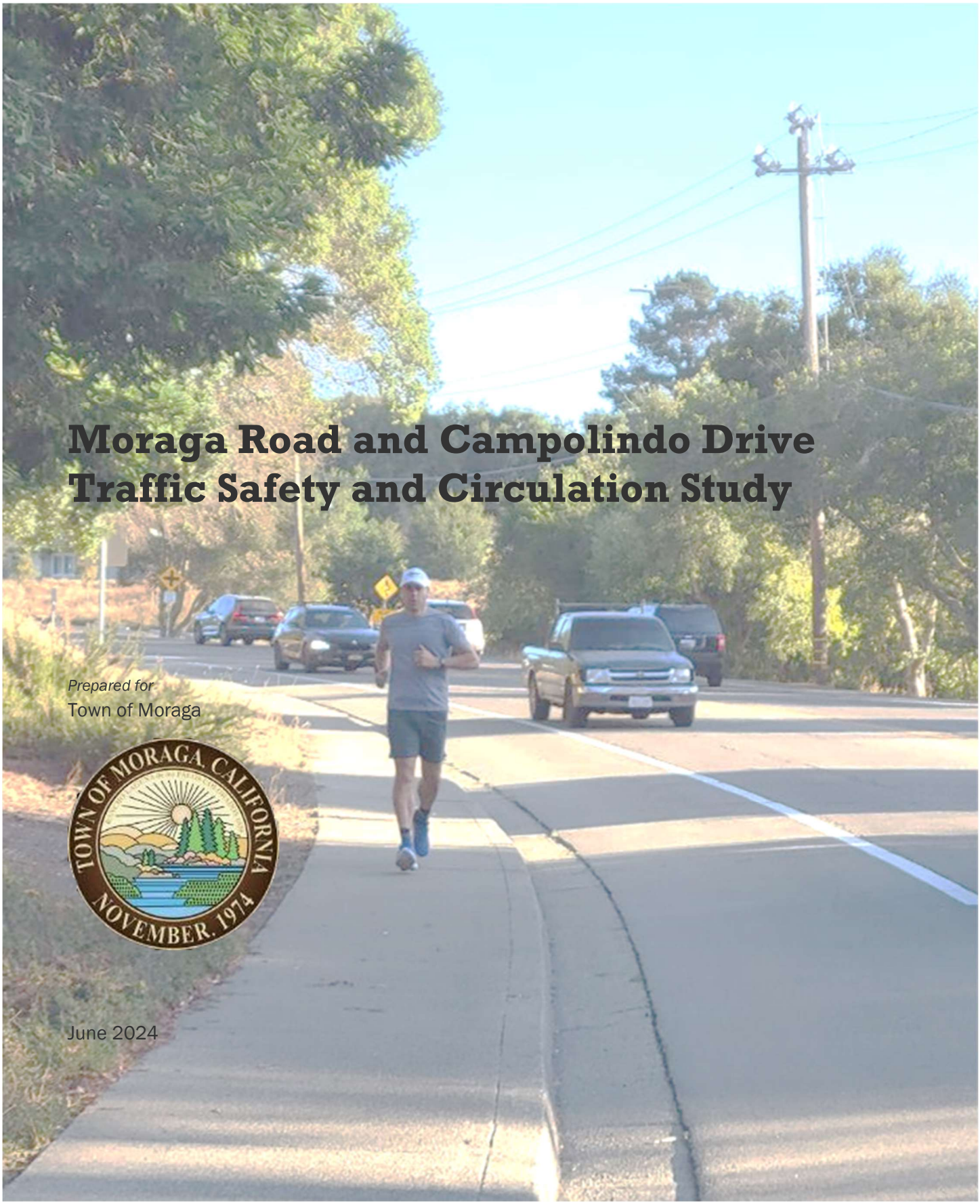

Moraga Road and Campolindo Drive Traffic Safety and Circulation Study

Prepared for
Town of Moraga

June 2024

Parametrix

Moraga Road and Campolindo Drive Traffic Safety and Circulation Study

Prepared for

Town of Moraga

Prepared by

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Executive Summary

This study provides an analysis of the current multimodal traffic conditions on Moraga Road and Campolindo Drive near Campolindo High School and provides recommendations to alleviate the identified traffic safety and operational issues. The project extents were Moraga Road from the north Town Limits to Buckingham Drive, and Campolindo Drive from Paseo Del Rio to Moraga Road.

The multimodal traffic issues identified from this study were:

- Vehicle congestion and queuing on Moraga Road during peak drop-off and pick-up times at Campolindo High School, leading to school traffic using parallel roads as bypass routes.
- Vehicle traffic queuing and delays on Moraga Road due to student crossings at the marked crosswalk before and after school bells. Observations suggest vehicle traffic can be blocked for up to ten minutes.
- Calculated delays at the three study intersections generally indicated acceptable levels of service (level of service (LOS) “D” or better). However, the periods of 15 to 20 minutes before and after the school bells ring experience heightened vehicle and pedestrian traffic, leading to driver delays that surpass the calculated delay and LOS.
- Difficulty for residents exiting onto Moraga Road from Corte Santa Clara, due to the inadequate corner sight distance when looking left to the north and vehicle obstructions when looking south.
- Impeded sight distance at Campolindo Drive crosswalks due to vehicle on-street parking encroaching upon the crosswalks and curb ramps.

In light of these findings, the study proposes several near-term measures to address the issues. These include the installation of painted bulb outs with smaller corner curb radii and raised posts to reduce vehicle turning speeds. Additionally, the restriping of Moraga Road to continue bike lanes and the implementation of new crosswalk markings, parking prohibitions, and curb ramps on Campolindo Drive are recommended to enhance multimodal safety.

For mid-term improvements, the study suggests upgrading the Moraga Road/Campolindo Drive traffic signal as part of a comprehensive system upgrade, which would include the signal heads, detection technology, and controller equipment. Replacement of the rectangular rapid flashing beacon (RRFB) with a pedestrian hybrid beacon (PHB) would improve traffic operations by alternating pedestrian and vehicle crossing phases. We recommend working with Campolindo High School to develop a travel demand management plan that encourages carpooling, busing, walking, and biking as alternatives to single-student drive trips. The Town should look into a neighborhood residential parking permit system, which could potentially fund capital improvements in the neighborhood.

As a long-term measure, we recommend studying opportunities to reconstruct the existing sidewalk on the west side of Moraga Road into a multiuse path, extending from Campolindo Drive to Rheem Boulevard, to provide a safe and comfortable alternative to driving to Campolindo High School from the south.

The Town staff and consultants presented these findings and recommendations to the neighborhood in May 2024 at an online meeting. Town staff also posted the presentation to the Town website and

administered an online survey for residents to express their reactions about the issues and recommendations.

Town staff studied the survey responses and developed a refined list of recommendations to advance to the Town Council for their consideration in a June 2024 meeting.

1. Study Goals and Objectives

The overall goal of this study is to observe the multimodal traffic operations on Moraga Road and Campolindo Drive near Campolindo High School and identify potential improvements. This study's extents are **Moraga Road** from the north Town Limits to Buckingham Drive and **Campolindo Drive** from Paseo Del Rio and Moraga Road (Figure 1).

The specific goals and objectives of this study developed with Town of Moraga are:

1. Recommend multimodal traffic modifications to improve multimodal circulation and access at Campolindo High School drop-off and pick-up areas, parking lot driveways, and adjacent intersections.
2. Recommend measures to improve driver sight distance and/or slow traffic for drivers exiting Corte Santa Clara onto Moraga Road.
3. Review the future Palos Colorados project access onto Moraga Road

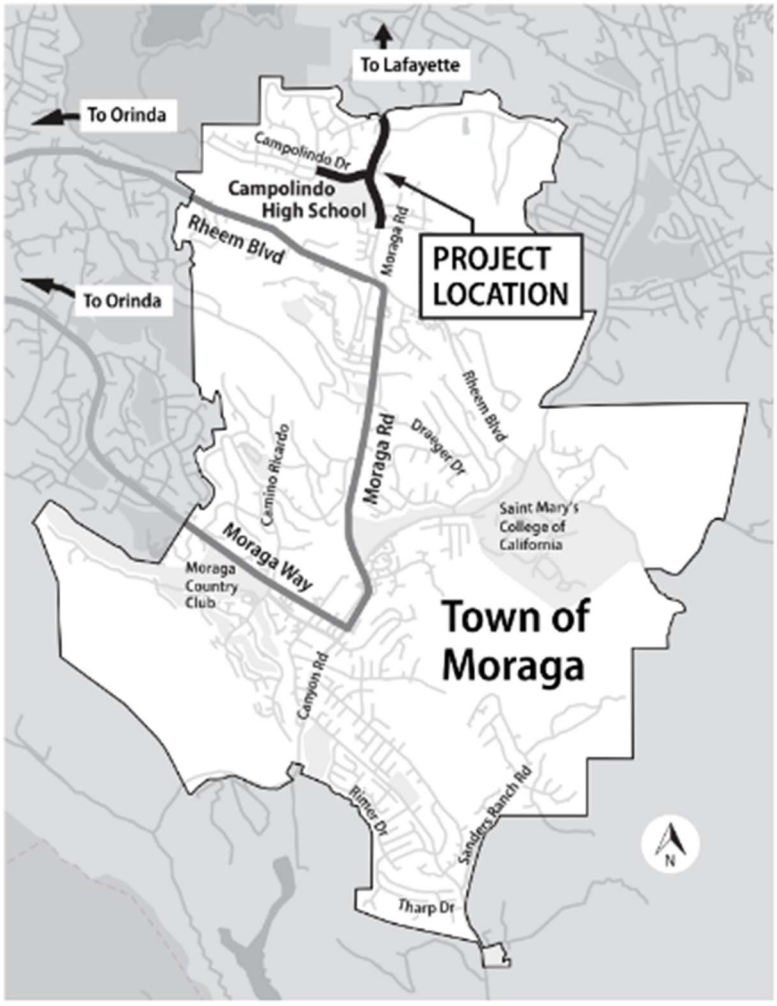


Figure 1 Study Area Map
Parametrix, 2024

2. Existing Conditions

This section provides a summary of the study area roadways, observations recorded during the October 2023 site visit, traffic counts collected on Wednesday, January 17, 2024, and the estimated traffic operations.

2.1 Study Area Description

Moraga Road is the Town of Moraga's primary north-south street. It is classified as an arterial road. Within the study area, Moraga Road has one lane in each direction and a center left turn lane. At Campolindo Drive, Moraga Road widens to provide left and right turn pockets. The posted speed limit is 35 mph but reduces to 25 mph near Campolindo High School. There is a sidewalk present on the west side of the road south of Campolindo Drive and on-street bike lanes (Class II bikeways) present south of the Town Limits. The vehicle lanes south of Campolindo Drive are approximately 12 feet wide and between 12 and 14 feet wide north of Campolindo Drive. The bike lanes are approximately 7 feet wide. The nearest bus stop within the study area is at Moraga Road and Campolindo Drive, which services County Connection Routes 6 and 606 (school times only).

Campolindo Drive is an east-west collector street that borders Campolindo High School on its north side; it provides access to the school parking lot and many students park in the curbside spaces. Farther west, Campolindo Drive services the Campolindo neighborhood bounded by the Lafayette Reservoir to the west, Moraga Road to the east, and Via Granada Calle La Mesa to the north. There is a short section of Campolindo Drive east of Moraga Road providing residential access. Along the Campolindo High School frontage there are sidewalks present only on the south side, adjacent to the school. West of Calle la Mesa there are sidewalks on both sides of the street.

Buckingham Drive is a local road that services a residential neighborhood bounded by Moraga Road to the west and Natalie Drive to the north and east; it also connects to Woodford Drive.

Woodford Drive is a local road that services a residential neighborhood bounded by Moraga Road to the west and Natalie Drive to the north and east; it also connects to Buckingham Drive and Campolindo Drive.

Corte Santa Clara is a residential cul-de-sac that connects to the west side of Moraga Road approximately 750 feet north of Campolindo Drive. Corte Santa Clara provides access to four homes.

2.2 Site Visit Observations

Parametrix and Town staff observed multimodal traffic behaviors and recorded site conditions on Wednesday, October 11, 2023. The team's observations are listed below. Photos from that day are presented in Figure 2. Section 2.3 presents the multimodal traffic counts recorded in January 2024.

2.2.1 Moraga Road at Buckingham Drive

The Moraga Road and Buckingham Drive intersection is a minor STOP controlled intersection at the Buckingham Drive approach. Moraga Road generally has a straight alignment and no impeded sight lines from the Buckingham Drive approach. Moraga Road has a sidewalk on its west side but none on the east side; there are no sidewalks on either side of Buckingham Drive. There are no marked crosswalks across Moraga Road or curb ramps here. There are corner curbs present at the Buckingham Drive approach with the corner curb radii measuring between 30 and 40 feet.

Anecdotally, staff reported that northbound queues can extend back during periods of heavy drop-off and pick-up activity at the Campolindo High School driveways approximately 600 feet to the north. Representatives of the neighborhood Homeowners Association (HOA) report that drivers use Buckingham Drive and Woodford Drive as a bypass route to northbound Moraga Road, primarily to drop off and pick up students.

2.2.2 Moraga Road at Woodford Drive / Campolindo Drive / Campolindo High Driveways

Moraga Road at Woodford Drive and the Campolindo High School egress driveway is a minor STOP controlled intersection at the side street approaches. There is a marked crosswalk north of Woodford Drive and south of the egress driveway supplemented by a curb extension (bulb-out) on the west side of Moraga Road, stamped concrete crosswalk, and crosswalk warning signs with rectangular rapid flashing beacons (RRFBs) and top-mounted round beacon head. The Campolindo High School ingress driveway is approximately 170 feet north of the egress driveway.

Vehicle congestion occurs during school drop off and pick up at this location (Figure 2, Photo 1). Campolindo High School is at the north end of the Town limits and there are no other direct routes to the school, therefore many students commute to school by private automobile. Students crossing Moraga Road in the marked crosswalk obstruct vehicle travel along and onto Moraga Road. Many of these students are dropped off or picked up from the east side of Moraga Road. During peak drop-off and pick-up times, the continuous flow of students in the crosswalk blocks all vehicle traffic for up to 10 minutes. The marked crosswalk with flashing beacons requires that vehicle traffic yield to people in the crosswalk and there is no requirement for people walking to allow vehicles to pass.

Anecdotally, neighbors report students parking on their streets and complain about difficulty entering and exiting from Woodford Road. There are signs posted along eastbound Woodford Drive prohibiting parking and stopping at all times; several students were observed using this area for drop-off and pickup. There are also signs posted along westbound Woodford Drive prohibiting parking between 8 AM and 4 PM; drivers appeared to comply with these signs, but on-street parking was observed beyond those signs in the rest of the Woodford Drive neighborhood. A representative from the neighborhood HOA noted that parents originating from the south use Buckingham Drive and Woodford Drive as a student drop-off and pickup route.

2.2.3 Moraga Road at Campolindo Drive

Moraga Road at Campolindo Drive is a signal-controlled intersection. There are marked crosswalks on the south, west, and east sides of the intersection. The Moraga Road approaches both provide one left turn, one through, and one right turn lane. The bike lanes on Moraga Road end 100 to 200 feet in advance of the intersection due to the turn pockets. The eastbound Campolindo Drive approach provides one left-through and one right turn lane while the westbound approach provides a single lane. Moraga Road operates with “protected” left turn signal phasing (i.e., with left turn arrow signals) while Campolindo Drive operates with “permitted” phasing (i.e., opposing left turns yield to oncoming traffic).

The busiest vehicle movements at this intersection are the northbound left turn and eastbound right turn, which correspond to drivers approaching Campolindo High School from the south and returning in the opposite direction. To accommodate this vehicle demand, the northbound left turn pocket is more than 400 feet long (Figure 2, Photo 2).

Geometrically, the corner curb radii measure approximately 20 feet and the crosswalk across Moraga Road measures nearly 80 feet from curb ramp to curb ramp. (Figure 2, Photo 3). The traffic

signal provides 12 seconds advance WALK time for people walking across Moraga Road. Some drivers were observed failing to observe pedestrian right of way when turning onto Moraga Road; existing warning signs indicate this is a recurring issue (Figure 2, Photo 4).

2.2.4 Moraga Road north of Campolindo Drive and at Corte Santa Clara

Moraga Road north of Campolindo Drive has one lane in each direction, on-street bike lanes, and a posted speed limit of 35 mph. Moraga Road has a westward curve north of Corte Santa Clara. The west side of Moraga Road behind the sidewalk also has several large trees and a hill (Figure 2, Photo 5). These factors combine to lower the sight distance of eastbound Corte Sante Clara drivers attempting to turn onto Moraga Road. Town staff report that southbound vehicle queues extending back from Campolindo Drive occasionally block vehicle movements at Corte Santa Clara and that residents complain about their difficulty exiting onto Moraga Road.

2.2.5 Campolindo Drive at Paseo Del Rio and Calle La Mesa

Campolindo Drive at Paseo Del Rio is a four-way STOP controlled intersection with marked crosswalks. There are no curb ramps at the southwest and southeast corners; the curb ramps at the northwest and northeast corners do not meet Federal Public Rights of Way Access Guidelines (PROWAG) standards for detectible surfaces (truncated domes), levelness, and alignment to the marked crosswalk. The red curb markings do not meet Assembly Bill (AB) 413 (2024) which prohibits on-street parking within 20 feet of a marked or unmarked crosswalk.

Campolindo Drive at Calle La Mesa is a minor STOP controlled intersection at the Calle La Mesa approach. There are marked crosswalks across Campolindo Drive and recently constructed curb ramps at the northwest and northeast corners, but no curb ramps at the southwest and southeast corners (Figure 2, Photo 6). The Town recently painted red curbs along the south side of Campolindo Drive to prevent drivers from parking adjacent to the curb ramps and between the crosswalks within the intersection.

A representative of the neighborhood HOA reports that drivers use Via Granada, Calle la Mesa, and Campolindo Drive as a bypass route to southbound Moraga Road to drop off and pick up students. Students also use these streets for ingress and egress to Campolindo High School.

2.2.6 Campolindo Drive at Campolindo High School Driveways

There are no red curb markings at the driveways at the Campolindo High School driveways. Drivers park their vehicles on the south side of Campolindo Drive abutting the driveway wings. Tall vehicles were observed obstructing the visibility to and from the driveways, which affects both site ingress and egress.

1. Moraga Road at Campolindo HS Egress Driveway looking south. Vehicle congestion with the activated crosswalk RRFB

2: Moraga Road at Campolindo Drive looking south. Vehicle congestion in the northbound left lane.

3. Campolindo Drive at Moraga Road looking east. Long crosswalk.

4. Moraga Road at Campolindo Drive looking southwest. Warning sign to drivers regarding pedestrian right of way.

5. Moraga Road at Corte Santa Clara looking north. Impeded sightlines due to roadway alignment and trees

6. Campolindo Drive at Calle la Mesa looking south. Missing curb ramps and vehicles parked next to the crosswalk.

Figure 2 Moraga Road and Campolindo Drive Site Visit Observation Photos
Parametrix, 2023

2.3 Daily and Peak Hour Traffic Counts

Parametrix collected traffic counts for 24 hours at one roadway segment, Moraga Road at the north Town Limit south of Via Granada / Sky Hy Drive on two days, January 17 and 18, 2024. The daily vehicle counts recorded between 14,000 and 15,000 vehicles (Appendix Table 5). There is a morning peak at 8 AM and steadily increasing trips from 10 AM through 5 PM. Northbound and southbound vehicle trips were essentially balanced, with less than a 200-trip difference for each day.

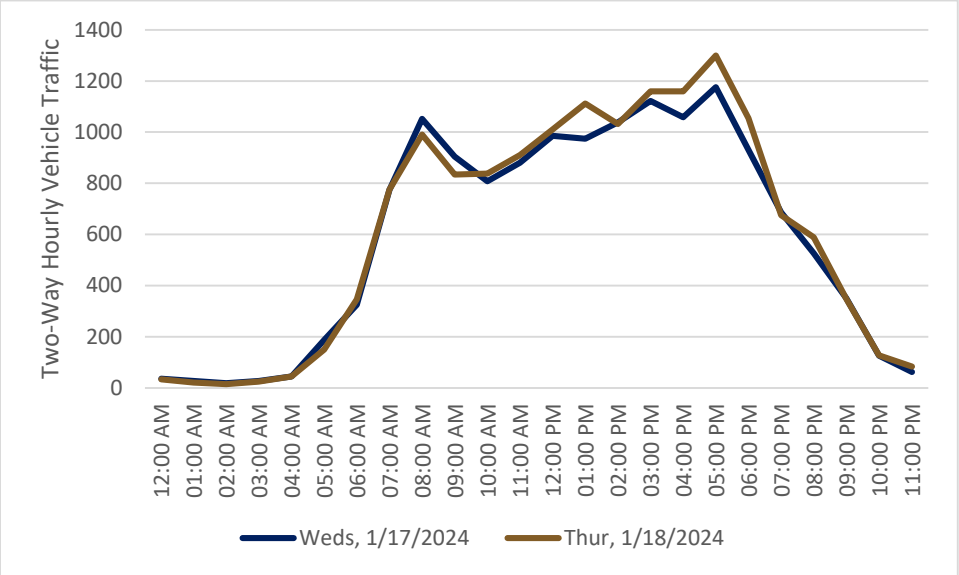


Figure 3 Daily Traffic Counts, Moraga Road at Via Granada / Sky Hy Drive
Parametrix, 2024

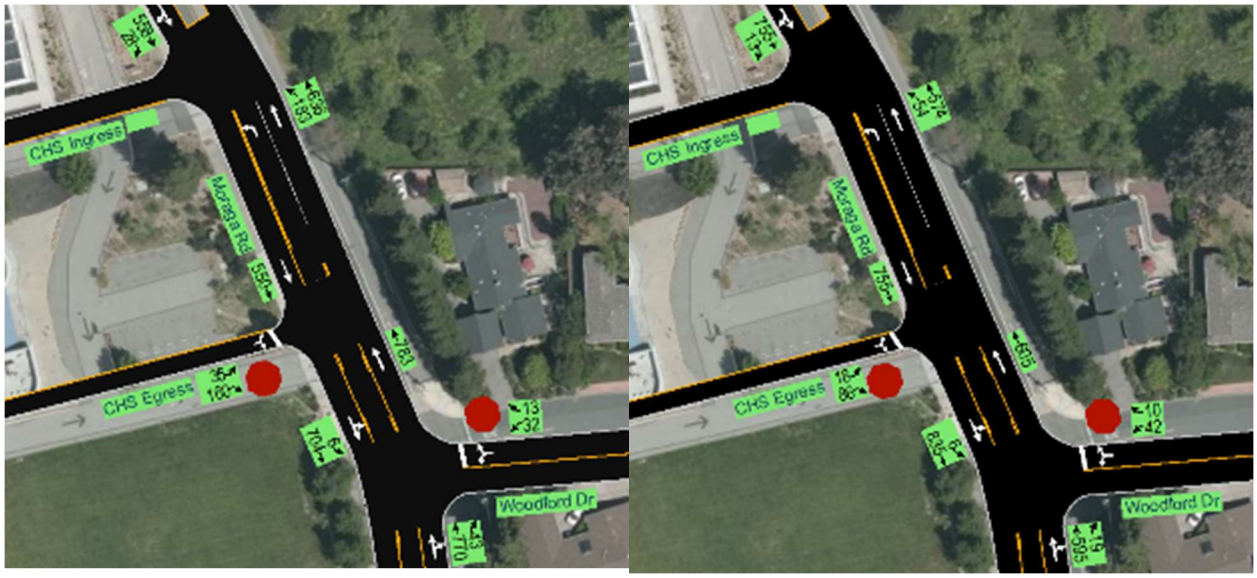
Parametrix collected commute peak hour counts at three intersections during the morning commute peak hour (7 to 9 AM) and the afterschool peak hour (2 to 4 PM) counts on Wednesday, January 17, 2024. The counts took place at the Moraga Road intersections with Campolindo Drive (Figure 4), the Campolindo High School Performing Arts Center Driveway, and Woodford Drive (Figure 5).

Most of the traffic at the Moraga Road and Campolindo Drive intersection turns onto the west Campolindo Drive and most appear to be parent and student trips to Campolindo High School. Approximately two-thirds of these trips originate from and return to the south. There are more arrivals in the morning and more departures in the afternoon. The north and southbound through traffic on Moraga Road is heavier during the afterschool peak hour. There were 35 people recorded walking in the crosswalk across Moraga Road during the AM peak hour and 68 people during the afterschool peak hour (Appendix Table 6). There were fewer than 10 people on bikes recorded during either peak hour.

The Woodford Drive intersection and the school Performing Arts Center driveways function as student drop-off and pick-up areas. The morning drop-off activity here is equal to or slightly more than the drop-off activity at Campolindo Drive. Some parents were observed dropping off on northbound Moraga Road without pulling into the Performing Arts Center driveway and having their students cross Moraga Road at the marked crosswalk; there were nearly 100 students recorded using the marked crosswalk during the AM and afterschool peak hours, respectively. Students walking in the crosswalk peaked during the 15 minutes prior to the morning bell (8:30 AM) and after the afternoon bell (3 PM). There are times when vehicle traffic approaching the crosswalk is unable to proceed due to students crossing Moraga Road.

AM Peak Hour (7:45AM-8:45AM) Afterschool Peak Hour (3-4PM)

Figure 4 Existing Traffic Counts, Moraga Road at Campolindo Dr
Parametrix, 2024



AM Peak Hour (7:45AM-8:45AM) Afterschool Peak Hour (3-4PM)

Figure 5 Existing Traffic Counts, Moraga Rd. at Campolindo High School Driveways and Woodford Dr.
Parametrix, 2024

2.4 Peak Hour Intersection Traffic Operations

Traffic operations at the study intersections were evaluated using Highway Capacity Manual (HCM) 2000 methodology within the Synchro 11 software (Trafficware). Level of Service (LOS) is employed to assess traffic operations across different types of facilities by considering traffic volumes and roadway capacity, categorized from "A" to "F". LOS "A" represents free-flowing traffic conditions, where motorists are not affected by other motorists, and the level of comfort and convenience to the motorist is high. LOS "F" is characterized by congested conditions, where motorists usually experience discomfort, inconvenience, and long delays and have little freedom to choose speeds or lanes of travel. The ranges of delay associated with the various levels of service and intersection control type are indicated below. (Table 1).

Table 1 Signalized Intersection Level of Service Criteria

Level of Service	Signal Control	STOP Sign Control
LOS A	Delay of 0 to 10 seconds.	Delay of 0 to 10 seconds.
LOS B	Delay of 10 to 20 seconds.	Delay of 10 to 15 seconds.
LOS C	Delay of 20 to 35 seconds.	Delay of 15 to 25 seconds.
LOS D	Delay of 35 to 55 seconds.	Delay of 25 to 35 seconds.
LOS E	Delay of 55 to 80 seconds.	Delay of 35 to 580 seconds.
LOS F	Delay of more than 80 seconds.	Delay of more than 50 seconds.

Reference: *Highway Capacity Manual*, Transportation Research Board, 2010
Minor approach STOP delay is measured for the worst-performing side street approach.

The LOS for signal-controlled intersections is based on the average delay across an hour calculated from the intersection size, multimodal traffic volumes, and traffic signal phasing and timing. The LOS for minor approach STOP controlled intersections is based on the average hourly delay calculated at the minor approach only; the methodology does not assess the major uncontrolled approaches. The STOP control delay calculation also does not account for multimodal traffic. The calculated delays for the three study intersections are presented on Table 2 and were generally scored at acceptable levels (LOS "D" or better).

Table 2 Intersection Level of Service and Delay, Moraga Road at Campolindo Drive

#	Approach	Control	AM		PM	
			LOS	Delay(s)	LOS	Delay(s)
1	Moraga Road / Campolindo Drive	Signal	B	19.2	B	17.8
	NB Moraga Rd		B	16.0	B	13.1
	SB Moraga Rd		B	18.5	B	17.4
	EB Campolindo Dr		C	28.1	C	25.3
	WB Campolindo Dr		C	27.6	C	24.8
2	Moraga Road / PAC Egress Driveway	Minor Stop	C	18.0	C	19.0
3	Moraga Road / Woodford Drive	Minor Stop	C	18.4	C	18.7

Note: LOS = level of service

The intersection operations at these intersections are closely linked to Campolindo High School student trips (Section 2.3). While the LOS are calculated across an hour, the 15 to 20 minutes prior to and after school bells experience high vehicle and pedestrian traffic. As such, the driver delays during these high-traffic periods exceed the calculated delay and LOS. At the Moraga Road / PAC Egress Driveway and Woodford Drive intersections, in particular, drivers were observed experiencing delays of more than one minute, which is equivalent to LOS "F."

2.5 Corte Santa Clara Vehicle Egress

Residents in the Corte Santa Clara residential cul-de-sac report that it is difficult to exit onto Moraga Road (Section 2.2.4). Parametrix investigated the potential reasons for this and concluded the following (Appendix Plan Sheet P-4 and 5):

- The measured corner sight distance looking right to the south is sufficient for the posted 35 mph speed limit, but only when not obstructed by southbound vehicle queues at the Moraga Road / Campolindo Drive intersection. Town staff report that southbound vehicle queues extending back from Campolindo Drive occasionally block vehicle movements at Corte Santa Clara.
- The measured corner sight distance looking left to the north is not sufficient for the posted 35 mph speed limit. The measured left side corner sight distance is approximately 150 feet due to existing trees and slope; the corner sight distance standard for a 25-mph speed limit roadway is 165 feet.[1]
- Vehicles can travel at or above the posted 35 mph speed limit on Moraga Road due in part to the wide vehicle lanes, which measure between 12 and 14 feet. Caltrans recommends vehicle lanes of between 10.5 and 11 feet for suburban roadways with speed limits at or below 35 mph.[2] A lower operating speed on Moraga Road would require lower sight distances from the side street approaches.

The following section presents potential improvements to address the traffic operation challenges identified in this section.

[1] California Highway Design Manual, Table 405.1A Corner Sight Distance Time Gap

[2] Caltrans Design Information Bulletin (DIB) 94 (January 2024) *Complete Streets: Contextual Design Guidance.* Table 5.3 Suggested Minimum Lane Widths by Place Type and Proposed Operating Speed.

3. Palos Colorados Development Access

The Palos Colorados project ("Project") is an entitled planned development of 123 single-family residential units on vacant land. The Project's proposed driveway is on Moraga Road approximately 330 feet north of Corte Santa Clara (Sheet P-5). The proposed site plan also shows a supplemental connection to Sky Hy Drive

The Palos Colorados development's major vehicle access is proposed for Moraga Road at a single intersection approximately 570 feet south of Sky Hy Drive or 330 feet north of Corte Santa Clara.[3] This section of Moraga Road has one lane in each direction and no turn pockets. Moraga Road widens to the north to provide left turn pockets at the Refuge Community Church parking lot south driveway and at Sky Hy Drive / Via Granada.

The proposed intersection is shown on the improvement concept plans (Sheet P-5) and it appears to have adequate sight distance in both directions of Moraga Road. The potential drivers' sight lines are more constrained to the north due to the horizontal curve of the road and a crest vertical curve.

Potential improvements to the Palos Colorados intersection with Moraga Road are presented in the following section (4.1.5).

[3] Project site plan, Richfield Investment Corporation, Revised 4/22/2008.

4. Circulation Improvement Recommendations

The improvement recommendations discussed in this section were developed to address the issues observed during the site visit (Section 2.2), calculated from the intersection operations (Section 2.4), and measured on the plan (Section 2.5). The Appendix contains conceptual plan sheets showing the improvements referenced in this section.

4.1 Moraga Road

The study extents along Moraga Road are from Buckingham Drive to Corte Santa Clara. The proposed access for the Palos Colorados planned development is discussed in Section 3. There are several improvements recommended for the Moraga Road corridor that would address the multimodal traffic issues discussed in the prior section:

- Update the existing bike lane markings on Moraga Road to include green blocks and dashing in accordance with the latest CA MUTCD guidance (Figure 9C-4(CA) and 9C-6(CA)).
- Study opportunities with Campolindo High School to develop a travel demand management plan that encourages carpooling, busing, walking, and biking as alternatives to single-student drive trips. Consider a preferential parking permit for student carpools, subsidized bus passes, secure bicycle parking, and other incentives. Travel demand management strategies are most effective when used with incentives, like preferential or discounted on-site parking, and deterrents, such as off-site parking prohibitions. These measures have been used at schools where travel demand management measures are a requirement of a school's use permit.
- Study opportunities to create a neighborhood residential parking permit system in neighborhoods where student parking is undesired. Study opportunities for the parking permit fees to fund capital improvements in the neighborhood. Such measures would likely increase the Town's parking enforcement burden to ensure compliance.
- Constructing a multiuse path is an opportunity to improve non-drive access to Campolindo High School Study with meaningful improvements to student comfort and safety over the existing on-street bike lane. The Town should study opportunities for reconstructing the existing sidewalk on the west side of Moraga Road into a multiuse path from Campolindo Drive to Rheem Boulevard.

The following improvements reference the corresponding concept plan page on which more detail can be found (e.g., P-1, P-2).

4.1.1 Buckingham Drive (P-1)

Installing painted "bulb outs" with smaller corner curb radii and raised posts would reduce the vehicle turning speed onto and out of Buckingham Drive and eliminate the opportunity for drivers to perform school drop-off and pickup maneuvers at the corners.

Consider adding a new marked crosswalk at Buckingham Drive to see whether distributing the pedestrian crossings would reduce the crosswalk congestion at Woodford Drive. A crosswalk at Buckingham Drive would improve walk access to and from the neighborhood. Its drawbacks include a potential second congestion point along Moraga Road and potential queuing along northbound Moraga Road that could spill back toward Rheem Boulevard.

4.1.2 Woodford Drive / Campolindo Drive / Campolindo High Driveways (P-2)

Installing painted "bulb outs" with smaller corner curb radii and raised posts would reduce the vehicle turning speed onto and out of Woodford Drive and eliminate the opportunity for drivers to perform school drop-off and pickup maneuvers at the corners.

The existing marked crosswalk is currently supplemented by an RRFB. The marked crosswalk with flashing beacons requires that vehicle traffic yield to people in the crosswalk and there is no requirement for people walking to allow vehicles to pass. As such, during peak drop-off and pick-up times, the continuous flow of students in the crosswalk blocks all vehicle traffic for up to 10 minutes. The concept plan presents two options to address this issue:

- Alternative 1: Replacing the RRFB with a PHB or HAWK (High intensity Activated crossWalK) signal would add pedestrian signal controls to the crosswalk. The PHB can be programmed to improve traffic operations in two significant ways. First, the PHB can alternate pedestrian and vehicle crossing phases. Second, the PHB can be programmed to coordinate the crossing phases with the adjacent traffic signal at Moraga Road and Campolindo Drive to prevent queues from spilling back between intersections.

- Alternative 2: Adding a new marked crosswalk north of the Campolindo High School Performing Arts Center entry driveway and moving the RRFB systems to the new crosswalk would reduce the pedestrian crossings that currently obstruct vehicle movements out of Woodford Drive and the performing arts center exit driveway. This concept would require constructing approximately 250 linear feet of new sidewalk, two new curb ramps, and a pedestrian refuge island. One potential benefit is more queuing space for northbound Moraga Road, which occasionally spills back toward Rheem Boulevard. One likely tradeoff of this concept is that it would reduce the queuing distance on southbound Moraga Road by 250 feet and increase the likelihood of southbound queues spilling back through the Campolindo Drive intersection.

4.1.3 Campolindo Drive (P-3)

The concept plan presents several options for northbound and southbound Moraga Road at Campolindo Drive.

Northbound Moraga Road currently has one left turn, one through, and one right turn lane; there is also an extra six feet width indicated with white striping. The northbound on-street bike lane (Class 2 bikeway) terminates approximately 200 feet prior to the intersection. There is a school bus stop on the near (south) side of the intersection with a five-foot-wide sidewalk.

- Detail 1 and 2 present a concept to continue the northbound marked bike lane through the intersection between the through and right vehicle lanes, consistent with California Manual on Traffic Control Devices (CA MUTCD) design standards (Figure 9-4 (CA)).

  Detail 1 shows sidewalk widening to 8 feet for an Americans with Disabilities Act (ADA)-compliant landing area for bus stops. This concept would retain the existing transit boarding area aligned with Campolindo High School on the south side of Campolindo Drive. One trade-off of the existing near-side bus stop is that bus drivers will tend to experience more delay than a far-side bus stop and the stopped bus may obstruct the visibility of people in the crosswalk from northbound right turning vehicles, a concept known as a "double-threat situation."

Detail 2 shows moving the bus stop to the far (north) side of the intersection. This concept would benefit transit service by allowing the bus to depart after passenger boarding without obstruction from the traffic signal or northbound right turning vehicles. The tradeoff is that it would require transit riders to make a second crossing through the signal-controlled intersection. There is an existing mailbox on the northeast corner. If advanced, the design for the relocated bus stop should also accommodate the mailbox.

- Detail 3 presents a concept to remove the northbound right turn lane and to replace it with a combined on-street bike lane and bus stop. The right turn lane services fewer than 20 vehicles during the peak hours (Figure 4) and its removal would make a negligible impact on the vehicle operations at the intersection.

Southbound Moraga Road currently has one left turn, one through, and one right turn lane. The southbound on-street bike lane terminates approximately 100 feet prior to the intersection. There is a school bus stop on the far (south) side of the intersection with an eight-foot-wide sidewalk.

- Detail 1 and 2 present a concept to lengthen the southbound left turn pocket by approximately 10 feet; the turn pocket services fewer than 20 vehicles during the peak hours (Figure 4). This concept would retain the existing shared lane for southbound right turning vehicles and people on bikes but would supplement the roadway markings with shared lane ("sharrow") markings.

  The far (south) side of Moraga Road is shown with bike lane buffer markings to narrow the traffic lanes, which measure 21 feet wide at the intersection. There is limited opportunity to physically narrow the intersection by constructing a bulb-out at the southwest corner, as indicated by the turn model for a single-unit box truck (SU-30 design vehicle).

  Detail 2 presents an option to move the existing southbound school bus stop north to better align it with the Campolindo High School entrance.

- Detail 3 presents a concept to mark the southbound bike lane through the intersection; this concept would preclude lengthening the left turn pocket.

The Moraga Road / Campolindo Drive traffic signal may be upgraded to provide a vehicle right turn signal for eastbound Campolindo Drive vehicle traffic during the northbound Moraga Road left turn phase; this type of signal operation is known as "overlap" signal phasing. Eastbound right turns are currently allowed during the northbound left turn and the signal delay would not significantly reduce. However, the overlap signal heads could improve safety for people in the Moraga Road crosswalk, as drivers were observed attempting to turn right against the pedestrian walk phase during the school commute peak. Signal improvements here should be considered as part of an overall system upgrade to the signal head, detection, and controller equipment.

4.1.4 North of Campolindo Drive and at Corte Santa Clara (P-4/5)

There is little opportunity to further improve sight distance at Corte Santa Clara with roadway widening or realignment due to existing slopes and rights-of-way.

Moraga Road north of Campolindo Drive has marked vehicle lanes between 12 and 14 feet wide. The concept plan shows white traffic stripes to narrow the vehicle lanes and add a buffer for the bike lanes; narrowing the vehicle lanes to between 10.5 and 11 feet would align Moraga Road with State standards for suburban roadways and help slow vehicle speeds (Section 2.5).

Moraga Road at Corte Santa Clara has constrained sight distance to the south due to vehicle queues and constrained sight distance to the north due to the horizontal alignment of the road, vehicle speeds, and overgrown landscaping. The southbound queues on Moraga Road will need to clear for

drivers exiting from Corte Santa Clara to have adequate sight distance; a KEEP CLEAR intersection marking, vehicle speed reduction due to lane narrowing and signal and traffic striping upgrades at the Moraga Road / Campolindo Drive intersection (Section 4.1.3) may improve conditions slightly. The sight distance for drivers looking northbound can be improved with tree trimming and/or removal (P-5). Vehicle speed reduction due to lane narrowing and INTERSECTION AHEAD warning signs (W2-2) may improve conditions slightly.

Convex mirrors are a commonly requested tool to improve driver visibility at situations with limited sight distance, however they are not approved traffic control devices as documented in the latest editions of the part of Federal and California Manual of Uniform Traffic Control Devices (MUTCD or CA MUTCD). Convex mirrors are limited in several ways: they offer poor functionality at night, distort the image such that it is difficult to judge the speed and distance of oncoming traffic, and do not work in poor weather. As such, we recommend against installing convex mirrors on public roads.

4.1.5 Palos Colorados Intersection (P-5 & 6)

The Palos Colorados intersection at Moraga Road is planned to be signalized. In addition to the traffic signal, the Town should consider these additional measures for efficient intersection operations:

- Providing adequate width for two westbound vehicles to line up side by side at the intersection would allow drivers making right turns to bypass left turning vehicles.

- Moving the Project driveway to the north to align with the existing Moraga Road southbound left turn pocket (Sheet P-5/6) would improve vehicle operations due to the existing southbound left turn pocket and potential new left-turn staging area for westbound to southbound left turn movements.

Independent of the two measures mentioned above, the Town should integrate these features into the development plan:

- Marking green dashing at the proposed Project driveway and at Sky Hy Drive / Via Granada would improve driver awareness of the bike lanes at the intersections.

- Modifying the site plan to emphasize the connection to Sky Hy Drive will provide an important secondary access to the Palos Colorados development in case of emergencies or intersection closures.

4.2 Campolindo Drive (P-7 & 8)

Campolindo Drive's intersections with Paseo Del Rio and Calle La Mesa have standard marked crosswalks. Both improvement alternatives on Sheet P-7 recommend:

- All crosswalks should be updated to high-visibility ladder crosswalks.
- On-street parking within 20 feet of the vehicle approach (near) side of the crosswalks should be prohibited, consistent with a new law, Assembly Bill (AB) 413 (2024). AB 413 "Prohibits a person from parking a vehicle within 20 feet of the vehicle-approach side of any marked or unmarked crosswalk, or within 15 feet of any crosswalk where a curb extension is present. Permits local governments to allow parking for bicycles or motorized scooters within 20 feet of a crosswalk. The law is intended to increase visibility for all road users to see oncoming

traffic by removing parked cars near crosswalks and intersections, a safety measure known as 'daylighting.'"

- Although not required by AB 413, on-street parking within 10 and 20 feet of the vehicle departure (far) side of the crosswalks should be prohibited to improve sight lines at the crosswalks.
- The existing four curb ramps at Paseo Del Rio should be reconstructed to ADA standards and two new ADA-compliant curb ramps should be constructed at Calle La Mesa.

Alternative 2 provides an additional option to install painted markings and raised posts at the corners (i.e., "painted bulb-outs") to further discourage parking encroachment at the corners.

Sheet P-8 shows on-street parking prohibitions at the Campolindo High School parking lot driveways, which are recommended to improve the visibility between drivers and people on the sidewalk. The parking removal would improve visibility between people walking on the sidewalk and drivers entering and exiting the parking lot. Alternative 1 on Sheet P-8 would retain one space between driveways, resulting in a net loss of five spaces. Alternative 2 would remove all parking at the driveways, resulting in a net loss of eight spaces.

5. Public Outreach and Survey Responses

The Town and Parametrix presented these study observations and recommendations to Town residents via online meeting in May 2024. Following the meeting, the Town distributed an online survey to collect neighborhood feedback. There were 28 respondents to the survey. Among the survey respondents, most (82%) resided in the Campolindo neighborhood and others resided elsewhere in Moraga. Most respondents (68%) did not have a student at Campolindo High School and most (79%) did not visit the Campolindo Cabana Swim Club.

Most survey respondents reported traveling through the study area by driving alone (82%) or driving with others (carpooling or shared ride services, 32%). Approximately one-third (32%) of respondents reported walking, bicycling, or using other active modes at least part of the time. Less than half of respondents (39%) would not use other modes if conditions were made safer or more convenient while others would use active modes (32%) or carpool (14%) more often.

Most survey respondents reported the following travel behaviors as either moderately or highly concerning:

- Traffic safety during drop-off and pick-up times (77%)
- Vehicle congestion on Moraga Road (74%)
- Safety and comfort of existing bicycle facilities (74%)
- Safety and comfort of existing walking facilities (e.g., sidewalks and crosswalks, 74%)
- Traffic safety due to driver behavior and speed (70%)
- Congestion during drop-off and pick-up times (63%)
- Obstacles to turning onto Moraga Road (62%)
- Parent drop-off in the neighborhood (52%)

A minority of survey respondents reported student parking issues as either moderately or highly concerning, either at or near Campolindo High School (37%) or in the neighborhood (41%). The availability and convenience of public transit (18%) and access to the Campolindo Cabana Swim Club (12%) did not rate as concerns for most survey respondents.

Survey respondents' support and opposition to the improvement concepts are presented in Table 3 and summarized below. Survey respondents expressed strong support for replacing the RRFB with a PHB and develop a travel demand management plant with Campolindo High School. Survey respondents expressed slight support for these proposed improvements:

- Add painted bulb-outs with vertical posts at Buckingham and Woodford.
- Add green bike lane markings.
- Add bike lane buffer striping to Moraga Road.
- Study a new multiuse path on Moraga Road.

Survey respondents expressed mixed reactions to these proposed improvements:

- New crosswalk at Buckingham Drive.
- Add painted bulb-outs with vertical posts at Calle La Mesa and Paseo Del Rio.

- Add bike lane striping to the Moraga Road / Campolindo Drive intersection.
- Consider a neighborhood parking permit system.

Most survey respondents expressed opposition to moving the RRFB north to a new crosswalk.

Table 3 Campolindo Neighborhood Traffic Improvement Survey Results

Improvement Measure	Not Important	Neutral	Important
Add a new crosswalk at Buckingham Drive	44%	11%	44%
Add painted bulb-outs with vertical posts at Buckingham and Woodford	35%	23%	42%
Add painted bulb-outs with vertical posts at Calle La Mesa and Paseo Del Rio	35%	31%	35%
Add green bike lane markings	38%	15%	46%
Replace the RRFB with a PHB	12%	27%	38%
Move the RRFB north to a new crosswalk	37%	44%	19%
Add bike lane striping to the Moraga Road / Campolindo Drive intersection	33%	33%	33%
Add bike lane buffer striping to Moraga Road	33%	26%	41%
Develop a travel demand management plant with Campolindo High School	15%	4%	81%
Consider a neighborhood parking permit system	41%	19%	41%
Study a new multiuse path on Moraga Road	37%	15%	48%

Town of Moraga, June 2024

The written responses provided by survey respondents from Moraga community mentioned these issues:

- Support and opposition to a new crosswalk at Buckingham Drive and Moraga Road.
- Support for sidewalks on both sides of Moraga Road to Campolindo High School.
- Concern about the Palos Colorados development's access due to its single point access from Moraga Road and no traffic signal. A new traffic signal is required of the Palos Colorado development as a condition of approval.
- Opposition to removing right turn lanes on Moraga Road.
- Support and opposition to student parking prohibitions on Wimpole Street.
- Concern about difficulty turning onto Moraga Road from Woodford Drive and Corte Santa Clara.

- Support for carpooling and less student parking in the neighborhoods.
- Support for a pedestrian hybrid beacon or crossing guard to replace the rectangular rapid flash beacon at Woodford Drive.
- Support for additional pavement markings for the bike lanes on Moraga Road.

The results of the survey responses and written concerns were considered by Town staff for improvement concepts to be advanced, as discussed in the next section.

6. Recommendation Summary

Table 4 presents a summary of the potential improvements for the Moraga Road and Campolindo Drive corridors. The improvements are grouped by potential implementation in the near-, middle-, and long-term, The table cites the report section where the improvements are discussed.

Table 4 Recommendation Summary and Cost Estimate

#	Improvement	Cost	Report Section
Near-Term			
N1	Restripe the Moraga Road corridor to add bike lane markings and updated lane markings	$50K with concurrent paving project	4.1
N2	Install painted bulb-outs at Buckingham and Woodford	Construction $5-7K each (3 total)	4.1.1, 4.1.2
N3	Study whether to install a new marked crosswalk at Buckingham	Study $5K	4.1.1
N4	Widen the sidewalk at the Moraga / Campolindo northbound bus stop	Construction $4-8K for sidewalk widening $10-12K for bulb-out	4.1.3
N5	Trim and/or remove trees north of Corte Santa Clara	Construction $10-20K	4.1.4
N6	Update crosswalk striping and NO PARKING markings on Campolindo Drive	Construction $8-12K	4.2
N7	Install updated or new curb ramps at Paseo Del Rio and Calle La Mesa	Design $4-6K each (6 total) Construction $8-12K each (6 total)	4.2
N8	Install painted bulb-outs at Paseo Del Rio and Calle La Mesa	Construction $5-7K each (8 total)	4.2
Middle-Term			
M1A	Option 1: Replace the existing marked crosswalk with RRFB at Moraga / Woodford with a PHB. Install signal interconnect to the Moraga / Campolindo traffic signal.	Design $40-60K Construction $200-400K	4.1.2
M1B	Option 2: Install a new marked crosswalk north of the Campolindo HS PAC entry driveway, new curb ramps, and pedestrian refuge island and relocate the RRFB system.	Design $50-60K Construction $50-60K	4.1.2
M2	Upgrade the existing traffic signal system at Moraga / Campolindo	Design $30K Construction $300-500K	4.1.3
M3	Study opportunities to lower the speed limit on Moraga Road from the north Town Limit to Rheem Boulevard to 25 mph.	Study $8-12K	4.1
M4	Work with Campolindo High School to develop a travel demand management plan that incentives carpooling, busing, walking, and	Study: $8-12K	4.1.1

#	Improvement	Cost	Report Section
	biking as alternatives to single-student drive trips.		
M5	Consider a neighborhood residential parking permit system in neighborhoods where student parking is undesired. Study opportunities for the paid parking permit to fund capital improvements in the neighborhood.	Study: $10-15K	4.1
M6	Consider moving the Palos Colorados intersection north to align with the existing Moraga Road southbound left turn pocket and southbound receiving lane.	Depends on cost for property acquisition.	4.1.5
M7	Consider modifying the Palos Colorados site plan to emphasize Sky Hy Drive as a secondary access in case of emergencies and intersection closures.	Depends on cost of site design and construction.	4.1.5
Long-Term			
L1	Study opportunities for reconstructing the existing sidewalk on the west side of Moraga Road into a multiuse path from Campolindo Drive to Rheem Boulevard.	Planning Study - $200-300K Design and Construction - $5-10M	4.1

Supplemental Tables

Table 5 Daily Traffic Counts, Moraga Road at Sky Hy Drive

	Weds, 1/17/2024			Thur, 1/18/2024		
Hour Beginning	**Northbound**	**Southbound**	**2-Way**	**Northbound**	**Southbound**	**2-Way**
12:00 AM	18	18	36	20	14	34
01:00 AM	16	11	27	12	9	21
02:00 AM	6	13	19	5	10	15
03:00 AM	11	16	27	12	13	25
04:00 AM	19	26	45	20	25	45
05:00 AM	70	117	187	66	84	150
06:00 AM	156	169	325	162	184	346
07:00 AM	388	386	774	414	362	776
08:00 AM	477	575	1052	456	534	990
09:00 AM	494	410	904	444	390	834
10:00 AM	425	383	808	432	406	838
11:00 AM	484	396	880	468	443	911
12:00 PM	482	503	985	520	491	1011
01:00 PM	477	497	974	561	551	1112
02:00 PM	534	504	1038	515	517	1032
03:00 PM	572	550	1122	610	549	1159
04:00 PM	534	524	1058	549	610	1159
05:00 PM	558	618	1176	619	681	1300
06:00 PM	439	491	930	480	574	1054
07:00 PM	303	384	687	305	370	675
08:00 PM	213	313	526	296	293	589
09:00 PM	179	171	350	176	172	348
10:00 PM	71	55	126	64	64	128
11:00 PM	32	30	62	38	46	84
Total	**6,958**	**7,160**	**14,118**	**7,244**	**7,392**	**14,636**
	49%	**51%**		**49%**	**51%**	

Table 6 Existing Multimodal Traffic Counts, Moraga Road at Campolindo Drive and Woodford Drive

Moraga Rd / Campolindo Dr		
Bicycle Movement	**AM**	**PM**
NBL	0	0
NBT	0	3
NBR	0	0
SBL	0	0
SBT	0	3
SBR	0	0
WBL	0	0
WBT	0	0
WBR	0	0
EBL	0	0
EBT	0	0
EBR	0	1
Pedestrian Movement	**AM**	**PM**
South Crosswalk	35	68
West Crosswalk	11	3
East Crosswalk	0	3

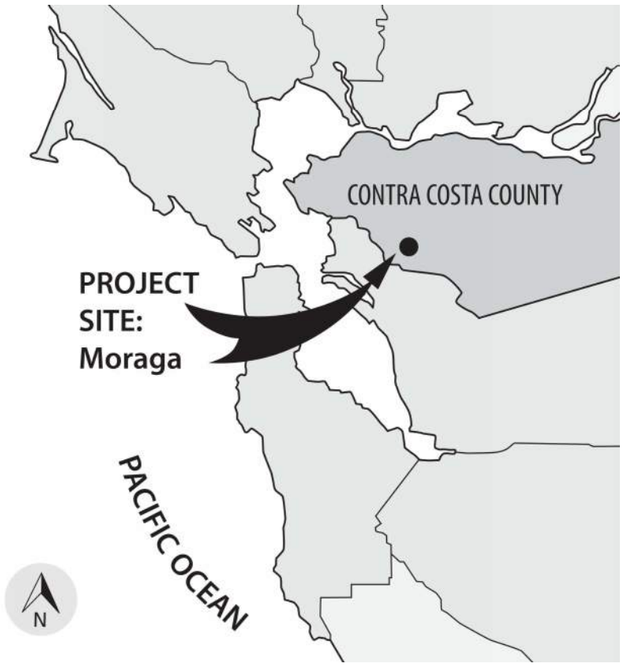
Moraga Rd/Campolindo HS Ingress Dwy		
Bicycle Movement	**AM**	**PM**
NBL	9	1
NBT	0	3
SBT	0	4
SBR	0	0
Pedestrian Movement	**AM**	**PM**
West Ingress Driveway	13	46

Moraga Rd / Campolindo HS Egress Dwy / Woodford Dr		
Bicycle Movement	**AM**	**PM**
NBT	9	3
NBR	0	0
SBL	0	0
SBT	0	8
WBL	0	1
WBR	0	0
EBL	0	0
EBR	0	0
Pedestrian Movement	**AM**	**PM**
Center Crosswalk	92	91
East Crosswalk	3	0
West Egress Driveway	174	55

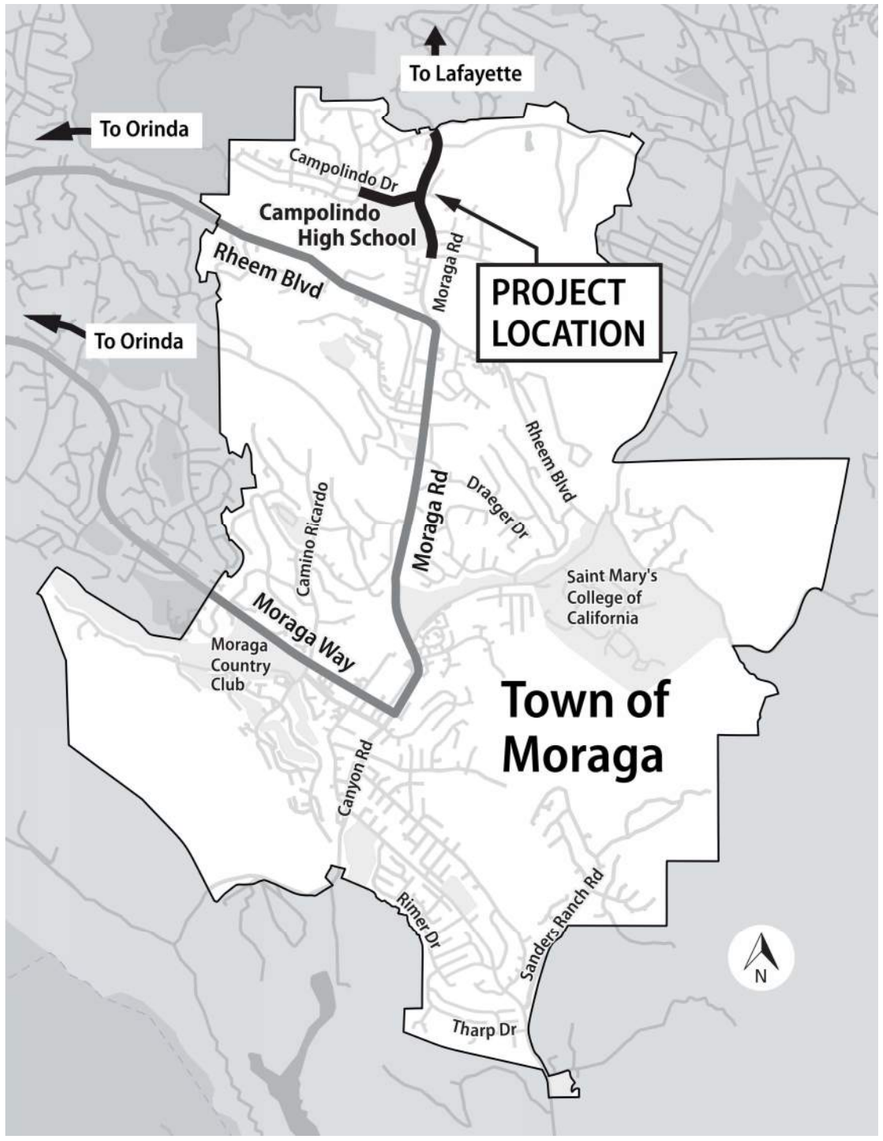
Source: Parametrix, 2024.
Count Date: January 17, 2024

Conceptual Plans

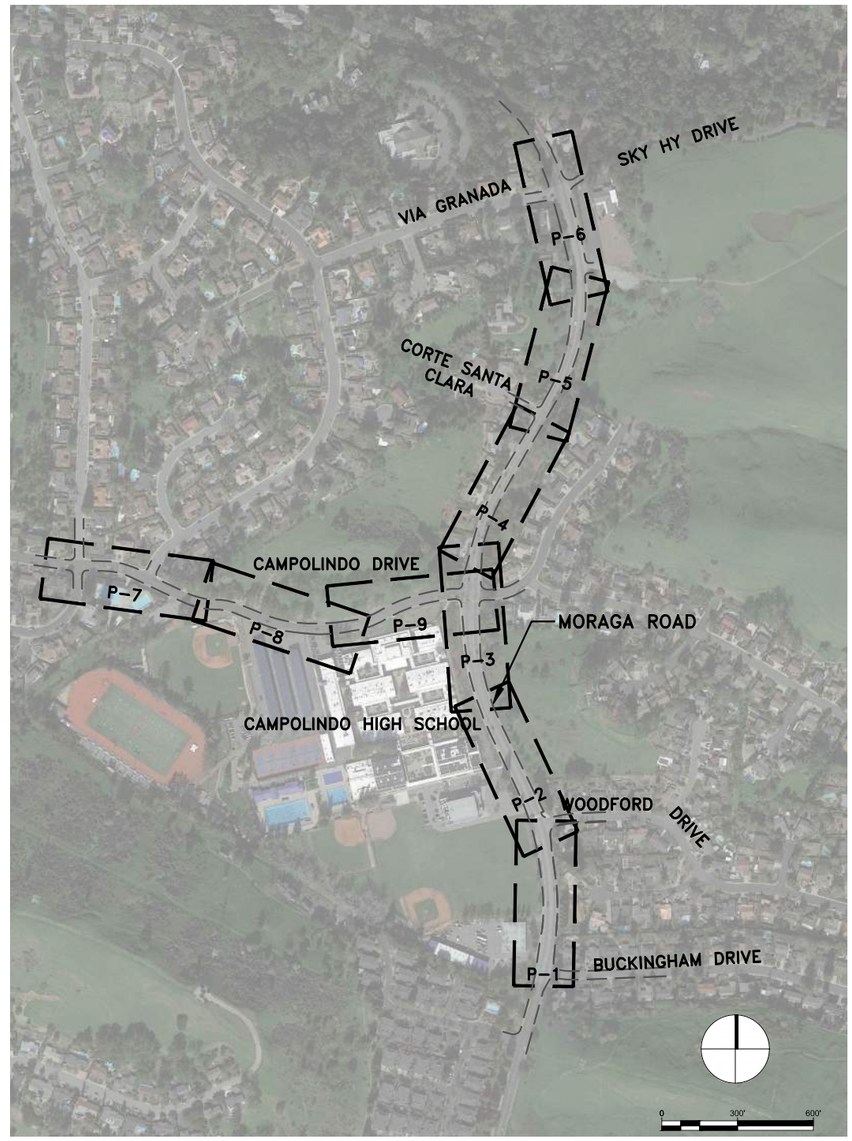
LOCATION MAP
NOT TO SCALE



PROJECT SITE
NOT TO SCALE



OVERVIEW MAP
1" = 300'



SHEET INDEX

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TOWN OF MORAGA
MORAGA ROAD AND CAMPOLINDO DRIVE TRAFFIC SAFETY AND CIRCULATION STUDY
OVERVIEW MAP

REVISIONS	
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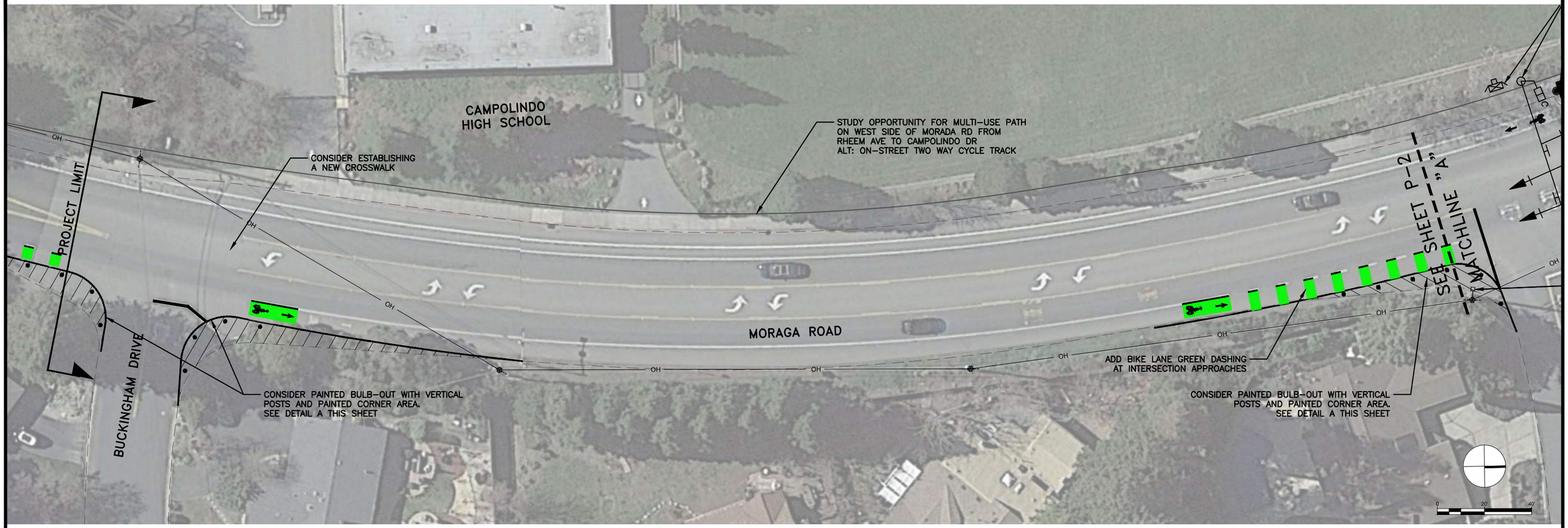
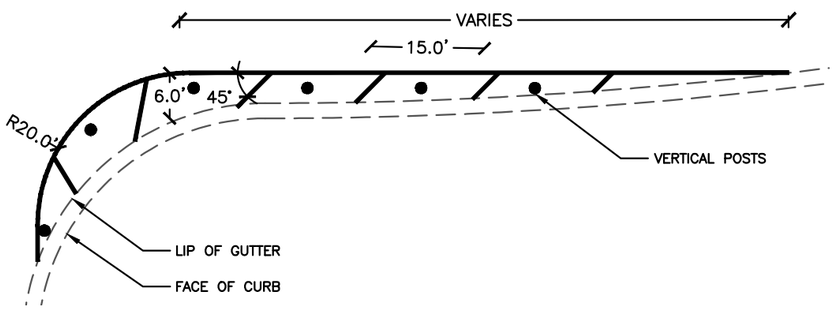
NO.	DESCRIPTION

DATE: 04/15/2024 | SCALE: AS SHOWN
PMX PROJECT NO.: 474-8978-002
DRAWING: T-1
SHEET NO.: 1 OF 10





DETAIL A: PAINTED BULB-OUT WITH VERTICAL POSTS
1"=10'

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TOWN OF MORAGA

MORAGA ROAD AND CAMPOLINDO DRIVE TRAFFIC SAFETY AND CIRCULATION STUDY

MORAGA ROAD NORTH OF BUCKINGHAM DRIVE

REVISIONS		
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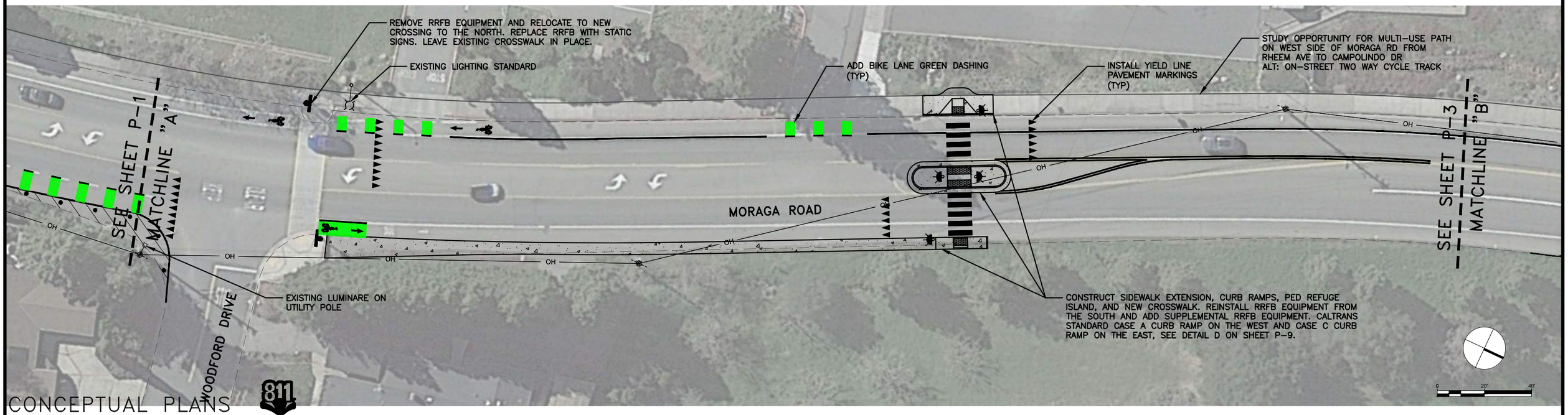
DATE: 04/15/2024 | SCALE: AS SHOWN
PMX PROJECT NO.: 474-8978-002
DRAWING: P-1
SHEET NO.: 2 OF 10

CAMPOLINDO HS / MORAGA RD PEDESTRIAN CROSSING ALT 1 - PEDESTRIAN HYBRID BEACON



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CAMPOLINDO HS / MORAGA RD PEDESTRIAN CROSSING ALT 2 - RELOCATED SCHOOL CROSSWALK W/ RRFB

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TOWN OF MORAGA
MORAGA ROAD AND CAMPOLINDO DRIVE TRAFFIC SAFETY AND CIRCULATION STUDY
MORAGA ROAD NORTH OF WOODFORD DRIVE

REVISIONS	
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PMX PROJECT NO.: 474-8978-002
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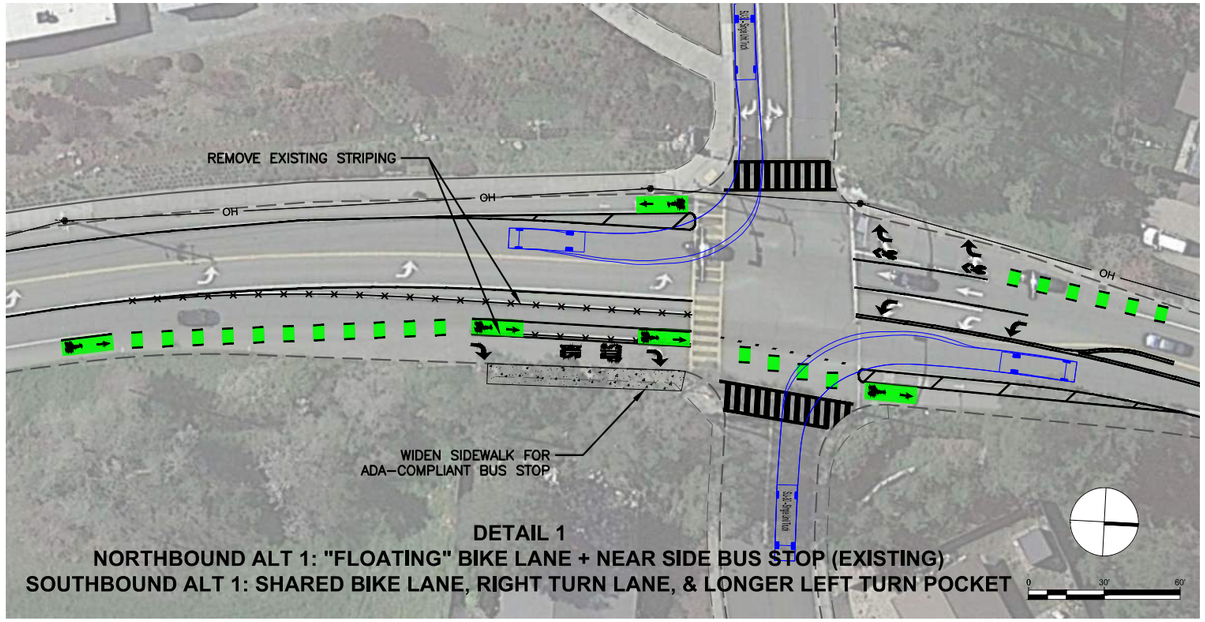
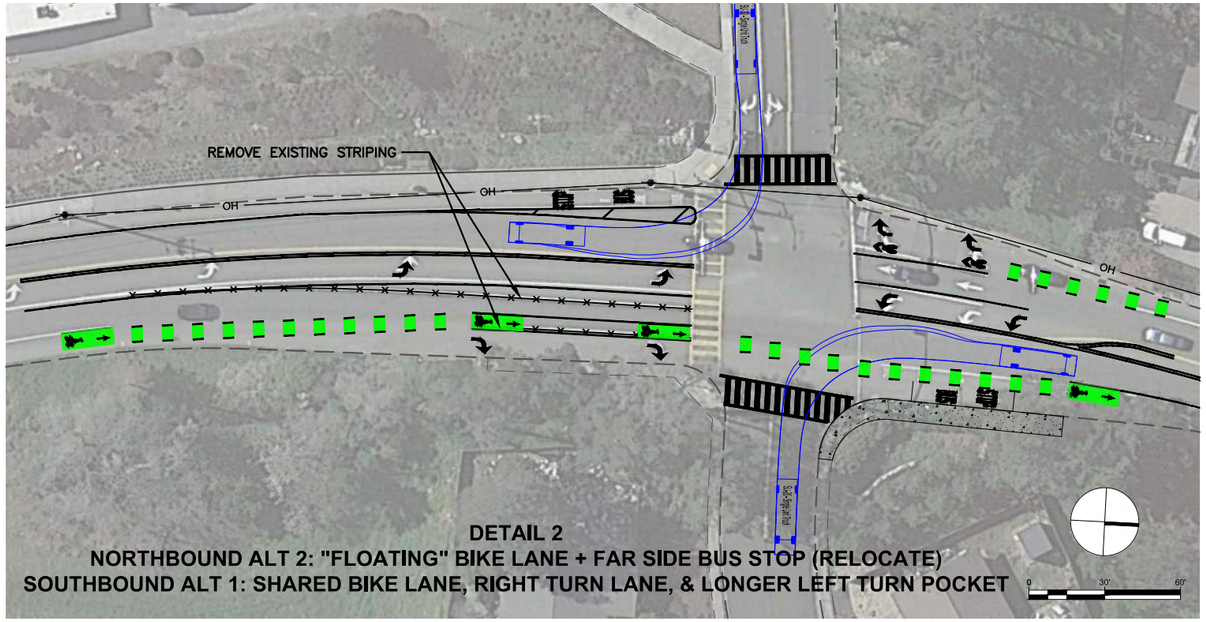
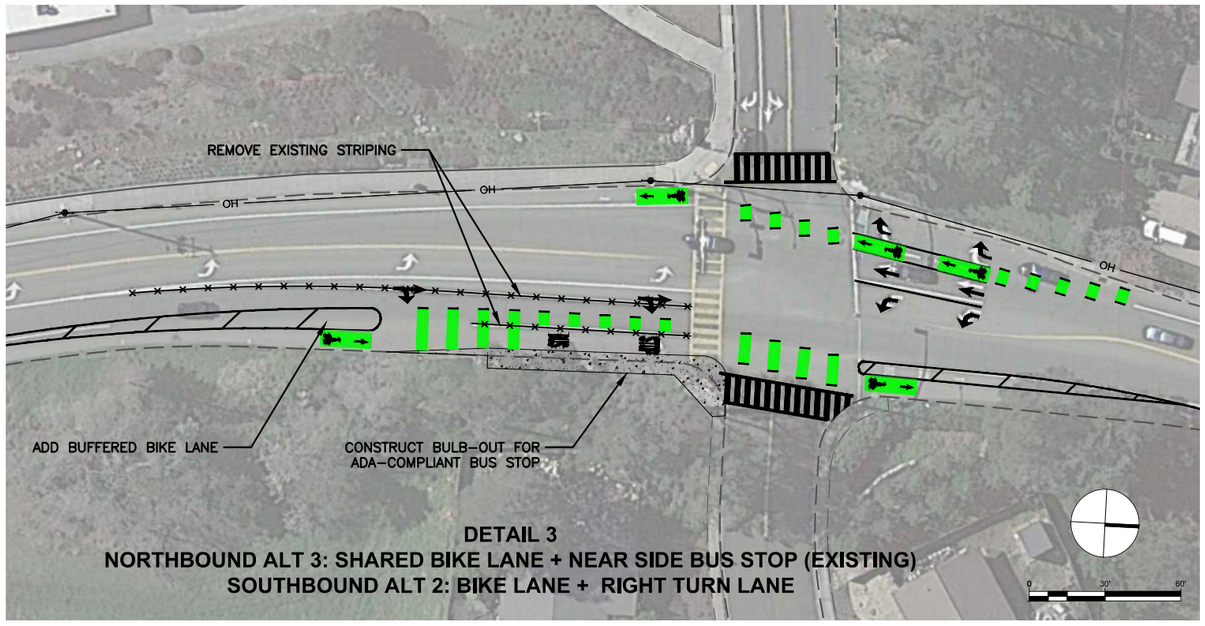
SHEET NO.: 3 OF 10



DETAIL 1
NORTHBOUND ALT 1: "FLOATING" BIKE LANE + NEAR SIDE BUS STOP (EXISTING)
SOUTHBOUND ALT 1: SHARED BIKE LANE, RIGHT TURN LANE, & LONGER LEFT TURN POCKET



DETAIL 2
NORTHBOUND ALT 2: "FLOATING" BIKE LANE + FAR SIDE BUS STOP (RELOCATE)
SOUTHBOUND ALT 1: SHARED BIKE LANE, RIGHT TURN LANE, & LONGER LEFT TURN POCKET



DETAIL 3
NORTHBOUND ALT 3: SHARED BIKE LANE + NEAR SIDE BUS STOP (EXISTING)
SOUTHBOUND ALT 2: BIKE LANE + RIGHT TURN LANE

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ML	AL	

TOWN OF MORAGA
MORAGA ROAD AND CAMPOLINDO DRIVE TRAFFIC SAFETY AND CIRCULATION STUDY
MORAGA ROAD AT CAMPOLINDO DRIVE

REVISIONS		DATE	SCALE
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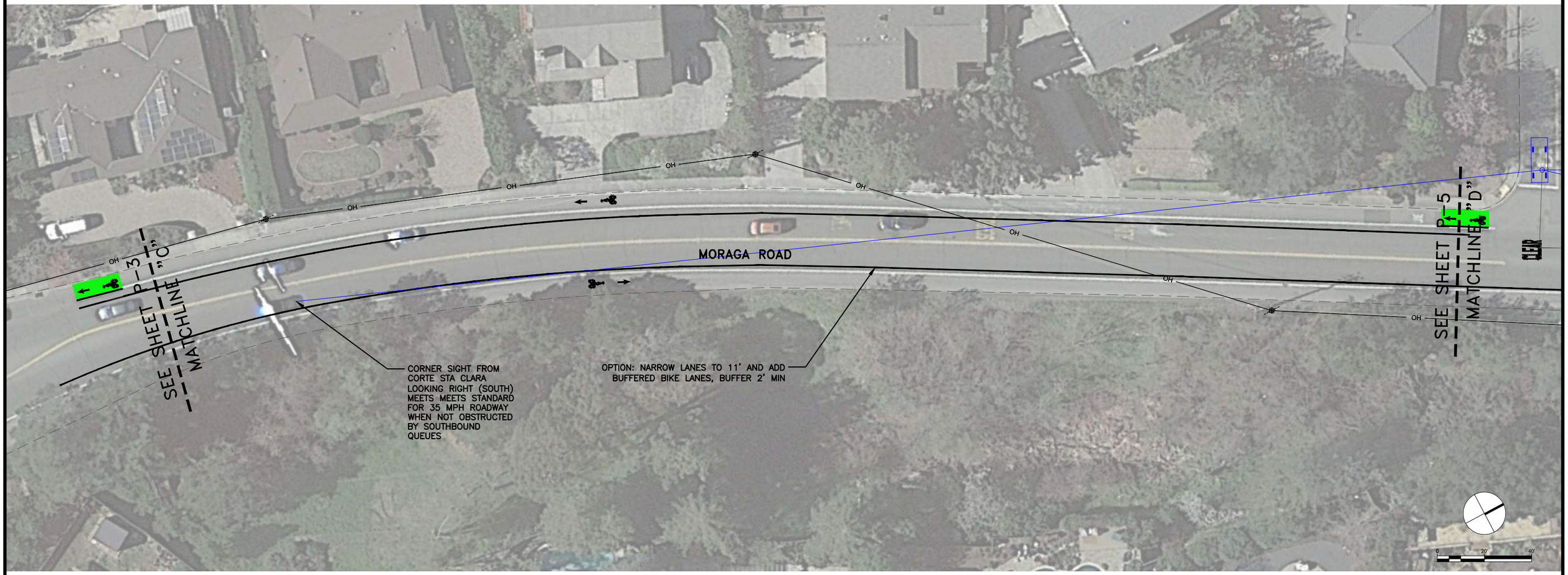

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TOWN OF MORAGA

MORAGA ROAD AND CAMPOLINDO DRIVE TRAFFIC SAFETY AND CIRCULATION STUDY

MORAGA ROAD NORTH OF CAMPOLINDO DRIVE

REVISIONS	
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NO.	DESCRIPTION

DATE: 04/15/2024 | SCALE: 1" = 20'

PMX PROJECT NO. 474-8978-002

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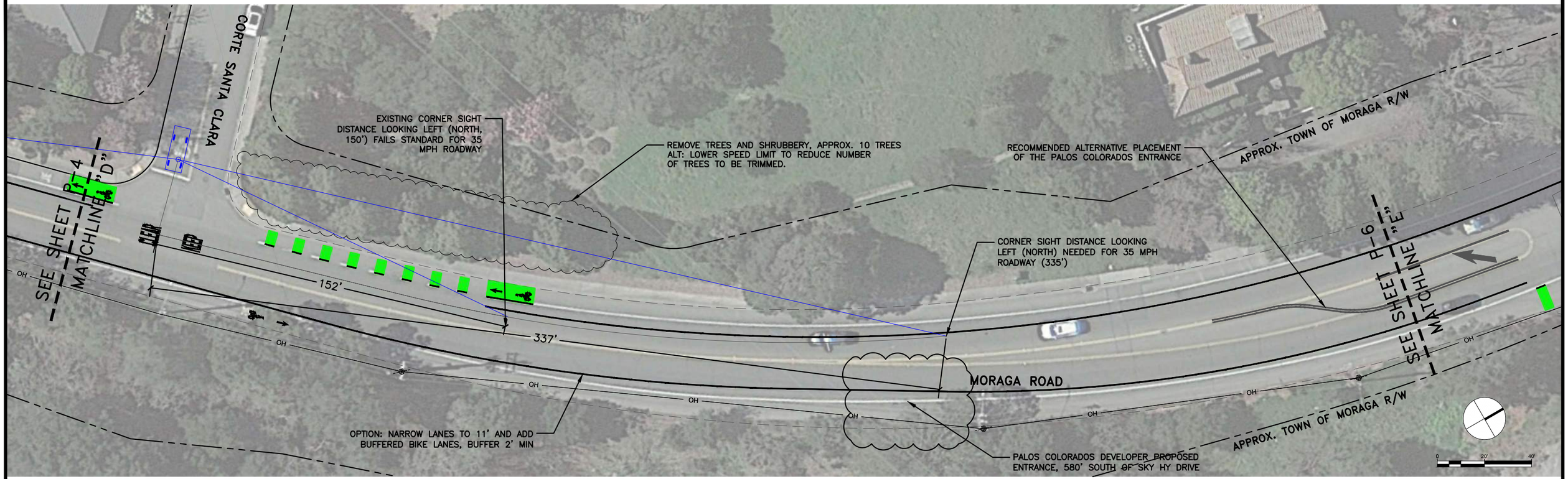
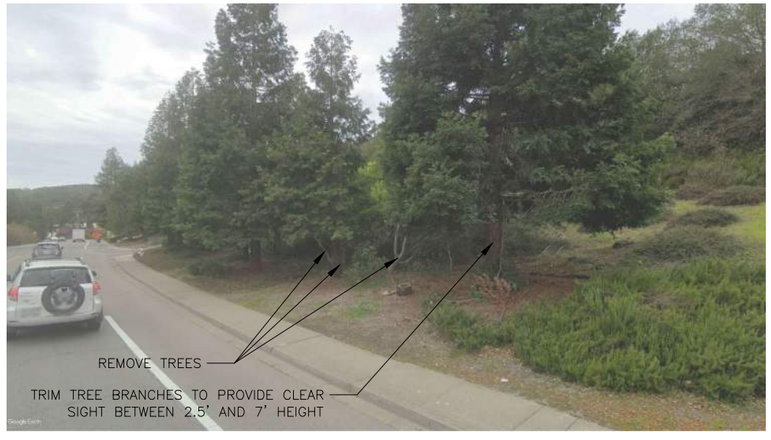
SHEET NO. **5** OF **10**



SOUTHERN TREE REMOVAL

CENTRAL TREE REMOVAL



NORTHERN TREE REMOVAL

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TOWN OF MORAGA
MORAGA ROAD AND CAMPOLINDO DRIVE TRAFFIC SAFETY AND CIRCULATION STUDY
MORAGA ROAD NORTH OF CORTE SANTA CLARA

REVISIONS	
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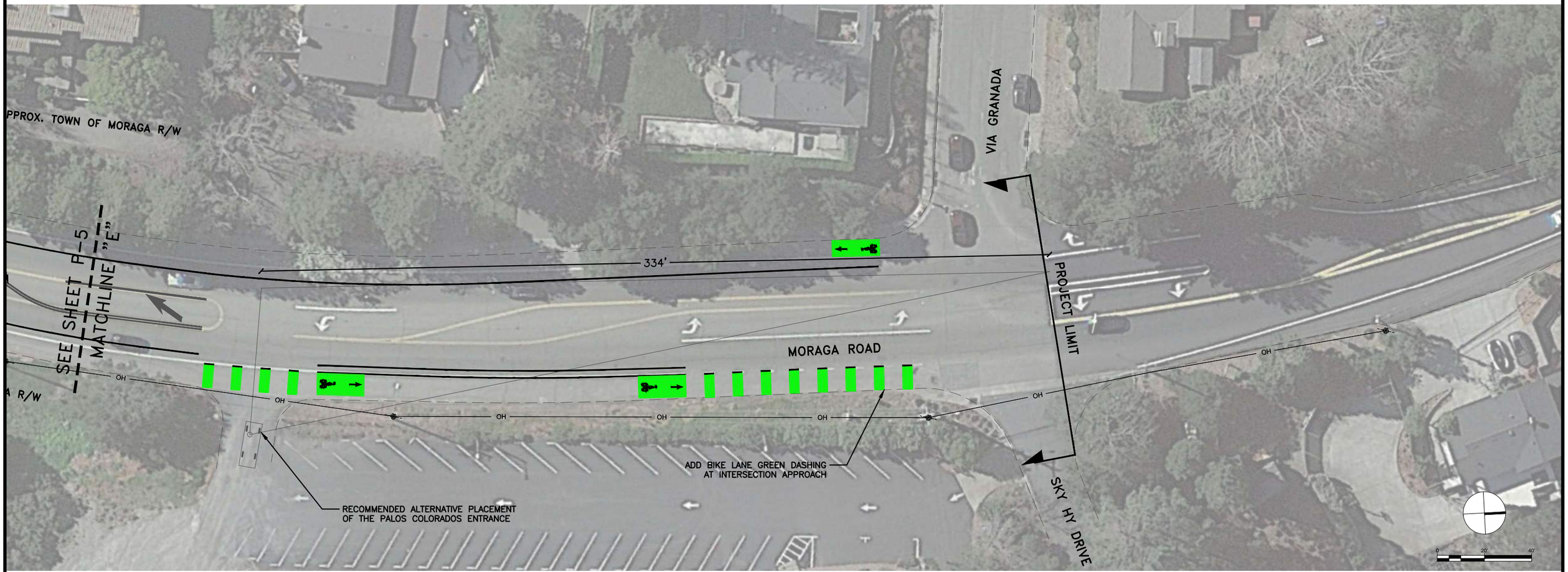
SHEET NO.: 6 OF 10



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Berkeley, CA 94710
(510) 343-6400

TOWN OF MORAGA

MORAGA ROAD AND CAMPOLINDO DRIVE TRAFFIC SAFETY AND CIRCULATION STUDY

MORAGA ROAD FROM PALOS COLORADOS TRAIL TO VIA GRANADA

REVISIONS	
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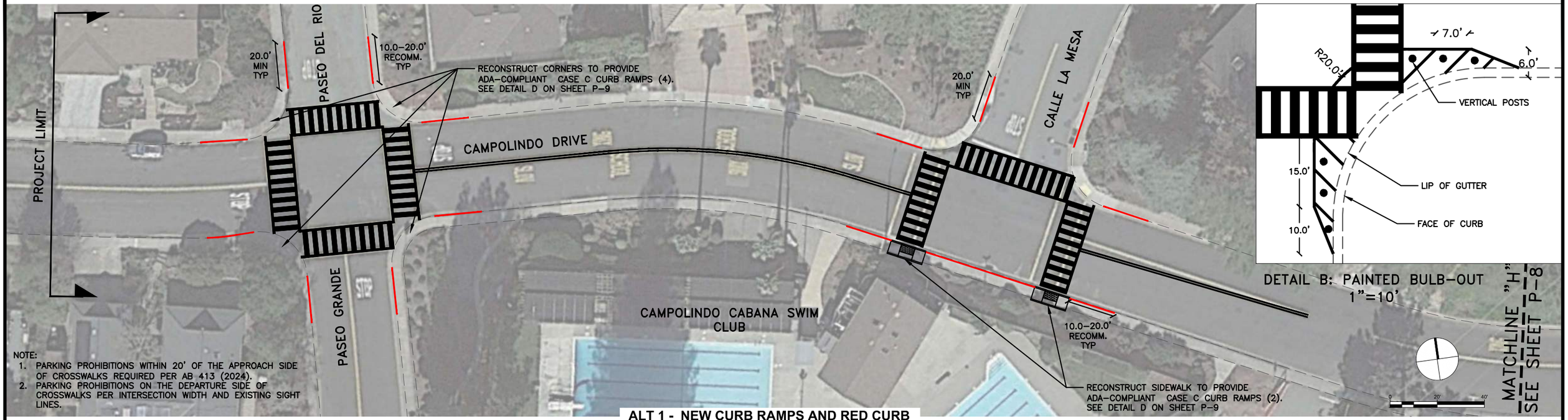
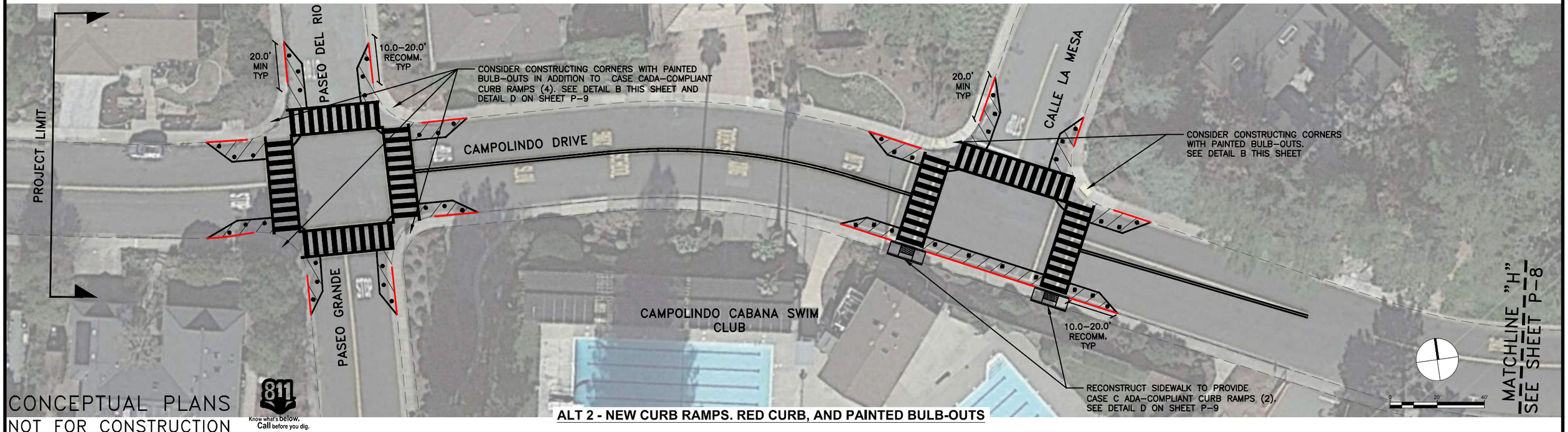
NO.	DESCRIPTION

DATE: 04/15/2024
SCALE: 1" = 20'
PMX PROJECT NO. 474-8978-002
DRAWING: P-6
SHEET NO. 7 OF 10



NOTE:
1. PARKING PROHIBITIONS WITHIN 20' OF THE APPROACH SIDE OF CROSSWALKS REQUIRED PER AB 413 (2024).
2. PARKING PROHIBITIONS ON THE DEPARTURE SIDE OF CROSSWALKS PER INTERSECTION WIDTH AND EXISTING SIGHT LINES.

ALT 1 - NEW CURB RAMPS AND RED CURB



ALT 2 - NEW CURB RAMPS. RED CURB, AND PAINTED BULB-OUTS

CONCEPTUAL PLANS
NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

Parametrix | Parisi TRANSPORTATION CONSULTING

DRAWN:	CHECKED:	ADDRESS:
VM, ML	AL	800 Bancroft Way, Ste 203 Berkeley, CA 94710 (510) 343-6400
DESIGNED:	APPROVED:	
ML	AL	

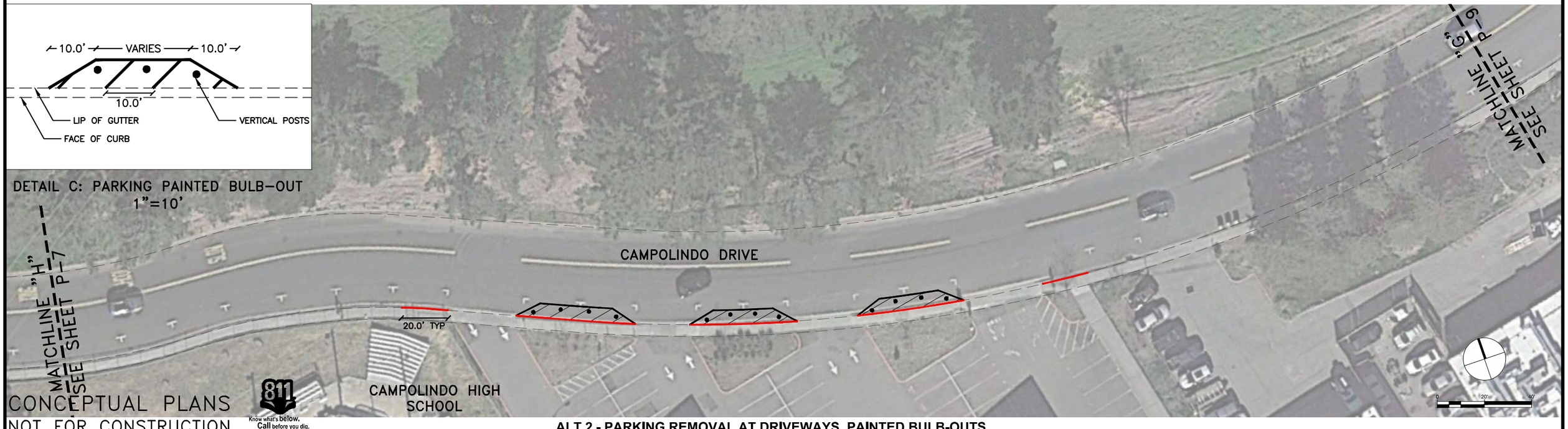
TOWN OF MORAGA
MORAGA ROAD AND CAMPOLINDO DRIVE TRAFFIC SAFETY AND CIRCULATION STUDY
CAMPOLINDO DRIVE FROM PESEO DEL RIO TO CALLE LA MESA

REVISIONS		
NO.	DESCRIPTION	
5		
4		
3		
2		
1		

DATE:	SCALE
04/15/2024	AS SHOWN
PMX PROJECT NO.	
474-8978-002	
DRAWING	
P-7	
SHEET NO.	
8 OF 10	

ALT 1 - PARKING REMOVAL AT DRIVEWAYS, RETAIN ONE PARKING SPACE

DETAIL C: PARKING PAINTED BULB-OUT
1"=10'



CONCEPTUAL PLANS
NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

ALT 2 - PARKING REMOVAL AT DRIVEWAYS, PAINTED BULB-OUTS

Parametrix | Parisi TRANSPORTATION CONSULTING

DRAWN:	CHECKED:	ADDRESS:
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DESIGNED:	APPROVED:	
ML	AL	

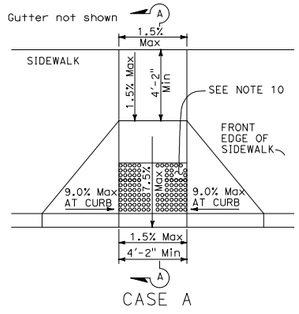
TOWN OF MORAGA

MORAGA ROAD AND CAMPOLINDO DRIVE TRAFFIC SAFETY AND CIRCULATION STUDY

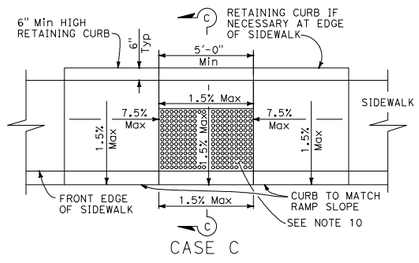
CAMPOLINDO DRIVE FROM CALLE LA MESA TO MORAGA ROAD

REVISIONS		
NO.	DESCRIPTION	
5		
4		
3		
2		
1		

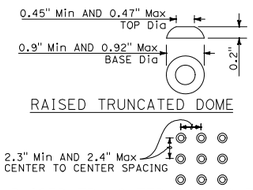
DATE:	SCALE
04/15/2024	AS SHOWN
PMX PROJECT NO.	
474-8978-002	
DRAWING	
P-8	
SHEET NO.	
9 OF 10	



CASE A



CASE C

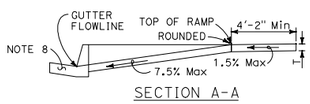


RAISED TRUNCATED DOME

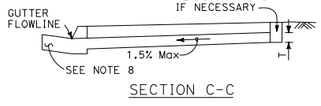
RAISED TRUNCATED DOME PATTERN (IN-LINE)

DETECTABLE WARNING SURFACE

See Note 10



SECTION A-A



SECTION C-C

NOTES:

1. As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate. For specific site condition configuration, including the conform to existing sidewalk, see Project Plans.
2. If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-2" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B or C or may be widened as in Case D.
3. When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
4. As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
5. The ramp portion of the curb ramp is a typical rectangle, unless modified in the Project Plans.
6. Side slope of ramp flares vary uniformly from a maximum of 9.0% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
7. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
8. Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches of the curb ramp shall not be steeper than 1V:20H (5.0%). Gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.
9. Transition gutter pan slope from 1" of depth for each 2'-0" of width to match typical gutter pan slope per Standard Plan A87A.
10. The detectable warning surface will be a rectangle as shown at back of curb, unless modified in the Project Plans. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable warning surfaces shall extend the full width of the ramp except a maximum gap of 1 inch is allowed on each side of the ramp. Detectable warnin surfaces shall conform to the requirements in the Standard Specifications.
11. Sidewalk and ramp thickness "T", shall be 3½" minimum.
12. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
13. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining detectable warning width and depth.

DETAIL D: CALTRANS STANDARD CURB RAMPS, CASE A AND CASE C
NOT TO SCALE

CONCEPTUAL PLANS
NOT FOR CONSTRUCTION

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DRAWN: VM, ML | CHECKED: AL
DESIGNED: ML | APPROVED: AL
ADDRESS: 800 Bancroft Way, Ste 203 Berkeley, CA 94710 (510) 343-6400

TOWN OF MORAGA
MORAGA ROAD AND CAMPOLINDO DRIVE TRAFFIC SAFETY AND CIRCULATION STUDY
CAMPOLINDO DRIVE AT MORAGA ROAD

REVISIONS		DATE	SCALE
5		04/15/2024	AS SHOWN
4		PMX PROJECT NO.	
3		474-8978-002	
2		DRAWING	
1		P-9	
NO.	DESCRIPTION	SHEET NO.	
		10 OF 10	

Palos Colorados Site Plan

Mailbox Locations

Decorative Cattle Fence

Cattle Fence

Vista Points

Plant Palette

Oak/Specimen Trees
Quercus virginiana - Southern Live Oak
Olea europea 'Fruitless' - Fruitless Olive
Platanus acerifolia - London Plane Tree
Quercus suber - Cork Oak
Pistacia chinensis - Chinese Pistache
Koelreuteria bipinnata - Chinese Flame Tree
Agonis flexuosa - Peppermint Tree

Street Trees
-'A' Street
Olea europea 'Fruitless' - Fruitless Olive
Platanusacerifolia - London Plane Tree
Liriodendron tulipifera - Tulip Tree
-Residential Streets "B"-"G"
Alnus cordata - Italian Alder
Pistacia chinensis - Chinese Pistache
Koelreuteria bipinnata - Chinese Flame Tree
Laurus nobilis - Grecian Laurel
Agonis flexuosa - Peppermint Tree

Woody Species in Riparian Areas
Salix lasiolepis - Arroyo Willow
Salix lavigata - Red Willow
Salix lasiandra - Yellow willow
Acer negundo - Box Elder

Woody Species in Oak Woodland and Buffer Areas
Quercus lobata - Valley Oak
Rhamnus californica - Coffee Berry
Rosa californica - California Rose
Rubus ursinus - California blackberry
Sambucus mexicana - Elderberry
Symphoricarpos albus - Snowberry
Umbellularia californica - Bay Laurel

Accent Trees
Arbutus spp. - Madrone
Aesculus californica - California Buckeye
Cercis occidentalis - Western Redbud
Punica granatum - Pomegranate
Acer negundo - Box Elder

Screen Trees
Populus alba - White Poplar
Pinus halepensis - Aleppo Pine
Sambucus spp. - Elderberry
Rhamnus californica - Coffeeberry
Pittosporum spp. - Pittosporum (tree form)
Arctostaphylos spp. - Manzanita (tree form)

Shrubs and Groundcovers (in irrigated zones)
Arctostaphylos spp. - Manzanita
Acacia redolens - Prorate Acacia
Ceanothus spp. - Ceanothus
Cistus spp - Rockrose
Grevillea spp. - NCN
Salvia leucantha 'Midnight' - Mexican Bush Sage
Keiphofia uvaria - Red Hot Poker
Anigozanthos flavidus - Kangaroo Paw
Rosmarinus spp. - Rosemary
Westringia fruticosa - Coast Rosemary
Agave spp. - Agavest
Raphiolepis indica - Indian Hawthorn
Ligustrum j. 'Texanum' - Wax-Leaf Privet
Dietes bicolor - Yellow Fortnite Lily
Rosa spp. - Rose
Photinia fraseri - Photinia
Coleonema pulchrum - False Heather
Aloe spp. - Aloes
Bougainvillea spp. - Bougainvillea
Pennisetum setaceum - Fountain Grass
Helictrotrichon sempervirens - Blue Oat Grass
Festuca mairei - Marie's Fescue
Nassella tenuissima - Mexican Feather Grass
Heteromeles arbutifolia - Toyon
Xylosma congestum - Shiny Xylosma

Native Grasses (in preserved/cattle grazing areas)
Carex spp. - Sedges
Deschampsia cespitosa - Hairgrass
Hordeum brachyantherum - Meadow Barley
Leymus triticoides - Creeping Wild Rye
Nassella pulchra - Purple Needlegrass
Eleocharis macrostachya - Spike Rush
Juncus balticus - Baltic Rush
Juncus effusus - Soft Rush
Juncus mexicanus - Mexican Rush
Juncus patens - Spreading Rush

N

0 100 200 400

Scale: 1:100

Rabben/Herman design office
Landscape Architecture Master Planning Urban Design

Robert Hidey Architects

Site Illustrative

PALOS COLORADOS

Moraga, Ca

L1

Richfield Investment Corporation

01/28/2008
Revised 04/22/2008

Survey Responses

Traffic Study Public Survey Summary

1. Demographic – Please select your residence
28 of 28 Answered (100.0%)
Radio Buttons
Campolindo Neighborhood (23 responses, 82.1%)
Elsewhere (0 responses, 0.0%)
Elsewhere in Moraga (5 responses, 17.9%)
Greater Lamorinda (0 responses, 0.0%)

2. Do you have students who attend Campolindo High School
28 of 28 Answered (100.0%)
Radio Buttons
No (19 responses, 67.9%)
Within 2 miles (1 response, 3.6%)
Yes (8 responses, 28.6%)

3. Do you or your Family use the Campolindo Cabana Swim Club
27 of 28 Answered (96.4%)
Radio Buttons
No (22 responses, 78.6%)
Yes (5 responses, 17.9%)

6. How do you typically travel to/from the study area? (Check all that apply)
25 of 28 Answered (89.3%)
Checkbox
Carpool or dropped off / picked up by family or friend (9 responses, 32.1%)
Drive alone (23 responses, 82.1%)
Ride services (Lyft / Uber / Bus) (1 response, 3.6%)
Walk, Bike, Scooter (9 responses, 32.1%)

7. Are there travel modes you would like to use if it were safer or more convenient for you? (Check all that apply)
24 of 28 Answered (85.7%)
Checkbox
Carpool (4 responses, 14.3%)
Drive alone (1 response, 3.6%)
Not applicable – would not choose other modes (11 responses, 39.3%)
Ride services (Lyft / Uber) (Bus) (2 responses, 7.1%)
Walk, Bike, Scooter (9 responses, 32.1%)

Vehicle congestion on Moraga Road
27 of 28 Answered (96.4%)
Drop-Down
Not Important – 3 (11%)
Neutral – 4 (15%)
Important – 20 (74%)

1 (1 response, 3.6%)
2 (2 responses, 7.1%)
3 (4 responses, 14.3%)
4 (4 responses, 14.3%)
5 (16 responses, 57.1%)

Obstacles to turning onto Moraga Road
26 of 28 Answered (92.9%)
Drop-Down
Not Important – 4 (15%)
Neutral – 6 (23%)
Important – 16 (62%)

1 (3 responses, 10.7%)
2 (1 response, 3.6%)
3 (6 responses, 21.4%)
4 (2 responses, 7.1%)
5 (14 responses, 50.0%)

Traffic safety related to driver behaviors and/or vehicle speed
27 of 28 Answered (96.4%)
Drop-Down
Not Important – 0 (0%)
Mildly Important/Neutral – 8 (30%)
Important – 19 (70%)

1 (0 responses, 0.0%)
2 (0 responses, 0.0%)
3 (8 responses, 28.6%)
4 (8 responses, 28.6%)
5 (11 responses, 39.3%)

Safety and comfort of existing bike facilities (e.g. lanes)
27 of 28 Answered (96.4%)
Drop-Down
Not Important – 8 (30%)
Mildly Important/Neutral – 5 (19%)
Important – 20 (74%)

1 (8 responses, 28.6%)
2 (0 responses, 0.0%)
3 (5 responses, 17.9%)
4 (2 responses, 7.1%)
5 (12 responses, 42.9%)

Safety and comfort of walking facilities (e.g., sidewalks and crosswalks)
27 of 28 Answered (96.4%)
Drop-Down
Not Important – 3 (11%)
Mildly Important/Neutral – 4 (15%)
Important – 20 (74%)

1 (3 responses, 10.7%)
2 (0 responses, 0.0%)
3 (4 responses, 14.3%)
4 (5 responses, 17.9%)
5 (15 responses, 53.6%)

Availability and convenience of public transit service
26 of 28 Answered (92.9%)
Drop-Down
Not Important – 10 (38%)
Mildly Important/Neutral – 9 (35%)
Important – 7 (27%)

1 (6 responses, 21.4%)
2 (4 responses, 14.3%)
3 (9 responses, 32.1%)
4 (2 responses, 7.1%)
5 (5 responses, 17.9%)

Access to the Campo Cabana Swim Club
26 of 28 Answered (92.9%)
Drop-Down
Not Important – 21 (81%)
Mildly Important/Neutral – 1 (4%)
Important – 3 (12%)

1 (21 responses, 75.0%)
2 (1 response, 3.6%)
3 (1 response, 3.6%)
4 (2 responses, 7.1%)
5 (1 response, 3.6%)

Congestion during drop-off and pick-up times

27 of 28 Answered (96.4%)
Drop-Down
Not Important – 5 (19%)
Mildly Important/Neutral – 5 (19%)
Important – 17 (63%)

1 (2 responses, 7.1%)
2 (3 responses, 10.7%)
3 (5 responses, 17.9%)
4 (0 responses, 0.0%)
5 (17 responses, 60.7%)

Traffic safety during drop-off and pick-up times
26 of 28 Answered (92.9%)
Drop-Down
Not Important – 1(4%)
Mildly Important/Neutral – 5 (19%)
Important – 20 (77%)

1 (0 responses, 0.0%)
2 (1 response, 3.6%)
3 (5 responses, 17.9%)
4 (5 responses, 17.9%)
5 (15 responses, 53.6%)

Lack of available parking at or near the high school
27 of 28 Answered (96.4%)
Drop-Down
Not Important – 15 (56%)
Mildly Important/Neutral – 2 (7%)
Important – 10 (37%)

1 (11 responses, 39.3%)
2 (4 responses, 14.3%)
3 (2 responses, 7.1%)
4 (2 responses, 7.1%)
5 (8 responses, 28.6%)

Student parking in the neighborhood
27 of 28 Answered (96.4%)
Drop-Down
Not Important – 10 (37%)
Mildly Important/Neutral – 6 (22%)
Important – 11 (41%)

1 (9 responses, 32.1%)

2 (1 response, 3.6%)
3 (6 responses, 21.4%)
4 (4 responses, 14.3%)
5 (7 responses, 25.0%)

Parent–student drop-off and/or pick-up in the neighborhood
27 of 28 Answered (96.4%)
Drop-Down
Not Important – 11 (41%)
Mildly Important/Neutral – 2 (7%)
Important – 14 (52%)

1 (8 responses, 28.6%)
2 (3 responses, 10.7%)
3 (2 responses, 7.1%)
4 (4 responses, 14.3%)
5 (10 responses, 35.7%)
Add a new crosswalk at Buckingham Drive
27 of 28 Answered (96.4%)
Drop-Down
Not Important – 12 (44%)
Mildly Important/Neutral – 3 (11%)
Important – 12 (44%)

1 (10 responses, 35.7%)
2 (2 responses, 7.1%)
3 (3 responses, 10.7%)
4 (3 responses, 10.7%)
5 (9 responses, 32.1%)
Add painted bulb-outs with vertical posts on Moraga Road at Buckingham and Woodford
Not Important – 9 (35%)
Mildly Important/Neutral – 6 (23%)
Important – 11 (42%)

26 of 28 Answered (92.9%)
Drop-Down
1 (6 responses, 21.4%)
2 (3 responses, 10.7%)
3 (6 responses, 21.4%)
4 (5 responses, 17.9%)
5 (6 responses, 21.4%)
Add painted bulb-outs with vertical posts on Campolindo Drive at Calle La Mesa and Paseo Del Rio
Not Important – 9 (35%)
Mildly Important/Neutral – 8 (31%)

Important – 9 (35%)

26 of 28 Answered (92.9%)
Drop-Down
1 (6 responses, 21.4%)
2 (3 responses, 10.7%)
3 (8 responses, 28.6%)
4 (5 responses, 17.9%)
5 (4 responses, 14.3%)
Add bike lane green dashing markings
Not Important – 10 (38%)
Mildly Important/Neutral – 4 (15%)
Important – 12 (46%)

26 of 28 Answered (92.9%)
Drop-Down
1 (8 responses, 28.6%)
2 (2 responses, 7.1%)
3 (4 responses, 14.3%)
4 (6 responses, 21.4%)
5 (6 responses, 21.4%)
Replace the existing rectangular rapid flash beacon (RRFB) with a new pedestrian hybrid beacon (PHB)
Not Important – 3 (12%)
Mildly Important/Neutral – 7 (27%)
Important – 10 (38%)

26 of 28 Answered (92.9%)
Drop-Down
1 (3 responses, 10.7%)
2 (0 responses, 0.0%)
3 (7 responses, 25.0%)
5 (10 responses, 35.7%)
Move the existing RRFB to a new crosswalk to the north
27 of 28 Answered (96.4%)
Drop-Down
Not Important – 10 (37%)
Mildly Important/Neutral – 12 (44%)
Important – 5 (19%)

1 (8 responses, 28.6%)
2 (2 responses, 7.1%)
3 (12 responses, 42.9%)
4 (3 responses, 10.7%)
5 (2 responses, 7.1%)

Add bike lane striping to the Moraga Road / Campolindo Drive intersection
27 of 28 Answered (96.4%)
Drop-Down
Not Important – 9 (33%)
Mildly Important/Neutral – 9 (33%)
Important – 9 (33%)

1 (8 responses, 28.6%)
2 (1 response, 3.6%)
3 (9 responses, 32.1%)
4 (3 responses, 10.7%)
5 (6 responses, 21.4%)
Add bike lane buffer striping to Moraga Road
27 of 28 Answered (96.4%)
Drop-Down
Not Important – 9 (33%)
Mildly Important/Neutral – 7 (26%)
Important – 11 (41%)

1 (8 responses, 28.6%)
2 (1 response, 3.6%)
3 (7 responses, 25.0%)
4 (2 responses, 7.1%)
5 (9 responses, 32.1%)
Develop a travel demand management plan with Campolindo High School to promote alternate transportation modes to single-occupant drivers
26 of 28 Answered (92.9%)
Drop-Down
Not Important – 4 (15%)
Mildly Important/Neutral – 1 (4%)
Important – 21 (81%)

1 (3 responses, 10.7%)
2 (1 response, 3.6%)
3 (1 response, 3.6%)
4 (5 responses, 17.9%)
5 (16 responses, 57.1%)
Consider a neighborhood residential parking permit system
27 of 28 Answered (96.4%)
Drop-Down
Not Important – 11 (41%)
Mildly Important/Neutral – 5 (19%)
Important – 11 (41%)

1 (10 responses, 35.7%)

2 (1 response, 3.6%)
3 (5 responses, 17.9%)
4 (3 responses, 10.7%)
5 (8 responses, 28.6%)

Study opportunities to construct a two-way multiuse path or separated bikeway on Moraga Road

27 of 28 Answered (96.4%)

Drop-Down

Not Important – 10 (37%)
Mildly Important/Neutral – 4 (15%)
Important – 13 (48%)

1 (7 responses, 25.0%)
2 (3 responses, 10.7%)
3 (4 responses, 14.3%)
4 (1 response, 3.6%)
5 (12 responses, 42.9%)

Comments and Suggestions

From Campolindo Neighborhood

1. There needs to be a crosswalk at Buckingham drive and Moraga rd. I see kids either parking or walking to schools or kids from the neighborhood run across to Campo- an accident just waiting to happen. There needs to be sidewalks on both sides of Moraga rd. leading up to Campo

2. I do feel very strongly for safety of the residents the crosswalk between Buckingham and Moraga Rd. I have seen School kids and residents cross the road after parking on Buckingham drive and its not safe. I also have seen older residents having a tough time crossing the road

3. I'm concerned about the new housing development and not having a light for people to turn left onto moraga way. I'm also concerned that the new housing area only has one street out of that neighborhood and the fire danger it presents. It would be helpful if the bus came more frequently to help with morning and afternoon traffic.

4. I am not in favor of removing the right turn lanes at the Campo light as I believe they help reduce congestion.

5. Prohibition of student parking on Wimpole street. Police at campo twice a day enforcing the existing Law.

6. I live on Woodford Drive and at certain times of the day (not just school arrivals and dismissals) it is extremely difficult to make a left turn out of Woodford Drive. In the evening, commute traffic (from Canyon?) is endless on Moraga Road. I believe at some point there will have to be a traffic light there--not something that only a pedestrian can trigger.
   I would LOVE to see some kind of incentive for the high school kids to carpool and also for the parents who drop off and pick up to arrange more carpooling. The kids park all up Woodford Drive and parents line up on the street to do their pick ups. It bothers me slightly cause the kids take parking spaces in front of our house, but I'm not sure where the school could add more parking on campus and I hate to see green space be turned into more parking lots. So for that reason, I'm good with the kids parking on our street. I just wish it was less. Or I wish riding a bike to school could somehow be cool. Probably not gonna happen.

7. I live on Wimpole street. I'd like to see no student parking in our hill. It creates a dangerous scenario for emergency situations where ambulance or fire access is needed. It also can be dangerous during a busy time when folks are already trying to get out of the house for school dropoff and work travel.

8. Student parking constricts our relatively narrow street on Wimpole St to a one-lane road resulting in traffic safety, emergency response and pedestrian safety issues. Very dangerous!
   I think the total elimination of student parking on our street or one sided student parking is the best solution

9. I am a resident at 2 Wimpole St., Moraga.
   It came to my attention that some residents on my street are trying to block high schoolers from parking on Wimpole St., claiming blockage to the street and their homes.
   I have lived in my residence for the last 12 years and, besides the occasional blocking of my mailbox (which, with a courtesy reminder the students don't usually repeat) and a bit of car maneuvering (never a big deal), I have not experienced any troubles driving on my street (or troubles of any other kind). On the other hand, the high schoolers' presence gives me a sense of community, safety, and joy. We live near a high school and should expect a bit of high schoolers' presence/commotion/buzz.
   Convincing/encouraging public transportation, sharing rides, and walking/biking would be a more effective (sustainable/healthier) way to address excessive traffic. Blocking access to parking on this street will make the students find another neighborhood where to park.

10. Extend the no parking zones further for the streets east of Moraga Rd., and create no parking zones on the streets to the west of Moraga Rd. in the vicinity of Campolindo High School. Then enforce them!

11. I completely support that students park and parents for school events park in the neighborhood where we live. This is a neighborhood next to a high school. (We live off Woodford).
    I also think the crosswalk to Moraga Road should be changed from yellow flashing lights to yellow then red lights to require that cars stop. During school hours they stop for kids, but in other times the cars do not stop they fly by.

12. I am mainly concerned about how hard it is to safely take a left turn out of Corte Santa Clara during peak times with no visibility of the northbound lane, and at all times when southbound cars suddenly appear around the corner, speeding between Via Granada and Campolindo Drive. A KEEP CLEAR segment at Corte SC will allow Corte SC cars to begin to pull out but will only permit safe entry into the northbound lane if the KEEP CLEAR segment extends quite a bit south of the court. Otherwise, idling southbound cars to their right will continue to completely block the view of the northbound lane.
    There a lot of questions about bike and crossing markers below which I do not know enough about to properly answer. In general, I'm in favor of not adding crosswalks and encouraging people crossing Moraga Rd on foot to all cross at one main crosswalk. This will keep traffic flowing better than asking cars to stop

at multiple crosswalks along Moraga Rd for single pedestrians. Thank you for your work on these safety issues!

13. We live on Wimpole St, a narrow uphill/downhill cue de sac off Woodford Dr. Student parking constricts our narrow road to a one lane street from 8AM to 3PM. Besides the inconvenience for residents and visitors, it is a real safety issue. Large emergency response vehicles would have restricted access to our homes. Navigating the street during school hours is a challenge. Much of the traffic on Wimpole consists of delivery vehicles. Residents can be forced to back up or down hill when another vehicle is on the street. During school hours trash removal can be inhibited. I interviewed one driver who stated that if they can't access the street (make the turn from Woodford to Wimpole), our street is skipped.. Often access to our mail boxes is blocked, and several times per year our driveway is partially blocked by student vehicles (I have pictures).
    I believe that student safety is best served if a limited or total ban of student on streets east of Moraga Road is implemented. This would greatly reduce the number of students walking on Woodford Drive (there are no sidewalks) and crossing at the Woodford crosswalk.
    As a possible mitigation measure, plenty (over 50, more if the parking lot is re-striped) of unused daytime parking spaces exist by the St Mary's office building on the west side of Moraga Road, less than a 5 minute walk to the school and on the same side of the street!). The City, Campo HS and St Mary's should meet and discuss this option.
    In my opinion, the root cause of the school related traffic jams on Moraga Rod is caused by vehicles dropping off/picking up students using the Moraga Road school school driveway. This should be eliminated by having all drop off and pickup activities at the school parking lot on Campolindo Drive. On February 15, 2024 I emailed Mr Miao of your staff a proposal could make that that a reality.
    Bottom line: Please implement a 'No School Parking' policy on Wimpole St. The cost would be minimal (a couple of signs) and the benefits to the Wimpole Street residents would be huge.

14. I am concerned about the traffic safety on Wimpole St, where I live. The students park on both sides of the street which is very narrow to begin with. This makes it impossible for two way traffic . It also makes it difficult for emergency vehicles to access the houses on Wimpole.
    The corner of Wimpole and Woodford is difficult because visibility is limited. Painting both corners red would help alleviate that problem.

15. Incentivize HS students to walk/bike vs. drive. Need uniform bikeway markings on Moraga Rd as motorists regularly encroach or enter the current bikelanes, especially northbound after Rheem Blvd where Moraga Rd. narrows from two lanes to one with occasional left turn (northbound) traffic entering from the SMC Rheem campus. We need a protected exit from Woodford/Buckingham. We have elementary school students who need to get to school at the same time that Campolindo HS traffic is getting congested. HS and through motorists block the

Woodford exit and ignore the "Keep Clear" painted on the road. Some motorists barely stop for pedestrians crossing with flashing lights. Installing a traffic light at either Woodford or Buckingham would provide a safer method to exit the neighborhood during these hours.

Elsewhere in Moraga

1. Modifying the flashing light at Woodford Drive would go a long way to relieving congestion. Consider getting a crossing guard during busiest school times. Or modify the light so that pedestrians can gather a bit before traffic stops.

2. A big thanks to the City of Moraga for taking steps to address traffic and safety around Campo! We're a parent who drops off students in the morning and a Campo teacher who drives to and from school every day, and we have two possible suggestions to help ease the traffic congestion on Moraga Road and Campolindo Drive during student dropoff and pickup: 1) The traffic backs up on Moraga Road (towards Rheem Blvd) because students trickle through the crosswalk at random intervals, forcing traffic to start and stop constantly without allowing for many cars to flow through. If there were a crossing guard or a light (instead of just a crosswalk), students would have to gather and wait to cross, and that would allow multiple cars through before forcing traffic to stop. This would help ease traffic and we see crossing guards and crossing lights work well on other streets near schools like Stanley. 2) If the parking spots on Campolindo Drive were removed, that would allow for a right turn lane further up the street out of the school parking lots. It would help ease traffic coming out of the lots after school because then cars turning left would line up at the light and cars turning right onto Moraga Road could more easily keep moving. Thanks for considering our ideas. Good luck with your deliberations and decisions!