

RAPID IMPLEMENTATION SCHOOL SAFETY PLANS

Burton Valley Elementary School



April 26, 2022



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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.

BURTON VALLEY ELEMENTARY SCHOOL RAPID IMPLEMENTATION SCHOOL SAFETY PLAN

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. A pilot traffic calming and school safety project was installed in the Burton Valley area in the Fall of 2021 and is being evaluated through a separate effort. Because this pilot project is already underway, the scope of this rapid implementation safety plan is focused on projects immediately adjacent to the school that will improve school access and transportation operations.

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
- A summary of the current pilot project in the Burton Valley Elementary area
- Recommendations for short-term improvements within the immediate vicinity of the school 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 focused on Lafayette Elementary School and Springhill Elementary School and does not include specific recommendations for Burton Valley Elementary School.

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. While the report was focused on Lafayette Elementary School, Stanley Middle School, Springhill Elementary School, Acalanes High School, and Burton Valley

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>

Elementary School, the assessment also includes the following citywide recommendations to improve walking and bicycling that are relevant to every school in Lafayette:

- 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

Burton Valley Pilot Project Summary

A pilot traffic calming and school safety project was installed in the Burton Valley area in the Fall of 2021. This project includes speed humps to slow vehicle traffic for a more comfortable walking experience, new red-painted curbs at intersections to prevent people from parking at the corner of intersections – thereby improving sightlines for people walking, bicycling, and driving, and additional crosswalks at some intersections. These improvements were installed along Merriewood Drive, Silverado Drive, Rohrer Drive, and Lucas Drive in late 2021 and will be re-evaluated in one year to determine their effectiveness in reducing speeds and improving comfort for people walking, bicycling, and driving. Traffic counts were collected before the project was installed that include travel speeds, and counts of people walking, bicycling, and driving. This data will be collected on multiple additional occasions now that the project is installed to perform a before and after analysis of the project and report back to the public on the project.

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 facilitated a walk audit and stakeholder meeting with City of Lafayette staff, Transportation & Circulation Commissioners, Lafayette school District staff and community members on January 27, 2022. Participants expressed concerns, showed the project team where issues occur, and provided ideas for solutions. A major focus of the stakeholder meeting was about the ongoing pilot project in the Burton Valley neighborhood, and residents' desire for increased communication about school-related transportation initiatives. Because this pilot project is already underway, the scope of this rapid implementation safety plan is focused on projects immediately adjacent to the school that will improve school access and transportation operations.

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 Rohrer Drive and Merriewood Drive

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
BV1	Short-Term	High	Rohrer Drive South side at east driveway	Move existing W3-1 (STOP AHEAD) sign further west (upstream) so it does not distract from the existing "SLOW SCHOOL XING" pavement markings.	SafeTREC Report	\$1,000
BV2	Short-Term	High	Rohrer Drive existing crosswalks	Install in-street Yield To Pedestrians (R1-6) signs mounted on the centerline at existing crosswalk locations.	SafeTREC Report	\$2,000
					TOTAL	\$3,000

Table 2. Mid-term Projects on Rohrer Drive

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
BV3	Mid-Term	High	East Driveway on Rohrer Drive	Conduct a traffic study to determine if the driveway can be reconfigured to make the exit lane right-turn only at peak times	Walk audit, SafeTREC Report	\$1,000
BV4	Mid-Term	Medium	Rohrer Drive and Warwick Ct	Consider raised crossing where traditional crosswalk is proposed in pilot project	Walk audit (location-based public comment)	\$78,600
					TOTAL	\$79,600

Table 3. Short-term Projects in Other Locations

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
BV5	Short-Term	High	Sandalwood Ct trail outlet	Remove trail bollards, add 50' double yellow centerline striping in advance of CW, restrict parking 20' in advance of crossing with red paint.	Walk audit, SafeTREC Report	\$2,800
BV6	Short-Term	High	Sandalwood Ct and Sweetbrier Cir	Add STOP sign on Sweetbrier approach	Walk audit	\$1,000
					TOTAL	\$3,800

Table 4 below shows of summary of the recommended project costs by project area and implementation timeline.

Table 4. Summary of Recommended Project Costs

	Short-Term	Mid-Term
Rohrer Drive & Merriewood Drive	\$3,000	\$79,600
Other Locations	\$3,800	
TOTAL	\$6,800	\$79,600

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

