



School Safety Assessment Technical Memorandum

Skyline High School

12250 Skyline Boulevard, Oakland, CA, 94619

Oakland Unified School District

Morning Assessment: May 2019

Afternoon Assessment: October 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.

SKYLINE HIGH SCHOOL


School safety assessments were conducted at Skyline High School in Oakland during the morning arrival on Wednesday, May 22, 2019 and during the afternoon dismissal on Tuesday, October 1, 2019. The assessments were attended by representatives from the City of Oakland, Alameda County Safe Routes to Schools staff, local community members, Skyline High School staff, and multiple students.

Participants included:

- Beaver Boonsook, Transportation Engineer, OakDOT
- Jing Jing Lin, Transportation Engineer, OakDOT
- Yolanda Garcia, Parking Enforcement, OakDOT
- Nicole Pierce, Co-Director/Principal Skyline High School
- Sean Kohles, Staff, Skyline High School
- Eric Shapiro, CSM, Skyline High School
- Leslie Lara-Enriquez, Alameda County SR2S team
- Kenny Jeong, Engineer, Alameda County SR2S team
- Andre Huff, Engineer, Alameda County SR2S team
- Ben Frazier, Planner, Alameda County SR2S team
- Darrell Davis, School Site Coordinator, Alameda County SR2S team
- Nick Aguilera, Planner, Alameda County SR2S team
- Multiple Skyline High School students
- Tom Leclar, Neighbor, Hillcrest Estates Improvement Association
- Dan Quigley, Neighbor, Hillcrest Estates Improvement Association

School Information

Location & Enrollment

	Address:	12250 Skyline Boulevard Oakland, CA 94619
	Morning Bell(s):	8:05 AM
	Afternoon Bell(s):	Regular Days: 3:05 PM Early Release: 1:27 PM
	Grade Levels:	Grade 9 - Grade 12
	Enrollment:	1,592
	School Type (neighborhood/magnet/charter):	Skyline High students come from across Oakland. About two-thirds of students arrive via public transit bus.



Student Travel Data

Students' Proximity to School (school estimate):	<p>Less than ¼ mile (5-min. walk): 5%</p> <p>Between ¼ and ½ mile (5-10-min. walk): 10%</p> <p>Between ½ and 1 mile (10 to 20-min. walk): 10%</p> <p>Greater than 1 mile (more than 20-min. walk): 75%</p>
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Student Travel Mode Info:	<p>School Estimate:</p> <p>Walking: 1%</p> <p>Biking: 1%</p> <p>School Bus: 5%</p> <p>Transit: 60%</p> <p>Carpool: 8%</p> <p>Family Vehicle: 25%</p> <p>Other: 0%</p>
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Bikes, Buses, and Drop-off/Pick-up

Does the school have bike racks? What is the capacity? Is it secure bike parking?	There are no bike racks on Skyline High's campus.
On a typical day, what percentage of racks are used?	N/A
How do school buses interact with the school?	Skyline High is served by school buses for special education students. School buses have a dedicated drop-off area around the back of the school. These vehicles do not use the drop-off loop, but must drive through it to access the rear of the campus.

Is the school served by local transit agencies? Are there stops within ¼ mile?		The majority of Skyline High students use AC Transit to travel to/from campus. School routes stop on campus in the drop-off loop. Non-school routes stop on Skyline Boulevard, just south of the school's gate. Some students also use the bus route serving the Merritt College stop if they miss their regular bus.
Does the school have special pick-up/drop-off policies/procedures?		All vehicles, including buses and pedestrians, access campus from the main gate on Skyline Boulevard. The student lot is in the lower campus. The drop-off loop that buses and vehicles use is at the top of the road in front of the main campus building.

Street Profiles

Street Name	Width	Lanes	Posted Speed Limit	Traffic Volumes	Notes
Skyline Boulevard	94 feet	4 lanes	25 mph School Zone	7,653	Wide median that students sometimes walk/run in, intermittent sidewalks
Balmoral Drive	40 feet	2 lanes	25 mph	-	-
Fernhoff Road	30 feet	2 lanes	25 mph	-	No sidewalks

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	Fatal Collisions	Severe Injury Collisions	Visible Injury Collisions	Complaint of Pain Collisions	Pedestrian Collisions	Bicycle Collisions	Total Collisions
< ¼ mi	0	0	1	0	1	0	1
¼ mi – ½ mi	0	0	0	1	0	1	1
Total	0	0	1	1	1	1	2

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

Existing Conditions

Overview

Skyline High School is located in the Oakland Hills along Skyline Boulevard south of Redwood Road. Skyline High has one access/egress point on Skyline Boulevard. The majority of Skyline High students take AC Transit to reach the campus, which is served directly by nine AC Transit routes. The bus stop is on campus and shares the same space as the drop-off loop. AC Transit buses are slightly staggered in the morning allowing parents who drop-off students to use a different part of the drop-off loop. Students driving and carpooling to campus use the lower parking lot; the student overflow lot is located next to the staff lot.

In the afternoon, campus access is restricted to AC Transit buses only. Other vehicles are not allowed to pick up students on campus during the afternoon. Approximately, 17 AC Transit buses serve the school in the afternoon and queue on the campus road and in the loop. An AC Transit supervisor is typically present to help guide operations. All buses typically depart campus together at the signal of the supervisor when the buses have filled.

Observations

The following existing conditions were observed or reported by participants during the school safety assessment (SSA).

1. Skyline Boulevard/Balmoral Drive/Campus Gate

- ◆ This is an asymmetrical signalized intersection with Balmoral Drive and Skyline High's gate intersecting Skyline Boulevard at the same place.
- ◆ For eastbound Skyline Boulevard traffic, there are two turning lanes. The leftmost lane is a Left Turn Only pocket and can turn into Balmoral Drive or the campus. The outer turn lane is a combined left/through and can turn into the campus or continue through on Skyline Boulevard.
 - The Left Turn Only turn pocket is not long enough to handle the volume of vehicular traffic during peak school periods.
 - Attendees stated that depending on a driver's position, the traffic signal can be obscured by trees/vegetation until the vehicle is near the intersection.
 - Although the campus entry drive is fed by two turning lanes, the road narrows to approximately 16' at the guard house/gate at the driveway effectively creating a single-entry lane and requiring drivers to merge. There are no lane markings between the entry and the guard house
 - Past the gate, the main campus road widens back to two striped lanes in each direction.
 - Because only one car can pass through the gate at a time, significant vehicle back-ups occur onto Skyline Boulevard. This sometimes results in the intersection being blocked, especially in the mornings.

- Vehicles were also observed backing-up onto Skyline Boulevard during the afternoon pick-up
- ◆ During morning drop-off, campus security shuts one of the gates in the driveway, further narrowing this space.
 - This sometimes occurs even when there is still a long queue of cars waiting to enter campus; increasing the time it takes for them to enter campus.
- ◆ There are yellow transverse crosswalks across the school driveway, across Balmoral Drive, and at the southern approach across Skyline Boulevard.
 - There is no curb ramp or sidewalk at the southern side of the crosswalk across Skyline Boulevard.
 - East of this location is a driveway, then 50 feet of sidewalk to connect to the AC Transit stop. There is no sidewalk beyond the bus stop.
 - There is a 30' wide landscaped median area on Skyline Boulevard. This median area (and the road) is sometimes used by student sports teams and local residents for walking, running, and biking due to lack of sidewalks and other running spaces near the campus.
- ◆ There are two AC Transit bus stops located at the southern approach (one for each direction). AC Transit School Routes do not use these stops.
 - Students who depend on transit after sports or other after-school programs typically use these buses to go home.
 - These stops are served by infrequent buses and students noted that there are no amenities like benches or shelters to make waiting more comfortable, especially in hot/inclement weather.
- ◆ The traffic signal is programmed to require actuation from vehicles exiting the school's driveway to trigger that signal phase. Sometimes after hours the school will leave only one gate open for both access and egress, typically the entry gate. A raised median separates the entry and exit lanes, and drivers exiting from the entry side cannot trigger the loop detector to call for that signal phase.
 - In these situations, drivers have to run the red light to leave campus.
- ◆ During the afternoon pick-up, students were observed being picked up along Balmoral Drive; others were observed waiting in the median at the school entrance gate.



Top left: The “social trail” in the median created by pedestrians and joggers.

Top right: Looking towards the pedestrian refuge island at the southern Skyline approach. [morning]

Lower left: The western approach, with drivers waiting to turn left into the campus. [morning]

Lower right: Drivers filtering into campus with one of the gates closed. [morning]



Top Left: Two lanes of cars slowing as they enter campus through the intersection. [morning]

Top Right: Traffic builds up along campus road as drivers wait for the light; students gather on corners and in median. [afternoon]

Bottom Left: Drivers wait to turn right out of the campus gate; Drivers park along Balmoral Drive to pick-up students. [afternoon]

Bottom Right: Students use informal “social trail” in the median of Skyline Boulevard.

2. Skyline Boulevard

- ◆ On the school side of Skyline Boulevard, 250 feet south of the intersection, there is a 500-foot long pull-in area reserved for student loading/unloading.
- ◆ While some drop-off activity was observed in this area, it is a very underutilized space during morning drop-off.
 - Having to walk uphill to campus may be a discouraging factor for some students.
- ◆ There is a wide median on Skyline Boulevard separating the two directions of travel. This is a heavily vegetated median with trees and shrubs. Because of the lack sidewalks and other pedestrian facilities around the Skyline campus, students and sports teams, and community members walk, jog, and run in the median. The terrain is highly varied and filled with roots and rocks; not ideal for through pedestrian travel.

3. Fernhoff Road

- ◆ If students taking AC Transit miss their morning school route bus, one of the most common alternatives is to take a bus that serves Merritt Community College (these have multiple runs unlike the school routes) and then walk to Skyline High from there.
 - The most common walking route involves walking up Margie Lane (MCC campus), hopping a fence near the campus border/Bacon Road cul-de-sac, and then walking up Fernhoff Road to Skyline Boulevard.
 - Assessment attendees voiced that some neighbors have expressed concern/dislike of students hopping the fence and walking through their neighborhood.
 - There are no sidewalks on Fernhoff Road.
 - This walking route is just over three-quarters of a mile.
 - The alternative route (that would avoid hopping over a fence) is over 1.5-miles (double the distance) and would require walking from Margie Lane to Campus Drive to Redwood Road and then Skyline Boulevard.
 - This route has steeper terrain and sidewalks are intermittent on both sides of Redwood Road approaching Skyline Boulevard.

4. Campus Drop-off Loop

- ◆ The drop-off loop is at the top of the campus roadway.
 - The AC Transit stop is at the northern end of the loop.
 - Buses will alight students anywhere within the loop.
 - Private vehicles typically use the central and southern segments of the loop in the morning.
 - There are no lane markings within the drop-off loop.
- ◆ In the morning, private vehicles, school buses, and AC Transit buses all access campus from this road.
 - During the morning observation period, drivers were observed speeding on the campus road and within the loop.
 - Parts of the loop are wide enough for three cars to idle next to each other.
 - In the morning, students were observed exiting from all three possible idling vehicle locations. As a result, they had to walk around other idling or moving vehicles within the loop to reach the sidewalk.
 - Most drivers did not pull to the curb to drop off student(s), nor did they pull all the way forward.
 - This greatly limits how efficiently the drop-off area can operate.
- ◆ Pedestrians walking up from the lower parking lot have a sidewalk for most of the route. However, the sidewalk stops at the driveway to the northern parking lots.
 - There is no marked crosswalk at this location.

- It was reported that students also cross the main campus road at this location. There is no marked crosswalk for this movement either.
- ◆ Special Education students board buses located to the northeast of the drop-off loop (behind the school building).
- ◆ During the afternoon dismissal, the drop-off loop is closed to private vehicles as students board AC Transit buses. An AC Transit Supervisor helps to restrict private vehicle traffic into the drop-off loop by blocking it with his/her vehicle.
 - Buses fill the loop and campus road as they queue-up and wait for students to board.
 - When all the buses are full, they all depart the campus at the same time.
 - During the afternoon assessment, 17 buses began to rollout at 3:14 PM.
 - The buses are able to quickly exit campus within a few minutes.
- ◆ Some students walk to private vehicles in and near the parent/staff parking lot to the northwest of the drop-off loop.



Top left: The AC Transit stop at the northern end of the drop-off loop.

Top right: Private vehicles and an AC Transit bus entering campus. [morning]

Lower Left: An AC Transit bus in the drop-off loop. [morning]

Lower Right: AC Transit buses queueing in the loop before the afternoon pick-up. [afternoon]

5. Campus Road and Student Parking Lots

- ◆ Students who drive to Skyline High park their cars in two student parking lots off of the campus road.
 - This is a four-lane roadway with two lanes in each direction.
 - There are three speed bumps on this segment of roadway.
 - The drop-off loop is at the top of this roadway.
- ◆ During the afternoon pick-up, some students were seen walking and skateboarding down the main campus road to reach the student parking lots, Skyline Boulevard, or to be picked up along the road.
- ◆ As they walked downhill, students were observed crossing the road midblock.
- ◆ In the afternoon, vehicles were observed parking in the student parking lots and waiting to pick students up inside the lot.
- ◆ Drivers were observed driving quickly along the main campus road without regard for the existing speed bumps.
- ◆ Most students were observed walking toward Skyline Boulevard on the south sidewalk of the campus road; however, some students also walked along the north side of the campus road.
 - There are no curb ramps for students on the northern sidewalk as it crosses the student parking lot driveway.
 - There are no crosswalks for students on the northern sidewalk across the student parking lot driveways.
 - There are no curb ramps for students between the southern sidewalk segments at the field parking lot on the south side of the road.
- ◆ As drivers waited to exit the student parking lot on the north side of the campus road, they were seen obstructing the pedestrian routes across the parking lot driveway.



Top Left: A student crosses the campus road at an unmarked location. [afternoon]

Top Right: Students walk in drop-off loop as they walk down the campus road. [afternoon]

Bottom Left: There are missing sidewalks and crosswalks as students walk down campus road from the drop-off loop. [afternoon]

Recommendations

Engineering Recommendations

Recommendations to improve infrastructure or operations surrounding Skyline High School can be seen on the conceptual improvement plan found on the following page.

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 campus community at Skyline High School.

The School Site Coordinator for Skyline High is Darrell Davis. 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:

Darrell Davis, ddavis@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 Skyline High School to increase safety and active commutes to school.

- ◆ 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.
- ◆ Participate in International Walk and Roll to School Day (IRW2SD), Cocoa for Carpools (C4P), 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. Cocoa for Carpools, held in the winter, is a fun event for high schools that rewards carpoolers with free hot chocolate when they arrive to school. 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.
- ◆ Encourage parents to drop off students along Skyline Boulevard in front of the football field. This could reduce morning congestion on campus and at the Skyline/Balmoral/campus intersection.
 - Skyline High should consider piloting a morning drop-off system where drop off is not permitted on campus. Parents would be encouraged to drop off students along Skyline Boulevard using the existing, underutilized drop-off space along Skyline Boulevard. Staff, AC Transit buses, students parking, and guardians with school business would still be allowed to access campus.

Safe Routes to Schools Improvement Plan
Skyline High School
Oakland

Site Assessments held May 2019 & October 2019

- 1Skyline Boulevard/Balmoral Drive/Campus Gate
- 1a. Install curb ramp and sidewalk along south side of Skyline Boulevard
- 1b. Study signal timing and actuation adjustments to improve vehicle queuing during peak periods and required actuation off peak
- 1c. Review visibility of traffic signal heads along Skyline Boulevard
- 1d. Upgrade three existing crosswalks to high visibility
- 2Skyline Boulevard
- 2a. Coordinate with AC Transit to provide enhanced bus stop amenities (seating, shelter, etc.) at the two stops near the campus entrance
- 3Skyline Boulevard/Balmoral Drive/Campus Gate
- 3a. Ensure both campus entry gates are not closed until after all morning drop-off traffic has cleared
- 3b. Long Term: Modify the campus access gate to accept two vehicles side-by-side
- 3c. Ensure that all pedestrian gates are open and remain open throughout all pickup and drop off periods
- 3d. Modify campus gate policies to keep both the entry and exit aisles open when campus is occupied. Exiting vehicles need to be able to trigger the loop detectors for the traffic signal [pending signal control changes]
- 4Campus Drop-off Loop
- 4a. Install sidewalk, transverse crosswalks, and curb ramps on the north side of the campus road at the drop-off loop and staff parking lot exits
- 4b. Stripe two lane lines within the drop-off loop. Mark areas where buses should alight students. Restrict drop-off to the curbside lane
- 4c. Install please pull forward and please pull to curb signs
- 5Campus Road and Student Parking Lots
- 5a. Install curb ramps on the north side of the sidewalk and driveway
- 5b. Install crosswalks across parking lot driveways
- 5c. Consider converting one of the existing speed bumps to a raised crossing (ensuring bus compatibility)
- 5d. Refresh existing speed bump markings to current MUTCD standards
- 5e. Refresh pavement markings along the campus road
- 5f. Install School Assembly B signs at the proposed raised crosswalk



*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.

