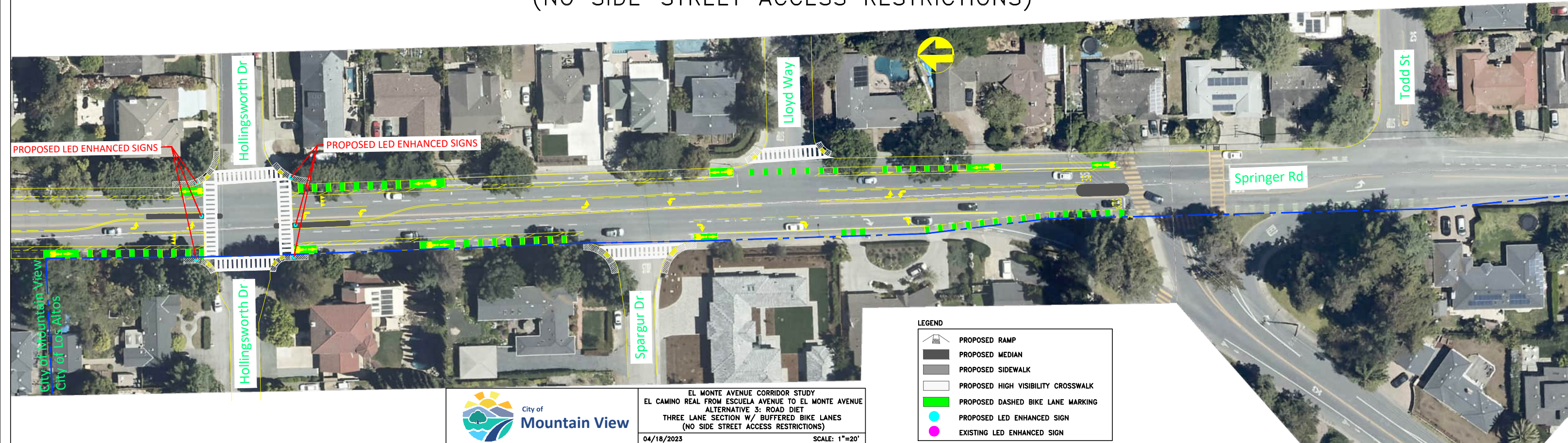
ALTERNATIVE 3: ROAD DIET – THREE-LANE SECTION WITH BUFFERED BIKE LANES
(NO SIDE-STREET ACCESS RESTRICTIONS)



ALTERNATIVE 3: ROAD DIET – THREE-LANE SECTION WITH BUFFERED BIKE LANES
(NO SIDE-STREET ACCESS RESTRICTIONS)



ALTERNATIVE 3: ROAD DIET – THREE-LANE SECTION WITH BUFFERED BIKE LANES
(NO SIDE-STREET ACCESS RESTRICTIONS)



Attachment D

Cost Estimates

EL MONTE AVENUE CORRIDOR STUDY
ALTERNATIVE 1: 4 LANE SECTION WITH NO ACCESS RESTRICTION AT EXISTING INTERSECTIONS
PRELIMINARY ENGINEER'S ESTIMATE

Date: 06/28/2023

Item No.	Description	Quantity	Unit	Unit Cost	Total
Within Caltrans Right of Way					
1	Mobilization (10%)	1	LS	\$ 48,000	\$ 48,000.00
2	Water Pollution Control	1	LS	\$ 10,000	\$ 10,000.00
3	Traffic Control System	1	LS	\$ 20,000	\$ 20,000.00
4	Traffic Signal Phasing at El Camino/Escuela	1	LS	\$ 40,000	\$ 40,000.00
5	Utilities relocation	1	LS	\$ 15,000	\$ 15,000.00
6	Project Demolition/Removal	1	LS	\$ 20,000	\$ 20,000.00
7	Concrete Sidewalk	3900	SF	\$ 40	\$ 156,000.00
8	Concrete Curb and Gutter	735	LF	\$ 75	\$ 55,125.00
9	Concrete Median	1122	SF	\$ 30	\$ 33,660.00
10	Curb Ramp/Driveway	11	EA	\$ 10,000	\$ 110,000.00
11	Signage and Striping	1	LS	\$ 20,000	\$ 20,000.00
CONSTRUCTION COST:					\$ 528,000.00
30% CONTINGENCY					\$ 158,000.00
SUBTOTAL CONSTRUCTION COST					\$ 686,000.00
Within City Right of Way and Private Property					
1	Mobilization (10%)	1	LS	\$ 49,000	\$ 49,000.00
2	Water Pollution Control	1	LS	\$ 10,000	\$ 10,000.00
3	Traffic Control System	1	LS	\$ 40,000	\$ 40,000.00
4	Project Demolition/Removal	1	LS	\$ 15,000	\$ 15,000.00
5	Concrete Sidewalk	2432	SF	\$ 40	\$ 97,280.00
6	Concrete Curb and Gutter	277	LF	\$ 75	\$ 20,759.25
7	Concrete Median	900	SF	\$ 30	\$ 27,000.00
8	Curb Ramp/Driveway	12	EA	\$ 10,000	\$ 120,000.00
9	Signage and Striping	1	LS	\$ 35,000	\$ 35,000.00
10	Proposed LED Enhanced Sign	1	EA	\$ 125,000	\$ 125,000.00
SUBTOTAL CONSTRUCTION COST:					\$539,000.00
30% CONTINGENCY					\$162,000.00
SUBTOTAL TOTAL CONSTRUCTION COST					\$701,000.00
TOTAL CONSTRUCTION COST					\$ 1,387,000.00

**EL MONTE AVENUE CORRIDOR STUDY
ALTERNATIVE 2: 4 LANE SECTION WITH ACCESS RESTRICTION AT SOME INTERSECTIONS
PRELIMINARY ENGINEER'S ESTIMATE**

Date: 06/28/2023

Item No.	Description	Quantity	Unit	Unit Cost	Total
Within Caltrans Right of Way					
1	Mobilization (10%)	1	LS	\$ 52,000	\$ 52,000.00
2	Water Pollution Control	1	LS	\$ 10,000	\$ 10,000.00
3	Traffic Control System	1	LS	\$ 30,000	\$ 30,000.00
4	Traffic Signal Phasing at El Camino/Escuela	1	LS	\$ 40,000	\$ 40,000.00
5	Utilities relocation	1	LS	\$ 15,000	\$ 15,000.00
6	Project Demolition/Removal	1	LS	\$ 20,000	\$ 20,000.00
7	Concrete Sidewalk	3900	SF	\$ 40	\$ 156,000.00
8	Concrete Curb and Gutter	705	LF	\$ 75	\$ 52,875.00
9	Concrete Median	2500	SF	\$ 30	\$ 75,000.00
10	Curb Ramp/Driveway	10	EA	\$ 10,000	\$ 100,000.00
11	Signage and Striping	1	LS	\$ 20,000	\$ 20,000.00
CONSTRUCTION COST:					\$ 571,000.00
30% CONTINGENCY					\$ 171,000.00
SUBTOTAL CONSTRUCTION COST					\$ 742,000.00
Within City Right of Way and Private Property					
1	Mobilization (10%)	1	LS	\$ 70,000	\$ 70,000.00
2	Water Pollution Control	1	LS	\$ 10,000	\$ 10,000.00
3	Traffic Control System	1	LS	\$ 40,000	\$ 40,000.00
4	Project Demolition/Removal	1	LS	\$ 15,000	\$ 15,000.00
5	Concrete Sidewalk	2432	SF	\$ 40	\$ 97,280.00
6	Concrete Curb and Gutter	831	LF	\$ 75	\$ 62,323.50
7	Concrete Median	2400	SF	\$ 30	\$ 72,000.00
8	Curb Ramp/Driveway	12	EA	\$ 10,000	\$ 120,000.00
9	Signage and Striping	1	LS	\$ 35,000	\$ 35,000.00
10	Proposed LED Enhanced Sign	2	EA	\$ 125,000	\$ 250,000.00
SUBTOTAL CONSTRUCTION COST:					\$772,000.00
30% CONTINGENCY					\$232,000.00
SUBTOTAL TOTAL CONSTRUCTION COST					\$1,004,000.00
TOTAL CONSTRUCTION COST					\$ 1,746,000.00

**EL MONTE AVENUE CORRIDOR STUDY
ALTERNATIVE 3: 3-LANE SECTION COMPLETE STREET "ROAD DIET"
PRELIMINARY ENGINEER'S ESTIMATE**

Date: 06/28/2023

Item No.	Description	Quantity	Unit	Unit Cost	Total
Within Caltrans Right of Way					
1	Mobilization (10%)	1	LS	\$ 58,000	\$ 58,000.00
2	Water Pollution Control	1	LS	\$ 10,000	\$ 10,000.00
3	Traffic Control System	1	LS	\$ 30,000	\$ 30,000.00
4	Traffic Signal Phasing at El Camino/Escuela	1	LS	\$ 50,000	\$ 50,000.00
5	Utilities relocation	1	LS	\$ 30,000	\$ 30,000.00
6	Project Demolition/Removal	1	LS	\$ 20,000	\$ 20,000.00
7	Concrete Sidewalk	3900	SF	\$ 40	\$ 156,000.00
8	Concrete Curb and Gutter	605	LF	\$ 75	\$ 45,375.00
9	Concrete Median	3825	SF	\$ 30	\$ 114,750.00
10	Curb Ramp/Driveway	10	EA	\$ 10,000	\$ 100,000.00
11	Signage and Striping	1	LS	\$ 20,000	\$ 20,000.00
CONSTRUCTION COST:					\$ 634,000.00
30% CONTINGENCY					\$ 190,000.00
SUBTOTAL CONSTRUCTION COST					\$ 824,000.00
Within City Right of Way and Private Property					
1	Mobilization (10%)	1	LS	\$ 65,000	\$ 65,000.00
2	Water Pollution Control	1	LS	\$ 10,000	\$ 10,000.00
3	Traffic Control System	1	LS	\$ 50,000	\$ 50,000.00
4	Project Demolition/Removal	1	LS	\$ 15,000	\$ 15,000.00
5	Concrete Sidewalk	2432	SF	\$ 40	\$ 97,280.00
6	Concrete Curb and Gutter	400	LF	\$ 75	\$ 30,000.00
7	Concrete Median	840	SF	\$ 30	\$ 25,200.00
8	Curb Ramp/Driveway	12	EA	\$ 10,000	\$ 120,000.00
9	Signage and Striping	1	LS	\$ 50,000	\$ 50,000.00
10	Proposed LED Enhanced Sign	2	EA	\$ 125,000	\$ 250,000.00
SUBTOTAL CONSTRUCTION COST:					\$712,000.00
30% CONTINGENCY					\$214,000.00
SUBTOTAL TOTAL CONSTRUCTION COST					\$926,000.00
TOTAL CONSTRUCTION COST					\$ 1,750,000.00

