



School Safety Assessment Technical Memorandum

Sunset Elementary School

1671 Frankfurt Way, Livermore, CA, 94550

Livermore Valley Joint Unified School District

November 2019



The Alameda County Safe Routes to Schools Program is a program of the Alameda County Transportation Commission (alamedactc.org) and is funded with Alameda County's local sales tax Measure B, regional, state and federal funds.

Sunset Elementary School


A school safety assessment was conducted at Sunset Elementary School in Livermore during the morning arrival on Tuesday, November 5th. The assessment was attended by representatives from the City of Livermore, Alameda County Safe Routes to Schools staff, and Sunset Elementary staff and parents.

Participants included:

- Julie Chiu, Associate Civil Engineer, City of Livermore
- Tom Jones, Principal, Sunset Elementary School
- Bruce Wilke, Director of Maintenance & Operations, Livermore Valley Joint Unified School District
- Jennifer Holmes-Ledet, Alameda County SR2S team
- Aleida Andrino-Chavez, Alameda County SR2S team
- Andre Huff, Engineer, Alameda County SR2S team
- Courtney Wood, Planner, Alameda County SR2S team
- Nick Aguilera, Planner, Alameda County SR2S team
- Tiffany Godfrey, Sunset Elementary Parent
- Debbie Bell, Sunset Elementary Parent
- Cameron Graham, Sunset Elementary Parent

School Information

Location & Enrollment


	Address:	1671 Frankfurt Way Livermore, CA 94550
	Morning Bell(s):	8:30 AM (8:27 AM warning bell)
	Afternoon Bell(s):	1:30 PM (TK – K & All Students on Weds); 2:40 PM (Grades 1 – 3 all days except Weds); 2:50 PM (Grades 4 – 5 except Weds)
	Grade Levels:	TK - 5
	Enrollment:	771
	School Type (neighborhood/magnet/charter):	Neighborhood


Student Travel Data

Students' Proximity to School (school estimate):	<p>Less than ¼ mile (5-min. walk): data unavailable</p> <p>Between ¼ and ½ mile (5-10-min. walk): data unavailable</p> <p>Between ½ and 1 mile (10 to 20-min. walk): data unavailable</p> <p>Greater than 1 mile (more than 20-min. walk): data unavailable</p>
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Student Travel Mode Info:	<p>Recent SR2S Hand Tally Data:</p> <p>Spring 2019</p> <p>Walking: data unavailable</p> <p>Biking: data unavailable</p> <p>School bus: data unavailable</p> <p>Transit: data unavailable</p> <p>Carpool: data unavailable</p> <p>Family Vehicle: data unavailable</p> <p>Other: data unavailable</p>
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Bikes, Buses, and Drop-off/Pick-up

<p>Does the school have bike racks? What is the capacity? Is it secure bike parking?</p> <p>On a typical day, what percentage of racks are used?</p>		<p>The school has two bicycle racks that can each hold approximately 10 bicycles. They are kept within the secured and gated Sunset Elementary school grounds</p>
		<p>Approximately 60%</p>

Does the school have special pick-up/drop-off policies/procedures?		Sunset Elementary has a coordinated drop-off procedure. Cars are asked to pull forward into the drop-off loop. Car doors are opened at once to let all students out so that more cars can pull forward.
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Note: Sunset Elementary School is not served by local public transit or a school bus.

Street Profiles

Street Name	Width	Lanes	Posted Speed Limit	Traffic Volumes	Notes
Frankfurt Way	40 feet	2 lanes	25 mph	-	Street parking on either side
Darwin Ave	40 feet	2 lanes	25 mph	-	Street parking on either side
Kingsport Ave	40 feet	2 lanes	25 mph	-	Street parking on either side

Pedestrian- and Bicycle-Involved Collision Summary 2014-2018

The collision summary table shows all bicycle- and pedestrian-involved collisions within one-half mile of the school. These collisions may or may not be school-related travel.

Radius from School	Total Collisions	Fatal Collisions	Severe Injury Collisions	Visible Injury Collisions	Complaint of Pain Collisions	Pedestrian Collisions	Bicycle Collisions
< ¼ mi	0	0	0	0	0	0	0
¼ mi – ½ mi	0	0	0	4	1	0	5
Total	0	0	0	4	1	0	5

Source: UC Berkeley – Transportation Injury Mapping System, Safe Transportation Research and Education Center, University of California, Berkeley, 2019

Existing Conditions

Overview

Sunset Elementary is located off of Frankfurt Way in Livermore, California. Sunset Elementary School is one of nine elementary schools in the Livermore Valley Joint Unified School District. The school has put a valet drop-off program in place to make the drop-off process more efficient in the driveway loop off of Frankfurt Way. Private vehicles pull forward into the loop. Once they are queued up, car doors are opened simultaneously by school staff and volunteers so that students can disembark.

The school campus is directly adjacent to Karl Wente Park in a residential neighborhood. A path in Karl Wente park leads to a back entrance to the school. Many students enter the school via this location.

The peak morning drop-off period lasts from approximately 8:15 am – 8:35 am.

Frankfurt Way and Kingsport Avenue are the most common car travel routes for students arriving to Sunset Elementary.

Between 2014 and 2018, there have been five bicycle collisions within a half mile of the school. These have occurred on larger arterial streets around the school neighborhood; however, some students and their families reportedly travel by bike along these routes to get to school.

Observations

The following existing conditions were observed or reported by participants during the school safety assessment (SSA). The following existing conditions were observed or reported by participants during the school safety assessment (SSA). Numbers and letters in parenthesis (e.g. 1a; 1b; 1c; etc.) refer to recommendations on the Improvement Plan map and are included to facilitate easy comparison between observations in this Technical Memorandum and recommended improvements in the Improvement Plan.

1. Darwin Avenue / Kingsport Avenue

- ◆ There is one marked crosswalk across the east approach of this uncontrolled intersection.
- ◆ Drivers were observed parking very close to the corners and intersection, blocking sight lines for pedestrians. (1b)
 - During the school safety assessment, a parent said their daughter was almost hit by a turning vehicle in the crosswalk due to blocked sightlines and poor visibility. (1a)
- ◆ Most students were observed crossing in the marked crosswalk. However, some students and families were observed crossing at unmarked crossing locations. While pedestrians have the right-of-way in marked and unmarked

crosswalks, these areas can be improved for safety of students and families. (1b)

- ◆ Drivers were observed blocking the crosswalk due to congestion eastbound on Kingsport Avenue.
- ◆ Turning conflicts were noted as southbound vehicles turning east onto Kingsport Avenue from Darwin Avenue did not yield to northbound traffic at the uncontrolled intersection.
- ◆ Some families and students were observed walking into Karl Wente Park from this corner and continuing across the park toward the school grounds.



Left: Drivers park up to the corner of the intersection and block sight lines for turning vehicles as well as pedestrians crossing the intersection.

Right: Congested traffic extends back into the intersection as students are dropped off further east on Kingsport Avenue.



Above: Pedestrians crossing at an unmarked location near the intersection of Darwin Avenue and Kingsport Avenue.

2. Darwin Avenue / Paris Way

- ◆ There are three marked crossings at the intersection of Darwin Avenue and Paris Way.
- ◆ There is no curb ramp on the east side of the north crosswalk at this intersection and road pavement is uneven and cracked. (2a)
- ◆ The west side of the intersection is controlled with a stop sign.

- ◆ Students and their guardians were observed parking along Paris Way, walking across the north or south approaches of the intersection, and walking up the east side of Darwin Avenue toward Kingsport Ave on the way to the school. (2b)
- ◆ Some students and their guardians cross at unmarked locations along Darwin Avenue.



Above: Missing curb ramp and uneven, cracked road conditions on the east side of the north crosswalk.

3. Kingsport Avenue / Naples Way and Karl Wente Park

- ◆ The intersection at Kingsport Avenue and Naples Way is uncontrolled. (3c)
- ◆ There are three existing transverse crosswalks. (3a)
- ◆ There is an ADA-accessible entrance into Karl Wente Park near the south side of this intersection.
- ◆ Drivers were observed parked in the red curb area at the intersection which blocked sight lines for pedestrians and vehicles.
- ◆ Many students were dropped off at this intersection. As students were dropped off, drivers double parked along Kingsport Avenue, which created congestion along the street.
- ◆ Many families and students were observed walking along a deteriorating, steep, uneven asphalt path at the northeast corner of Karl Wente Park. (9a, 9b)
 - The paint on the bollard at the entrance to this path is also deteriorating.



Left: Students use the steep, uneven path at the northeast corner of Karl Wente Park

Right: People walk in the east side crosswalk at the intersection toward the ADA accessible entrance to Karl Wente Park

4. Frankfurt Way / Kingsport Avenue

- ◆ There are two transverse crosswalks at this uncontrolled intersection. (4b)
- ◆ Traffic backed up to the intersection as students were dropped off in front of the school.
- ◆ Drivers were observed yielding to pedestrians in the crosswalk; however, cars were also seen rolling into the crosswalk as they waited to turn. (4a)
- ◆ Drivers were observed making U-turns at this intersection or along Frankfurt Way to turn around toward the school entrance.

5. Warsaw Avenue / Frankfurt Way

- ◆ There are two marked crosswalks at this uncontrolled intersection. During the morning drop-off period, a crossing guard directs traffic at the intersection.
- ◆ The crosswalk markings at this intersection are fading. (5a)
- ◆ Most drivers were observed yielding to pedestrians and the crossing guard; however, drivers were also seen rolling into the crosswalk as they waited to turn.
- ◆ Students were observed exiting vehicles in the middle of the street at this location.



Left: Fading crosswalk on the east side of the intersection

Right: Fading crosswalk on the north side of the intersection

6. Heidelberg Drive / Frankfurt Way

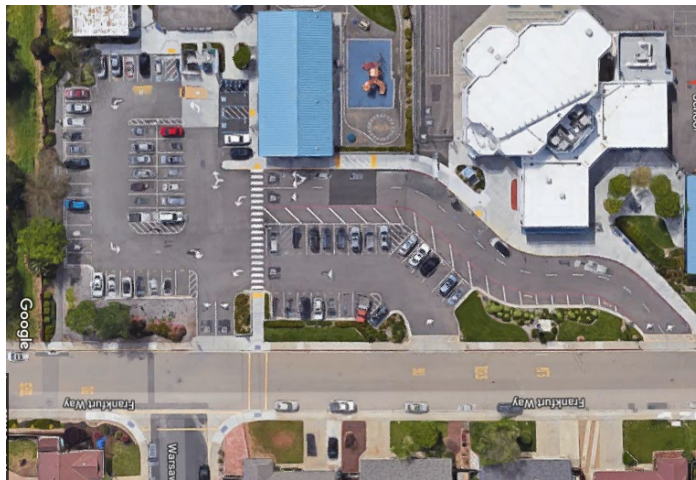
- ◆ There are two marked crosswalks at this intersection. There is a stop sign for drivers traveling south down Frankfurt Way.
- ◆ The crosswalk markings at this intersection are fading. (6a)
- ◆ Many students and adults were noted to use both crosswalks to reach the west sidewalk of Frankfurt Way and walk toward the school. (6b)
- ◆ One car was observed parked in the crosswalk at the northwest corner of the intersection.



Above: Two marked crosswalks at the intersection of Heidelberg Drive and Frankfurt Way

7. Sunset Elementary Drop-Off Loop, Parking Lot, and Frontage

- ◆ The parking lot design includes a primary drop-off loop, a staff entrance to the lot to the north of Warsaw and additional staff/school parking at the south end of the school property.
- ◆ School staff said that student drop-off in the yellow curb zones to the north of the school driveway preempts driver utilization of the drop-off loop and causes congestion. (7a) School staff enter the parking lot through the staff entrance immediately after the crosswalk to park in the south parking lot. As they turn right into the driveway, they come into conflict with vehicles that are trying to turn left from the drop-off loop to exit the parking lot. (8f)
- ◆ The crosswalk and other pavement markings in the school parking lot are fading and do not conform to state standards.
- ◆ There is a blacktop path onto the school property at the southeast corner of the parking lot. (8d)
 - SSA participants said that the asphalt path needs repair.
 - SSA participants saw parked cars obstructing pedestrian access routes along this path.
- ◆ Left turns are not permitted out of the parking lot as vehicles exit onto Frankfurt Way; however, some vehicles were seen turning right and quickly making a left turn onto Warsaw to exit the neighborhood.



Above: The Sunset Elementary drop-off loop and parking lot configuration.

Alameda County Safe Routes to Schools Program



Top Left: The entrance to the Sunset Elementary drop-off loop.

Top Right: Painted red and yellow curb along Frankfurt Way to the north of the drop-off loop.

Bottom Left: Paved path to enter the school grounds on the northeast side of the property.

Bottom Right: Marked crosswalk in the school parking lot and a conflict point as school staff try to turn right and vehicles exiting the drop-off loop turn left.



Left: Passenger Loading Zone sign in the drop-off loop.

Right: Staff entrance only sign in the parking lot.

Alameda County Safe Routes to Schools Program



Left: Priority parking spots for school families in the staff parking lot.

Right: Pavement markings in the drop-off loop approaching the crosswalk.

Participant Comments

The school principal and SSA participants were very enthusiastic and excited about the potential to improve student safety on the streets and transportation facilities around Sunset Elementary School. Most of the discussion following the SSA related to concerns about safety issues and user conflict in the Sunset Elementary parking lot. SSA participants' comments about other sites around the school have been reflected in the observations section of this memorandum.

Recommendations

Engineering Recommendations

Recommendations to improve infrastructure or operations surrounding Sunset Elementary School can be seen on the conceptual improvement plan found following this memo.

Policy & Program Recommendations

In addition to engineering improvements, the Alameda County Safe Routes to Schools Program has many encouragement and educational activities that can benefit students and the campus community at Sunset Elementary School.

The School Site Coordinator for Sunset Elementary is Jennifer Holmes-Ledet. The Site Coordinator can help schedule, organize, and promote many of the program offerings of Alameda County SR2S. The contact information for the Site Coordinator is below:

Jennifer Holmes-Ledet, jledet@alamedacountysr2s.org

Please do not hesitate to reach out to the Site Coordinator if you have any questions or concerns, or if you wish to move forward with additional programming activities.

Programs

The following improvements are recommendations for policy and program implementation at Sunset Elementary School to increase safety and active commutes to school.

- ◆ Develop Walk and Bicycle Route Maps
 - The SR2S Program can create recommended Walk and Bicycle Route Maps. These maps illustrate preferred routes to school for walking and biking. Maps also provide safety tips to encourage better travel behavior.
 - These maps can also be used as a part of Walking School Buses (WSBs), Bicycle Trains (BTs), or other Walk and Roll to School

activities. Park and Walk, WSB, and BT meeting locations are also shown on these maps where appropriate.

- ◆ Encourage and Help Facilitate Carpooling
 - The SR2S Program can assist schools in working with parents to connect them with other families who live nearby to increase the number of students carpooling. This can reduce congestion by reducing the number of vehicles coming to campus.
- ◆ Facilitate Walking School Buses and Bicycle Trains
 - Walking School Buses (WSBs) and Bicycle Trains (BTs) are groups of students, led by parent/adult chaperone(s), that meet at designated locations and times to gather and walk and/or bike to school together. WSBs and BTs can be regular events, occurring daily, weekly, or monthly or occur in coordination with other events like International Walk and Roll to School Day or the Golden Sneaker Contest. SR2S staff can assist schools with the planning, coordination, and execution of the WSBs and BTs. Walking and biking in groups with parental supervision can not only increase the visibility of these road users, but can reduce barriers to walking or biking for some families while making it fun and exciting for the students.
- ◆ Schedule Pedestrian Rodeos and Bicycle Rodeos
 - These interactive rodeos are great educational opportunities to teach and refresh safe walking and bicycling behavior. These workshops cover a wide range of relevant topics from understanding traffic signals and signs, to bicycle hand signals, to how to safely cross the street. Pedestrian Safety Rodeos and Bicycle Safety Rodeos are geared towards elementary school students.
- ◆ Participate in International Walk and Roll to School Day (IRW2SD), the Golden Sneaker Contest (GSC), and Bike to School Day (B2SD)
 - These are the three main countywide encouragement events that occur throughout the academic year. All schools can participate in International Walk and Roll to School Day, held in October every year. The Golden Sneaker Contest, held in spring, is for elementary and middle schools and is a two-week contest both within schools and across the county challenging classrooms to travel to/from school using active and shared modes. All schools can also participate in Bike to School Day, held in tandem with Bike to Work Day, which encourages schools to sponsor Energizer Stations and students and families to bike to school.

Safe Routes to Schools Improvement Plan
Sunset Elementary School
Livermore

School Safety Assessment held November 2019



- Darwin Ave/Kingsport Ave**
 - Perform an engineering study to install curb extensions on the southeast and northeast corners of the intersection
 - Install high visibility crosswalk and advance yield markings on the south leg of the intersection
 - Install School Assembly B signage
 - Restripe existing east crosswalk as high-visibility
- Darwin Ave/Paris Way**
 - Install curb ramp on the northeast side of the intersection
 - Install advance yield markings on the north and south legs of the intersection
- Kingsport Ave/Naples Way/Karl Wente Park**
 - Upgrade existing crosswalks to high visibility
 - Install advance yield markings on all legs of the intersection
 - Install School Assembly B signage
- Frankfurt Way/Kingsport Ave**
 - Install School Assembly B signage
 - Upgrade existing crosswalks to high visibility
 - Install advance yield markings on all legs of intersection
- Warsaw Ave/Frankfurt Way**
 - Repaint fading crosswalks as high visibility crosswalks and install advance yield markings
 - Install School Assembly B signage
- Heidelberg Dr/Frankfurt Way**
 - Repaint fading crosswalks as high visibility crosswalks on the north and east legs of the intersection
 - Install advance yield markings on the east leg of the intersection.
 - Install School Assembly B signage
- Sunset Elementary Drop-Off Loop, Parking Lot, and Frontage**
 - Refresh high visibility crosswalk in the parking lot
 - Repaint existing arrows to MUTCD standards
 - Explore the feasibility of a raised crosswalk with the Livermore Fire Department
 - Install vegetative barrier between parking lot and path or re-install existing curb stops to prevent pedestrian access route obstruction
 - Reinstall signs at the exit to the parking lot so that the right-turn only sign is below the stop sign
 - Instruct staff to enter parking lot through the northernmost driveway (see inset)
- Karl Wente Park**
 - Upgrade the path on the northeast corner of Karl Wente Park to ADA requirements
 - Install new path to connect existing ADA accessible park entrance to school entrance

*The above items are recommendations only and based on Safe Routes to Schools site assessment best practices. Feasibility determination, final design, accessibility, funding, and implementation of any recommended improvements is the responsibility of the appropriate governing agency.
**Red curb and/or parking restriction signage should be provided between advance stop/yield markings and the crosswalk. Exact red curb distance should be determined in accordance with the CA-MUTCD and City policies/standards. Red curb not symbolized on map.

