

RAPID IMPLEMENTATION SCHOOL SAFETY PLANS

Stanley Middle School and Lafayette Elementary School



April 1, 2022



TOOLE
DESIGN

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Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, concept drawings, cost opinions, and commentary contained herein are based on limited data and information and on existing conditions that are subject to change and have not been field-verified. Further analysis and engineering design are necessary prior to implementing any of the recommendations contained herein.

STANLEY MIDDLE SCHOOL AND LAFAYETTE ELEMENTARY SCHOOL RAPID IMPLEMENTATION SCHOOL SAFETY PLANS

Introduction and Background Context

Toole Design was contracted by the City of Lafayette to study school safety issues and develop implementation plans to improve safety for students and caregivers walking, bicycling, and driving to and from the City's seven schools. In response to a heightened level of community concern about school-related traffic safety, this Rapid Implementation Safety Plan addresses these concerns by consolidating recommendations from past studies and public comments, adding new recommendations since these studies were completed, and prioritizing recommended projects so the most important safety improvements can be installed as soon as possible.

This report includes:

- A summary of relevant data and previous Safe Routes to School planning efforts
- A summary of the school site visits conducted with City of Lafayette staff, Transportation & Circulation Commissioners, Lafayette School District staff and community members
- Recommendations for short, mid- and longer term improvements to address safety and access

Data and Document Review Summary

Previously, the City of Lafayette completed two Safe Routes to School plans, including the 2013 Safe Routes to School Summary Report¹ and the 2020 Berkeley SafeTREC City of Lafayette Complete Streets Safety Assessment². The City has also received public comments that identify safety issues and, in some cases, provide recommendations for safety improvements. Relevant points from each of these sources are summarized here to help inform the list of project recommendations.

2013 Safe Routes to School Summary Report

The 2013 Safe Routes to School Summary Report includes recommendations for Lafayette Elementary School and Springhill Elementary School. The section on Lafayette Elementary School also includes recommendations for the area immediately surrounding Stanley Middle School. At a high level, these recommendations include widening the sidewalk along School Street, adding a new sidewalk along Topper Lane, and enhancing the crossing at Saint Mary's Road and Solana Avenue (just west of Avalon Avenue). This project included a review of these recommendations and additional refinements before including them in a new compiled recommendations list. The detailed recommendations from this report are included in the recommendations section in Table 1-3.

¹ Available on the City of Lafayette website at: <https://www.lovelafayette.org/home/showpublisheddocument/6437/637475310411830000>

² Available on the City of Lafayette website at: <https://www.lovelafayette.org/home/showpublisheddocument/6474/637516032395500000>

2020 Berkeley SafeTREC City of Lafayette Complete Streets Safety Assessment

The 2020 Berkeley SafeTREC City of Lafayette Complete Streets Safety Assessment provides recommendations to improve walking and bicycling in the City of Lafayette. To start, the assessment includes the following citywide recommendations to improve walking and bicycling:

- Advance limit lines (STOP bars) installed 4' in advance of the crosswalk
- Corner curb extensions (hardscape)
- Interim curb extensions (using paint and flexible delineators)
- Crosswalk markings
- Leading pedestrian interval
- Center islands on side streets (hardscape)
- Left-side warning signs (in addition to existing right-side warning signs for pedestrian and/or bicyclist crossings)
- Left-side signs on medians (in addition to existing right-side warning signs where feasible)
- Upstream sightlines (restrict parking within 20' of crosswalks – potentially installing curb extensions or bike corrals in these locations)
- Yield lines on multi-lane approaches in advance of crosswalks
- Directional curb ramps (rather than diagonal curb ramps)
- Pedestrian push-button accessibility
- Double yellow centerline 50 feet in advance of crosswalk
- Bicycle and motorcyclist detection on all actuated approaches to traffic signals
- Left-aligned sharrows in right turn lanes where width is insufficient to provide a full-width through bike lane
- Bicycle wayfinding signs

The assessment also identifies three focal areas for further investigation, one of which is the area surrounding Lafayette Elementary School and Stanley Middle School. At a high level, recommendations in this section include improving the sidewalk/crosswalks in front of Stanley Middle School on School Street, adding a crosswalk across School Street to connect directly to the Lafayette-Moraga Regional Trail, adding crosswalks across side streets along School Street, and reconfiguring Topper Lane to delineate space for people walking and bicycling. This project included a review of these recommendations and additional refinements before including them in a new compiled recommendations list, shown in Table 1-3.

Summary of Public Comments

A total of 13 public comments from 10 individuals were received about Stanley Middle School or about Safe Routes to School issues in Lafayette in general. These comments included the following topics:

- Restricting parking in certain areas to provide more space for people walking and bicycling
- Reducing the school zone speed limit to 15 miles per hour
- Building a protected lane or shared use path for students and caregivers walking and bicycling on School Street
- Enhancing the existing crosswalk on St. Mary's Road at Solana Drive with a raised crossing and flashing lights
- Scheduling construction to occur outside of the school year to reduce impacts on travel to and from school
- Adding an all-red phase to traffic signals around schools between the traffic signal turning red for motor vehicle traffic and the pedestrian walk signal turning on

- People illegally parking motor vehicles in the crosswalks along School Street
- Increasing police enforcement of parking restrictions in school zones
- Concerns about a person who drove their motor vehicle onto the Lafayette-Moraga Regional Trail
- Concerns about conflicts between people driving and people walking and bicycling along the School Street/Topper Lane curve, suggesting installing bollards to protect people walking and bicycling
- Adding raised crosswalks in school zones to slow people driving motor vehicles and improve pedestrian crossings
- Stanley Middle School parking lot exit: reducing the exit to one lane only and widening the crosswalk that runs along School Street from the School east across the parking lot access driveways
- Prioritizing people walking, bicycling, and taking transit over people driving cars in the design of all streets in Lafayette
- Focusing on reducing dangerous driving behavior
- Considering busing to reduce congestion

These comments were considered along with the recommendations from the 2013 and 2020 plans to create a new refined list of recommendations included in Table 1-3 of this plan.

Copies of each public comment email are included in Appendix B: Public Comments.

Citywide Recommendations

Through review of these reports and public comments, some recommendations were categorized as citywide recommendations. These include:

- Increase Lafayette Police Department enforcement of traffic laws including no parking, no stopping, and no u-turns
- Develop Safe Routes to School example maps for each school showing optimal walking and biking paths
- Continue the crossing guard cost-sharing program
- Promote use of Street Story for reporting unsafe conditions or events
- Initiate additional school bus service
- Consider adopting a 15 MPH school zone speed limit

School Walk Audit Summary

Toole Design led walk audits and stakeholder meetings with City of Lafayette staff, Transportation & Circulation Commissioners, Lafayette school District staff and community members on November 16 and 18, 2021. Participants expressed concerns, showed the project team where issues occur, and provided ideas for solutions. Recommendations from these walk audits are included in Table 1-3, and the full notes from the walk audits are included in Appendix A: School Site Visit Notes and Comments

Project Recommendations

A final list of recommendations was compiled using ideas from the 2013 Safe Routes to School Summary Report, the 2020 Berkeley SafeTREC City of Lafayette Complete Streets Safety Assessment, public comments received via email, and 2021 walk audits. Recommendations are listed in Tables 1-7.

These recommendations are organized by short, mid, and longer-term improvements. Timelines for each project type are:

- Short-term: 0-6 months
- Mid-term: 6-12 months
- Longer-term: 1-3 years

Projects are also organized by medium or high-priority. The level of priority was assigned based on an assessment of expected safety benefits and support expressed by community members. All ideas and suggestions provided to the team were considered. Some of these project ideas were not recommended due to transportation design best practices, construction infeasibility, cost, or other project recommendations that better met the project safety goals.

Opinion of Probable Cost for Projects

A planning-level opinion of probable cost is included for each project in the recommendations table. However, there are not yet engineering drawings for these projects, so opinions of probable cost were developed by identifying major pay items and establishing rough quantities to determine a rough order of magnitude cost. Additional pay items have been assigned approximate lump sum prices based on a percentage of the anticipated construction cost. Planning-level cost opinions include a 30% contingency to cover items that are undefined or are typically unknown early in the planning phase of a project. Unit costs are based on 2021 dollars and were assigned based on historical cost data from Caltrans Contract Cost Data. Cost opinions do not include mobilization, traffic control, erosion and sediment control; design; unanticipated easement and right-of-way acquisition fees; permitting, inspection, or construction management; engineering, surveying, geotechnical investigation, environmental documentation, special site remediation, escalation, or the cost for ongoing maintenance. A cost range has been assigned to certain general categories such as utility relocations; however, these costs can vary widely depending on the exact details and nature of the work. The overall cost opinions are intended to be general and used only for planning purposes. Toole Design Group, LLC makes no guarantees or warranties regarding the cost estimate herein. Construction costs will vary based on the ultimate project scope, actual site conditions and constraints, schedule, and economic conditions at the time of construction.

Table 1. Short-term Projects on School Street

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
SL1	Completed in late 2021	High	School Street: Perpendicular parking stalls in front of Stanley Middle School	Install wheel stops to prevent vehicle encroachment into sidewalk	Walk audit, public comment	Completed
SL2	Short-term	High	School Street: Lafayette/Moraga Trail to Paradise Court	Remove parking and install paint/post two-way separated bike lane to connect regional trail to school. This will remove ~6 on-street parking spaces on the north side of School Street.	SafeTREC	\$5,100
SL3	Short-term	High	School Street/Paradise Court intersection	Add paint and post curb extensions that shadow the existing parking lanes to shorten the crosswalk and improve visibility; install RRFBs	Walk audit	\$70,800
SL4	Short-term	High	School Street/ First Street intersection	Install new high-visibility north/south marked crosswalk across School Street on west side of intersection where there are already curb ramps; install RRFBs	Walk audit	\$69,200
SL5	Short-term	High	School Street: eastern parking lot frontage	Install vertical delineation to break up 170' east/west crosswalk into shorter segments with pedestrian refuges and to prevent vehicle encroachment into crosswalk	SafeTREC	\$1,400
SL6	Short-term	High	School Street: Moraga Road to Topper Lane	Reduce corner radii at cross streets	Walk audit	\$15,400
SL7	Short-term	High	School Street: Moraga Road to Topper Lane	Install NO PARKING red zones at intersections to increase sightlines (i.e., daylighting). Consider adding paint and post curb extensions in these locations to reinforce parking restrictions. This would remove ~3 existing on-street parking spaces.	Walk audit	\$1,000
SL8	Short-term	High	School Street/ east parking lot	Narrow existing parking lot exit to only allow one vehicle out at a time and provide wider crosswalk striping in place of existing 4-ft yellow cross-hatched crosswalk.	Public comment (email)	\$18,500
					TOTAL	\$181,400

Table 2. Mid-term Projects on School Street

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
SL9	Mid-term	High	School Street: Paradise Court to shared path on First Street	Remove parking and install paint/post two-way separated bike lane to connect school to shared path on First Street and Lafayette Elementary. This would remove ~24 on-street parking spaces.	SafeTREC	\$14,300
SL10	Mid-term	High	School Street: Moraga Road to Topper Lane	Install traffic calming/ speed reduction treatments	Walk audit	\$25,000
SL11	Mid-term	High	School Street/Avalon Ave intersection	Install high-visibility crosswalks and RRFBs	Walk audit/SafeTREC	\$73,400
SL12	Mid-term	High	School Street/Avalon Court intersection	Install east/west crosswalk across Avalon Court	SafeTREC	\$4,200
SL13	Mid-term	High	School Street/Paradise Court intersection	Install east/west crosswalk across Paradise Court	SafeTREC	\$4,200
SL14	Mid-term	Medium	School Street/Topper curve (access to Lafayette-Moraga Regional Trail)	Replace NO PARKING Signing with NO STOPPING Signing so that illegal pick-up/drop-off is enforceable.	Walk audit/SafeTREC	\$1,100
SL15	Mid-term	Medium	Topper Lane (School Street to St. Mary's Road)	Pilot a conversion to one-way southbound traffic and a striped shoulder (possibly with vertical delineators) to provide a walking/biking space in the Short-term in advance of final design for a sidewalk/shared-use path on the east side of the street.	SafeTREC	\$13,400
					TOTAL	\$135,600

Table 3. Longer-term Projects on School Street

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
SL16	Longer-term	Medium	School Street: Lafayette/Moraga Trail to shared path on First Street	Install shared-use path on the north side of the street, similar to path on First Street. This would require parking removal on the north side of street where there are currently ~30 on-street parking spaces.	Walk audit, SRTS Summary Report, Downtown Congestion Reduction Plan, City/Schools Joint Committee Presentation	\$415,800
SL17	Longer-term	Medium	School Street: Moraga Road to Topper Lane	Repair damage to sidewalk, as needed	Walk audit	\$55,900
SL18	Longer-term	Medium	Topper Lane (School Street to St. Mary's Road)	Install sidewalk on east side of street, if there is enough right of way, install shared use path for walking and bicycling	SRTS summary report	\$513,600
					TOTAL	\$985,300

Table 4. Short-term Projects on Moraga Road

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
SL19	Short-term	High	Moraga Road and School Street Intersection	Add a protected left turn phase for southbound Moraga Road traffic turning onto school street to remove the existing conflict with crossing pedestrians. Add stop bars in advance of existing crosswalks. Add a leading pedestrian interval to the signal for east/west bound pedestrians. Restripe westbound lanes into a left/right turn lane, and a right turn lane to facilitate westbound right turn movement during school pick-up and drop-off.	SafeTREC	\$4,900
SL20	Short-term	High	Moraga Road/ Brook Street Intersection	Add stop bars in advance of existing crosswalks. Install high visibility crosswalk on the southern leg of the intersection. Add secondary pedestrian signal heads oriented towards diagonal crosswalk. Run a NB/SB "walk" phase for west side crosswalk concurrently with NB/SB Moraga Road green phase.	Walk audit/ SafeTREC	\$8,300
SL21	Short-term	High	Moraga Road/ Moraga Blvd Intersection	Add stop bars on northbound and westbound approaches and add a leading pedestrian interval to the signal	SafeTREC	\$1,300
SL22	Short-term	High	Moraga Road (adjacent to school)	Install fixed radar speed feedback signs	Walk audit	\$15,600
					TOTAL	\$30,100

Table 5. Mid- and Longer-term Projects on Moraga Road

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
SL23	Mid-term	High	Moraga Road between St Mary's Road and Mt Diablo Blvd	Implement a 4-to-3 lane reassignment in this section, adding separated bike lanes, a wider sidewalk adjacent to the school, and a center turn lane. This will require a more detailed traffic analysis to evaluate feasibility	SafeTREC	\$1,096,000
SL24	Mid-term	High	Moraga Road: Mt. Diablo to St. Mary's Road	Install red light enforcement cameras	Walk audit	\$260,000
SL25	Longer-term	Medium	Moraga Road/ School Street intersection	Construct sidewalk on south side of School Street adjacent to Town Hall Theatre	SRTS summary report	\$55,300
					TOTAL	\$1,411,300

Table 6. Other Mid- and Longer-term Projects - St. Mary's Road, Brook Street, Parking Lot

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
SL26	Mid-term	High	St. Mary's Road/ Solana Drive Intersection	Consider RRFBs and curb extensions to enhance existing crosswalk of St. Mary's Road	SRTS summary report	\$67,000
SL27	Mid-term	High	St. Mary's Road/ Acampo Drive Intersection	Consider RRFBs and curb extensions to enhance existing crosswalk of St. Mary's Road	Walk audit	\$67,000
SL28	Longer-term	Medium	Brook Street: Dewing Avenue to Moraga Road	Install formal sidewalk on north side of Brook Street where informal sidewalk exists	SRTS summary report	\$162,100
SL29	Longer-term	Medium	City parking lot at Golden Gate Way/First Street	Install remote pick-up/drop-off area to ease congestion around school site	Walk audit	\$1,800
SL30	Longer-term	Medium	St. Mary's Road, north side adjacent to school property	Formalize pick-up/drop-off area on St. Mary's Road by paving shoulder area and installing a formal path to connect to the campus	Walk audit	\$133,800
					TOTAL	\$431,700

Table 7. Projects on LUSD Property

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
SL31	Short-term	High	School property (Lafayette ES & Stanley MS)	Install high-visibility crosswalk striping in both school parking lots	Walk audit	\$62,400
SL32	Short-term	High	School property (Lafayette ES)	Enhance diagonal crosswalk in school parking lot that connects path behind the medical offices to the kindergarten classrooms with yellow, high-visibility striping.	Walk audit, SRTS Summary Report	\$5,900
SL33	Short-term	Medium	School property (Stanley MS)	Restripe crosswalk with 90-degree bend in front of District offices into diagonal, linear crosswalk connecting sidewalks	Walk audit	\$6,500
					TOTAL	\$74,800

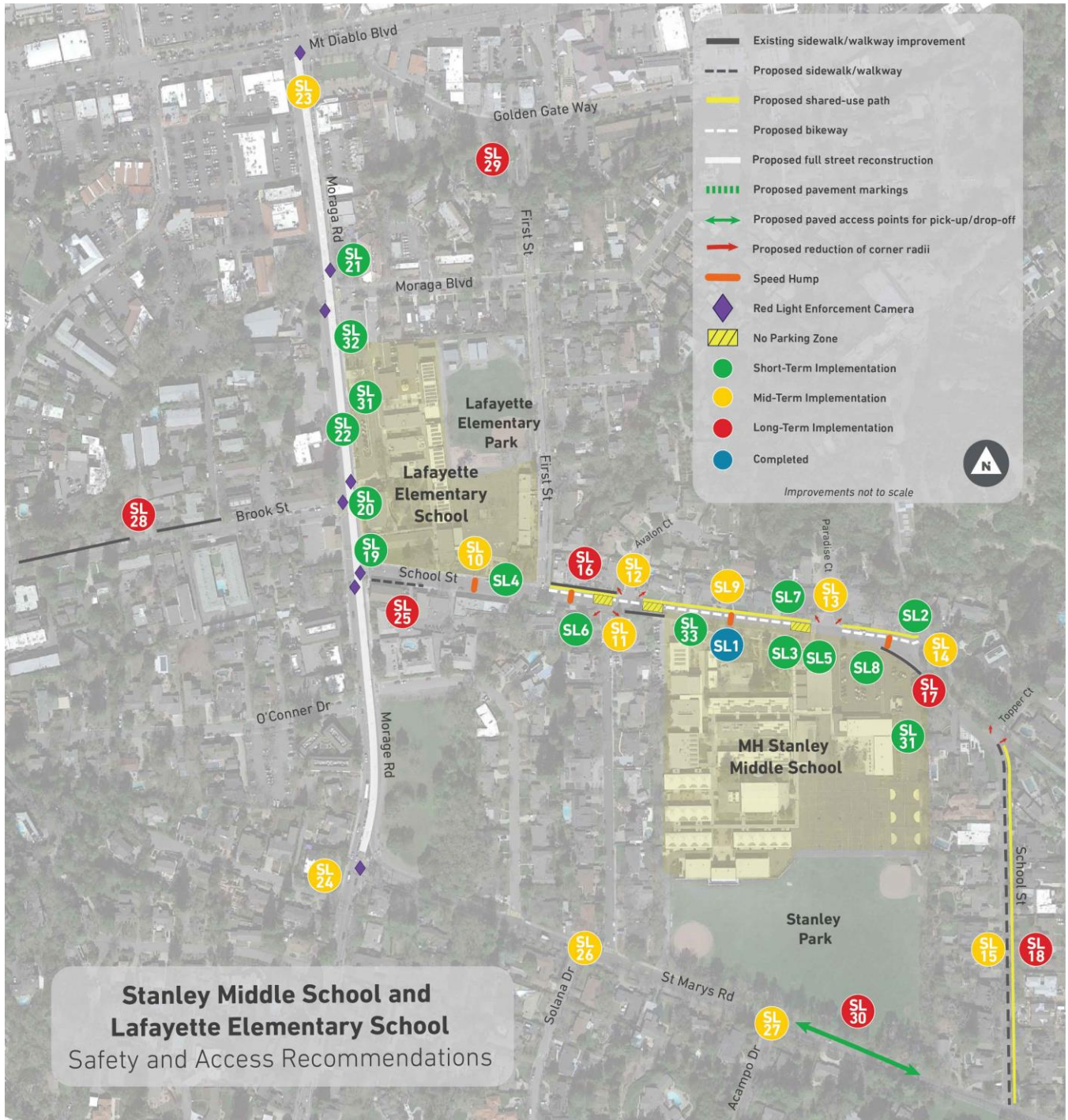
Table 8 below shows of summary of the recommended project costs by project area and implementation timeline.

Table 8. Summary of Recommended Project Costs

	Short-Term	Mid-Term	Longer-Term
School Street	\$181,400	\$135,600	\$985,300
Moraga Road	\$30,100	\$1,356,000	\$55,300
St. Mary's Road, Brook Street, School Parking Lots		\$134,000	\$297,700
LUSD property	\$74,800		
TOTAL	\$286,300	\$1,625,600	\$1,338,300

Project Recommendations Map

The map below shows the recommendations color-coded by priority from the tables above.



Next Steps

Lafayette community members are eager to see Safe Routes to School projects constructed. To meet these expectations, a proposed step-by-step project development process is provided below.

Step 1: Review and Approval

The prioritized recommendations in Table 1 will be reviewed by the Transportation & Circulation Commission and City Council to confirm the overall direction in the recommendations and consider funding needs.

Step 2: Funding and Implementation Plan

Once the reports have been reviewed and approved, City staff will develop a funding plan and timeline for implementation.

Step 3: Design and Construction

City staff will develop design plans for the highest priority projects. Simpler project solutions that do not require civil construction (e.g., signing, striping, flexible delineators and minor traffic signal equipment or traffic signal operational changes) will be advanced rapidly through existing City construction contractor procurement processes. In some cases, additional data collection and traffic analysis may be required to support these efforts.

For projects that require civil construction (e.g., major reconstruction/re-construction of sidewalks, new curb and gutter, or other major roadway reconstruction designs) the design and construction process will likely include topographic survey and potentially evaluation of right-of-way which will lengthen the project development timeline and target construction date.

Step 4: Project Evaluation

After projects have been constructed, City staff will evaluate the effectiveness of the design interventions. Potential evaluation metrics may include decreasing vehicle travel speeds; increasing driver yielding compliance; increasing the number of students and caregivers walking, bicycling, and rolling to school; and reducing crashes. The timeline for evaluating each metric may be different. Ideally City staff will collect before data for the evaluation measure at each location, however, if this is infeasible due to the rapid installation of interventions, after-only results can provide useful conclusions about the effectiveness of constructed projects.

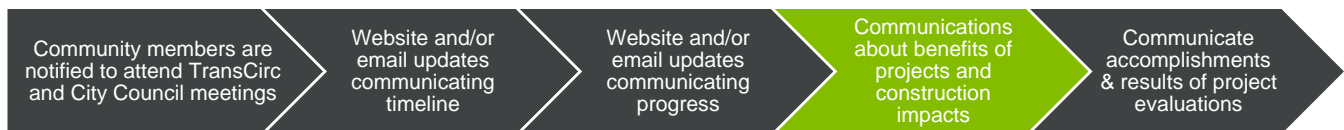
Ongoing Communications

Regular and ongoing communication with Lafayette community members is critical to public support of these projects. As staff resources allow for, monthly or bi-monthly updates on the City's website or via email will help keep stakeholders informed of the process. A dashboard showing the City's progress could be an effective way to demonstrate ongoing efforts.

Project Development Process



Sample Communications/ Public Engagement Process



Appendix A: School Site Visit Notes and Comments

General Comments & Observations

- City and residents are interested in prioritized short-term, mid-term, and long-term recommendations near the schools.
- Some residents expressed interest in enforcement over infrastructure changes, and other expressed interest in infrastructure investments over enforcement.
- There is frustration among residents that it appears there is a lot of talk of changes but no action.
- There is an interest in 24/7 design solutions that solve issues all day and throughout the year, not just during school hours/days.
- There is interest in discouraging vehicle pick-up/drop-off at school and encouraging walking and bicycling to reduce congestion.
- A resident who lives on the other side of Lafayette expressed that she has to drive her kids due to the distance, and there needs to be better vehicle flow in the area.
- In general, the morning drop-off period has little vehicle congestion. In the afternoon, parents arrive early and fill up the pick-up loop, leading to congestion once students are let out. There are multiple exits to the school loop, leading to driver conflicts and weaving.
- Parents arrive before school lets out to secure parking spaces to be able to leave school quickly once their student arrives; the pick-up period was most hectic and busiest from 2:50pm to 3:05pm.
- During afternoon pick-up, vehicles queue on Paradise Court and park illegally along School Street and Topper Lane.
- There is a crossing guard stationed at the north/south crosswalk at the intersection of School Street and Paradise Court. (This is where the former crossing guard was killed recently.)
- Many students walk and bike to school via the Lafayette/Moraga Trail, so there are high volumes of pedestrians and bicyclists on the northern sidewalk between the trail access and the north/south crosswalk at Paradise Court. In the afternoon, kids bike contraflow on the wrong side of the street adjacent to the sidewalk and parked cars in order to access the trail since the sidewalk is filled with pedestrians and people walking their bikes.
- The crosswalk in front of the school district offices has a 90-degree bend which pedestrians do not comply with.
- A Birdhaven Court resident expressed that they do not have easy trail access and have to walk on busy St. Mary's Road and Topper Lane to access the trail. This is uncomfortable and dangerous since there are no sidewalks on these streets.

Nearer Term Participant Recommendations

- There is interest in higher visibility crosswalk markings within the school parking lot.
- There is interest in higher visibility crossings on School Street (e.g., advance warning signage, RRFBs, etc.)
- There is interest in traffic calming (e.g., speed humps, neighborhood traffic circles) on School Street to reduce vehicle speeds.
- There is interest in installing wheelstops for perpendicular parking in front of school to prevent vehicle overhand into the sidewalk.
- Per police officer, "No Parking" signage on Topper Lane curve should be replaced with "No Stopping" signage so that police can enforce vehicles waiting there to pick up children.
- There is interest from the school principal to remove on-street parking on the north side of School Street between the Paradise Court crosswalk and Lafayette/Moraga Trail access in order to install a quick-build two-way separated bike lane, as many students walk and bike on the existing narrow sidewalk, which cannot accommodate all of them.

- There is interest in marked east/west crosswalks where School Street intersects Avalon Court and Paradise Court.
- Many residents expressed interest in additional enforcement near the school to enforce parking regulations and illegal maneuvers (e.g., U-turns on School Street).
- The School Street/Topper Lane curve is dangerous without a sidewalk; in the past residents have placed cones to prevent illegal parking and create an informal sidewalk on the curve.
- The long crosswalk in front of the pick-up/drop-off loop is uncomfortable due to exposure to vehicles and should be protected with cones or other treatments.
- There is interest in daylighting along School Street so that pedestrians are more visible.
- A Monroe Avenue resident expressed concerns with cut through traffic and promoted an off-site drop-off/pick-up area off of Golden Gate Way.

Longer Term Participant Recommendations

- There is interest in reconfiguring School Street and Topper Lane into a one-way street or into separate cul-de-sacs terminating at the Lafayette/Moraga Trail.
- There is interest in widening the sidewalks on School Street (currently 4.5-5 feet wide, with heavy pedestrian and bike volumes). Utility poles are centered within the northern sidewalk, which makes it even narrower at pinchpoints
- There is interest in installing a two-way separated bike lane on the north side of School Street from the trail access to the shared-use path on First Street.
- There is interest in constructing a shared-use path along the north side of School Street between First Street and the trail access, similar to the shared-use path along First Street.
- There is interest in a more official pick-up/drop-off area on St. Mary's Road with a formalized walkway through campus to access it.
- There is interest in reducing the corner radii of side streets along School Street.
- There are sidewalk gaps on the school frontage on School Street which should be closed.
- There is interest in installing a sidewalk or informal walkway along Topper Lane and St. Mary's Road to provide safe walking/bicycling access to Birdhaven Court housing.
- A resident expressed interest in a pedestrian bridge across Moraga road at Brook Street.