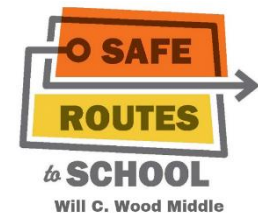




# WILL C. WOOD MIDDLE SCHOOL WALK AUDIT REPORT

JANUARY 2019

**WALK**SACRAMENTO



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## HOW TO USE THIS REPORT

This walk audit report is intended to guide infrastructure improvements near Will C. Wood Middle School with the goals of improving safety for pedestrians and people on bikes, as well as enabling more students to choose active methods of travel to school. Safe Routes to School programs not only benefit students, but also benefit the broader community by slowing traffic in neighborhoods, improving access to destinations, and providing opportunities for physical activity and improved health outcomes. The recommendations in this report are informed and influenced through engagement with parents, students, community partners, and school staff.

Please note that this report is not a standard, specification, regulation, or official engineering study and should not be used for establishing civil liability. This report highlights needs and potential solutions within this community. The implementation of any strategy contained within this report should be made on the basis of an official engineering study at each location. Instead, this report should be used to further plan improvements and respond to identified needs within this community.

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### LOCAL AGENCY STAFF

Local agency staff should use this report to support funding applications for active transportation infrastructure projects. The recommendations in this report are informed by a community-based planning process, which is a critical component of grant competitiveness at the State and regional levels. Additionally, this report includes key data and community-identified priorities that can inform current or future planning efforts.

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### SCHOOLS AND SCHOOL DISTRICT

The school should use this report to advocate for built environment change that impacts student health, wellness, and success. This report also includes education, encouragement, and enforcement recommendations that can be incorporated into an ongoing Safe Routes to School program.

The school district should use this report to identify and implement changes that can be made on site to improve walking and biking for students.

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### COMMUNITY MEMBERS

Community members should use this report to advocate for built environment change in the community. This report also includes education and encouragement recommendations that parents and community members may be able to implement in partnership with the school as well as their own students.



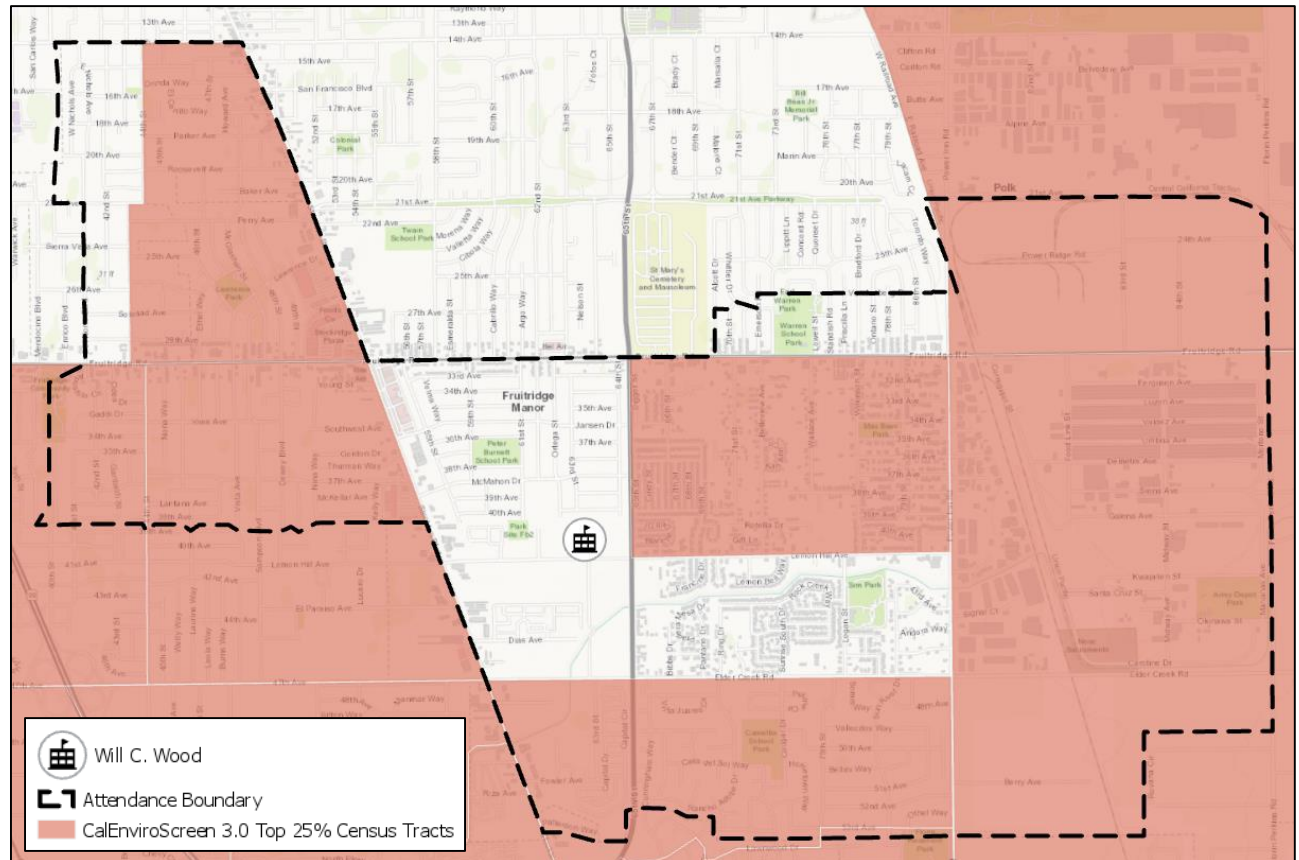
## SCHOOL LOCATION AND BACKGROUND

Will C. Wood Middle School is located at 6201 Lemon Hill Avenue in Sacramento. For the 2017-2018 school year, approximately 693 students were enrolled in seventh and eighth grade, of which 87% were eligible for free or reduced price meals.<sup>1</sup> The 2017-2018 attendance boundary is shown to the right.

Will C. Wood Middle School is situated within a disadvantaged community which ranks in the fourth highest percentile for social, economic, and environmental vulnerabilities as defined by CalEnviroScreen 3.0 (60-65%)<sup>2</sup>. CalEnviroScreen 3.0 identifies communities most affected by pollution and where residents are vulnerable to adverse environmental impacts.

Although geographically located within a disadvantaged area, Will C. Wood benefits from involvement from dedicated staff, parents, and community based organizations. This is critically important for ensuring access, attainment, and success. These partners are also valuable to ensuring the success of future Safe Routes to School efforts.

Will C. Wood Attendance Boundary and CalEnviroScreen Disadvantaged Census Tracts



<sup>1</sup> California Department of Education, Free/Reduced Meals Program and CalWORKS Data Files, 2018. Available from <http://www.cde.ca.gov/ds/sd/sd/files.asp>. Accessed August 2018.

<sup>2</sup> CalEnviroScreen 3.0, California Office of Environmental Health Hazard Assessment, 2017. Available from <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>. Accessed August 2018.

## EXISTING CONDITIONS

Travel mode splits<sup>3</sup>, traffic injuries, and crime data were collected to provide insight on existing travel patterns and factors that impact active mode use.

### TRAFFIC INJURY MAPPING

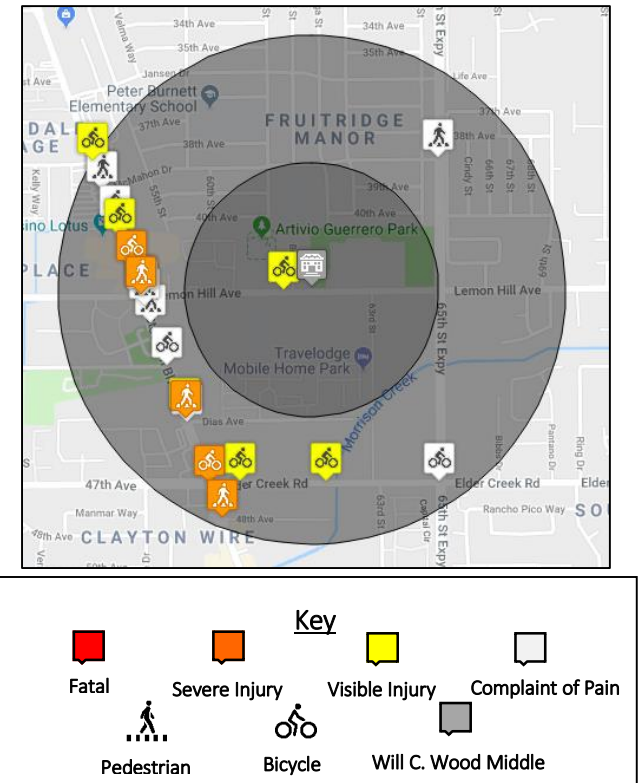
Between 2012 and 2016, there were 22 reported collisions involving motorists and non-motorists within a ½ mile radius of the school.<sup>4</sup> Fourteen collisions occurred between 7:30am and 5:00pm on weekdays, which overlaps with school commute times. The majority of collisions occurred on Stockton Boulevard, a major arterial located west of the school. Many students who live west of the school may travel on Stockton Boulevard. Stockton Boulevard is also identified by the City of Sacramento as part of the High Injury Network and prioritized for traffic safety improvements through the City's Vision Zero effort<sup>5</sup>. It is unclear how many of these collisions involved students, however the concentration of collisions along Stockton Boulevard clearly indicates a barrier to access.

Streets with a high rate of traffic injuries are not only unsafe for students, but also discourage parents from allowing students to walk or bike. This contributes to greater traffic congestion around schools and further decreases traffic safety for students. A main focus of Safe Routes to School Programs is to enable and encourage walking and biking by eliminating threats to roadway safety.

**TIMS Injury Summary Statistics: Pedestrian and Bicycle Injuries 2012-2016 within ½ Mile of Will C. Wood Middle School**

Radius	Fatal	Severe Injury	Visible Injury	Complaint of Pain	Pedestrian	Bicycle	Total
< ¼ mi	0	0	1	0	0	1	1
¼ - ½ mi	0	5	5	11	8	13	21
<b>Total</b>	<b>0</b>	<b>5</b>	<b>6</b>	<b>11</b>	<b>8</b>	<b>14</b>	<b>22</b>

**Collisions Reported Within ½ Mile of Will C. Wood Middle School January 2012 – December 2016**



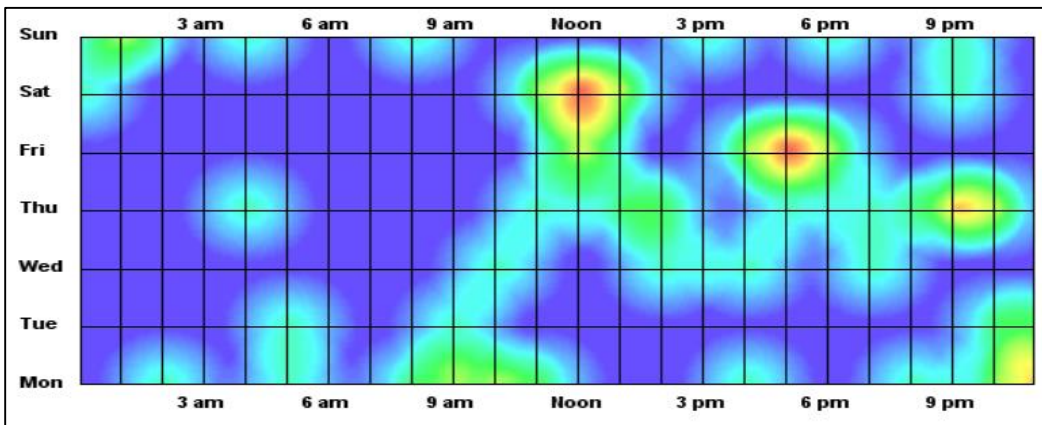
<sup>3</sup> National Center for Safe Routes to School Student Travel Tallies were provided to the school in the fall of 2018, however no responses were collected. The purpose of in-class tallies is to gather data on student travel modes to identify patterns and changes in travel behaviors. Tallies will be conducted in the spring of 2019 to analyze mode share.

<sup>4</sup> UC Berkeley Transportation Injury Mapping System: Safe Routes to School Collision Map Viewer, available at <https://tims.berkeley.edu/tools/srts/>. Accessed August 2018.

<sup>5</sup> City of Sacramento Vision Zero Top Five Corridor Study: <https://www.cityofsacramento.org/Public-Works/Transportation/Programs-and-Services/Vision-Zero/Top-Five-Corridor-Study>

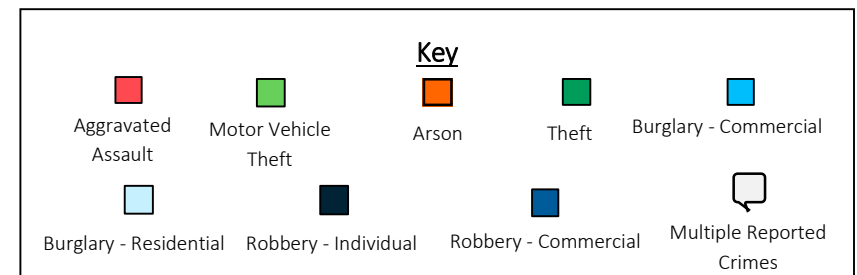
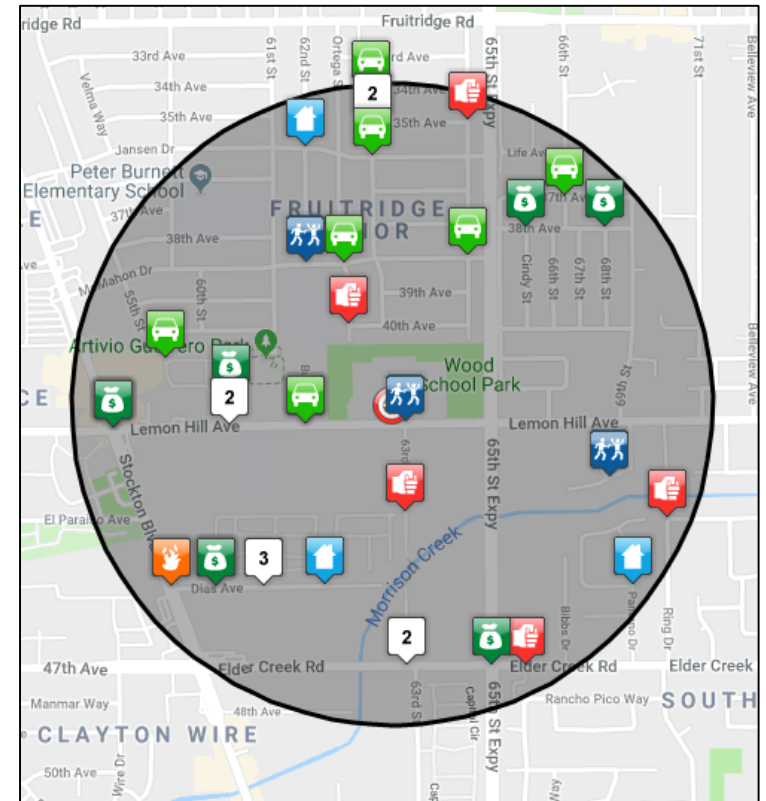
## CRIME REPORTS

Between February 2018 to July 2018, there were 48 reported crimes within a ½ mile radius of Will C. Wood Middle School.<sup>6</sup> The crimes were predominantly theft and motor vehicle theft, occurring primarily on neighborhood streets. Crime hotspots occur on Friday and Saturday afternoons. While crimes during this time period mostly occurred outside of school commute hours, the perceived and real threat of crime in the neighborhood around the school may make students feel uncomfortable and discourage parents from allowing their children to walk or bike.



*Crime occurrence by time of day between February 1, 2018 – July 31, 2018 within a ½-mile radius of Will C. Wood Middle School.*

## Crime Occurrences Within ½ Mile of Will C. Wood Middle School February 1, 2018 – July 31, 2018



<sup>6</sup> LexisNexis CommunityCrimeMap: available at [www.communitycrimemap.com](http://www.communitycrimemap.com). Accessed August 2018.



## IDENTIFYING BARRIERS TO WALKING AND BIKING

Infrastructure and non-infrastructure barriers to walking and biking to school were identified through a walk audit, traffic observations, and discussions with school staff, parents, and community members.

### MORRISON CREEK REVITALIZATION PROJECT

This walk audit report builds upon ongoing work to revitalize the Morrison Creek Corridor as a safe walking and biking route throughout the community. The Morrison Creek Revitalization Project is a collaborative, community-based project that has engaged residents in the Avondale and Glen Elder neighborhoods, local Girl Scout troops, Elder Creek Elementary families, and Will C. Wood Middle School students through creek clean-ups, visioning meetings, and design processes.

### WALK AUDITS

Walk audits are community assessments where participants analyze current conditions and opportunities for improvement. WALKSacramento conducted a walk audit at Will C. Wood Middle School on September 5, 2018. Participants included Will C. Wood staff, Sacramento Police Department, Avondale Glen Elder Neighborhood Association, Environmental Justice Coalition for Water, Sacramento Tree Foundation, Sacramento Area Bicycle Advocates, Gear-Up, Sacramento Building Healthy Communities, Sacramento County Department of Health and Human Services, and WALKSacramento staff.

The walk audit examined driver behaviors during afternoon pick-up at the front of the school along Lemon Hill Avenue, then observed conditions along 63<sup>rd</sup> Street, Elder Creek Road, and 65<sup>th</sup> Expressway. The main barriers to safe walking and biking that were identified through the walk audit were speed of traffic along arterial roads near the school, safety of crossings, driver behaviors during pick-up and drop-off, and personal safety along routes to school.

In the summer of 2017, the Summer of Service program at Will C. Wood Middle School also conducted a walk audit of 63<sup>rd</sup> Street. Students documented evidence of homeless camping, drug use, prostitution, and vandalism, and identified lighting and maintenance as major needs to improve the corridor. The student summary report can be found in Appendix A.



*Morrison Creek Revitalization Project Visioning Meeting held on April 21, 2018. Source: Environmental Justice Coalition for Water.*



*Walk audit participants discuss traffic conditions at the front of the school.*

## TRAFFIC OBSERVATION

Traffic observations are surveying events to analyze parent and student travel behaviors. Morning traffic observations were conducted at Will C. Wood Middle School on September 26, 2018 (Appendix B). Observations were made at two locations:

1. In front of the school entrance at the intersection of Lemon Hill Avenue and 63<sup>rd</sup> Street
2. At the parking lot entrance on Lemon Hill Avenue

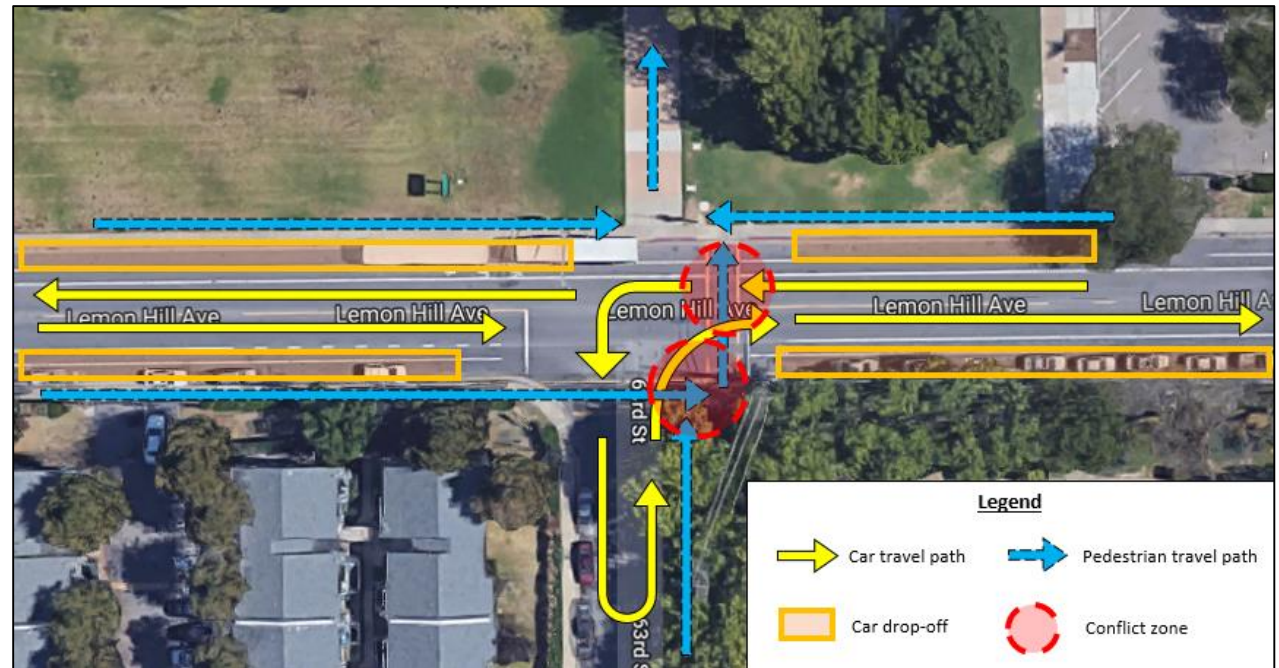
The main issues identified through the traffic observation were illegal U-turns, drivers running the red light, drivers not yielding to pedestrians in the crosswalk, and back-ups occurring along Lemon Hill Avenue.

### OBSERVATION LOCATION 1: SCHOOL ENTRANCE AT LEMON HILL AVENUE AND 63<sup>RD</sup> STREET

Drivers drop off students on both sides of Lemon Hill Avenue, with most drop-offs occurring on the westbound side of Lemon Hill Avenue (school side). The curb is red-striped around the crosswalk on the school side and is enforced with cones to prevent parking and drop-offs, however drivers still tend to pull into the crosswalk and roll through the red light, creating unsafe conditions for students crossing at the intersection.

Parents will often U-turn in the middle of the street once they have dropped off their students. Parents would also use 63<sup>rd</sup> Street to U-turn, and then speed through the right-turn onto eastbound Lemon Hill Avenue without yielding to students crossing.

The red light creates back-up on Lemon Hill, which impacts traffic flow out of the parking lot. Due to this back-up, drivers will go around traffic by using the bike lane. Parents would also drop students off in the middle of the street while stopped at the red light.



*Travel patterns of drivers and pedestrians at the intersection of Lemon Hill Avenue and 63<sup>rd</sup> Street.*



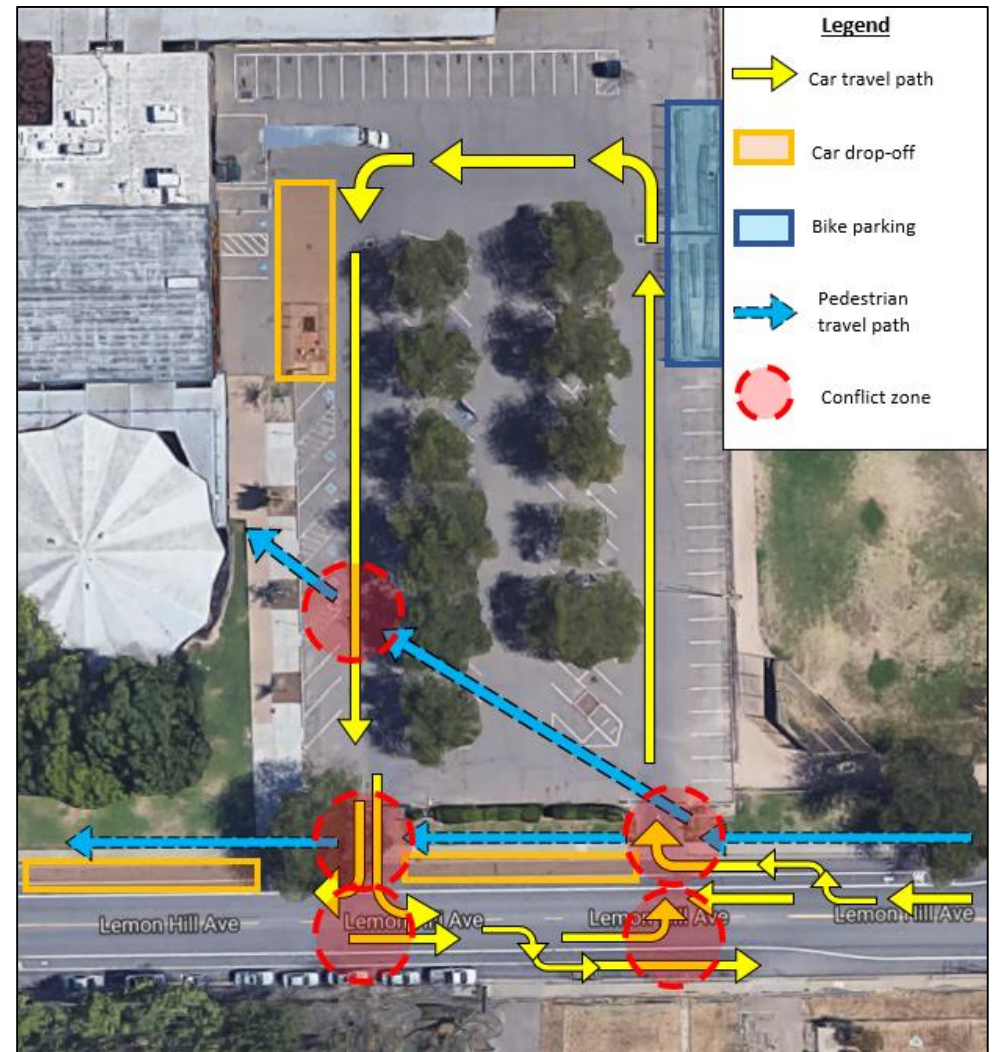
## OBSERVATION LOCATION 2: PARKING LOT ENTRANCE AT LEMON HILL AVENUE

Cars either drop students off along the curb on the school side of Lemon Hill Avenue or turn into the parking lot. Generally, drop-off in the parking lot functions well. Cars follow the drop-off loop and the queue does not get long enough to create back-up on Lemon Hill Avenue. However, there is no formal pedestrian path of travel through the parking lot which creates opportunities for conflict between pedestrians and cars.

The main issues occur directly on Lemon Hill Avenue. Cars dropping off on the curb will pull up close to the parking lot driveways, decreasing visibility of students walking. Drivers will U-turn illegally in the middle of Lemon Hill Avenue. Drivers entering the parking lot by turning left from Lemon Hill Avenue cause back-up, and drivers continuing straight on Lemon Hill Avenue will use the bike lane to go around left-turning cars. Cars turning right into the parking lot will also use the bike lane as an extra travel lane or to go around traffic.



*Significant amount of curbside traffic during pick-up and drop-off periods*



*Travel patterns of drivers and pedestrians at the parking lot and along Lemon Hill Avenue.*

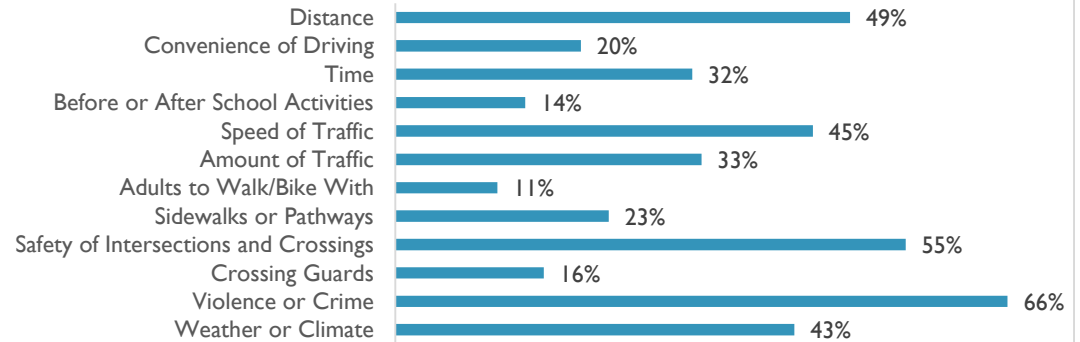
## PARENT CONCERNS

Parents' attitudes toward walking and biking were surveyed using the National Center for Safe Routes to School Parent Survey (Appendix C)<sup>7</sup> in October 2018. Out of 693 surveys, 187 were returned (27%).

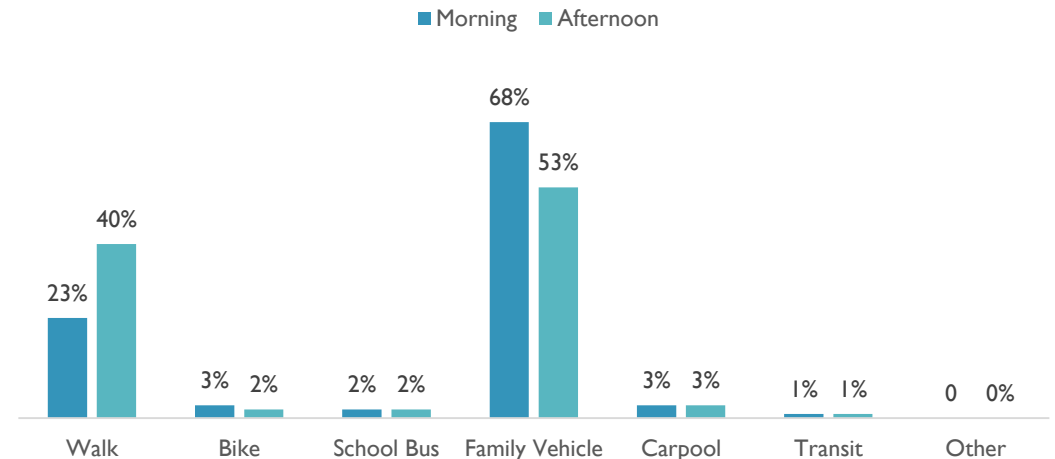
### Key Results:

- The issues most frequently reported to affect the decision to **not** allow a student to walk or bike to/from school are **violence or crime** (66%), **safety of intersections and crossings along the route** (55%), **distance of the route** (49%), and **speed of traffic along route** (45%).
- The greatest number of parents (34%) estimated the distance between home and school to be  $\frac{1}{2}$  -1 miles.
- Despite living within a walkable and bikeable distance, the majority of parents reported the **family vehicle as the typical mode of arrival (68%) and departure (53%)** from school. This may indicate the need for further mode shift encouragement programs in conjunction with built environment change.
- The distance a student lives from school is related to the likelihood of them walking or biking, in that students who live further away are more likely to be driven. The majority of parents reported that students who live within  $\frac{1}{4}$  mile of school walk. As distance increases, the percentage of students walking decreases. Beyond 1 mile, the family vehicle becomes the primary mode of transportation to and from school. As such, it may be valuable to consider prioritizing active transportation improvements within 1 mile of the school site.

### Parent Concerns with Walking or Biking to/from School



### Typical Mode of Arrival At and Departure From School



<sup>7</sup> National Center for Safe Routes to School, Evaluation: Parent Survey, 2017, available <http://saferoutesdata.org>

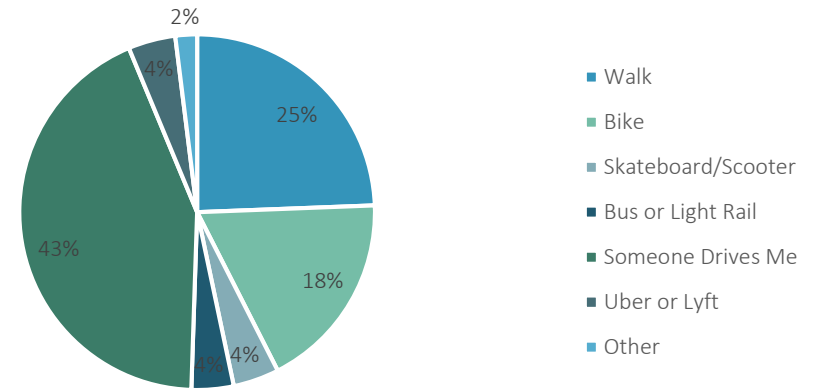
## STUDENT CONCERNS

Student attitudes towards walking and biking were surveyed in October 2018 (Appendix D). Out of 693 surveys, 600 were returned (86.5%).

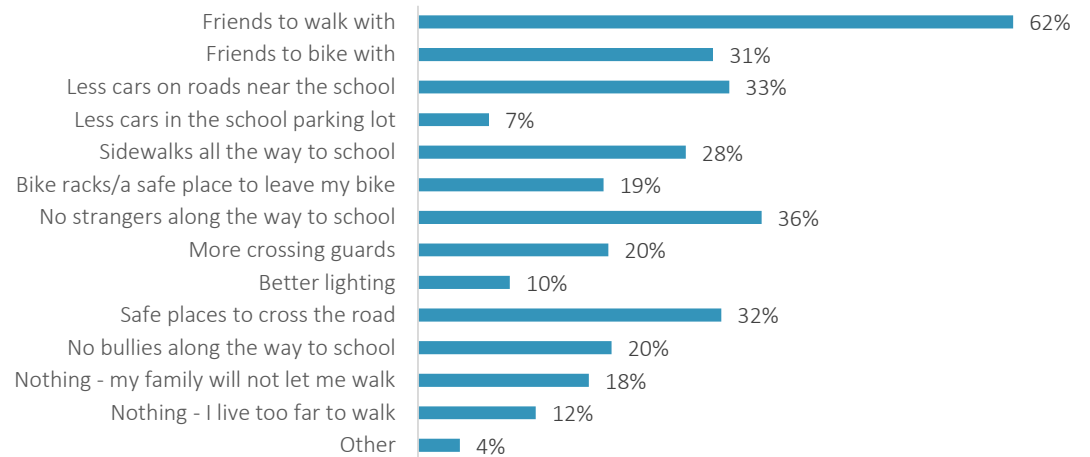
### Key Results:

- Similar to the results of the parent survey, a majority of students indicated that the **family vehicle was the typical mode of arrival (69%) and departure (52%)** from school. Walking was the second highest travel mode, with **22%** of students walking to school in the morning and **38%** walking home from school in the afternoon.
- While a majority of students are currently driven to and from school, when asked how they would ideally like to get to school nearly **50%** of students indicated that they would **prefer using active travel modes** such as walking, biking, skateboarding, scootering, or transit. The greatest shift from current travel mode to ideal travel mode was for biking, with only about **4%** of students currently biking to or from school and **18%** indicating that they would like to bike to or from school.
- Generally, students felt that biking was **more fun (62%)** and **more cool (51%)** than walking (47% fun and 47% cool). Walking and biking were both considered healthy, but also less safe (41% unsafe for walking and 35% unsafe for biking).
- When asked what would make walking and biking to school better, the top three responses were **friends to walk with (62%)**, **no strangers along the way to school (36%)**, and **less cars on the roads near the school (33%)**. These responses indicate that programs to encourage students to walk in groups of friends in addition to traffic calming along routes to school would encourage more students to walk or bike.

### If you had a choice, how would you most like to get to school?



### What would make walking or biking to school better?





## STUDENT TRAVEL PATTERNS

As part of the survey, students who walk or bike to school identified the main streets that they travel on to get to and from school. Out of 693 surveys, 285 were returned with route data (41%).

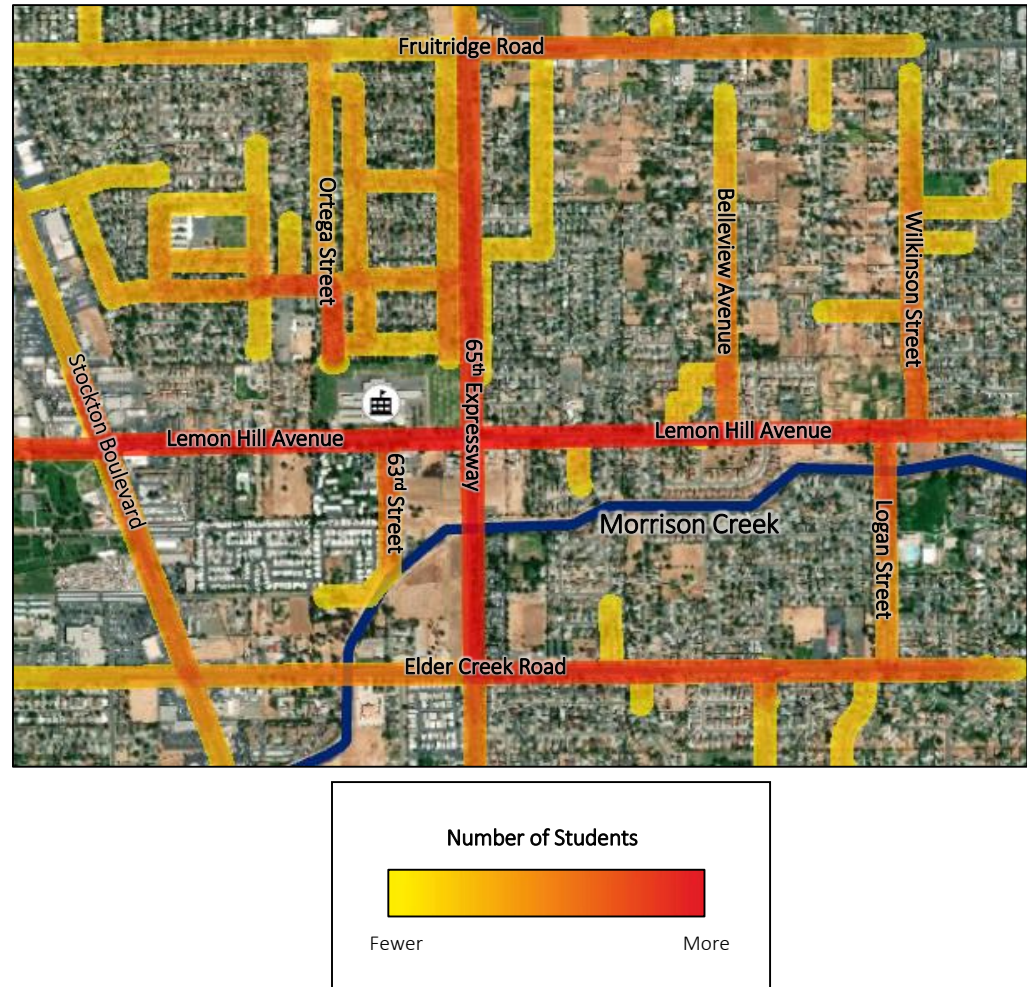
The corridors with the most student travel are Lemon Hill Avenue (in both the eastbound and westbound directions) and 65<sup>th</sup> Expressway (in both the northbound and southbound directions). Students identified both streets as having high amounts of traffic, particularly at the intersection adjacent to the school.

Other major travel corridors include Stockton Boulevard, Elder Creek Road, Fruitridge Road, and neighborhood streets in the Fruitridge Manor neighborhood at the back of the school. 63<sup>rd</sup> Street at the front of the school is another highly-traveled student corridor, particularly for students walking to school.

Because most students travel from the Avondale, Glen Elder, and Southeast Village neighborhoods located east of the school, Morrison Creek is an ideal opportunity to provide a safe walking and biking route to campus that bypasses dangerous conditions along Lemon Hill Avenue, 65<sup>th</sup> Expressway, and Elder Creek Road. A connection from Morrison Creek to 63<sup>rd</sup> Street would complete the route, which would be nearly entirely separated from car traffic.

Lemon Hill Avenue to the west of the school, 65<sup>th</sup> Expressway north of the school, and Stockton Boulevard are other major arterial streets with high amounts of student travel and should be considered for opportunities to improve student safety.

Will C. Wood Student Travel Patterns



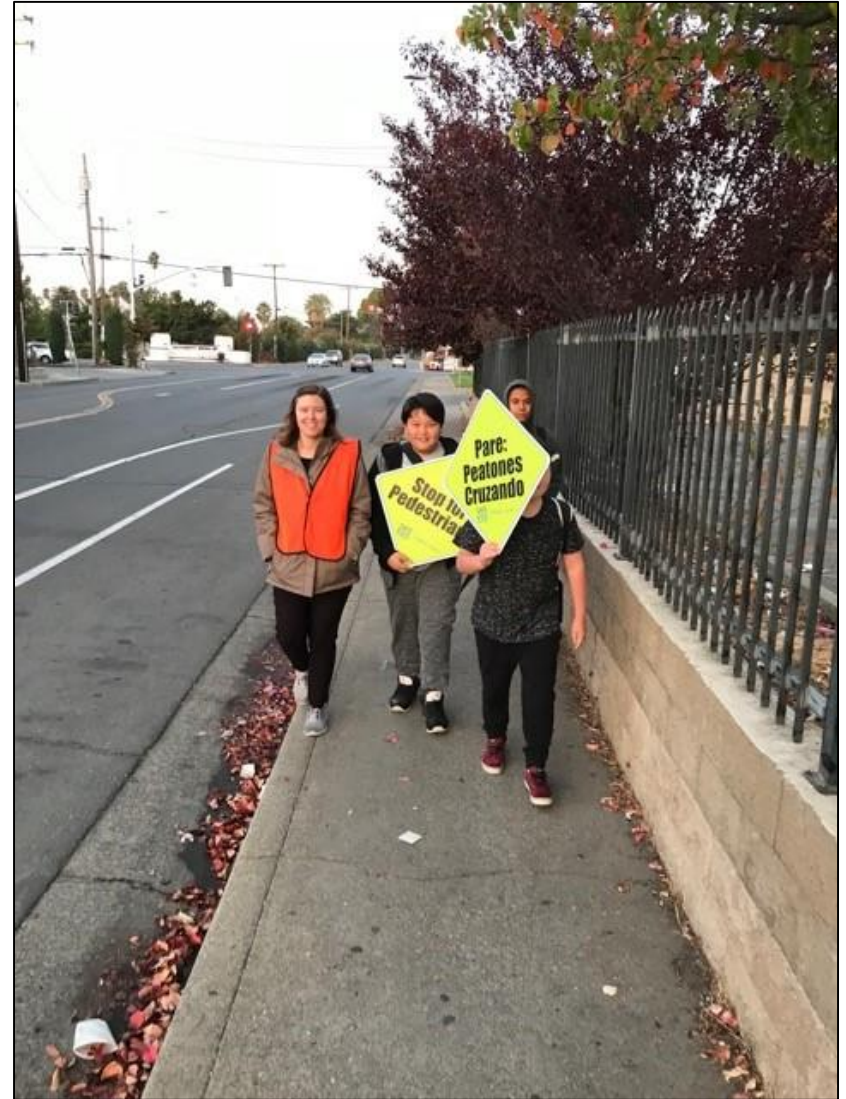
## STUDENT EDUCATION AND ENCOURAGEMENT

Will C. Wood Middle School celebrated Walk to School Day on October 24, 2018, with over 150 students, staff, and community partners participating. Students received encouragement safety prizes for walking and biking. Students also shared their thoughts on a feedback board about what would make walking or biking to school safer and more fun. A majority of students indicated that walking together with friends and family would significantly improve their experiences.

Events such as Walk to School Day help recognize students who are already walking and biking to school and encourage those who may normally drive to use active modes of travel more often. These events also serve as an opportunity to talk with families about their challenges getting to and from school.



*Students provide feedback on how to make walking and biking safer and more fun.*



*Students walk together on Walk to School Day.*



# INFRASTRUCTURE RECOMMENDATIONS AND ISSUES

## CITY-ORIENTED RECOMMENDATIONS

ID	Location	Reported or Observed Challenges	Recommended Improvements
1	Lemon Hill Avenue (between Power Inn Road and 63 <sup>rd</sup> Street)	<p>The segment of Lemon Hill Avenue between Power Inn Road and 63<sup>rd</sup> Street is two lanes wide with Class II bike lanes on both sides. Narrow sidewalks, speeding, and limited safe crossing opportunities make Lemon Hill Avenue unsafe and uncomfortable for pedestrians. Biking along Lemon Hill Avenue is also unsafe as the Class II bike lane does not provide adequate separation from high speed traffic. Cars often use the bike lanes to pass cars that are turning.</p> <p>Through the Morrison Creek Revitalization Project, the community in southeast Sacramento identified Morrison Creek as a potential active transportation corridor. Morrison Creek runs adjacent to Lemon Hill Avenue from Power Inn Road to 63<sup>rd</sup> Street and would provide a safe pedestrian and bicycle connection to Will C. Wood Middle from the Avondale and Glen Elder neighborhoods. In addition to Will C. Wood Middle, Morrison Creek would also provide connections to other community destinations such as the George Sim Community Center and Elder Creek Elementary School.</p>	Invest in Morrison Creek as an active transportation corridor and a safe route to neighborhood schools and community centers. (City)

### Visuals



Segment of Morrison Creek for proposed active transportation corridor (between Power Inn Road and 63<sup>rd</sup> Street).



ID	Location	Reported or Observed Challenges	Recommended Improvements
2	Lemon Hill Avenue and 63 <sup>rd</sup> Street intersection	<p>The intersection at Lemon Hill Avenue and 63<sup>rd</sup> Street is heavily trafficked by students walking to and from school, as well as students who are picked up or dropped off on the eastbound side of Lemon Hill Avenue. The intersection is signalized, however cars tend to speed and run through the red light.</p> <p>A sidewalk does not exist on the eastern side of 63<sup>rd</sup> Street, creating limited curb space at the corner of 63<sup>rd</sup> Street and Lemon Hill Avenue and forcing students to wait in the mud. Additionally, many parents U-turn on 63<sup>rd</sup> Street and speed through the right-turn back onto eastbound Lemon Hill Avenue. Because the only crosswalk onto school campus is located at this intersection, a high amount of students wait at this corner and come into close contact with right-turning cars who do not yield to pedestrians.</p> <p>A proven, effective strategy to prevent collisions between pedestrians and right-turning vehicles is a leading pedestrian interval. Leading pedestrian intervals give pedestrians a head start for crossing an intersection, making them more visible to drivers. Drivers turning right must yield to pedestrians who are already in the crosswalk.</p> <p>Priorities for this intersection include:</p> <ul style="list-style-type: none"> <li>• Increase pedestrian visibility</li> <li>• Reduce vehicle speeds</li> <li>• Reduce red-light running</li> <li>• Minimize conflicts between pedestrians crossing and vehicle right turn movements</li> </ul>	<ul style="list-style-type: none"> <li>• Upgrade existing crosswalks to high visibility (City)</li> <li>• Bulb out the curb on the southeast corner (City)</li> <li>• Install a leading pedestrian interval at both crosswalks (City)</li> <li>• Add a stop bar in advance of the crosswalk on the eastern leg of the intersection for westbound traffic (City)</li> <li>• Add a “no right on red” sign for traffic turning right onto Lemon Hill Avenue from 63<sup>rd</sup> Street (City)</li> <li>• Enhance existing school zone signage with flashing lights (City/School District)</li> </ul>

## Visuals



*Many students pass through this intersection on the way to or from school.*



*Existing sidewalk at the southeast corner of Lemon Hill Avenue and 63<sup>rd</sup> Street.*



*Recommended improvements at the intersection of Lemon Hill Avenue and 63<sup>rd</sup> Street.*

ID	Location	Reported or Observed Challenges	Recommended Improvements
3	63 <sup>rd</sup> Street (from Lemon Hill Avenue to Elder Creek Road)	<p>Students have identified 63<sup>rd</sup> Street as a major barrier for walking to school. The east side of 63<sup>rd</sup> Street has no sidewalk, yet leads directly to the crosswalk in front of the school entrance. The sidewalk on the west side of 63<sup>rd</sup> Street is incomplete and ends north of Dias Avenue. Insufficient lighting, trash, and vacant properties along the corridor contribute to a prevalence of homeless camping and prostitution, which makes students feel unsafe. Additionally, the pedestrian bridge over Morrison Creek is narrow and feels structurally unstable.</p> <p>Many students live in the mobile home park and apartment complexes along 63<sup>rd</sup> Street. In addition to improving safety for students who currently walk to school on 63<sup>rd</sup> Street, the corridor has potential to be a safe alternative for students living south of Elder Creek to use instead of 65<sup>th</sup> Expressway or Stockton Boulevard, both of which are high speed, high volume arterials.</p> <p>Priorities for this corridor include:</p> <ul style="list-style-type: none"> <li>• Improve personal safety</li> <li>• Provide a complete pedestrian connection to school</li> </ul>	<ul style="list-style-type: none"> <li>• New sidewalks on both sides of 63<sup>rd</sup> Street, prioritizing the eastern side (City/Property Owners)</li> <li>• Install pedestrian scale lighting throughout the corridor (City/SMUD)</li> <li>• Maintenance and code enforcement (City/Property Owners)</li> <li>• Upgrade pedestrian bridge with safety improvements (City)</li> <li>• Create a formal connection from Dias Avenue to 63<sup>rd</sup> Street (City)</li> </ul>



## Visuals



*Students living along 63<sup>rd</sup> Street must walk in the street due to missing sidewalks.*



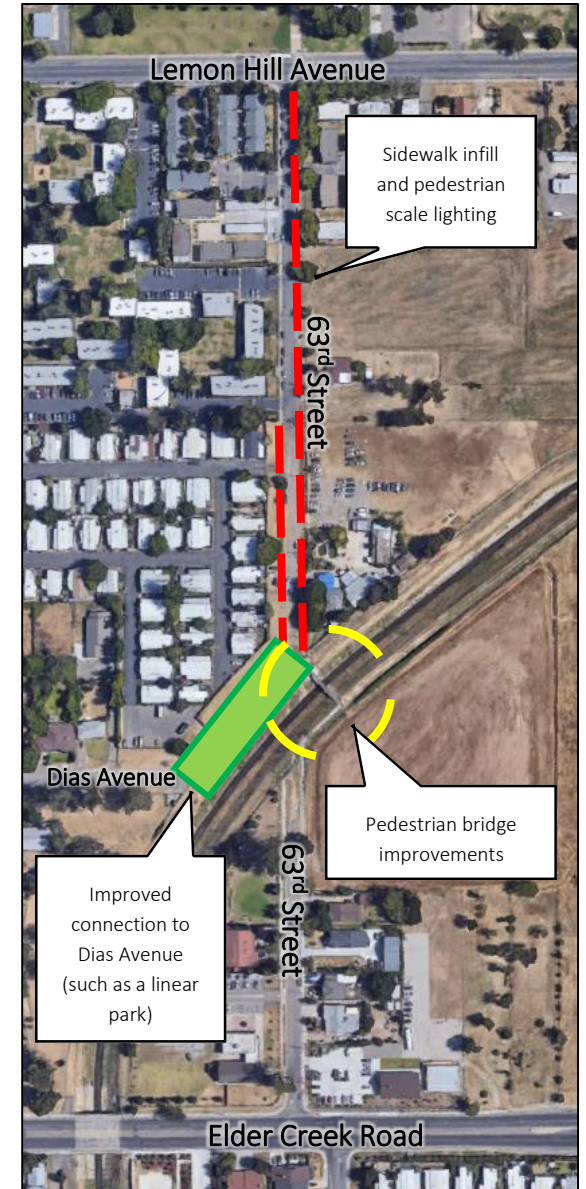
*Homeless camping, dumping, and trash accumulation occur along 63<sup>rd</sup> Street.*



*Sidewalks are missing along both sides of 63<sup>rd</sup> Street towards the pedestrian bridge.*



*The pedestrian bridge is narrow and feels unsafe to walk across.*



*Recommended improvements along 63<sup>rd</sup> Street.*

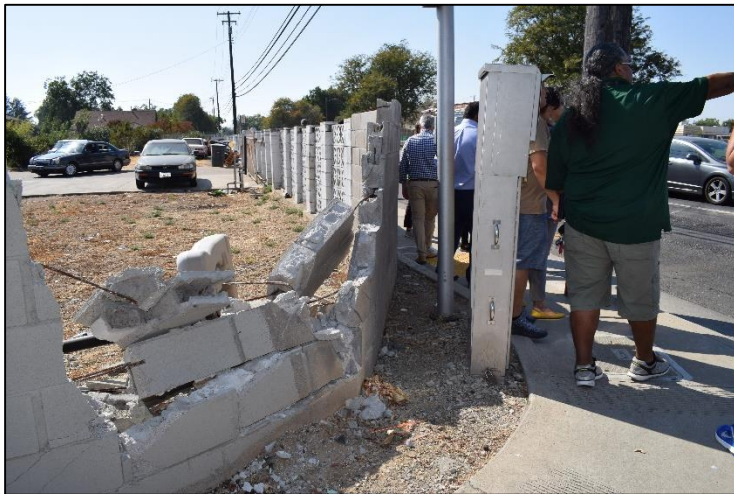
ID	Location	Reported or Observed Challenges	Recommended Improvements
4	Lemon Hill Avenue and 65 <sup>th</sup> Expressway intersection	<p>The intersection at Lemon Hill Avenue and 65<sup>th</sup> Expressway is a major intersection for student travel by car, foot, bike, and bus. Cars tend to move quickly through right-turns, creating unsafe crossing conditions. Right turns are particularly dangerous at the southwest corner of the intersection, where pedestrian visibility is blocked by a large utility pole and cinderblock wall. Additionally, the corners at this intersection are often crowded during morning and afternoon school commutes due to limited curb space.</p> <p>Wait times for the pedestrian signal are long, causing many pedestrians to prefer to run the light rather than wait for the signal. Additionally, the countdown for getting through the intersection is very short and does not provide enough time for groups of students to walk across safely.</p> <p>Students at Will C. Wood as well as Hiram Johnson High School use the bus stops at this intersection. The southbound bus stop, located south of Lemon Hill Avenue on 65<sup>th</sup> Expressway, is not wide enough for buses to deploy an ADA ramp and has caused buses to turn away passengers that have mobility devices. There is also no seating or shelter at this stop.</p> <p>Priorities for this intersection include:</p> <ul style="list-style-type: none"> <li>• Improve pedestrian safety and visibility at corners and while crossing</li> <li>• Minimize conflicts between pedestrians crossing and vehicle right turn movements</li> <li>• Make bus stops ADA accessible</li> </ul>	<ul style="list-style-type: none"> <li>• Bulb out curbs at all corners, prioritizing the northwest and southwest corners (City)</li> <li>• Install a leading pedestrian interval at the stoplights (City)</li> <li>• Increase pedestrian crossing times (City)</li> <li>• Restripe crosswalks for greater visibility (City)</li> <li>• Widen sidewalk segment from Lemon Hill Avenue to the bus stop on the west side of 65<sup>th</sup> Expressway (City)</li> </ul>



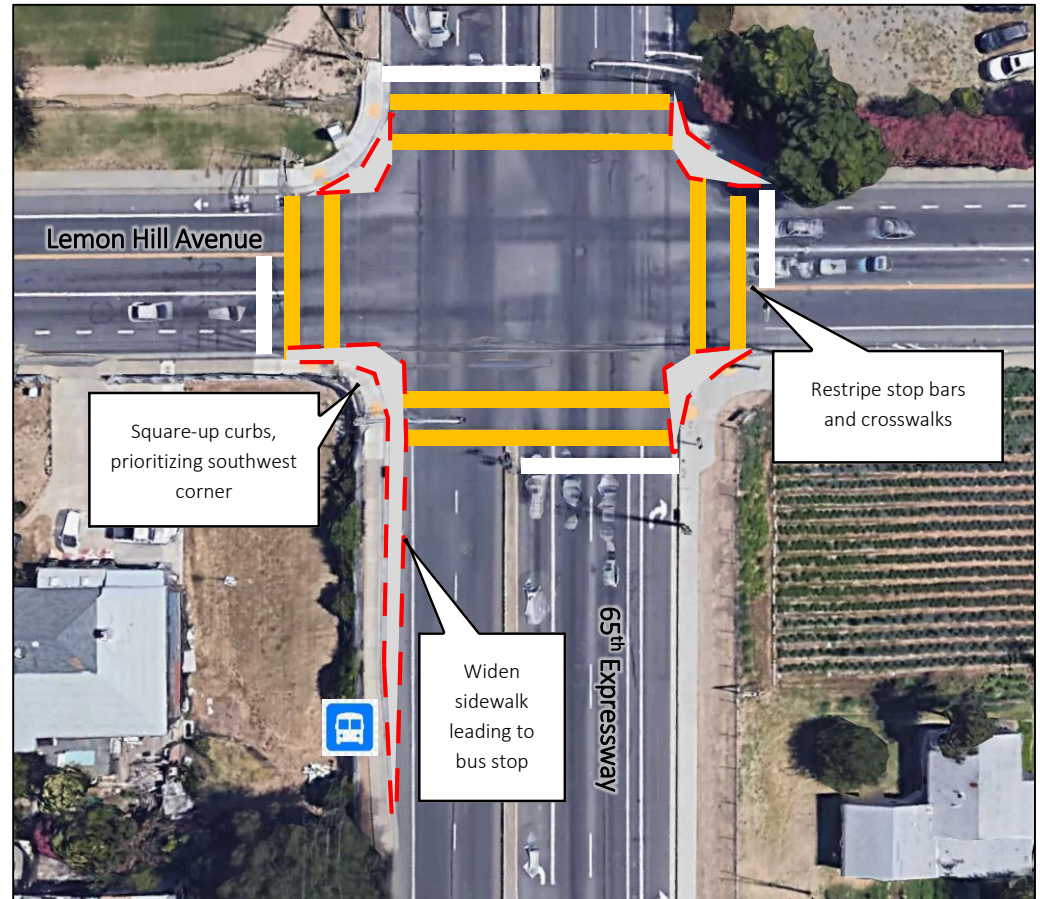
## Visuals



*A cinderblock wall and utility pole restricts visibility of students at the corner. This corner sees a significant amount of student foot traffic in the morning and afternoon, especially due to the southbound bus stop.*



*Limited curb space provides less protection from right turn movements. Students wait in large masses to cross at this location.*



*Recommended improvements at the intersection of Lemon Hill Avenue and 65<sup>th</sup> Expressway.*



ID	Location	Reported or Observed Challenges	Recommended Improvements
5	Elder Creek Road and 63 <sup>rd</sup> Street intersection	<p>Elder Creek Road is a wide, high speed arterial with four lanes and a center turn lane. There are Class II bike lanes on both sides, however the bike lanes are very narrow and do not provide adequate separation from high speed traffic. There are limited safe crossing opportunities, with the distance between marked crosswalks at Stockton Boulevard and 65<sup>th</sup> Expressway being nearly 2,300 feet. In addition to fast traffic, Elder Creek Road is also a truck route, which further reduces safety and comfort while walking and biking.</p> <p>Students who live in the apartments south of Elder Creek Road often cross mid-block near 63<sup>rd</sup> Street where there is no marked crosswalk. Installing a signalized crossing would provide a direct pedestrian connection to school and help calm traffic along Elder Creek Road.</p>	Install a signalized crossing, potentially signaling the full intersection and including a pedestrian refuge island or other safety measure. (City)

### Visuals



*Elder Creek Road is a wide arterial with high volumes of high speed traffic. The nearest marked crosswalk from 63<sup>rd</sup> Street is 670 feet away at 65<sup>th</sup> Expressway.*

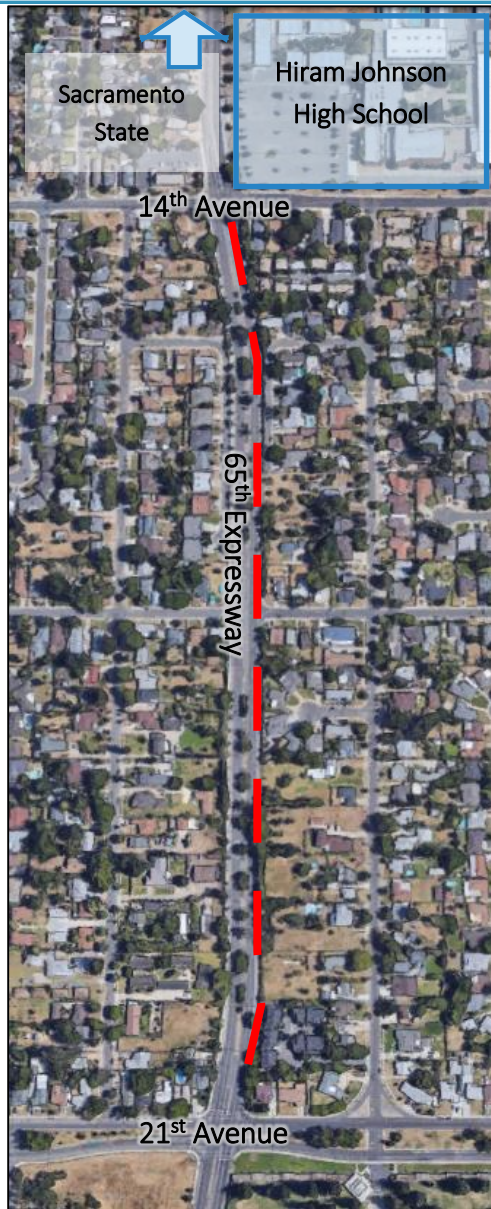


*Recommended improvements at the intersection of Elder Creek Road and 63<sup>rd</sup> Street.*

ID	Location	Reported or Observed Challenges	Recommended Improvements
6	65 <sup>th</sup> Expressway (14 <sup>th</sup> Avenue to Elder Creek Road)	<p>65<sup>th</sup> Expressway is a major north-south arterial that has four lanes of high speed, high volume traffic. In addition to vehicle traffic, 65<sup>th</sup> Expressway is also a major transit corridor served by SacRT bus routes. Sidewalks are inconsistent along the corridor, with long segments having no sidewalk on either side of the street. While there are wide shoulders and Class II bike lanes in some portions, proximity to the high speed travel lanes makes biking an uncomfortable and unsafe experience. Crossings are limited to signalized intersections that have long wait times and long crossing distances across four travel lanes. These crossings are located between 2,000 to 3,000 feet apart with no safe mid-block crossing opportunities.</p> <p>65<sup>th</sup> Expressway serves several schools along the corridor ranging from elementary through university, including Peter Burnett Elementary School, Will C. Wood Middle School, Hiram Johnson High School, and Sacramento State University. Students attending these schools often travel along 65<sup>th</sup> Expressway using a variety of modes, including driving, transit, walking, and biking. Students, parents, and school staff at several of these schools have identified 65<sup>th</sup> Expressway as a major concern and a priority for traffic calming and pedestrian and bicycle infrastructure improvements. 65<sup>th</sup> Expressway is also on the City's High Injury Network through Vision Zero, which identifies corridors with a high frequency of traffic-related deaths and serious injuries in order to prioritize safety improvements to those corridors.</p> <p>Priorities for this corridor include:</p> <ul style="list-style-type: none"> <li>• Creating safer pedestrian and bicycle facilities, such as sidewalk infill and buffered or separated bike lanes</li> <li>• Improving safety at intersections</li> </ul>	<p>Pursue funding and assess opportunities for corridor improvements including:</p> <ul style="list-style-type: none"> <li>• Traffic calming (City)</li> <li>• Sidewalk infill (City/Property Owners)</li> <li>• Buffered bike lanes (City)</li> <li>• High visibility mid-block crossings (City)</li> <li>• Intersection improvements such as pedestrian refuge islands and curb bulb-outs (City)</li> <li>• Underground utilities (City/SMUD)</li> </ul>



## Visuals



14<sup>th</sup> Avenue to 21<sup>st</sup> Avenue



21<sup>st</sup> Avenue to Fruitridge Road



Fruitridge Road to Lemon Hill Avenue



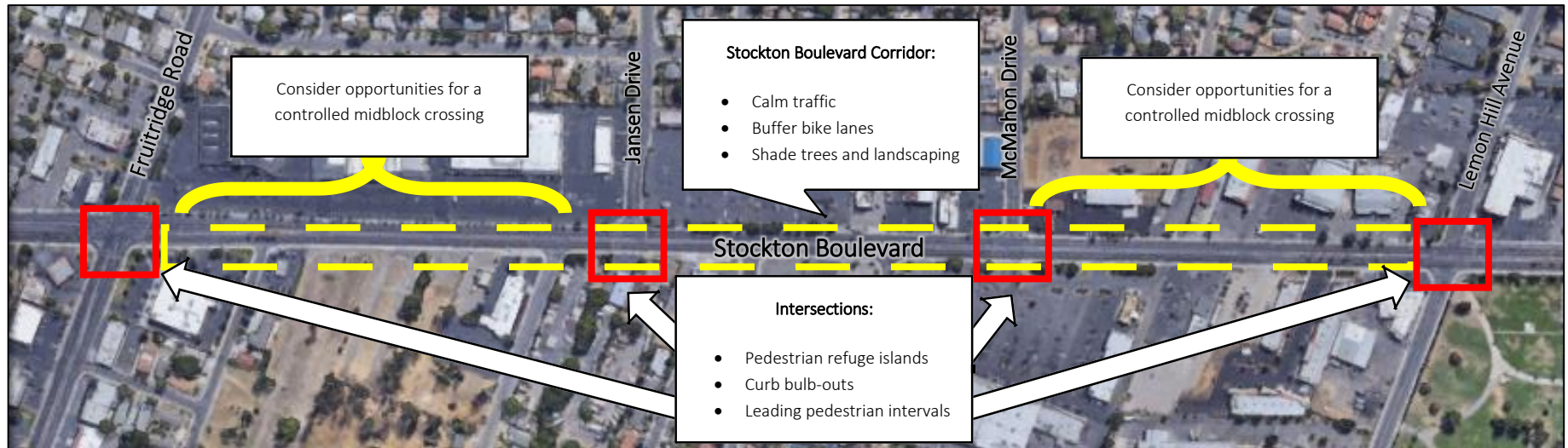
Lemon Hill Avenue to Elder Creek Road

 No Sidewalks

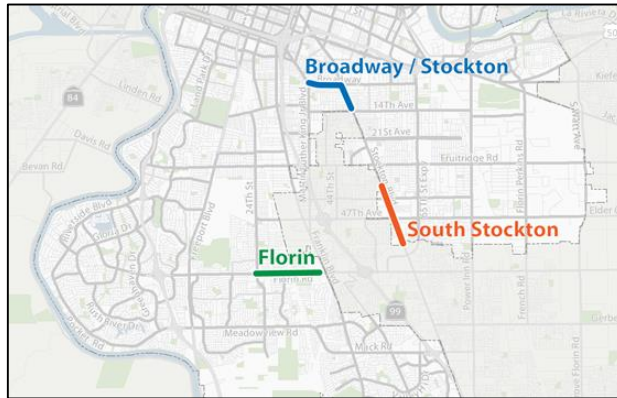


ID	Location	Reported or Observed Challenges	Recommended Improvements
7	Stockton Boulevard (Fruitridge Road to Lemon Hill Avenue)	<p>Stockton Boulevard is a major north-south arterial bisecting Will C. Wood's attendance boundary. Similar to 65<sup>th</sup> Expressway, Stockton Boulevard has four travel lanes of high speed traffic, is served by SacRT bus routes, and is on the City's Vision Zero High Injury Network. The segment of Stockton Boulevard from McMahon Drive to Patterson Way is also one of the City's top five corridors as part of the Vision Zero Top Five Corridors Study.</p> <p>High traffic speeds, long crossing distances at intersections, narrow sidewalks, multiple driveways, vacant lots, and lack of shade contribute to an unsafe and uncomfortable pedestrian environment. Narrowing lanes widths and reducing pedestrian crossing distances at intersections through treatments such as pedestrian refuge islands and curb bulb-outs will help slow speeds along the corridor and improve pedestrian safety.</p> <p>While there are Class II bike lanes along Stockton Boulevard, the proximity to high speed travel lanes and buses pulling in and out of stops makes biking unsafe. Buffering or separating the bike lanes from traffic will significantly improve safety for students and community members traveling on Stockton Boulevard.</p> <p>Priorities for this corridor include:</p> <ul style="list-style-type: none"> <li>• Improve safety and comfort for biking throughout the corridor</li> <li>• Improve pedestrian safety at intersections</li> <li>• Calm traffic</li> <li>• Create a safe and inviting pedestrian environment</li> </ul>	<p>Pursue funding and assess opportunities for corridor improvements including:</p> <ul style="list-style-type: none"> <li>• Traffic calming (City)</li> <li>• Buffered bike lanes (City)</li> <li>• Narrower vehicle travel lanes (City)</li> <li>• Consolidated driveways throughout the corridor (City/Property Owners)</li> <li>• Intersection improvements such as pedestrian refuge islands, leading pedestrian intervals, and curb bulb-outs (City)</li> <li>• Consider feasibility of controlled midblock crossings between Lemon Hill Avenue and McMahon Drive and/or between Fruitridge Road and Jansen Drive (City)</li> <li>• Shade trees, landscaping, and landscaped medians for traffic calming, comfort, and aesthetic benefits (City/Property Owners)</li> </ul>

## Visuals



*Recommended improvements on Stockton Boulevard between Fruitridge Road and Lemon Hill Avenue.*



*South Stockton Boulevard between McMahon Drive and Patterson Way is one of the top five corridors for the City's Vision Zero improvements.*



*General conditions along Stockton Boulevard: narrow bike lane and sidewalks, multiple driveways, fast and high volume traffic, and long distances between crossings.*

## SCHOOL-ORIENTED RECOMMENDATIONS

ID	Location	Reported or Observed Challenges	Recommended Improvements
8	School parking lot	<p>The parking lot is only open in the morning for drop-off. Generally, drop-off in the parking lot functions well. Cars follow the drop-off loop and the queue does not get long enough to create back-up on Lemon Hill Avenue. However, parking lot entrance and exit striping and signage are faded and in need of updating. Cars turning left out of the parking lot creates some back-up due to back-up on Lemon Hill Avenue from the red light at the 63<sup>rd</sup> Street intersection.</p> <p>Drivers can turn left or right to enter the parking lot. Drivers turning left create back-ups and cause drivers continuing straight on eastbound Lemon Hill Avenue to go around in the bike lane. Drivers turning right will also use the bike lane as a right turn lane. Drivers dropping off at the curb will pull up close to the parking lot driveways, decreasing visibility of students walking.</p> <p>Students either continue straight on the sidewalk or cut through the parking lot. There is no formal pedestrian path of travel through the parking lot, creating opportunities for conflict between pedestrians and cars. There is also no formal bike path through the parking lot to the bike parking location, creating potential conflict between bikes and cars parking.</p> <p>Priorities for parking lot flow:</p> <ul style="list-style-type: none"> <li>• Reduce back-ups on Lemon Hill Avenue</li> <li>• Reduce U-turning and using bike lanes as travel lanes</li> <li>• Better facilitate pedestrian and bicycle paths of travel to campus</li> </ul>	<ul style="list-style-type: none"> <li>• Red stripe driveways at least one car's length (School District)</li> <li>• Update striping and signage at parking lot entrance and exit (School District)</li> <li>• Stripe bike lanes with green paint near driveways to notify drivers to be aware of bikes (City)</li> <li>• Stripe "Keep Clear" zones on Lemon Hill Avenue at parking lot entrance and exit, prioritizing parking lot entrance (City)</li> <li>• Consider opening a gate to allow bike access to the field so that students can access the bike parking without going through the parking lot (School District)</li> </ul>



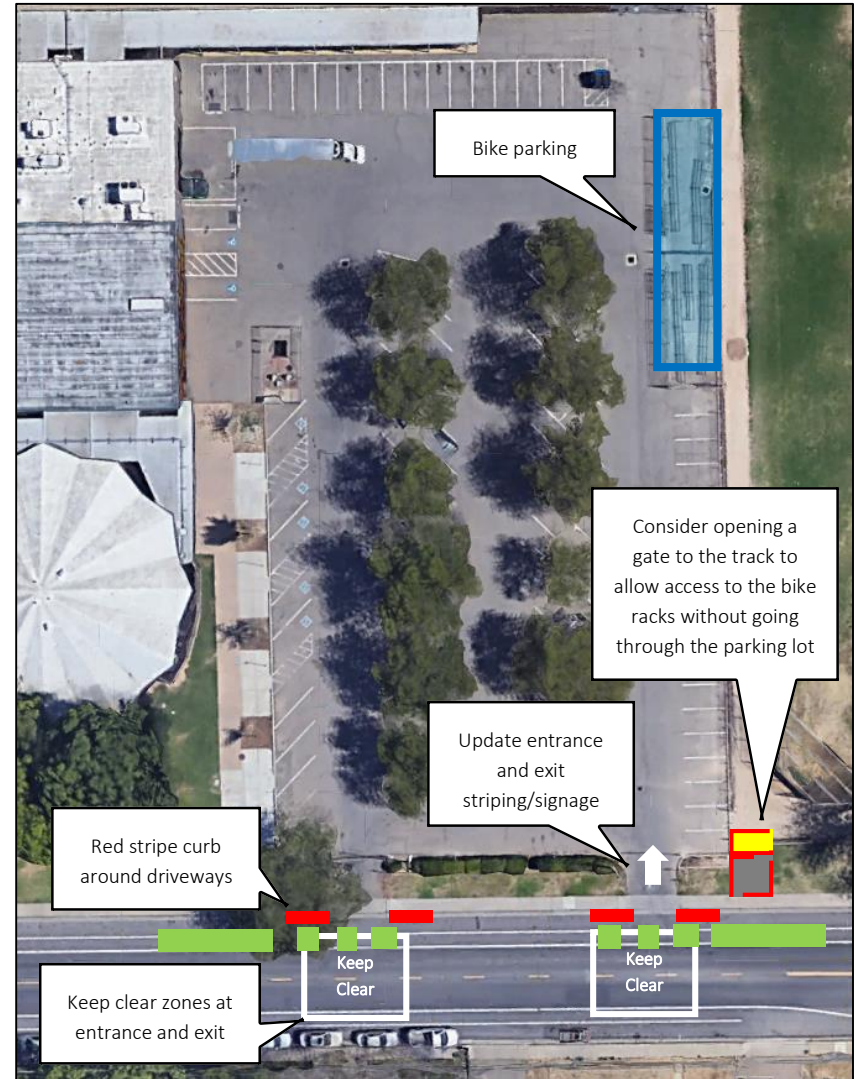
## Visuals



*Illegal U-turn on Lemon Hill Avenue.*



*Parking lot striping is in need of updating.*

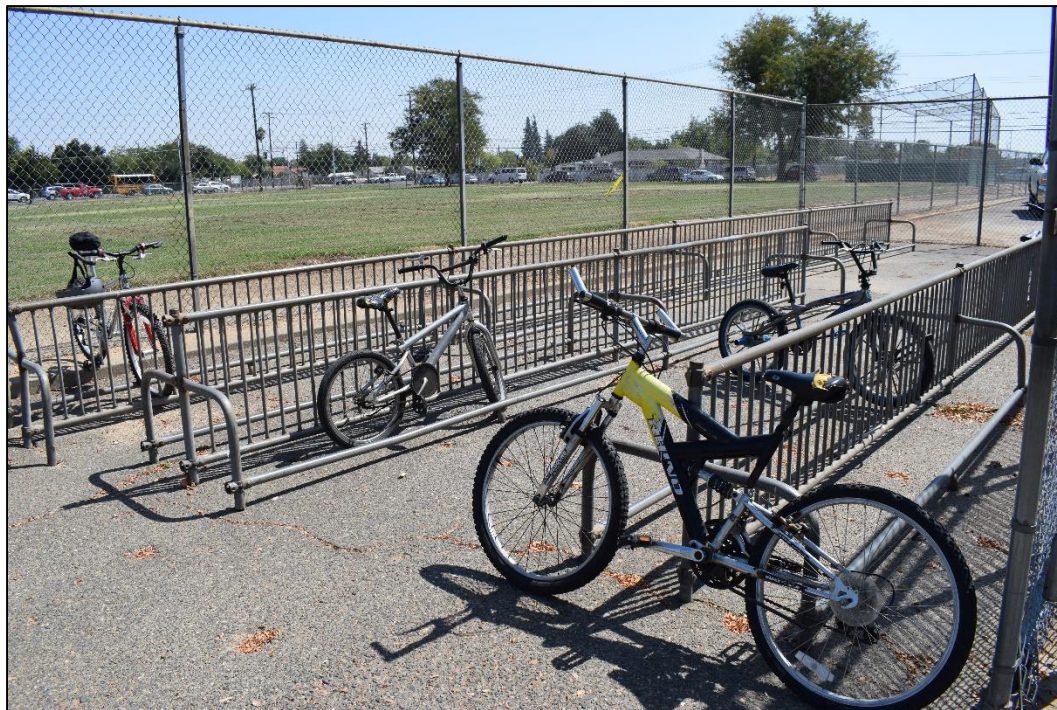


*Recommended improvements at the parking lot.*



ID	Location	Reported or Observed Challenges	Recommended Improvements
9	Bike rack parking on campus	The current grid style of bike racks does not support bicycles at two points. With these racks, bikes fall over and their wheels bend.	Replace the current grid racks with inverted U style or wheelwell dock bike racks. (School/District)

### Visuals



*Existing grid bike racks do not support bikes and cause bending of wheels.*



*Inverted U bike rack supports bikes at two points.  
(Source: Human Transport)*



*Wheelwell dock rack supports bikes at two points.  
(Source: NJ SRTS)*

## GENERAL RECOMMENDATIONS

### LANDSCAPING

Landscaping and upkeep can significantly improve the walking environment of a neighborhood. Where foliage does exist, many areas are not well maintained and encroach upon the walking path or hide school zone signage. Overgrown landscaping can contribute to personal safety concerns by creating hiding spaces for illicit activity.

Tree shading also improves walkability through comfort and aesthetics. Trees reduce the impacts of heat and provide a number of other physical health, mental well-being, air quality, and environmental benefits.

#### Recommendations:

- Cut back overgrown landscaping, ensuring that low shrubs and bushes are not higher than two feet and that tree branches are not lower than 6 feet above ground. (Property Owners/City)
- Partner with the Sacramento Tree Foundation to perform tree plantings to provide shade and address the urban heat island effect. (City/Property Owners/Residents)

### MAINTENANCE AND ILLEGAL DUMPING

Vacant lots along 63<sup>rd</sup> Street, Lemon Hill Avenue, and 65<sup>th</sup> Expressway are popular sites for illegal dumping, resulting in trash blocking walking paths and bike lanes. Ensuring regular cleanup and maintenance of roadways and pedestrian bridge entrances will support more “eyes-on-the-street” to discourage illicit activity and improve safety for students.

#### Recommendations:

- Report maintenance needs and code enforcement violations to 311. (Property Owners/School/Residents)
- Conduct regular and timely cleanings and trash removal. (City/Property Owners)



*Illegal dumping on 63<sup>rd</sup> Street.*



## SCHOOL ZONE SIGNAGE

School zone signage is currently located along Lemon Hill Avenue (eastbound and westbound directions approaching the school) and on 65<sup>th</sup> Expressway (northbound and southbound directions approaching the school), as seen in the map below. In many places, signage is hidden behind overgrown landscaping and is not visible to drivers. Additional signage to notify drivers of the school crossing at 63<sup>rd</sup> Street and Lemon Hill may be needed to improve crosswalk visibility. There are also no pavement markings to indicate the school zone. Adding or enhancing signage may help increase awareness of the school zone and reduce speeding and poor driver behavior, particularly near school crossings.



*Existing school sign locations and types.*



*School speed limit signage covered by tree branches.*

### Recommendations:

- Cut back overgrown branches around school signage. (City/Property Owners)
- Consider adding school crossing signage around the crosswalk at 63<sup>rd</sup> Street and Lemon Hill Avenue. (City/School District)
- Consider adding pavement markings on Lemon Hill Avenue to indicate school zone or school crossing. (City/School District)
- Consider enhancing existing school speed limit signage with flashing lights. (City/School District)

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## LIGHTING AND UTILITIES

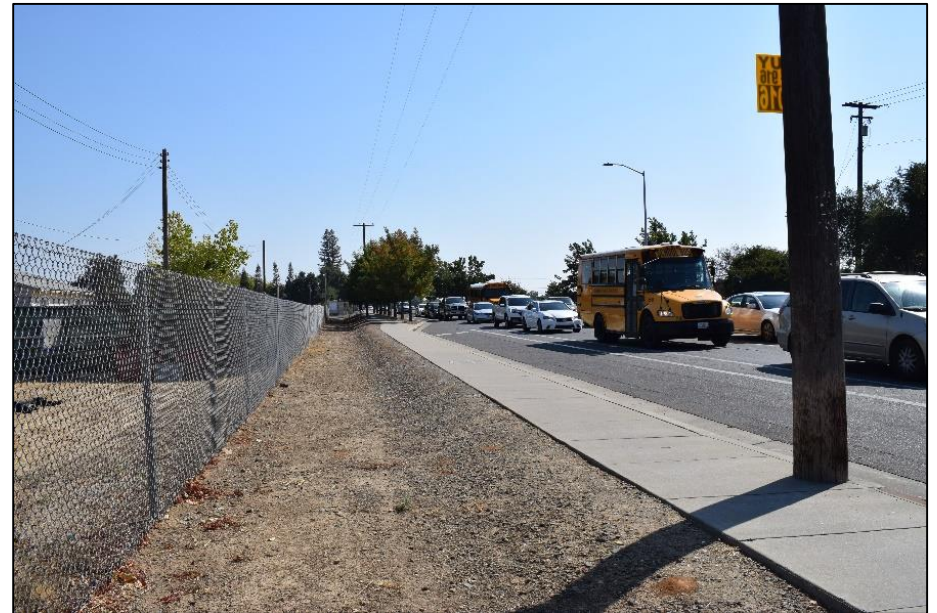
Streets around Will C. Wood Middle tend to have lighting that is oriented for cars rather than pedestrians, creating a dark and unsafe walking environment, particularly in the fall and winter when mornings are darker longer and evenings get darker sooner. Additionally, large utility poles tend to block sidewalks throughout the neighborhood. This creates a physical barrier for pedestrians and is a major concern for ADA accessibility.

### Recommendations:

- Underground utilities. (City/SMUD)
- Install pedestrian-scale lighting along school corridors, prioritizing 63<sup>rd</sup> Street. (City/SMUD)



*Lighting is minimal on 63<sup>rd</sup> Street and is not pedestrian-oriented.*



*Utility poles create barriers on the sidewalk.*



## PROGRAMMING RECOMMENDATIONS

In addition to the recommendations for long-term built environment change to improve the pedestrian and bicycle environment, WALKSacramento recommends Will C. Wood Middle School continues Safe Routes to School programming through the following approaches to continue building a strong safety pedestrian and bicycle culture.

### EDUCATION

Education programs teach students, parents, and community members about traffic safety behaviors and benefits of walking and biking. Education can be done through regular class time, as part of after-school programs, or through club activities. Safety education campaigns are held during October and May to complement Walk to School Day and Bike to School Day events. Education can take the form of video voice projects, PE class activities, and bike rodeos to name a few. Planned educational activities include working with the After School Education and Safety program to develop student-led video projects and bicycle-focused education in the spring.

*For more information on bicycle and pedestrian education and resources, visit:*  
<http://www.walksacramento.org/srts-resources/>



*Students can learn and practice safe bike riding skills at a bike rodeo.*

## ENCOURAGEMENT

Encouragement activities are crucial because they help make the case for further infrastructure change and can make marked improvements in school-based traffic and local air quality by encouraging students who would otherwise be driven to school to walk or ride their bike. Establishing regular monthly walking school buses or celebrating Walk to School Day and Bike to School Day events help create broader support for SRTS programs and reinforce the “safety in numbers” concept. *Safety in numbers: more walkers and bicyclists, safer walking and bicycling*, a study conducted by Peter Jacobson in 2003, concluded that “Where, or when, more people walk or bicycle, the less likely any of them are to be injured by motorists. There is safety in numbers.”<sup>8</sup>

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### WALKING SCHOOL BUS

Walking school bus programs are recurring walking groups that allow students and families to walk and bike to and from school on a regular basis. Meeting locations can be rotated each month, to ensure all students have an opportunity to meet and walk to school together. During off days, students should be encouraged to use the identified locations as regular meeting points and remote drop-offs for students who live too far to walk or bike from their home.

*For more information how to start a walking school bus, visit: <http://www.walkingschoolbus.org/>*

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### WALK TO SCHOOL DAY AND BIKE TO SCHOOL DAY

Walk and Bike to School days are held in October during National Walking Month and in May during May is Bike Month. These events celebrate the benefits of walking and biking to school. Walk and Bike to School events are larger celebrations that can build upon monthly walking school bus or bicycle train programs and create interest with other families. These events are great opportunities to invite community partners such as law enforcement, youth-oriented organizations, and school board officials to celebrate.

*For more information on how to organize a walking school bus, a Walk to School day, or a Bike to School Day Event, visit: <http://www.walkbiketoschool.org>*

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### SAFE WALKING AND BIKING MAPS

Safe walking and biking maps encourage students to walk and bike to school and identify common meeting locations for students to walk to school together. Maps also provide reminders of areas for students to take additional precaution while walking or biking to school. WALKSacramento recommends including the maps in the school handbook and distribute to families at the beginning of each academic year.

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<sup>8</sup>Jacobsen PL Safety in numbers: more walkers and bicyclists, safer walking and bicycling Injury Prevention 2003;9:205-209.



## ENFORCEMENT

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### PICK-UP AND DROP-OFF PROCEDURES

School staff, law enforcement, and crossing guards can work together to enforce pick-up and drop-off procedures to provide daily safety reminders to be alert while in school zones and support an orderly process for traffic flow. WALKSacramento recommends pick-up and drop-off procedures be adopted into the school handbook and distribute to parents at the beginning of the year.

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### SCHOOL CROSSING GUARD PROGRAMS

Schools can also develop a crossing guard program to assist with daily enforcement of safety for students and other pedestrians and bikers. Student crossing guard programs are a great opportunity for students to take ownership of pedestrian and bike safety.

*For more information on California School Crossing Guard Training, visit: <http://www.scusd.edu/post/california-school-crossing-guard-training>*

*For more information on how to establish a student crossing guard program, visit: <https://schoolsafety.calstate.aaa.com/>*

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### LOCAL LAW ENFORCEMENT

Partnerships with law enforcement help increase awareness and adherence to traffic safety laws and can reduce the prevalence of crime near schools. Enforcement programs can include working with local law enforcement officials to educate the public on traffic safety and safe speeds. Programs with law enforcement should consider the community's perception of law enforcement and should aim to be educational rather than punitive.



RECOMMENDATIONS MAP



City-oriented Recommendations



School-oriented Recommendations



Corridor Improvements



## APPENDIX

### APPENDIX A: WILL C. WOOD SUMMER OF SERVICE WALK AUDIT FINDINGS

Will C. Wood SOS Team Presents...

## Light Up 63rd Street!



This summer our students took to the streets, making **SAFETY** our number one priority!

By: Miguel Alvarado, Angel Enriquez,  
Ryan Lam, Vui Luu, Sara Mendez,  
Esmeralda Olazaba,  
Eduardo Ramirez, Andre Tarazon,  
Ivan Velazquez, Billion Xiong



### Why 63rd Street?

Our project didn't begin with 63rd being our main focus. We began by taking a small field trip to the front of the school just to observe the streets we sit on. We noticed small things wrong with Lemon Hill and 65th St, like the speed limit sign on Lemon Hill was blocked by trees and the bike lane on 65th was narrow and slowing falling apart into a ditch on the side of the road.

However we were most shocked at what we found lying around on 63rd Street--the street right across the street from our school.

A minute into our trek we found tons of garbage, evidence of a homeless community, and signs of illegal activities such as drug use, prostitution, and vandalism.

Our students walk past this everyday after getting school and it's even more dangerous when during the fall when it gets darker sooner. Currently there is only one street light on 63rd street, nowhere near enough lighting for our students to walk home safe.

Putting up more street lights on 63rd wouldn't only make the street safer to walk on but it would also prevent all the other things wrong with 63rd street from happening. More lighting would discourage people from using this street to use drugs, dump garbage and other illegal activities like breaking into cars.

### **So What Did We Do?**

Our team began researching how to put up street lights. This included the price of the actual street light, maintenance cost, and what requirements does the street need. Our research lead us to contacting the City of Sacramento and from there we were directed to the City's Department of Traffic and Engineering. Mr. Brayan was on the phone with them for awhile and they told him they'd get back to him after they checked the street plans to make sure it was possible to even install the lights and that the neighborhood needed to approve the installation. At that point we already had an instagram page set up with an online petition link in our bio so we knew that our next step was to reach out to the apartment complexes across the street.

### **Reaching out**

We got in contact with Sunset apartments across the street and in a fortunate turn of events, they have also been trying to do something about the street as well. The tenants have been fed up with all the dumping and people wandering into complex. Some residents even reported their homes being broken into. The manager, Eddie, also pointed us in the direction of the mobile home complex behind them.

Contacting them was easy because Mr. Brayan lives there and knows the manager. They were more reluctant to help

our cause but still said they'd help put the word out, which was good enough for us.

### **The Before and After**

When we called the City of Sacramento we mentioned all the illegal dumping that was happening on 63rd and got the City to come out and clean up the street. There was a great difference between what we saw on day one and what is there today. Some of the garbage did come back and again there was cigarette butts, used condoms, and needles, but we believe that once we get these lights up all that will slowly diminish.

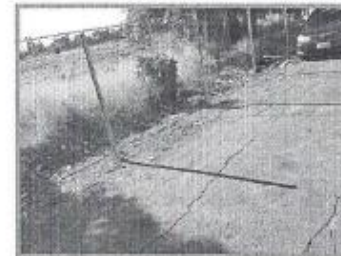
### **Special Thanks to...**

- Travelodge
- Sunset Apartments
- Judy from 311 (City of Sacramento)
- Department of Traffic and Engineering

### **Support Us!**

Follow us on instagram @sos2018\_wcw  
And make sure to sign the petition in our bio!

Thank you!

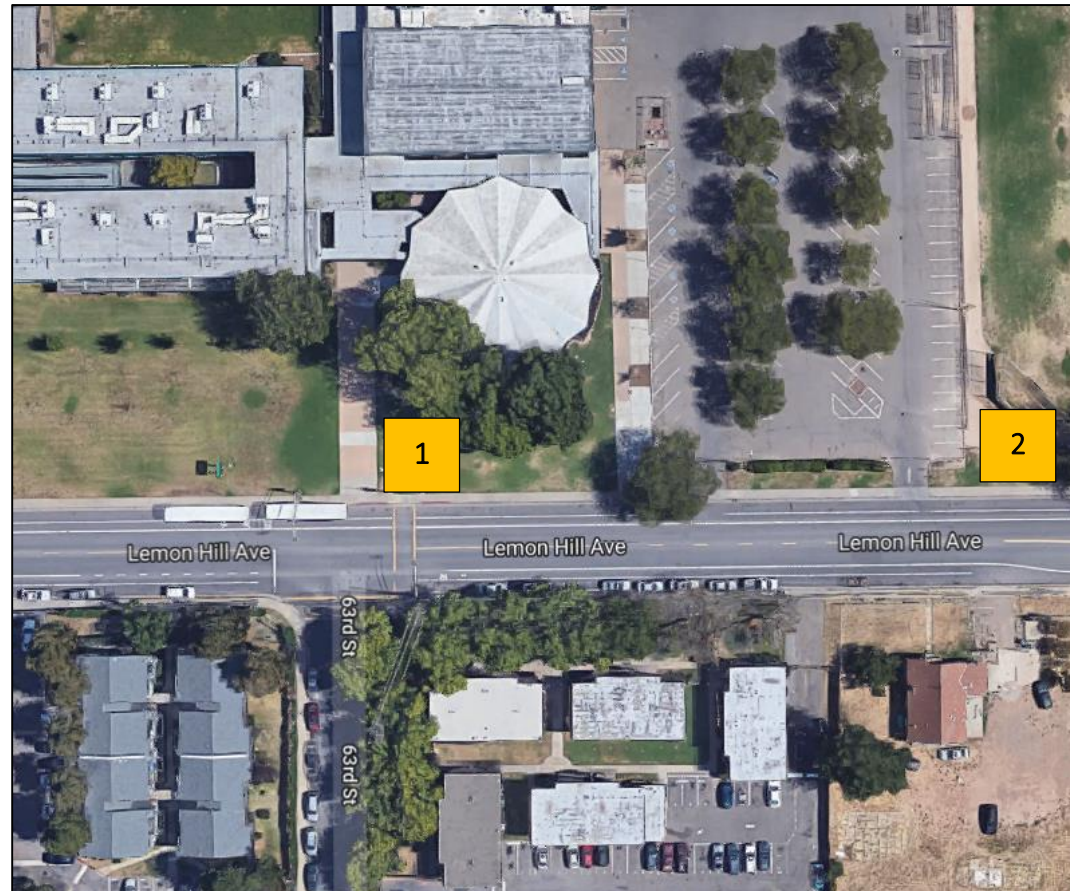




## APPENDIX B: TRAFFIC OBSERVATION NOTES

A traffic observation was conducted on Wednesday, September 26<sup>th</sup> from 7:30-8:30 am to observe morning drop-off conditions. Observations were conducted at two locations:

1. In front of the school entrance at the intersection of Lemon Hill Avenue and 63<sup>rd</sup> Street
2. At the parking lot entrance on Lemon Hill Avenue



## General Conditions

School begins at 8:15am, and most students arrive between 7:30-8:00am. There are four entrances to the school, with two in the front of the school on Lemon Hill Avenue and two in the back of the school, one at Ortega Street and one at 64<sup>th</sup> Street. Traffic observations were only conducted at the two front entrances where most vehicle activity occurs.

The parking lot is open in the morning for drop-off, but is closed in the afternoon for pick-up. Pick-up and drop-off by car occurs primarily on Lemon Hill Avenue in front of the school.

## Pedestrian and Bicycle Conditions

There are two marked and signalized crosswalks at the intersection of Lemon Hill Avenue and 63<sup>rd</sup> Street in front of the school. There are four marked and signalized crosswalks at the intersection of Lemon Hill Avenue and 65<sup>th</sup> Expressway. There are Class II bike lanes on both sides of Lemon Hill Avenue. Bike parking is located in the parking lot and has grid-style bike racks.





## **Observation Location 1: Lemon Hill Avenue and 63<sup>rd</sup> Street**

Pedestrian and car travel flow were observed at the intersection of Lemon Hill Avenue and 63<sup>rd</sup> Street at the front of the school.

### **Motorist Behavior**

Drivers drop off students on both sides of Lemon Hill Avenue, with most drop-off occurring on the westbound side of Lemon Hill Avenue (school side). The curb is red-striped around the crosswalk on the school side and is enforced with cones to prevent parking and drop-offs, however drivers still tend to pull into the crosswalk and roll through the red light, creating unsafe conditions for students crossing at the intersection. Parents will often U-turn in the middle of the street once they have dropped off their students. Six illegal U-turns were observed during the traffic observation. The red light creates back-up on Lemon Hill, which impacts traffic flow out of the parking lot. Due to this back-up, drivers will go around traffic by using the bike lane. Parents would also drop students off in the middle of the street while stopped at the red light.

Drivers would also use 63<sup>rd</sup> Street to U-turn, and then speed through the right-turn onto eastbound Lemon Hill Avenue. Drivers do not yield to pedestrians for the right-turn.

### **Pedestrian Behavior**

Over 65 students were observed using the marked crosswalk at this intersection. Generally, students were using crosswalks rather than crossing mid-block. However, students would also cross against the light during the “Don’t Walk” cycle.

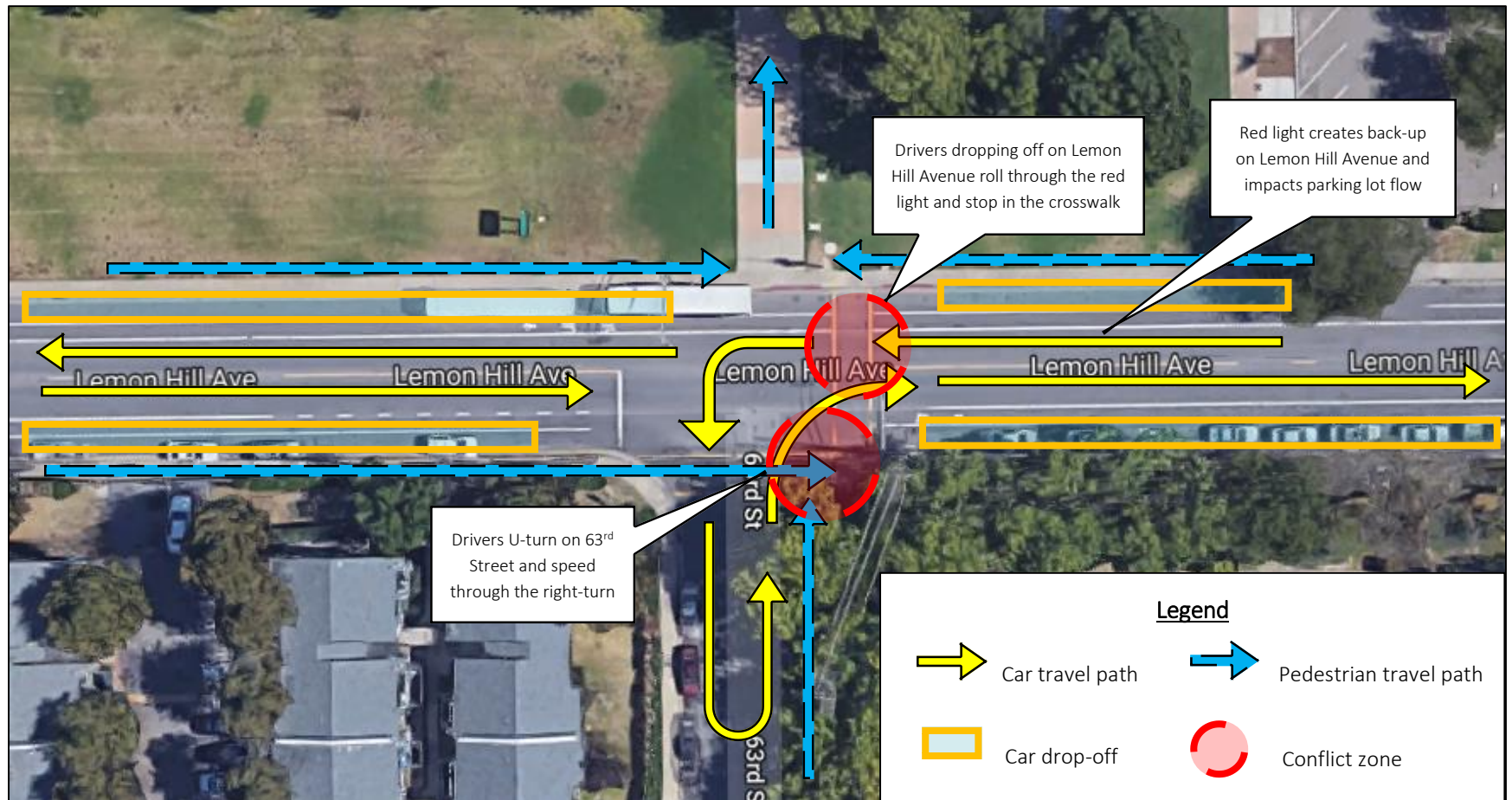
### **Bicycle Behavior**

Two bikes and one scooter were observed entering the school at this location.

### **Crossing Guards**

One crossing guard is located at this intersection to facilitate safe crossings across Lemon Hill Avenue. The crossing guard is a hired school staff person. The crossing guard has a vest, stop sign, and cones. The crossing guard helps reinforce safe student behavior by reminding students where to cross and how to cross safely. The crossing guard has challenges with student and driver misbehavior at this intersection.

## Driver and Pedestrian Travel Patterns at Observation Location 1





## Observation Location 2: Parking Lot

Pedestrian and car travel flow were observed at the parking lot entrance on Lemon Hill Avenue.

### Motorist Behavior

Cars either drop students off along the curb on the school side of Lemon Hill Avenue or turn into the parking lot. Generally, drop-off in the parking lot functions well. Cars follow the drop-off loop and the queue does not get long enough to create back-up on Lemon Hill Avenue.

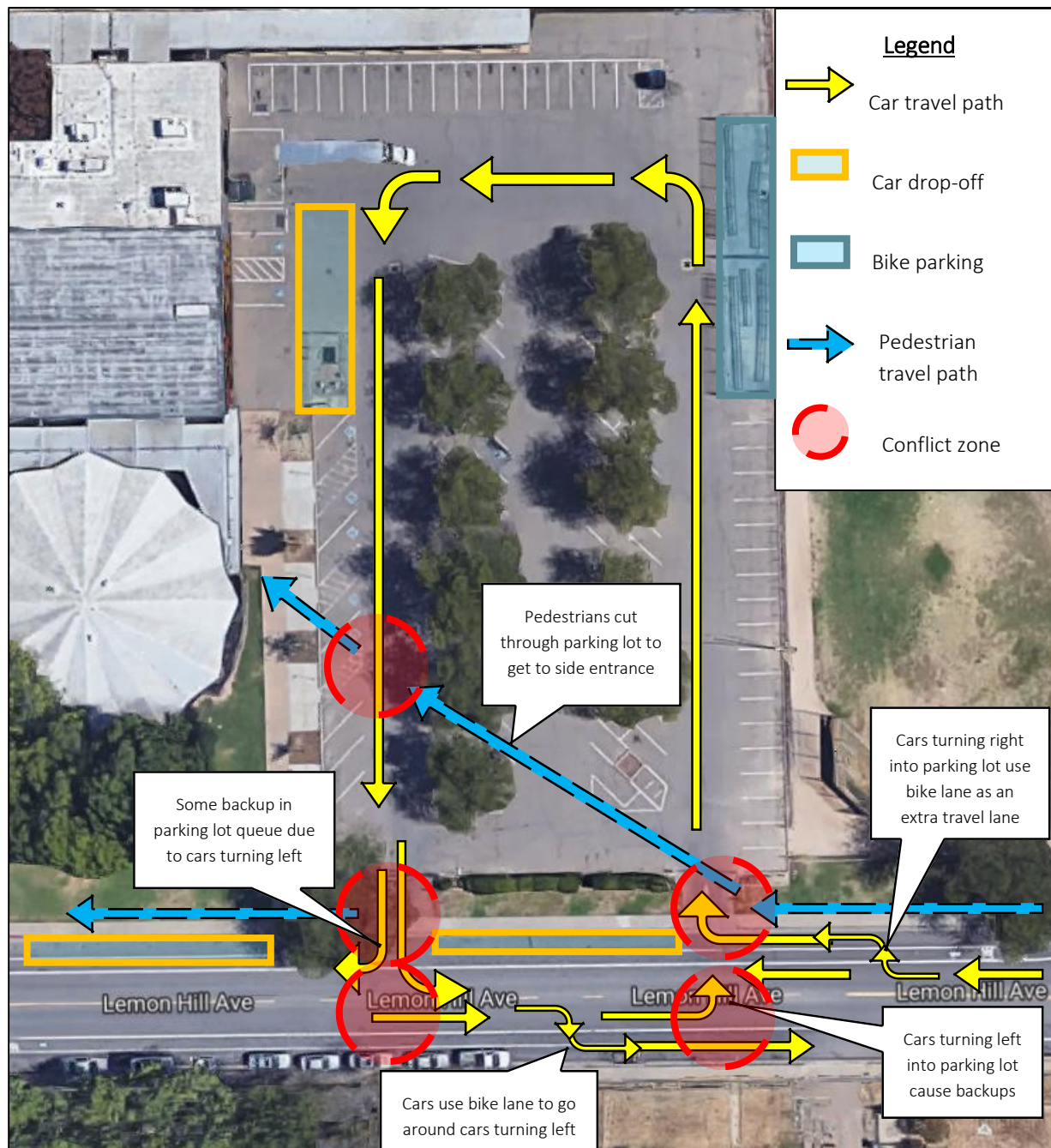
The main issues occur directly on Lemon Hill Avenue. Cars dropping off on the curb will pull up close to the parking lot driveways, decreasing visibility of students walking. Drivers will U-turn illegally in the middle of Lemon Hill Avenue, with three illegal U-turns observed during the traffic observation. Drivers entering the parking lot by turning left from Lemon Hill Avenue cause back-up, and drivers continuing straight on Lemon Hill Avenue will use the bike lane to go around left-turning cars. Cars turning right into the parking lot will also use the bike lane as an extra travel lane or to go around traffic.

### Pedestrian Behavior

Over 45 students were observed walking to school coming from east in the direction of 65<sup>th</sup> Expressway. Most students used the sidewalk on the school side of Lemon Hill Avenue. Only one student was observed crossing mid-block. Students would either continue straight on the sidewalk or cut through the parking lot. There is no formal pedestrian path of travel through the parking lot, creating opportunities for conflict between pedestrians and cars.

### Bicycle Behavior

Two bikes were observed biking to school. Bikes used the bike lane. Bikers were not wearing helmets. There is no formal bike path through the parking lot to the bike parking location, creating potential conflict between bikes and cars parking.



## APPENDIX C: NATIONAL CENTER FOR SAFE ROUTES TO SCHOOL PARENT SURVEY FORM

Parent Survey About Walking and Biking to School	
<p><b>Dear Parent or Caregiver,</b>            Your child's school wants to learn your thoughts about children walking and biking to school. This survey will take about 5 - 10 minutes to complete. We ask that each family complete only one survey per school your children attend. If more than one child from a school brings a survey home, please fill out the survey for the child with the next birthday from today's date.            After you have completed this survey, send it back to the school with your child or give it to the teacher. Your responses will be kept confidential and neither your name nor your child's name will be associated with any results.  <b>Thank you for participating in this survey!</b></p>	
+ CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY +	
School Name: <span style="border: 1px solid black; display: inline-block; width: 400px; height: 1.2em; vertical-align: middle;"></span>	
1. What is the grade of the child who brought home this survey? <span style="border: 1px solid black; display: inline-block; width: 20px; height: 1.2em; vertical-align: middle;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 1.2em; vertical-align: middle;"></span> Grade (PK,K,1,2,3...)	
2. Is the child who brought home this survey male or female? <span style="border: 1px solid black; display: inline-block; width: 20px; height: 1.2em; vertical-align: middle;"></span> Male <span style="border: 1px solid black; display: inline-block; width: 20px; height: 1.2em; vertical-align: middle;"></span> Female	
3. How many children do you have in Kindergarten through 8 <sup>th</sup> grade? <span style="border: 1px solid black; display: inline-block; width: 20px; height: 1.2em; vertical-align: middle;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 1.2em; vertical-align: middle;"></span>	
4. What is the street intersection nearest your home? (Provide the names of two intersecting streets) <span style="border: 1px solid black; display: inline-block; width: 400px; height: 1.2em; vertical-align: middle;"></span> <b>and</b> <span style="border: 1px solid black; display: inline-block; width: 400px; height: 1.2em; vertical-align: middle;"></span>	
Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.	
5. How far does your child live from school? <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Less than ¼ mile             </div> <div> <input type="checkbox"/> ½ mile up to 1 mile             </div> <div> <input type="checkbox"/> More than 2 miles             </div> </div> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> ¼ mile up to ½ mile             </div> <div> <input type="checkbox"/> 1 mile up to 2 miles             </div> <div> <input type="checkbox"/> Don't know             </div> </div>	
Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box. +	
6. On most days, how does your child arrive and leave for school? (Select one choice per column, mark box with X) <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p><b>Arrive at school</b></p> <input type="checkbox"/> Walk  <input type="checkbox"/> Bike  <input type="checkbox"/> School Bus  <input type="checkbox"/> Family vehicle (only children in your family)  <input type="checkbox"/> Carpool (Children from other families)  <input type="checkbox"/> Transit (city bus, subway, etc.)  <input type="checkbox"/> Other (skateboard, scooter, inline skates, etc.)             </div> <div style="width: 48%;"> <p><b>Leave from school</b></p> <input type="checkbox"/> Walk  <input type="checkbox"/> Bike  <input type="checkbox"/> School Bus  <input type="checkbox"/> Family vehicle (only children in your family)  <input type="checkbox"/> Carpool (Children from other families)  <input type="checkbox"/> Transit (city bus, subway, etc.)  <input type="checkbox"/> Other (skateboard, scooter, inline skates, etc.)             </div> </div>	
+ Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box +	
7. How long does it normally take your child to get to/from school? (Select one choice per column, mark box with X) <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p><b>Travel time to school</b></p> <input type="checkbox"/> Less than 5 minutes  <input type="checkbox"/> 5 – 10 minutes  <input type="checkbox"/> 11 – 20 minutes  <input type="checkbox"/> More than 20 minutes  <input type="checkbox"/> Don't know / Not sure             </div> <div style="width: 48%;"> <p><b>Travel time from school</b></p> <input type="checkbox"/> Less than 5 minutes  <input type="checkbox"/> 5 – 10 minutes  <input type="checkbox"/> 11 – 20 minutes  <input type="checkbox"/> More than 20 minutes  <input type="checkbox"/> Don't know / Not sure             </div> </div>	
+ +	

+ +	
8. Has your child asked you for permission to walk or bike to/from school in the last year? <input type="checkbox"/> Yes <input type="checkbox"/> No	
9. At what grade would you allow your child to walk or bike to/from school without an adult? (Select a grade between PK,K,1,2,3...) <span style="border: 1px solid black; display: inline-block; width: 20px; height: 1.2em; vertical-align: middle;"></span> grade (or) <input type="checkbox"/> I would not feel comfortable at any grade	
Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box	
10. What of the following issues affected your decision to allow, or not allow, your child to walk or bike to/from school? (Select ALL that apply)	11. Would you probably let your child walk or bike to/from school if this problem were changed or improved? (Select one choice per line, mark box with X)
<input type="checkbox"/> Distance.....	<input type="checkbox"/> My child already walks or bikes to/from school <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
<input type="checkbox"/> Convenience of driving.....	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
<input type="checkbox"/> Time.....	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
<input type="checkbox"/> Child's before or after-school activities.....	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
<input type="checkbox"/> Speed of traffic along route.....	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
<input type="checkbox"/> Amount of traffic along route.....	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
<input type="checkbox"/> Adults to walk or bike with.....	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
<input type="checkbox"/> Sidewalks or pathways.....	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
<input type="checkbox"/> Safety of intersections and crossings.....	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
<input type="checkbox"/> Crossing guards.....	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
<input type="checkbox"/> Violence or crime.....	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
<input type="checkbox"/> Weather or climate.....	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
+ Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box	
12. In your opinion, how much does your child's school encourage or discourage walking and biking to/from school? <input type="checkbox"/> Strongly Encourages <input type="checkbox"/> Encourages <input type="checkbox"/> Neither <input type="checkbox"/> Discourages <input type="checkbox"/> Strongly Discourages	
13. How much fun is walking or biking to/from school for your child? <input type="checkbox"/> Very Fun <input type="checkbox"/> Fun <input type="checkbox"/> Neutral <input type="checkbox"/> Boring <input type="checkbox"/> Very Boring	
14. How healthy is walking or biking to/from school for your child? <input type="checkbox"/> Very Healthy <input type="checkbox"/> Healthy <input type="checkbox"/> Neutral <input type="checkbox"/> Unhealthy <input type="checkbox"/> Very Unhealthy	
+ Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box +	
15. What is the highest grade or year of school you completed? <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Grades 1 through 8 (Elementary)  <input type="checkbox"/> Grades 9 through 11 (Some high school)  <input type="checkbox"/> Grade 12 or GED (High school graduate)             </div> <div> <input type="checkbox"/> College 1 to 3 years (Some college or technical school)  <input type="checkbox"/> College 4 years or more (College graduate)  <input type="checkbox"/> Prefer not to answer             </div> </div>	
16. Please provide any additional comments below. <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>	



## APPENDIX D: STUDENT SURVEY

### Student Transportation Survey: How do you get to and from school?

Date: \_\_\_\_\_ Teacher: \_\_\_\_\_ Grade: \_\_\_\_\_

1. How far do you live from school? (choose one)
  - ☐ Less than ¼ mile
  - ☐ ¼ miles to ½ mile
  - ☐ ½ mile to 1 mile
  - ☐ 1 mile to 2 miles
  - ☐ More than 2 miles
  - ☐ I don't know
2. How do you usually get to school in the morning? (choose one)
  - ☐ Walk
  - ☐ Bike
  - ☐ Skateboard/Scooter
  - ☐ Take the Bus or Light Rail
  - ☐ Someone Drives Me
  - ☐ Uber or Lyft
  - ☐ Other (please describe): \_\_\_\_\_
3. Who do you usually go to school with in the morning? (choose one)
  - ☐ By myself
  - ☐ With friends or neighbors
  - ☐ With a parent or adult
  - ☐ With a sibling
  - ☐ Other (please describe): \_\_\_\_\_
4. How do you usually get home from school? (choose one)
  - ☐ Walk
  - ☐ Bike
  - ☐ Skateboard/Scooter
  - ☐ Take the Bus or Light Rail
  - ☐ Someone Drives Me
  - ☐ Uber or Lyft
  - ☐ Other (please describe): \_\_\_\_\_
5. Who do you usually go home from school with? (choose one)
  - ☐ By myself
  - ☐ With friends or neighbors
  - ☐ With a parent or adult
  - ☐ With a sibling
  - ☐ Other (please describe): \_\_\_\_\_

6. Do you participate in afterschool activities? (choose one)
  - ☐ Yes
  - ☐ No
7. If you had a choice, how would you most like to get to school? (check all that apply)
  - ☐ Walk
  - ☐ Bike
  - ☐ Skateboard/Scooter
  - ☐ Take the Bus or Light Rail
  - ☐ Someone Drives Me
  - ☐ Uber or Lyft
  - ☐ Other (please describe): \_\_\_\_\_
8. Do you currently have a bicycle that you can ride to school?
  - ☐ Yes
  - ☐ No
9. Do you have a helmet?
  - ☐ Yes
  - ☐ No
10. How often do you walk or ride your bicycle to places other than school? (choose one)
  - ☐ Daily
  - ☐ 2-5 times a week
  - ☐ Only on weekends
  - ☐ Rarely
  - ☐ Never
12. How do you feel about walking and biking?

Walking		Biking	
<i>(Circle one word/phrase on each line)</i>		<i>(Circle one word/phrase on each line)</i>	
fun	boring	fun	boring
safe	not safe	safe	not safe
healthy	not healthy	healthy	not healthy
cool	not cool	cool	not cool

13. What would make walking or biking to school better? (check all that apply)

- ☐ friends to walk with
- ☐ friends to bike with
- ☐ less cars on the roads near the school
- ☐ less cars in the school parking lot
- ☐ sidewalks all the way to school
- ☐ bike racks/a safe place to leave my bike
- ☐ no strangers along the way to school
- ☐ more crossing guards
- ☐ better lighting
- ☐ safe places to cross the road
- ☐ no bullies along the way to school
- ☐ nothing – my family will not let me walk
- ☐ nothing – I live too far to walk
- ☐ other \_\_\_\_\_

14. Would you walk or bike to school if your route to school was improved so you felt safer?

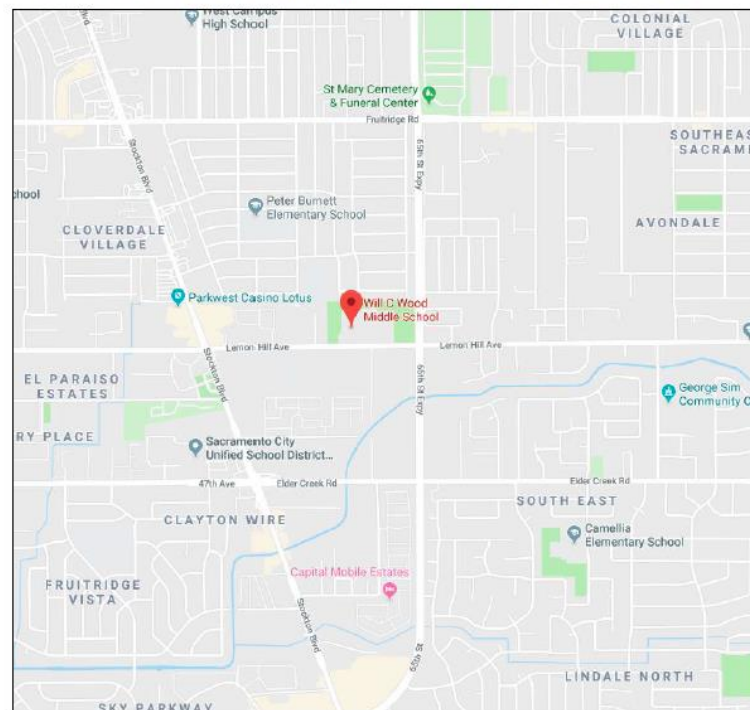
- ☐ Yes
- ☐ No
- ☐ Maybe

**Turn over for Mapping Exercise →**

## Mapping Exercise

If you walk to or from school, follow the instructions below:

1. Trace your route on the map.
2. Think of a good location students could meet before school and walk to school together. Mark it with X. Example: A Park. If you can't find the location on the map, write it down in the notes section.
3. Share some other places that you like to go to after school. Example: home, parks, food, sports, clubs, etc.
4. Note anything else you want us to know. Example: difficult places to cross the street, trash, fast traffic, etc.



Notes:

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