A Existing Traffic Conditions Memorandum

1970 Broadway, Suite 740
Oakland, CA 94612
510.763.2061
www.dksassociates.com

MEMORANDUM

DATE: November 15, 2013

TO: Town of Moraga

FROM: Thomas Krakow, DKS Associates

SUBJECT: Moraga Road – Existing Traffic Conditions P# 13130-000

Introduction

The Town of Moraga is located just south of Highway 24 in Contra Costa County. Moraga Road is a popular route for residents of Moraga traveling to Lafayette or accessing Highway 24. Moraga Road is mostly four lanes through the Town of Moraga. This study will focus on the portion of Moraga Road between Campolindo Drive and St. Mary's Road. Additionally, the intersections at Campolindo Drive, Rheem Blvd and St. Mary's Rd will be evaluated for level-of-service. Figure 1 shows the general locations of the roadway segment as well as each study intersection.

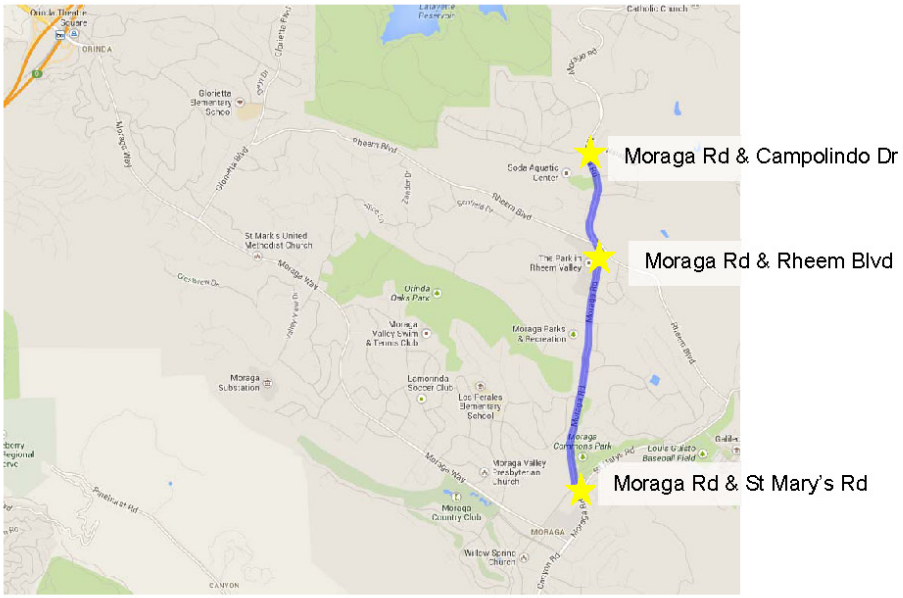


Figure 1: Site Map with Study Intersections

Road Description

Moraga Road extends approximately 3.6 miles between the northerly town limits and Moraga Way. It is the major north-south arterial road within the Town of Moraga. It has sections of two-lane as well as four-lane roadway. Marked pedestrian crosswalks spanning Moraga Rd are located at the following intersections: Campolindo Dr, Woodford Dr, Rheem Blvd, Lucas Dr, Ascot Dr, Donald Dr, Corliss Dr and St. Mary's Rd.

Section 1 — Town Limits to Rheem Boulevard

Moraga Road is two lanes wide from the Town limits to Dolores Court with bicycle lanes on both sides of the roadway. At Dolores Court, the roadway widens to four lanes with a raised center median approaching Rheem Blvd. From the Campolindo Drive intersection to Rheem Boulevard left-turn pockets are provided at entrances to the side streets except at Dolores Court where there is a raised median. Southbound capacity is 1,400 vehicles per hour with a peak hour utilization of 59%. The northbound capacity is 1,400 vehicles per hour with a peak hour utilization of 49%.

Section 2— Rheem Boulevard to Ascot Drive

This section of the roadway which fronts the Rheem Shopping Center is four lanes wide between Rheem Boulevard and Ascot Drive. For most of the section a two-way-left-turn lane has been added. This area qualifies as "Business District" as defined in Section 235 of the California Vehicle Code. In both northbound and southbound directions, this section of Moraga Road is designated as a bicycle route. Southbound capacity is 2,600 vehicles per hour with a peak hour utilization of 32%. The northbound capacity is 2,600 vehicles per hour with a peak hour utilization of 29%.

Section 3 — Ascot Drive to Corliss Drive

This section of Moraga Road is four lanes wide with a painted centerline and white edge lines on both sides of the road. Moraga Road is 64 feet wide at Donald Drive. Left-turn pockets are provided at Ascot Drive and Donald Drive. A dedicated southbound right turn lane is provided at Corliss Drive. In both northbound and southbound directions, this section of Moraga Road is designated as a bicycle route. Southbound capacity is 2,400 vehicles per hour with a peak hour utilization of 32%. The northbound capacity is 2,400 vehicles per hour with a peak hour utilization of 28%.

Section 4— Corliss Drive to St. Mary's Road

This section of Moraga Road is approximately 1/2 mile long and is largely undeveloped except for the Moraga Commons Recreation Area which is located to the east. Moraga Road narrows to two lanes at Corliss Drive until its intersection with St. Mary's Road. This section has a painted centerline and white edge lines on both sides of the road. There is a Class I Bike Path adjacent to this section of Moraga Road, however many bicyclists prefer to use the narrow paved shoulder just outside of the white edge lines instead of the provided Bike Path. Southbound capacity is 1,200 vehicles per hour with a peak hour utilization of 56%. The northbound capacity is 1,200 vehicles per hour with a peak hour utilization of 48%.

Section 5 — St Mary's Road to Moraga Way

This section of Moraga Road is also designated a "Business District" according to the California Vehicle Code. The Moraga Shopping Center is located in this vicinity. The road is 90 feet wide with four through lanes, a center raised median, and white edge lines. In both northbound and southbound directions, this section of the road is designated as a bicycle route.

Moraga Road is controlled by signals at Campolindo Drive, Rheem Boulevard, Ascot Drive, Donald Drive, St. Mary's Road, and Moraga Way. Side street traffic at all other intersections are controlled by stop signs. Moraga Road north of Rheem Boulevard is categorized as a Class II Bike Facility. The road south of Rheem Boulevard is categorized as a Class III Bike Facility.

Currently Moraga Road is posted for 35 MPH throughout, except in the vicinity of Campolindo High School where it is 25 MPH during school hours of operation.

Existing Intersection Conditions

Field observations

Moraga Road and Campolindo Drive

Traffic flow during the peak period is influenced by the high school drop offs in the morning. The intersection appears to function adequately even during the morning peak drop off. The bike lanes along Moraga Road are compromised by the southbound turning lane and the near side northbound bus stop. Long term development is likely to influence the east leg of the intersection.

The southern-most driveway to Campolindo campus has much more significant impact on the vehicular traffic, cyclists, and pedestrians. Northerly traveling bikes use the westerly 5-foot bike lane (against the traffic because it avoids the conflict at the driveway entrance and Woodford Drive. Southbound vehicles dropping off students cause a backup for the left turn northbound vehicles which then creates a backup for the northbound through vehicles. Students using the crosswalk have to look at several potential conflicts due to the various turning movements between Woodford Drive and the exiting driveway from the high school drop off activity.

Moraga Road and Rheem Boulevard

Traffic flow operates reasonably well. Suburban commercial land use – (Retail, entertainment mix with on-site parking) makes the southwest quadrant an important attraction for vehicular activity. The current land plan for the retail center is a strip mall with isolated out parcels. No commercial activity that relies on Moraga Road for on street parking prevails. There is a gas station at the intersection on the southwest corner with multiple driveway access at the intersection. Single and multi-family residential exists near the Rheem Boulevard – Moraga Road intersection (southeast quadrant). Office, educational and Town municipal offices exist along the northwest quadrant.

There is a dedicated right turn lane that is separated from Moraga Road and terminates at a signalized intersection with Rheem Boulevard and a private drive that connects with internal drive lanes that serve the frontages of the retail center. Pedestrian access is limited to one side of each of the intersection approaches. The northeast corner (currently undeveloped) has no pedestrian sidewalks and no crosswalk access. The geometry of the intersection is skewed with reasonably designed turning radii. The geometry appears to be reasonably designed. The spacing of the signals (Shopping Center access, and Rheem Boulevard-Moraga Road intersection) is very short but the signal timing

and phasing appears to operate adequately for the amount of peak hour traffic demand. Safety lighting exists at both intersections. There is not much pedestrian activity observed at these intersections under the current land usage.

St. Mary's Road and Moraga Road

Currently St. Mary's Road terminates at a signalized intersection with Moraga Road. The Lafayette Moraga Trail that runs more or less along St. Mary's Road crosses Moraga Road and continues as the fourth leg of this intersection. The Town of Moraga multi-purpose path also connects to the Lafayette Moraga regional trail at the intersection. Pedestrian and bicycle activity is active along the two trails, especially on weekends. The alignment of the trail west of the intersection connects to School Road.

St. Mary's Road serves St. Mary's College. Moraga Commons Park is located at the northeast corner of the intersection. Crosswalks exist on the north side and the east side of the intersection. Single lanes of approach exist on all three legs. South of Moraga Road at the intersection the land use is mixed with storage land use with access onto School Road. School Road connects with Moraga Way to the west. Residential development north of the intersection is located approximately 0.75 miles away with access from Corliss Drive. A mix of multi-family and single family developments exist along St. Mary's Road

Geometry and Traffic Volumes

Figure 2 shows the existing intersection lane geometry at each intersection. Figure 3 shows the AM and PM Peak hour turning movements at each intersection. Counts at Campolindo Dr and St. Mary's Rd were conducted on September 4th, 2013. Counts at Rheem Blvd were conducted on April 17, 2012.

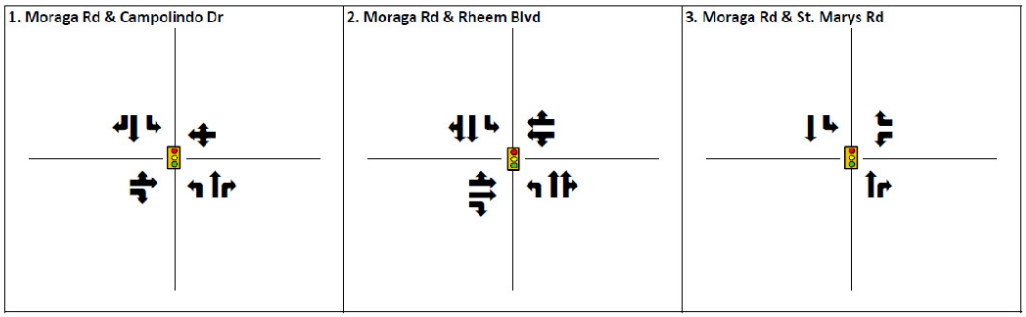
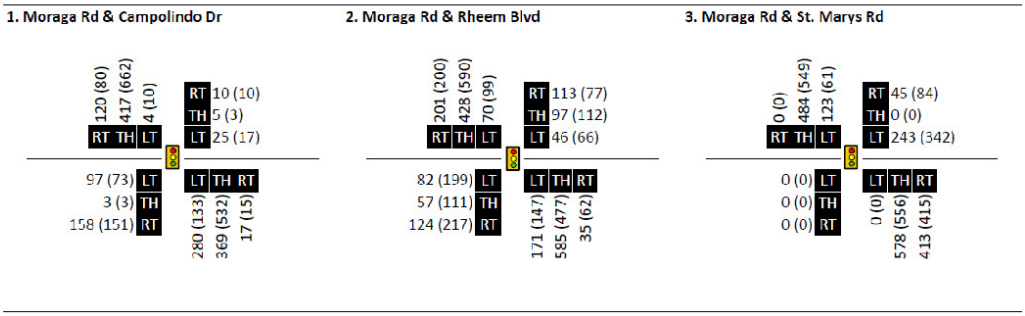


Figure 2: Existing Lane Geometry at Study Intersections

Moraga Rd
Existing Traffic Conditions
Page 5 of 10



Notes: xx(yy) represents AM (PM) Peak Hour

Figure 3: Existing AM and PM Peak Hour Turning Movements at Study Intersections

Bicycle and Pedestrian Volumes

Figure 4 shows the bicycle and pedestrian flows for the intersection of Moraga Road and Campolindo Drive. Figure 5 Shows the bicycle and pedestrian flows for the intersection of Moraga Road and St. Mary's Road. Counts at Campolindo Dr and St. Mary's Rd were conducted on September 4th, 2013. Bicycle and pedestrian counts were not collected for Rheem Boulevard.

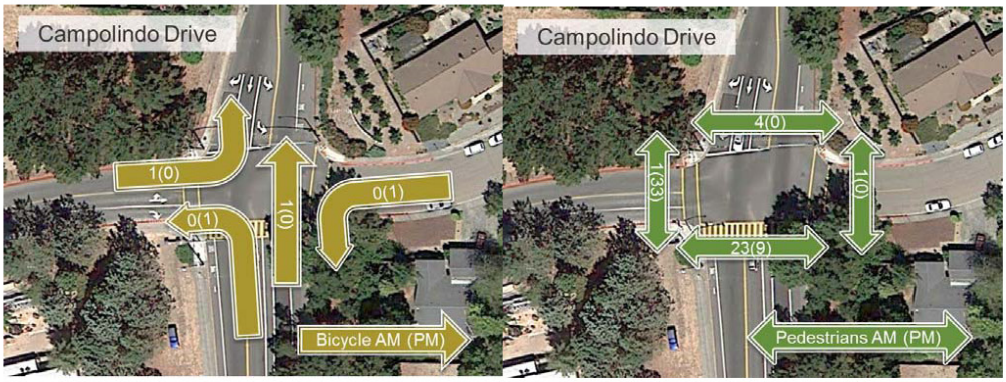


Figure 4: Existing AM and PM Peak Hour Bicycle and Pedestrian Volumes at Campolindo Drive

Moraga Rd
Existing Traffic Conditions
Page 6 of 10

Figure 5: Existing AM and PM Peak Hour Bicycle and Pedestrian Volumes at St. Mary's Road

Existing Average Daily Traffic Flows

24-hour counts conducted along Moraga Road between September 4th through 10th, 2013 are summarized in Tables 1 and 2 below.

Table 1 Northbound Moraga Road – Summary of Hourly Vehicle Flows

Time	North of Rheem Blvd		South of Donald Dr		North of St. Mary's Rd	
	Avg Weekday	Avg Weekend	Avg Weekday	Avg Weekend	Avg Weekday	Avg Weekend
12:00-1:00 AM	26	78	26	57	22	70
1:00-2:00 AM	15	41	12	35	11	34
2:00-3:00 AM	7	22	9	17	5	15
3:00-4:00 AM	7	11	5	9	4	9
4:00-5:00 AM	16	10	19	8	14	10
5:00-6:00 AM	59	15	63	14	44	11
6:00-7:00 AM	221	66	166	37	133	41
7:00-8:00 AM	647	142	535	103	406	112
8:00-9:00 AM	690	309	607	227	484	216
9:00-10:00 AM	520	464	511	409	451	371
10:00-11:00 AM	505	616	468	539	403	547
11:00-12:00 AM	530	640	519	610	422	537
12:00-1:00 PM	552	683	508	615	473	587
1:00-2:00 PM	531	652	508	555	461	500
2:00-3:00 PM	630	573	567	573	507	460
3:00-4:00 PM	742	550	662	534	577	424
4:00-5:00 PM	636	514	594	469	519	384

Moraga Rd
Existing Traffic Conditions
Page 7 of 10

5:00-6:00 PM	716	496	631	439	562	367
6:00-7:00 PM	721	474	584	394	516	399
7:00-8:00 PM	478	358	399	344	383	267
8:00-9:00 PM	308	250	268	232	252	232
9:00-10:00 PM	219	183	190	148	172	147
10:00-11:00 PM	134	172	90	115	105	103
11:00-12:00 PM	70	92	42	74	54	62

DKS Associates, 2013

Table 2 Southbound Moraga Road – Summary of Hourly Vehicle Flows

Time	North of Rheem Blvd		South of Donald Dr		North of St. Mary's Rd	
	Avg Weekday	Avg Weekend	Avg Weekday	Avg Weekend	Avg Weekday	Avg Weekend
12:00-1:00 AM	40	112	29	77	26	70
1:00-2:00 AM	21	55	16	50	16	46
2:00-3:00 AM	11	26	12	18	10	16
3:00-4:00 AM	8	12	6	9	6	8
4:00-5:00 AM	19	15	10	10	9	10
5:00-6:00 AM	61	24	34	17	24	17
6:00-7:00 AM	168	67	137	41	119	41
7:00-8:00 AM	473	122	456	129	392	122
8:00-9:00 AM	726	271	623	273	565	253
9:00-10:00 AM	491	423	458	459	439	429
10:00-11:00 AM	451	526	444	521	395	487
11:00-12:00 AM	491	601	503	605	436	548
12:00-1:00 PM	555	635	571	612	504	554
1:00-2:00 PM	547	653	552	635	480	568
2:00-3:00 PM	738	616	692	569	611	477
3:00-4:00 PM	819	579	752	553	660	472
4:00-5:00 PM	666	549	660	513	564	452
5:00-6:00 PM	748	509	699	512	599	438
6:00-7:00 PM	766	456	690	450	578	392
7:00-8:00 PM	584	366	528	385	454	318
8:00-9:00 PM	408	319	370	300	313	261
9:00-10:00 PM	283	236	243	217	216	184
10:00-11:00 PM	164	177	143	148	124	123
11:00-12:00 PM	86	107	66	81	56	66

DKS Associates, 2013

Intersection Level-Of-Service

Level of Service (LOS) is a measure of the degree of vehicle congestion that occurs during peak travel periods and is the traditional measure of roadway and intersection performance. Level of Service can range from "A" representing free-flow conditions, to "F" representing extremely long delays. LOS B and C signify stable conditions with acceptable delays. LOS D is typically considered acceptable for a peak hour in urban areas. LOS E is approaching capacity and LOS F represents conditions at or above capacity.

Traffic operational impacts were measured by looking at peak hour level-of-service (LOS) and average delay for three signalized intersections along Moraga Road. This analysis was performed using Synchro 8 and the procedures from the 2010 Highway Capacity Manual (HCM) Operational methodology. Synchro is a macroscopic analysis and

optimization software package used for optimizing and coordinating intersection signal-timing. LOS results for the AM and PM peak hours are summarized below in Table 3.

Table 3 Intersections Level of Service Summary

#	Intersection	Peak	Existing Condition	
			Delay	LOS
1.	Moraga Rd / Campolindo Dr	A.M.	12.7	B
		P.M.	12.2	B
2.	Moraga Rd / Rheem Blvd	A.M.	9.1	A
		P.M.	9.3	A
5.	Moraga Rd / St. Mary's Rd	A.M.	11.6	B
		P.M.	13.3	B

Source: DKS Associates, 2013
Notes: Average Delay (seconds per vehicle), LOS: Level of Service

Collision Summary

Recent traffic collision data was requested through the Moraga Police Department in October 2013. As of October 24th, Police Department Staff has yet to respond to the request. In the absence of more recent collision data, we will instead use available data from the Town of Moraga Engineering and Traffic Survey dated March 2013 for the period between 2009 and 2011, as summarized in Moraga's edition of the Statewide Integrated Traffic Records System (SWITRS). A review of the collision data shows that 34 collisions occurred on Moraga Road during the study period. Major accident types were rear-end collisions and broadside collisions. Unsafe speed was the primary factor for approximately 41% (14 out of 34) of these collisions. There were no collisions involving a pedestrian or bicycle during the study period. A summary of these collisions is located in Tables 4 and 5.

Moraga Rd
Existing Traffic Conditions
Page 10 of 10

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Table 4 Collision Summary by Type

Location	No. of Sideswipe	No. of Broadside	No. of Head-On	No. Of Rear-End	Other	Total
Moraga Rd & Campolindo Rd	1	0	0	1	2	4
Moraga Rd & Rheem Blvd	0	0	0	0	0	0
Moraga Rd & St. Mary's Rd	0	1	0	1	1	3
All other portions of Moraga Rd	1	5	0	13	8	27
Total	2	6	0	15	11	34

Table 5 Collision Summary by Primary Collision Factor

Location	Unsafe Speed	Involving Pedestrian/Bike
Moraga Rd & Campolindo Rd	1	0
Moraga Rd & Rheem Blvd	0	0
Moraga Rd & St. Mary's Rd	1	0
All other portions of Moraga Rd	12	0
Total	14	0

B Other Outreach and Engagement Notes

B.1 The Campolindo High School Cross Country Team Survey

The project team surveyed the Campolindo High School cross country team in October 2013 to better understand how the cross country team uses Moraga Road. Cross country team members were given a map and asked to mark their typical running routes. The students also noted locations where they cross Moraga Road, locations with narrow sidewalk, locations where they would like to have a sidewalk where one does not currently exist, and where they would like to have a soft surface trail. Students identified what issues they face along their running routes, such as missing sidewalks and poor sidewalk conditions, and the improvements they would like to see along Moraga Road.

Thirty-three students returned completed surveys. **Figure B-1** through **Figure B-6** present the survey results.

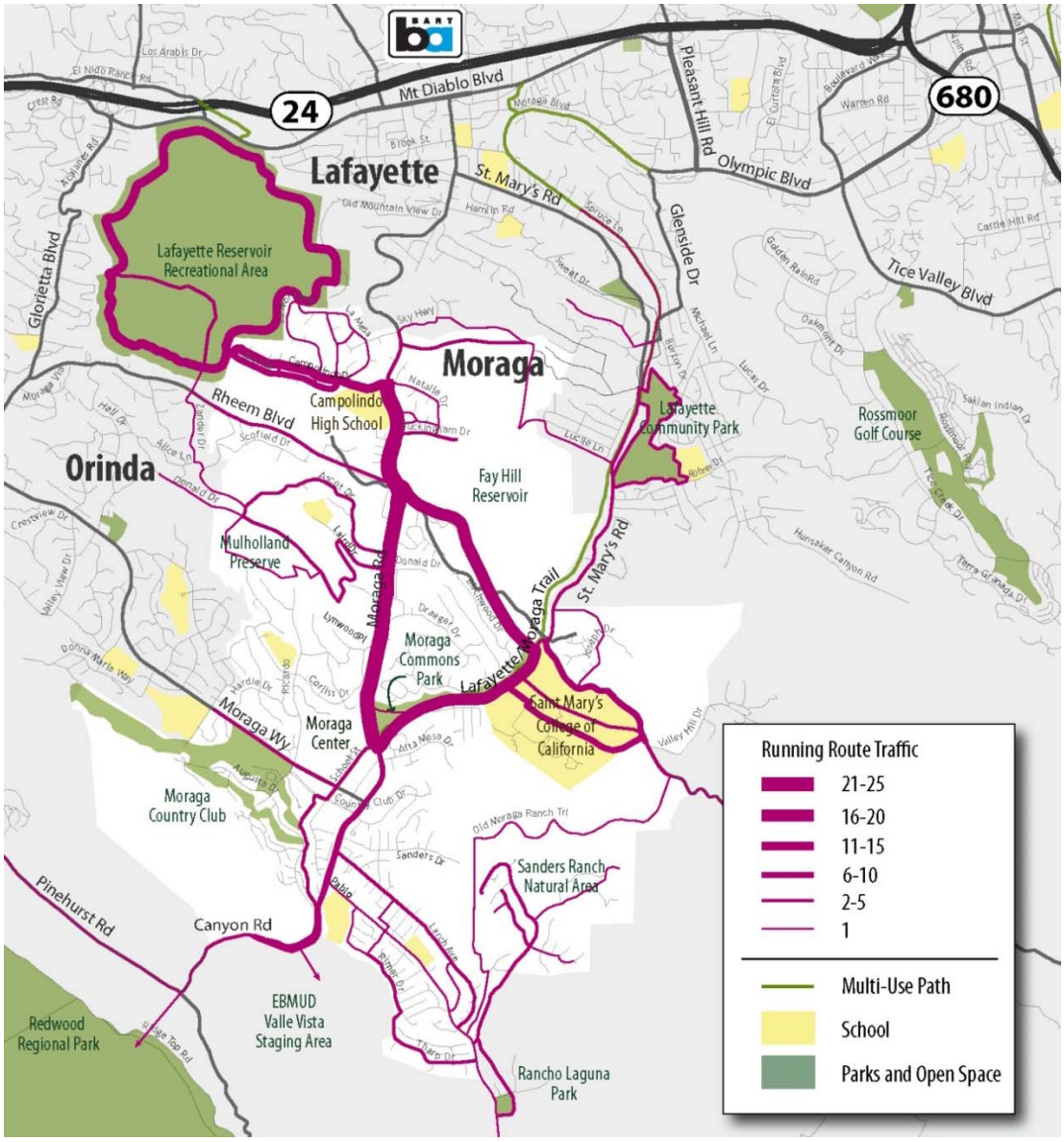


Figure B-1: Campolindo High School Cross Country Team Survey Results – Common Running Routes

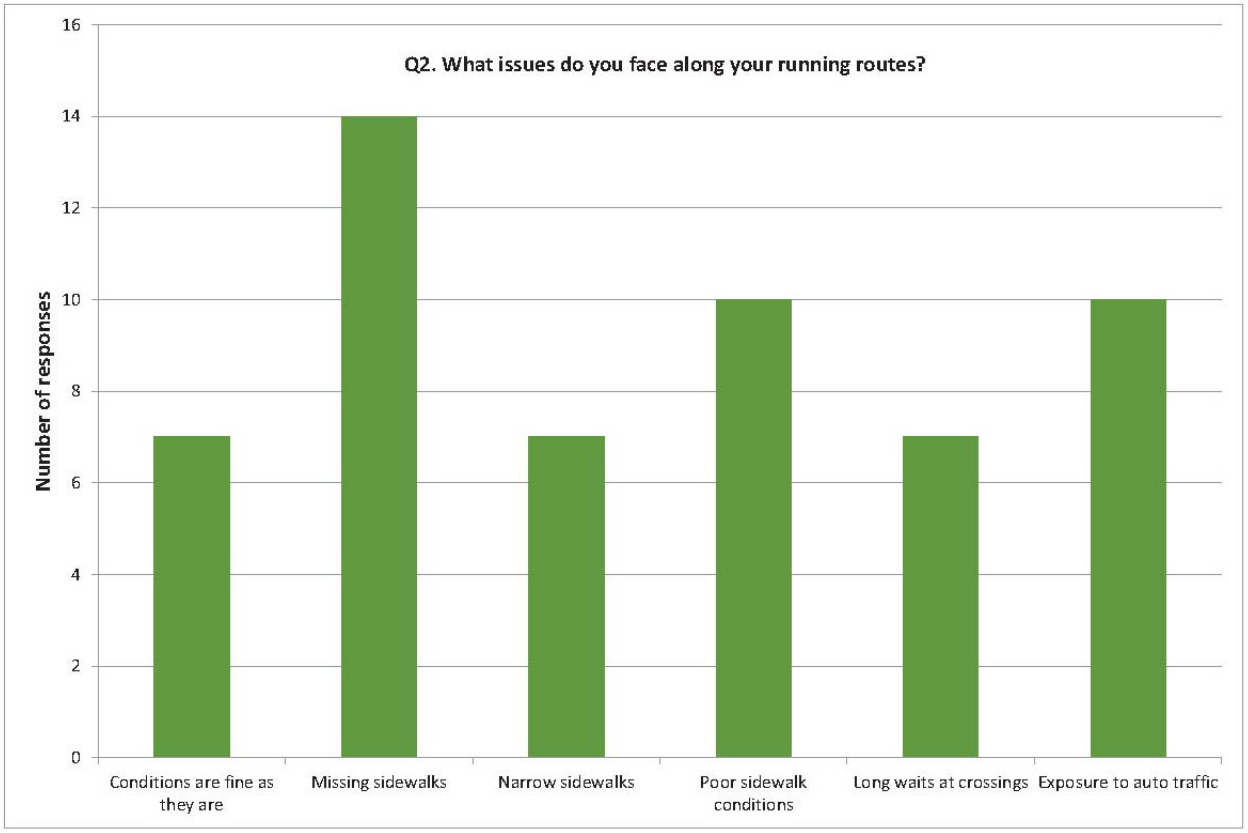


Figure B-2: Campolindo High School Cross Country Team Survey Results – What Issues Do You Face Along Your Routes?

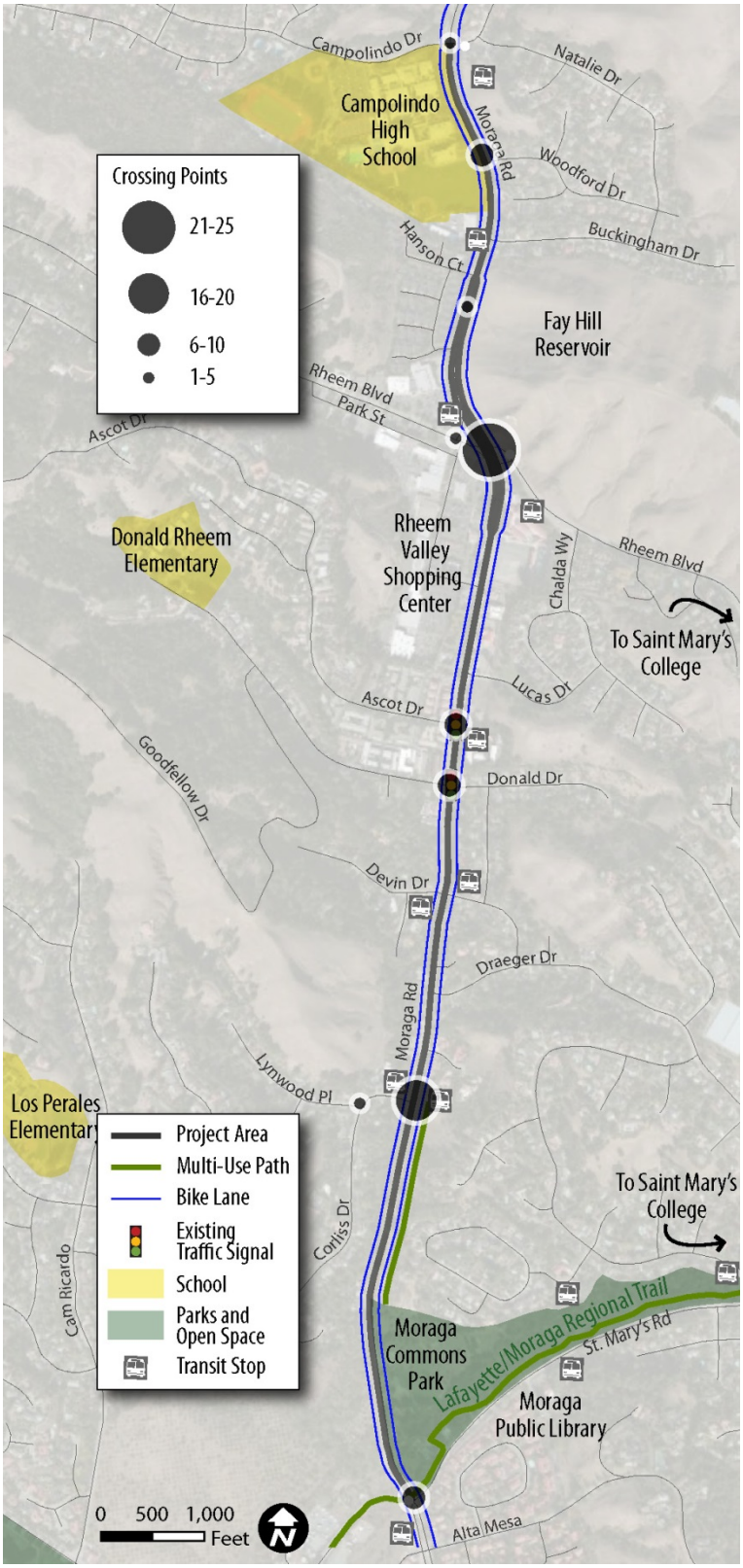
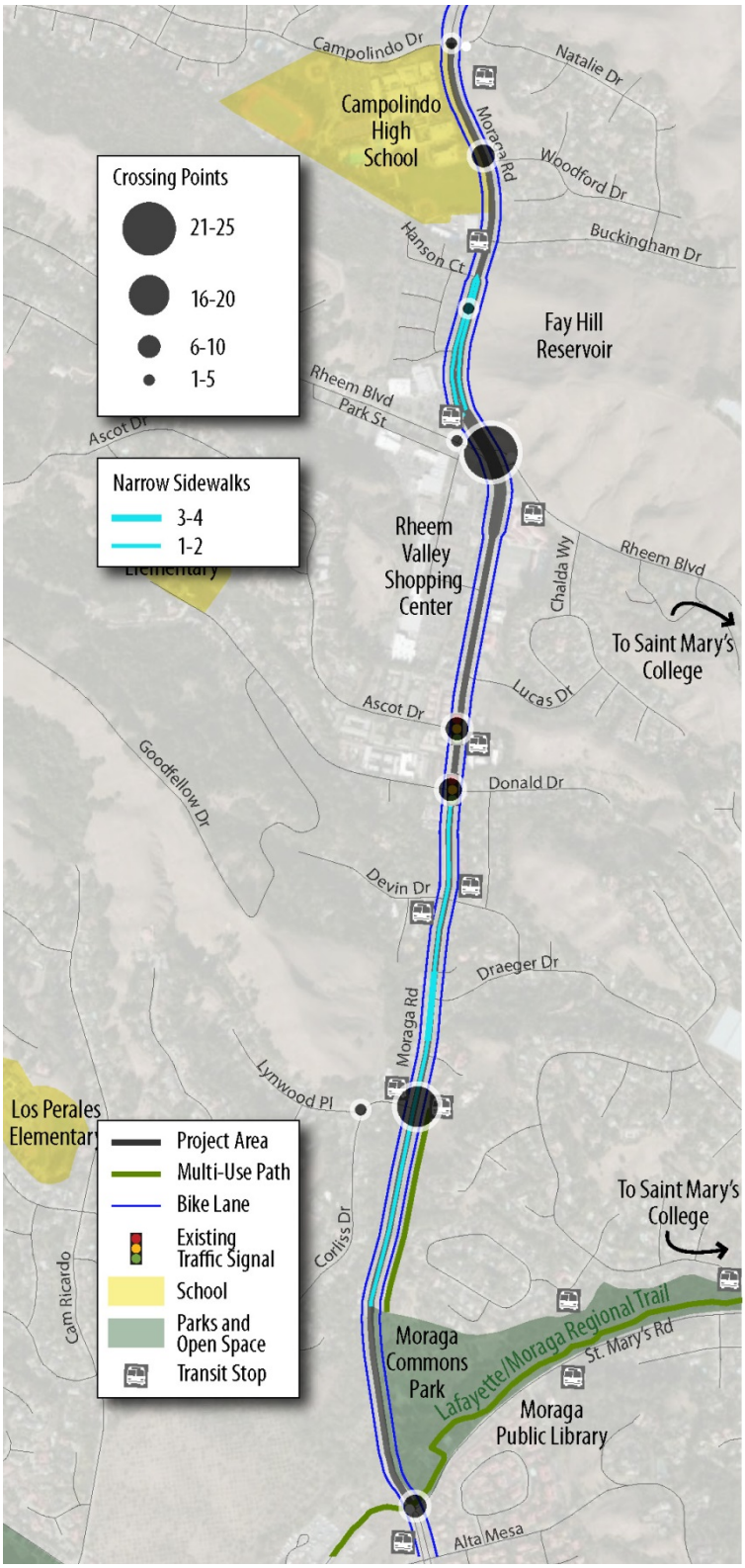


Figure B-3: Campolindo High School Cross Country Team Survey Results – Where Do You Typical Crossing Moraga Road?



Question 3 Description:

Cross Country Team members were asked to mark on a map of Moraga road the following conditions and locations:

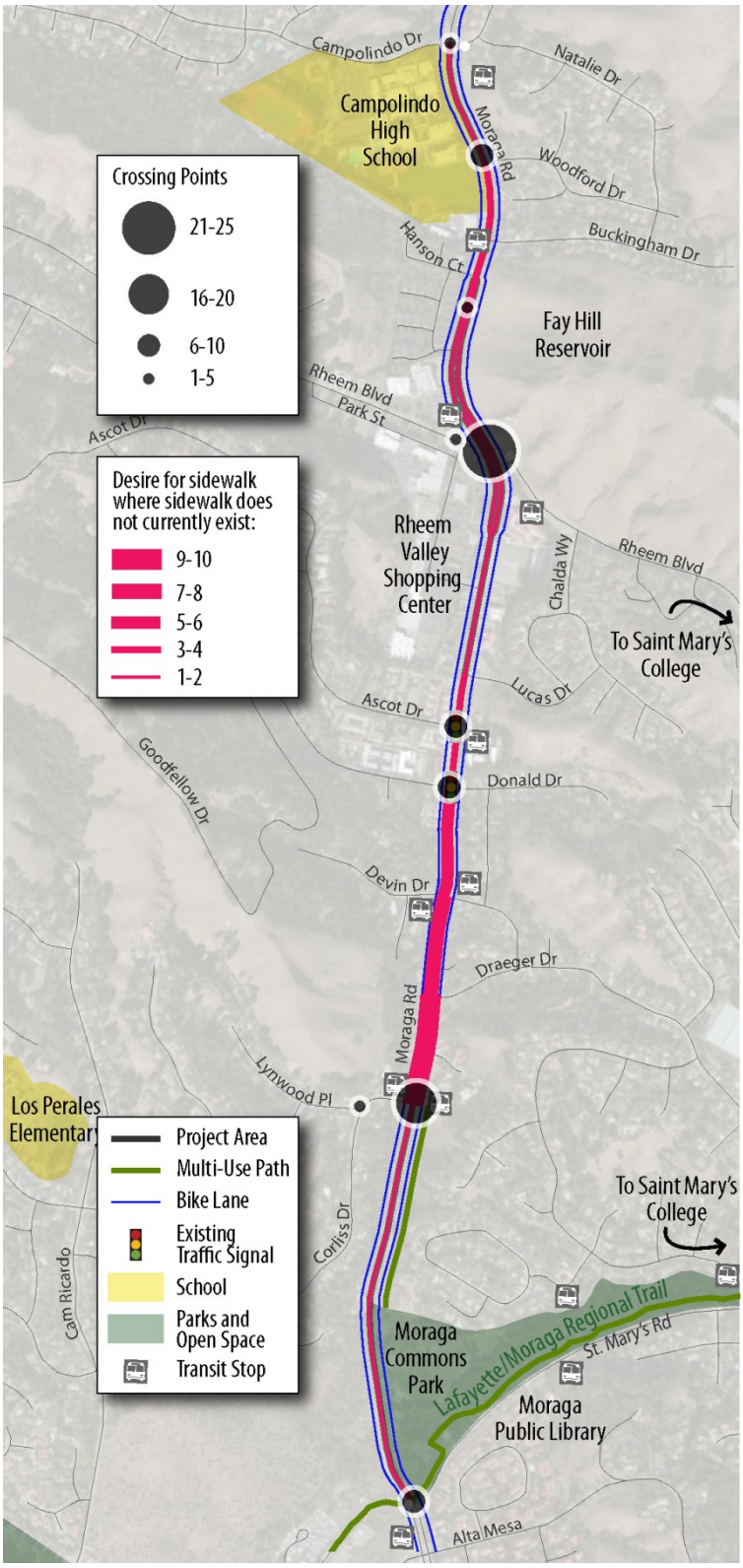
a) Typical crossing locations

b) Locations with narrow sidewalks

c) Locations where sidewalks are desired but do not currently exist

d) Locations where a soft surface trail is desired

Figure B-4: Campolindo High School Cross Country Team Survey Results – Which Areas Have Narrow Sidewalks?



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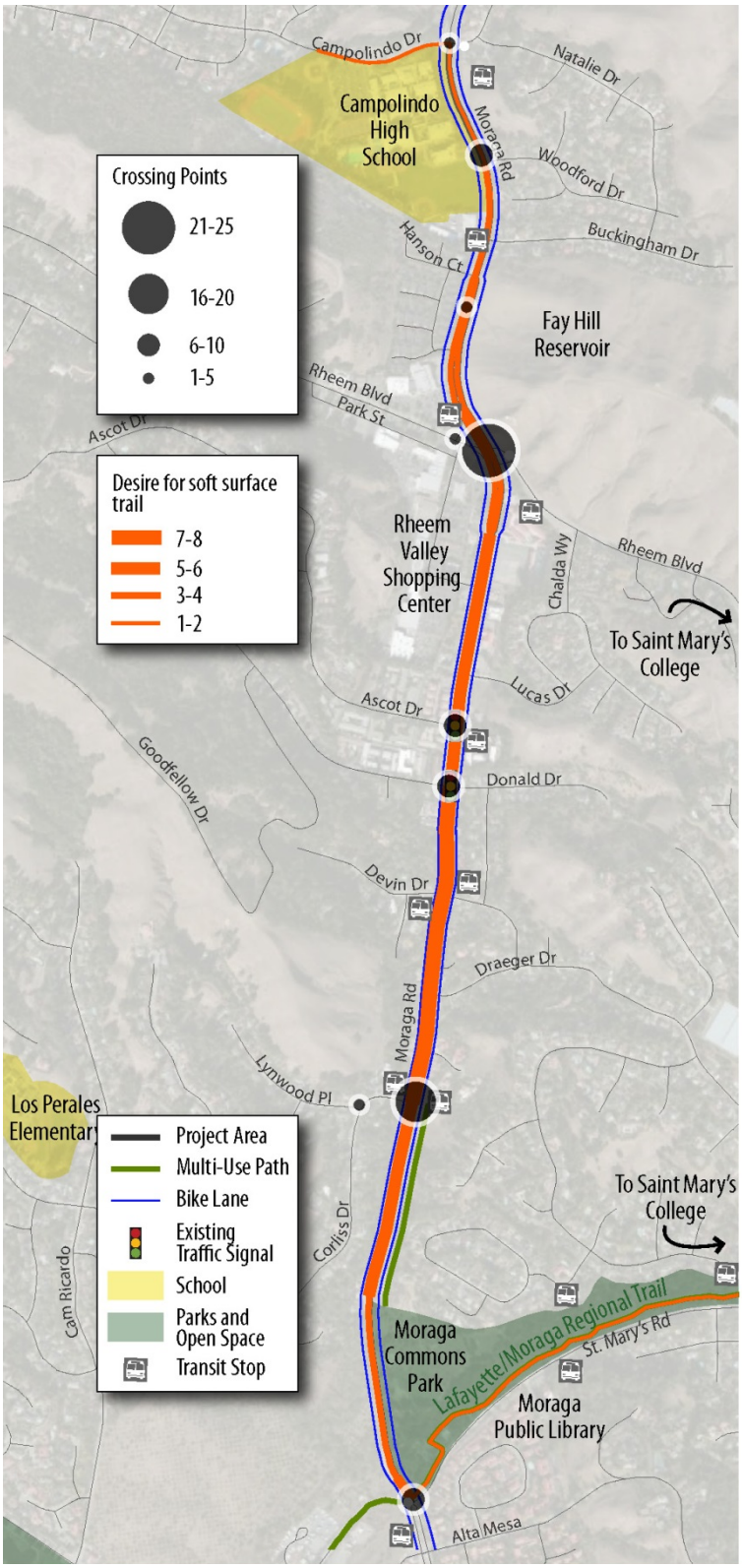
d) Locations where a soft surface trail is desired

Figure B-5: Campolindo High School Cross Country Team Survey Results – Where Would You Like to See Sidewalks?



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c) Locations where sidewalks are desired but do not currently exist

d) Locations where a soft surface trail is desired

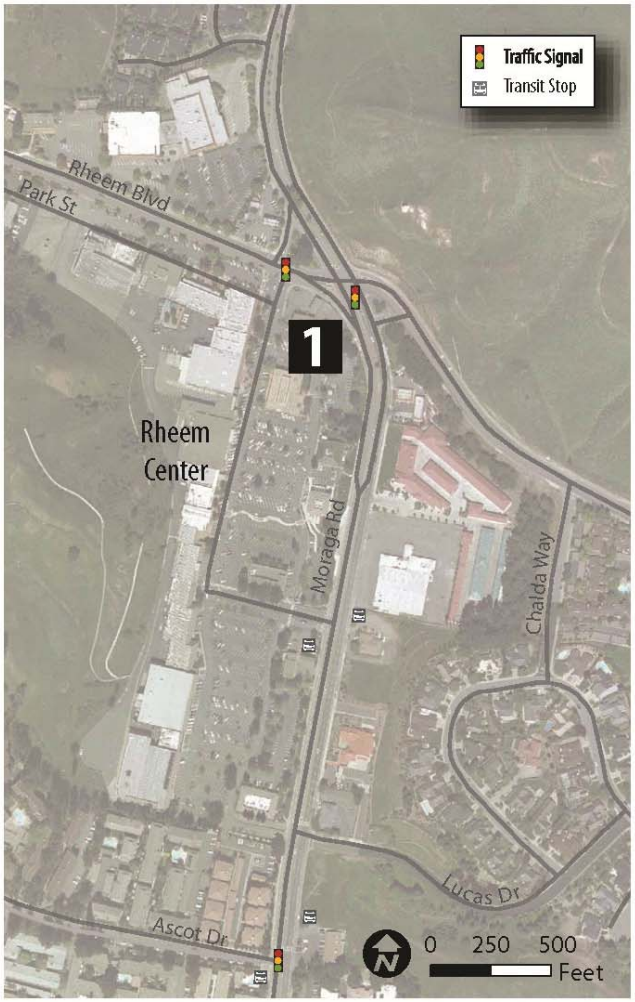
Figure B-6: Campolindo High School Cross Country Team Survey Results – Where Would You Like Soft Surface Trails?

B.1.1 Community Walking Tour

On Saturday, October 5, 2013, about 30 Moraga residents joined the project team to walk along Moraga Road from Rheem Boulevard to the Moraga Commons. Participants shared their observations and ideas based on their experiences using the corridor.

Figure B-7 through **Figure B-11** present notes from the walking tour.

Tour Stop 1: Rheem Center



General Comments (Tour Stop 1)

Vehicular Traffic
- Any changes will need to accommodate traffic flows
- Consider speed feedback signs; many cars seem to travel fast

Pedestrian Travel
- Traffic islands at Rheem Bouldvard require out-of-direction travel for pedestrians
- Wider sidewalks may help kids feel safter
- Consider motorized wheel chair access
- Sidewalk surfaces are rough

Bicycle Travel
- Some of the bike lanes don't function well. Narrow, poor asphalt condition, grates, and debris force cyclists to enter vehicular lanes
- Traffic signal timing favors cars and doesn't include bike detection
- Signal timing is too short for bikes to clear intersection while light is green
- Cyclists enter vehicular lane to avoid debris in bike lanes
- Wider bike lanes may help kids feel safter

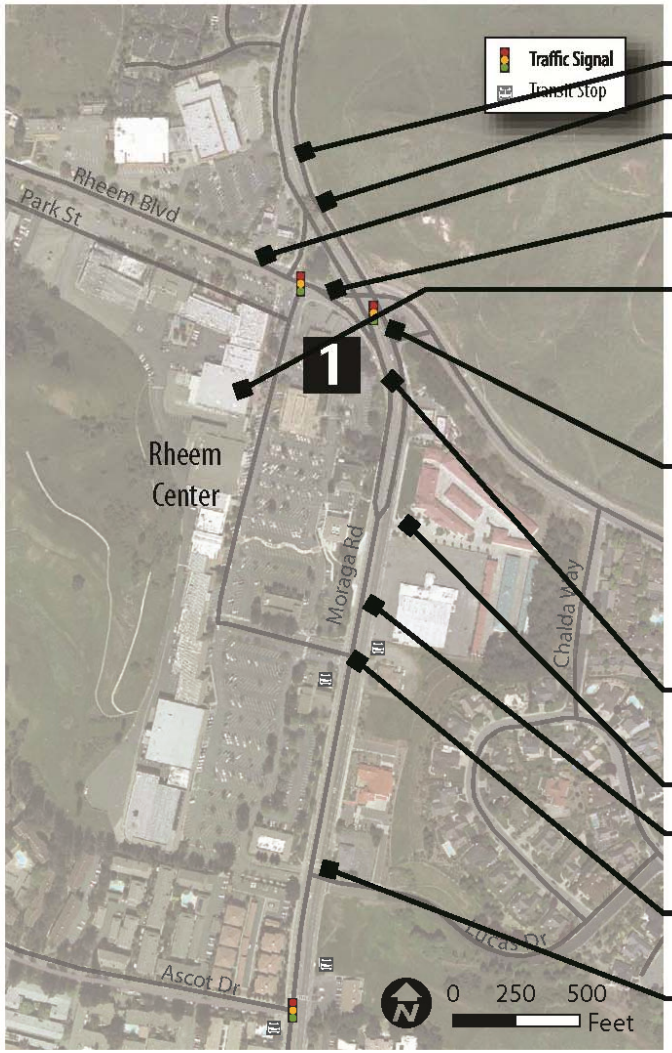
Roadway Crossings
- Not much to attract pedestrians to the east side of Moraga Road
- Crossing midblock feels safer than crossing at the Rheem Boulevard intersection (only two directions of traffic to consider)
- Consider in-pavement flashers at crossings

Shopping Center Access
- Can the shopping center entrance be reconfigured to reduce the number of traffic signals from two to one?
- Many choke points/decision points getting in/out of shopping center

Amenities
- More trees are needed, possibly along the roadway or in medians.
- Consider providing dog waste bag dispensers
- Better street lighting is needed
- Consider putting up additional banners on light fixtures
- More benches or other seating needed
- More secure bike parking would encourage more high school students to bike here
- City boundary: opportunity to make a special gateway?

Figure B-7: Community Walking Route – Tour Stop 1: Rheem Center (General Comments)

Tour Stop 1: Rheem Center

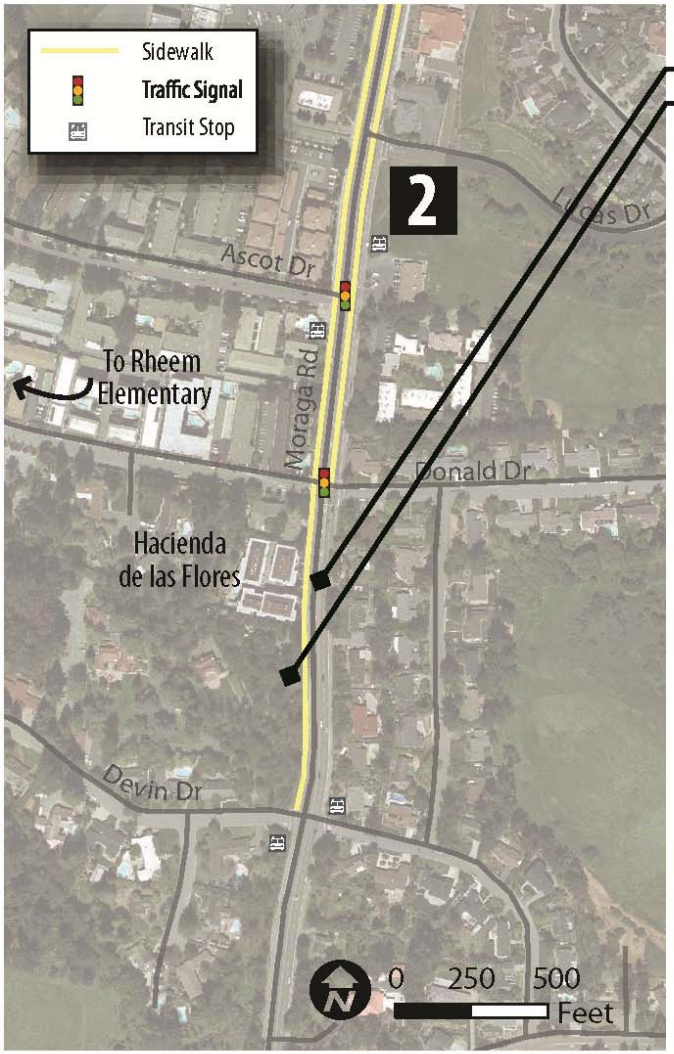


Specific Locations

- Traffic backs up from Campolindo to Rheem
- Trees in the median block motorist sight lines of pedestrians and cyclists
- More queue space is needed on Rheem for left turns onto Moraga Rd
- Lights too fast for all of the lights at the 2 intersections here. A 4-way pedestrian crossing could help
- Could streamline and consolidate into just one main intersection with wider turn lanes and more pedestrian friendly path
- The post office is a destination, but it's hard to get to
- No audible signal at crosswalk
- Walking routes through the Moraga Road/Rheem Boulevard intersection are circuitous
- Hard to watch for cars and pedestrians in the unrestricted right turn lanes
- Can't get from Nation's to Rheem Boulevard/Moraga Road crossing without jaywalking
- Change entrance into shopping center on Nation's side so that it doesn't affect main entrance traffic
- The "smart" traffic light trigger at Rheem Boulevard/Moraga Road works well for motorists
- Driving southbound on Moraga Road, after Rheem Boulevard, the right jog in road is too sharp for 35 mph
- Consider placing a concrete urn at the north end of the traffic island on Moraga Road as a gateway feature
- Consider that people walking to the Rheem Center from the new Via Moraga housing development (Bowling Alley site) may jay-walk
- Replace two-way turn lane with landscape median and turn pockets
- Consider a crosswalk between the bus stops; people take the bus to shop but then walk out of direction or jay-walk to get to the other side of the street to catch the bus home
- Northbound buses block traffic
- Consider lighting and yield teeth (a line of white triangular pavement markings) at the crosswalk at Lucas Drive to improve visibility of the crossing

Figure B-8: Community Walking Route – Tour Stop 1: Rheem Center (Comments that relate to Specific Locations)

Tour Stop 2: Ascot Drive to Devin Drive



Specific Locations

No good way to cross road south of Donald Dr

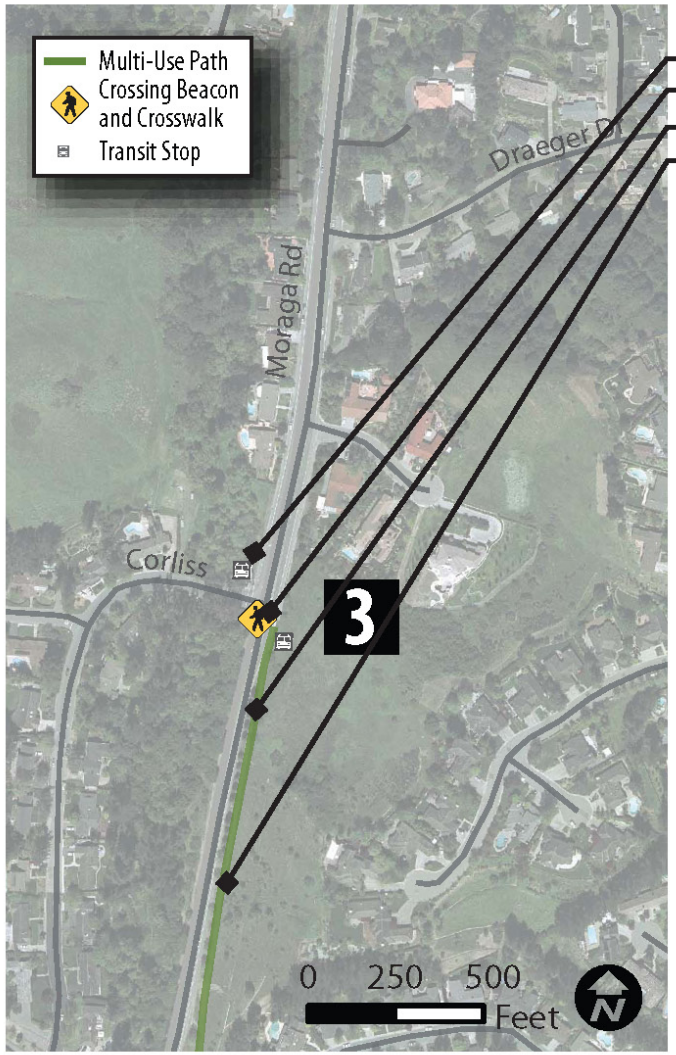
Entry to Hacienda poorly defined, poor signage

General Comments

- Enhance amenities for transit stops
- No street lighting; very dark at night
- Increase bus service. Free bus service would be ideal
- Elementary schools have bus service; the high school has one bus
- Cars park on shoulder
- Cars turning into and backing out of driveways can block traffic
- Driving - don't need more stop lights, existing turn lanes (left) are sufficient

Figure B-9: Community Walking Route – Tour Stop 2: Ascot Drive to Devin Drive

Tour Stop 3: Corliss Drive



Specific Locations

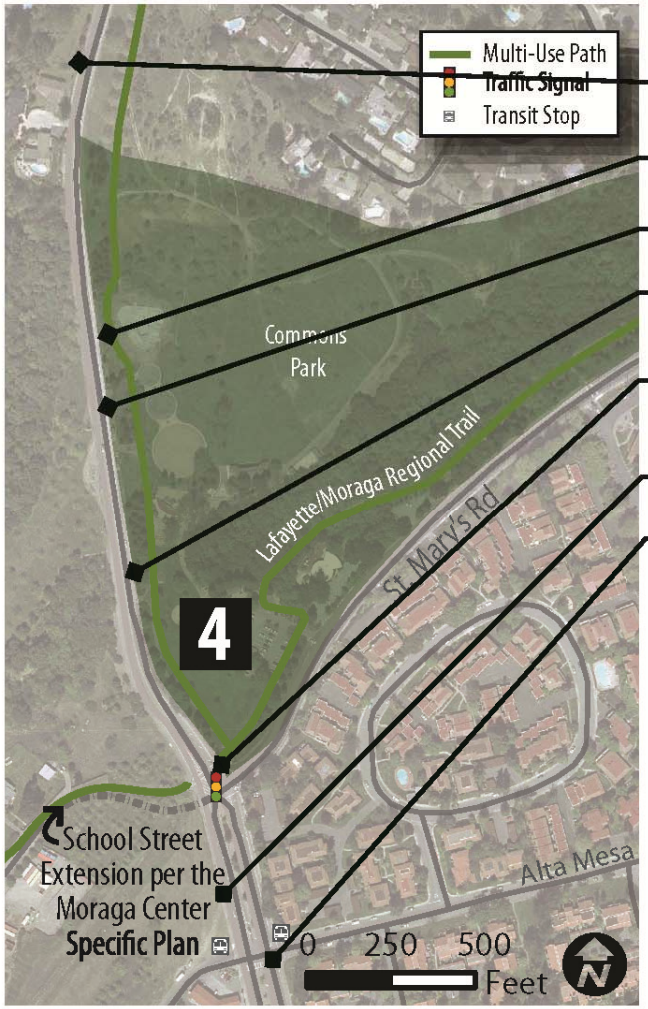
Bus stop complicates movements
Need pedestrian signalhead so pedestrians know it's OK to cross
Shrubs block bike path here
Lots of cars driving 50 mph

General Comments

- Put utility lines underground
- Inconsistent crosswalk treatments along Moraga Road
- Cracks in the pavement
- Kids ride the wrong way and wear dark clothes
- Northbound sightlines are not great due to hill

Figure B-10: Community Walking Route – Tour Stop 3: Corliss Drive

Tour Stop 4: St. Mary's Road



Specific Locations

Northbound on Moraga Rd past skatepark, people pass on the right as cars wait to turn left into cul-de-sac for three houses. Passing cars sometimes go off road and get stuck in the gutter

Roadside lamp does nothing for traffic safety and only encourages skate park use after hours

People illegally park outside new parking lot. Car tires kick-up gravel into bike lane, causing bikes to enter the vehicular lane

Left turn into and out of parking lot feels dangerous

Add benches and lookout at creek crossing

Add a crosswalk on south side of the St. Mary's Street intersection

Moraga Garden Club installed and maintains the landscaping at intersection

Bike detection needed at the traffic signal

Gateway opportunity at St. Mary's Road: connect the park, library, and shopping

The overflow parking south of St. Mary's Road is located on private property

From Alta Mesa, it is very difficult to make a left or go straight

The crosswalk at Alta Mesa crosses two lanes of traffic in each direction; it can be hard for a motorist in the far lane to see a crossing pedestrian

General Comments

- Consider undergrounding the power lines to make room for improvements
- Reach out to Mom's Council at Church, middle schools, high schools
- Improve routes kids take to get to schools in this area
- Benches, water fountains, bike racks, and restrooms would encourage more pedestrian use
- More foot traffic to Moraga Center is good for business
- A better bike connection to get to the shopping center is needed
- No sidewalk or bike lanes
- Traffic is worst near Miramonte and Campolindo
- Need overflow parking for Commons Park
- With the new parking lot, fewer people park on the street where they would open doors near traffic--good improvement
- Traffic flow functions well in this area
- There is a year-round Farmers Market from 9am-1pm Sundays at the Moraga Center. Opportunity to get more public input on the project?

Figure B-11: Community Walking Route – Tour Stop 4: St. Mary's Road

B.2 Web-Based Survey

The project team prepared an online survey to collect community-identified issues and interests. The survey was launched prior to the first Community Workshop to collect location specific input on corridor issues. As of November 21st, 2013, 25 responses have been submitted.

Corridor-Wide Questions

Respondents stated their top five qualities and features of Moraga Road to be safe facilities for pedestrians (79% agree), safe facilities for bicyclists (71% agree), smooth flowing traffic (67% agree), view of the hillsides (63% agree), and the semi-rural character (50% agree) (see **Figure B-12**). Three respondents typed in other qualities or features, including flat terrain, that allow for an easy bicycle ride and attractive landscaping.

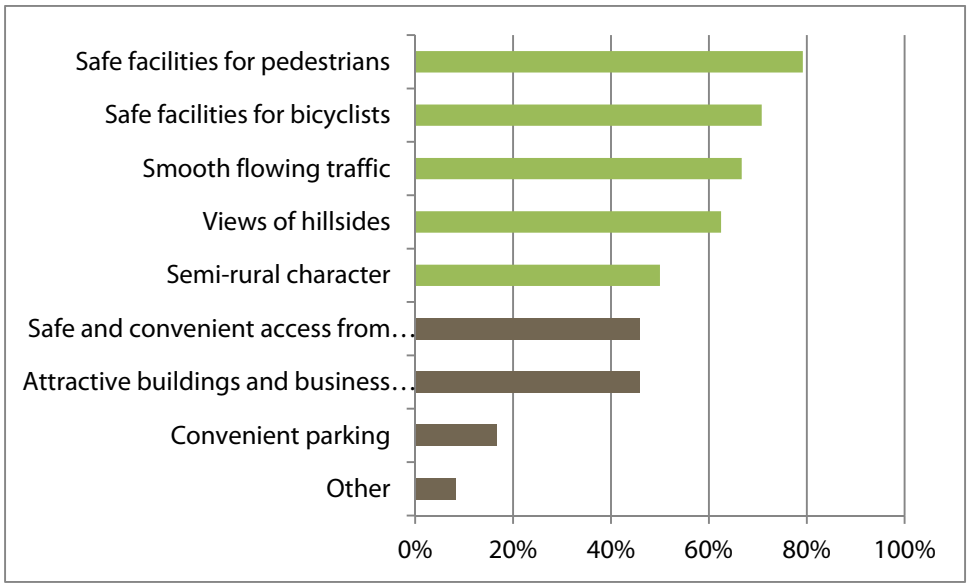


Figure B-12: Survey Question 1 Response. What are the most important qualities and features of Moraga Road to you? Please select your top five.

Most respondents (63%) stated the segment of Moraga Road they like best is the segment from Corliss Drive to St. Mary's Road (see **Figure B-13**). Respondents stated they like this segment best because of its rural feel, the presence of trees and other vegetation, the ability to walk and bike on a facility separate from the roadway, and fact that there are few cross streets, reducing the amount of traffic entering the roadway. Others stated the segment they like best is from Rheem Boulevard to Ascot Drive (25% agree) and from Campolindo Drive to Rheem Boulevard (13% agree). Respondents like the four vehicular lanes, openness, and lack of signals between Rheem Boulevard and Ascot Drive. Respondents like the bike lanes, separate pedestrian facility, and vehicle lane configuration between Campolindo Drive and Rheem Boulevard.

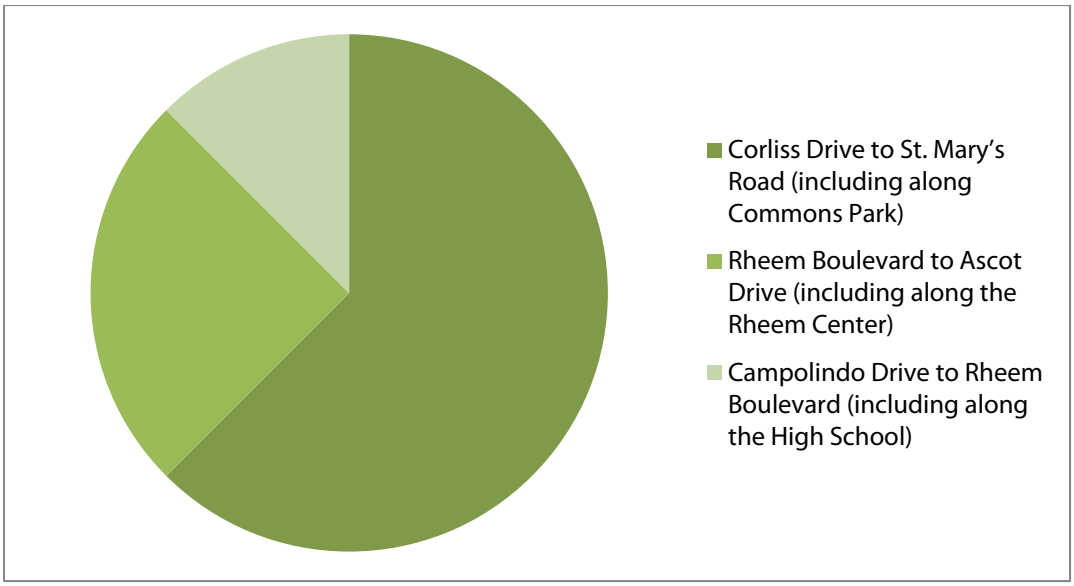


Figure B-13: Survey Question 2 Reponses. What segment of Moraga Road do you like the most? Please check one segment.

When asked which segment of Moraga Road they like least, most respondents stated Campolindo Drive to Rheem Boulevard (33% agree), Ascot Drive to Corliss Drive (25% agree), Rheem Boulevard to Ascot Drive (21%), and Corliss Drive to St. Mary's Road (21% agree) (see **Figure B-14**). Aspects of the Campolindo Drive to Rheem Boulevard segment that respondents dislike include congestion along the roadway and difficulty entering Moraga Road during school pick-up and drop-off times and the appearance of the high school grounds. One respondent stated safety at the roadway crossing as a concern. Aspects of the Ascot Drive to Corliss Drive segment that respondents dislike include lack of pedestrian and bicycle facilities, fast traffic, and its wide, non-descript nature. Disliked aspects of the Rheem Boulevard to Ascot Drive segment include the appearance of the corridor and lack of cohesive development and turn lanes. Disliked aspects of the Corliss Drive to St. Mary's Road segment include the reduced vehicular travel lanes, which impedes the traffic flow, the presence of potholes and failed pavement, and that the pedestrian path ends.

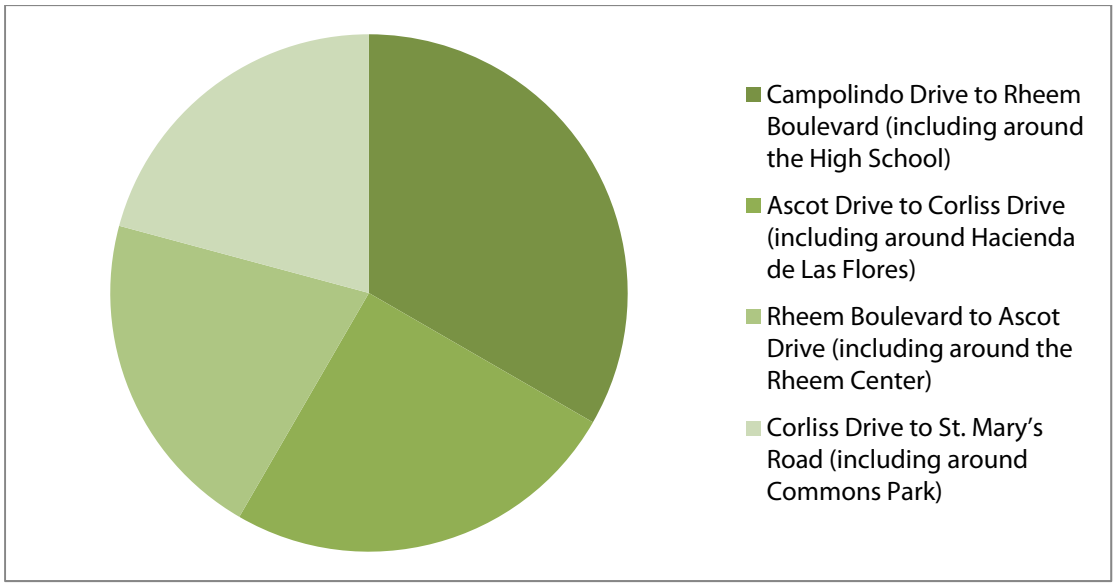


Figure B-14: Survey Question 3 Responses. What segment of Moraga Road do you like the least? Please check one segment.

Walking-Specific Questions

Most respondents walk to Moraga Commons/Lafayette-Moraga Trailhead (64% of respondents), Rheem Center shops and restaurants (60%), Moraga Center shops and restaurants (28%), Campolindo High School (16%), and the Hacienda (16%) (see **Figure B-15**). Some respondents (16%) stated they do not walk along Moraga Road.

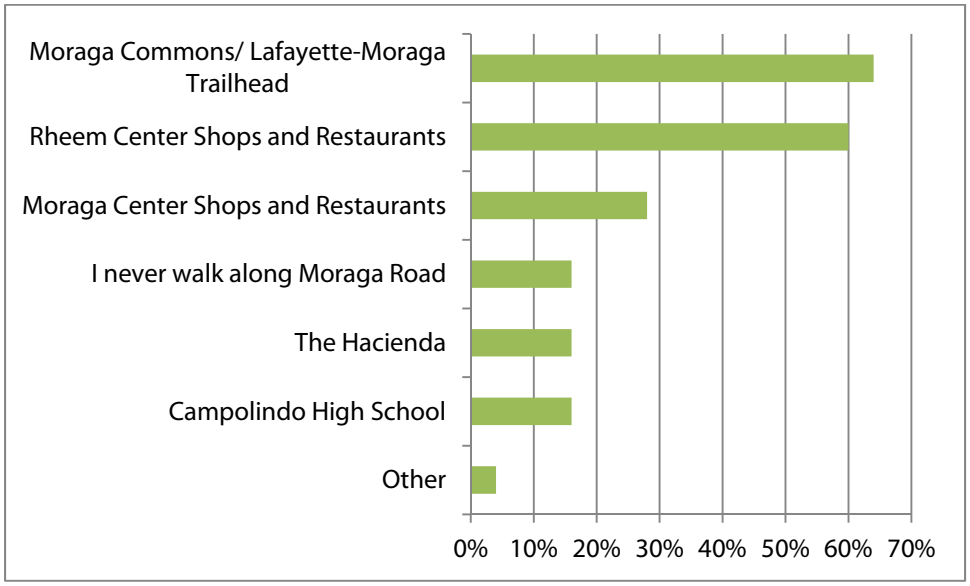


Figure B-15: Survey Question 4 Responses. Please identify your key walking destinations along Moraga Road. Check all that apply.

The top three improvements that would encourage respondents to walk along Moraga Road include continuous sidewalks or pathways (87% agree), landscaping (e.g., street trees) (48% agree), and lighting (35% agree) (see **Figure B-16**). Other improvements that respondents said would encourage walking include wider sidewalks (30% agree), benches (9% agree), and wayfinding signage (9% agree).

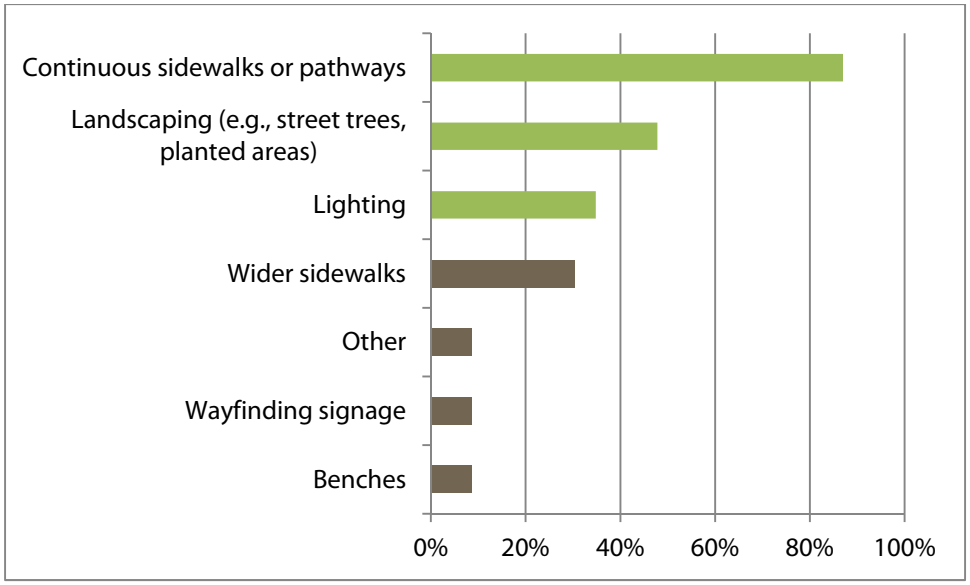


Figure B-16: Survey Question 5 Responses. What physical improvements would encourage you to walk more along Moraga Road? Please select your top three.

Bicycling-Specific Questions

Approximately half of the survey respondents (46%) stated they do not bicycle along Moraga Road (see **Figure B-17**). Others bike along Moraga Road to reach regional bicycle routes (eg. Lafayette-Moraga Trailhead, Lamorinda Loop, and Canyon Road) (42% of respondents), Moraga Commons (25%), Rheem Center shops and restaurants (17%), Moraga Center shops and restaurants (17%), the Hacienda (13%), and Campolindo High School (8%).

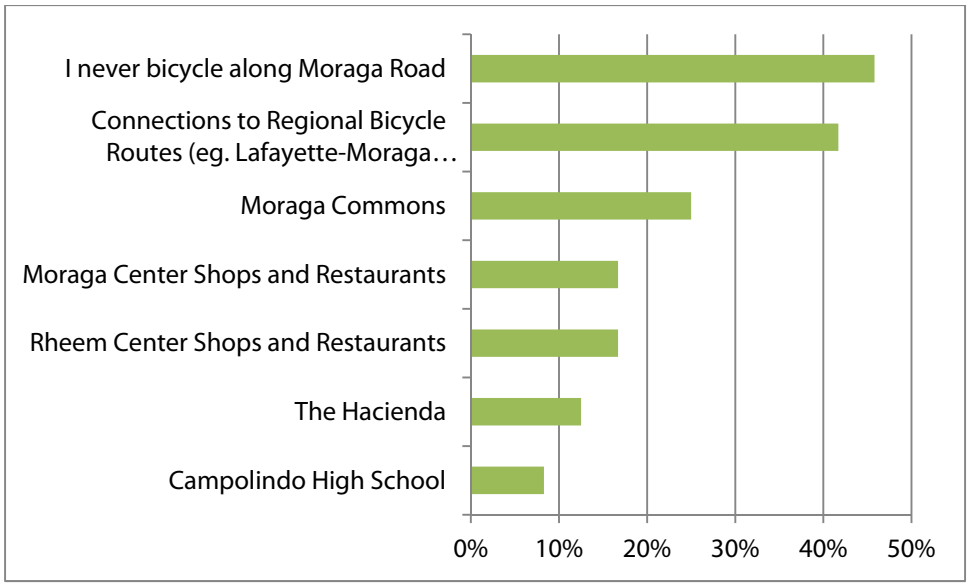


Figure B-17: Survey Question 6 Responses. Please identify your key bicycling destinations along Moraga Road. Check all that apply.

When asked for the top three physical improvements that would encourage them to bicycle more along Moraga Road, those who responded stated wider on-street bike lanes (67% agree), a continuous pathway (67% agree), and intersection improvements (e.g., bicycle detection) (45%) (see **Figure B-18**). Other improvements respondents believe would encourage bicycling include lighting (17%), "Share the Road" signage (17%), landscaping (11%), and wayfinding signage (6%). Approximately 30% of survey respondents skipped this question.

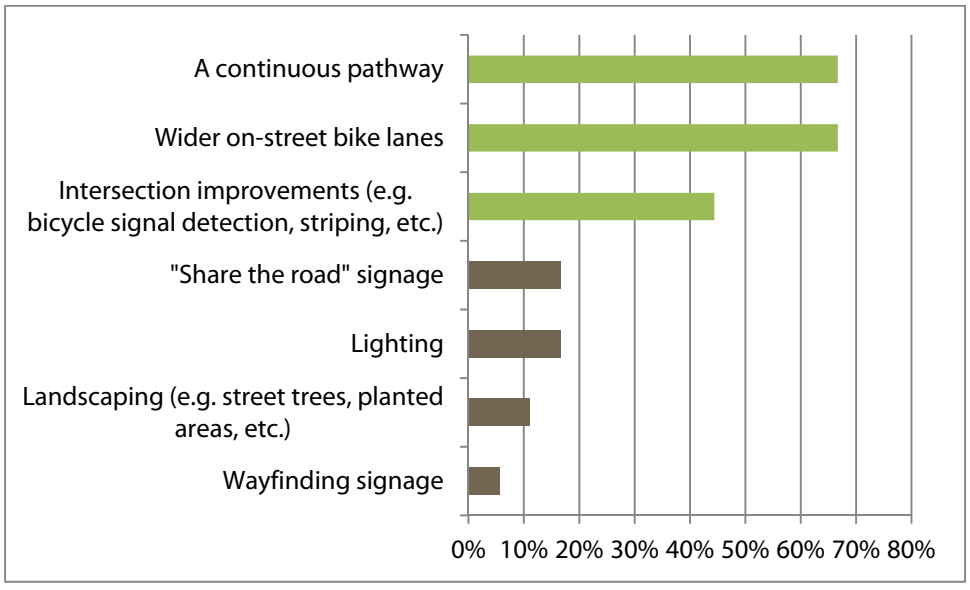


Figure B-18: Survey Question 7 Responses. What physical improvements would encourage you to bicycle more along Moraga Road? Please select your top three.

Transit-Specific Questions

Most respondents (60%) stated they do not take transit along Moraga Road. Others stated they take transit to BART (36%), to work or shopping at a destination in Moraga (8%), to school or college (4%), and/or to work or shopping at a destination outside Moraga (4%) (see **Figure B-19**).

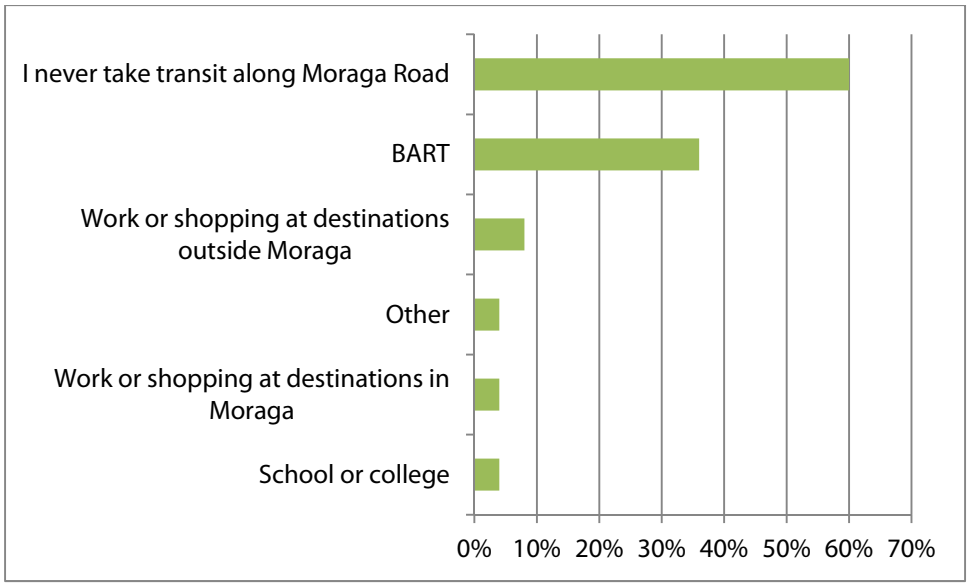


Figure B-19: Survey Question 8 Responses. Where do you take transit to? Check all that apply.

When asked for their top three improvements that would encourage them to take transit more often, respondents stated more frequent service (77%), better bus stop amenities (e.g., bus shelters, benches, lighting, landscaping) (41%), and easier access to bus route information via website, cell phone, or LED reader at bus stops (24%) (see **Figure B-20**). Others stated better roadway crossing and sidewalk access (18% agree) and more bus stops (18%) would encourage them to take transit more often. Approximately 30% of respondents skipped this question.

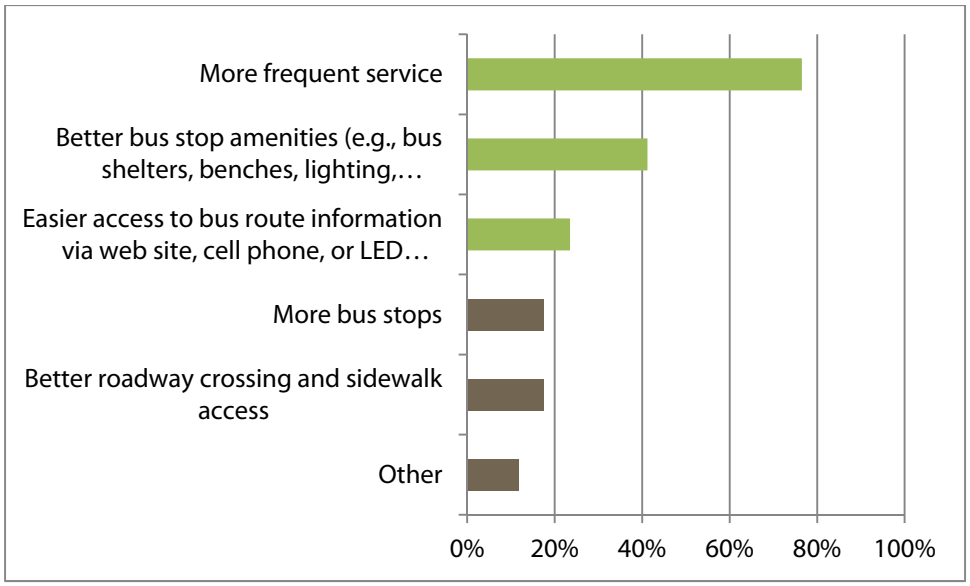


Figure B-20: Survey Question 9 Responses. What improvements would encourage you to take transit more often? Please select your top three.