

Durham Elementary School
Fremont School Traffic Safety Assessment
Technical Memo

November 2017

Prepared by Alta Planning + Design

Durham Elementary School

A Traffic Safety Assessment was conducted at Durham Elementary School during the afternoon dismissal on Tuesday, November 11, 2017. The assessment was attended by representatives from the City of Fremont, Fremont Police Department, Alta Planning + Design, and Durham Elementary staff and parents.

School Information

Address	40292 Leslie Street Fremont, CA 94538	
Morning Bell(s)	8:10 AM (TK), 8:10 AM/ 11:30 AM (K), 8:30 AM (1-6)	
Afternoon Bell(s)	11:30 AM (TK), 11:30 AM/ 2:50 PM (K), 2:59 PM (1-6) Wednesday: 11:30 AM (K), 1:19 PM (1-6)	
Grade Levels	TK-6	
Enrollment	616	
School Type (neighborhood or magnet)	75% of students come from within attendance boundary. 25% of students come from outside.	
Students' Proximity to School (Percentage of students)	Less than ¼ mile (5-minute walk): 0% Between ¼ and ½ mile (5-10-minute walk): 20% Between ½ and 1 mile (10 to 20-minute walk): 60% Greater than 1 mile (more than 20-minute walk): 20%	
Participating School in Alameda County Safe Routes to Schools?	Yes	
Student Travel Mode Info (Percentage of students)	School Estimate: (Counts) Walking: 73 Biking: 24 School bus: 10 Transit: 0 Carpool: 55 Family Vehicle: >373 Other: 0	Recent SR2S Hand Tally Data (if available): Spring 2016 Walking: 15% Biking: 5% School bus: 2% Transit: 0% Carpool: 4% Family Vehicle: 73% Other: 1%
Does the school have bike racks? What is the capacity? Is it secure bike parking? On a typical day, what percentage of racks are used?	Yes. Capacity: 32 Around 15-20 bikes	
How do school and transit buses interact with the school?	Buses share 4 th -6 th grade loop.	

Does the school have special pick-up/drop-off policies/procedures?	There is one drop-off loop for grades 1-3 and another loop for grades 4-6. Kindergarten parents pick up their child from the classroom.
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Durham Elementary school is located off of Leslie Street, just south of Paseo Padre Parkway (no frontage), across from Central Park. The school area is bound by several major arterials: Stevenson Boulevard, Paseo Padre Parkway, Fremont Boulevard, and Grimmer Boulevard. The built environment surrounding the school, with four major arterials, can make it very hard for students and families to walk and bike to school.

Between 2011 and 2015 there were 3 pedestrian-involved collisions and 2 bicycle-involved collisions with a ¼ mile of the school and 8 pedestrian-involved collisions and 7 bicycle-involved collisions between a ¼ and ½ a mile of Durham Elementary School. Most of these collisions occurred along Stevenson Boulevard, Fremont Boulevard, Paseo Padre Parkway, or Grimmer Boulevard.

Existing Conditions

The following existing conditions were observed or reported by participants during the walk audit.

1. Leslie Street/Baylis Street

- ◆ This intersection was commonly used by students and families who live in this area or who parked and walked.
- ◆ This intersection was frequently blocked by cars queueing to enter the drop-off loops.
 - This hindered visibility of pedestrians and made it more difficult for them to cross the street.
- ◆ Some cars were observed going around the queue of cars, which poses safety concerns for pedestrians and vehicles from the other direction.



Cars block the crossing on Leslie Street at Baylis Street.

2. Leslie Street and Drop-off Loops

- ◆ Leslie Street is the only street frontage for Durham Elementary. There are two drop off loops; the west loop serves grades 1-3, the east loop serves grades 4-6.
 - The loops are right next to each other. This causes both driveways and queueing conflicts.
- ◆ Both drop-off loops are relatively small and fill up quickly before the dismissal bell.
 - Cars back up on Leslie Street from the east. At its peak, the back-up goes past Cadman Road.
 - As cars queue to enter the drop-off loops, walk audit participants observed cars blocking the Baylis intersection and crosswalk, making it difficult for pedestrians to cross the street; both because of decreased pedestrian visibility and blocked crossing.
- ◆ There are two existing speed humps on Leslie Street.
- ◆ Walk audit participants observed cars making U-turns on Leslie Street near Cadman Road and Rockett Drive.
- ◆ Leslie Street was used by some parents as a park and walk location. There was additional parking available, leaving capacity for more parents to utilize this space for that purpose.



The backup of cars on Leslie Street waiting to enter either of the two drop-off loops.

3. Leslie Street/Cosmic Way

- ◆ Participating school officials and parents reported that the pedestrian crossings at this intersection were more commonly used during the morning drop-off period and less so during afternoon pick-up.
- ◆ There are currently two marked transverse crossings.
- ◆ Walk audit participants noted sometimes cars will drive fast through this segment of Leslie Street, leading to reduced use by pedestrians.
- ◆ The vegetation surrounding the intersection can inhibit pedestrian visibility.

4. Leslie Street/Mission View Drive

- ◆ This intersection is the most commonly used by pedestrians.
- ◆ All four crosswalks are marked as transverse crosswalks.
- ◆ Assessment participants reported that cars sometimes park too close the intersection and encroach on the crosswalks; this limits pedestrian visibility and makes it harder to cross the street.
- ◆ Walk audit participants reported that because of the peak volumes of pedestrians, a crossing guard could be useful to better control to the flow of pedestrians and vehicles.



The photos show different approaches of the Leslie Street/Mission View Drive intersection

5. Mission View Drive

- ◆ Mission View Drive, especially east of Leslie Street, is another area that parents commonly use as a park and walk location.
- ◆ Walk audit participants noted that cars travel at higher rates of speed on Mission View, especially west of Leslie Street.
- ◆ Participants also observed that cars turning onto Leslie from any of the cross-streets tend to take those turns quickly.
 - None of those cross-street intersections have marked crossings.
 - None of those cross-street intersections are stop-controlled



Looking up Mission View Drive towards Paseo Padre Parkway

6. Paseo Padre Parkway

- ◆ Durham Elementary staff expressed concerns about crossing Paseo Padre Parkway and other arterials near the school
- ◆ Because of the perceived dangers of these crossings, school staff will not encourage students to walk to school. This can limit the effectiveness of encouraging families (especially those that live near Central Park across Paseo Padre Parkway) to park and walk, join a Walking School Bus, and other Safe Routes to Schools activities.

Recommendations

Recommendations to improve infrastructure or operations surrounding Durham Elementary can be seen on the conceptual improvement plan found on the following page. Engineering cost estimates for the infrastructure recommendations are also provided.

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

Policy & Program Recommendations

- ◆ Distribute Recommended Walk/ Bike Maps to students and their families in an effort to promote walking and biking to school on suggested routes. Safety tips are also included on these maps to promote good behavior among bicyclists, pedestrians, and drivers.
- ◆ Work with parents to connect them with others who live nearby to increase the number of students carpooling, which may reduce the number of vehicles coming to campus. Similarly, Walking School Buses and Bike Trains can be established with the same type of coordination.

- ◆ Continue to participate in SR2S events, including Bike Rodeos, Pedestrian Safety Rodeos, and the Rock the Block Assembly. These activities can both teach pedestrian and bicycle safety and can also encourage more students and families to use active and shared modes.
- ◆ Participate in SR2S evaluations each fall and spring to monitor progress on mode shift goals.
- ◆ Send regular reminders to parents regarding the drop-off and pick-up location options and encourage parents to park and walk, using street parking on Mission View Drive and Leslie Street (or other neighborhood streets). Remind parents to be mindful about not blocking driveways and to not encroach on intersections and crosswalks.
- ◆ Consider coordinating with Fremont Recreation Services to encourage the use of the parking on Paseo Padre Parkway as another potential park and walk location; crossing at the signalized crossing.

**Fremont School Traffic Safety Assessment
Durham Elementary School
Preliminary Cost Estimate**

Alta Planning + Design

6/4/2018

Traffic Safety Improvements - City of Fremont Recommendations

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT COST	COST
1	Mobilization	1	LS	\$35,000	\$35,000
2	Traffic Control	1	LS	\$35,000	\$35,000
3	High Visibility Crosswalk	10	EA	\$2,000	\$20,000
4	Traverse Crosswalk	7	EA	\$500	\$3,500
5	Sign and Post Assembly	9	EA	\$500	\$4,500
6	Speed Hump Pavement Markings (Renew)	2	EA	\$500	\$1,000
7	Curb Ramp Improvement	3	EA	\$5,000	\$15,000
8	Curb Extension & Ramp	6	EA	\$40,000	\$240,000
9	Advance Stop Markings	1	EA	\$200	\$200
10	KEEP CLEAR Pavement Markings	1	EA	\$400	\$400
11	Yield Line	2	EA	\$500	\$1,000
12	STOP Bar and Pavement Marking	7	EA	\$400	\$2,800
13	Trim Vegetation	1	LS	\$1,500	\$1,500
14	Rectangular Rapid Flashing Beacons (RRFB)	1	EA	\$15,000	\$15,000
15	All Way Stop Intersection and Study	1	EA	\$6,000	\$6,000
16	Pedestrian Refuge Island (from Existing Median) [Optional]	1	LS	\$15,000	\$15,000
16	Speed Humps [Optional]	4	EA	\$6,000	\$24,000

ALTERNATIVE 1	SubTotal Items (Optional Items Not Included)				\$380,900
	CONSTRUCTION CONTINGENCY		20%		\$76,200
	Total				\$457,100
ALTERNATIVE 2	SubTotal Items (Optional Items Included)				\$419,900
	CONSTRUCTION CONTINGENCY		20%		\$84,000
	Total				\$503,900

Traffic Safety Improvements - Fremont Unified School District Recommendations

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT COST	COST
1	Mobilization	1	LS	\$100	\$100
2	Traffic Control	1	LS	\$100	\$100
3	Painted Curb Marking	1	LS	\$750	\$800

	SubTotal Items				\$1,000
	CONSTRUCTION CONTINGENCY		20%		\$200
	Total				\$1,200

Traffic Safety Improvements - All Recommendations

<i>City of Fremont Recommendations (Without Optional Items)</i>	<i>Total</i>	\$457,100
<i>Fremont Unified School District Recommendations</i>	<i>Total</i>	\$1,200
All Recommendations	Total	\$458,300
<i>City of Fremont Recommendations (With Optional Items)</i>	<i>Total</i>	\$503,900
<i>Fremont Unified School District Recommendations</i>	<i>Total</i>	\$1,200
All Recommendations	Total	\$505,100

Durham Elementary School, DRAFT Fremont Safe Routes to Schools Improvement Plan

Site Assessment held November 2017



- 1 Leslie Street/Baylis Street**
 - Upgrade two existing transverse crosswalks to high visibility crosswalks
 - Conduct a stop sign warrant study and consider all-way stop control
 - Install advance yield/stop markings (as appropriate).
 - Install a yellow transverse crosswalk across Canoga Street at Baylis Street
- 2 Leslie Street**
 - Install "No U-turn" signs
 - Update markings of speed humps on Leslie Street between Baylis Street and Cadman Road to meet current CA MUTCD standards
- 3 Leslie Street/Cosmic Way**
 - Upgrade two existing transverse crossings to high visibility crossings
 - Trim vegetation at northwest corner to improve visibility of School Assembly sign
 - Install advance yield markings
- 4 Leslie Street/Mission View Drive (stop controlled)**
 - Convert existing four transverse crosswalks to high visibility crosswalks
 - Install curb extensions at all four corners to increase pedestrian visibility and calm traffic
 - Install advance stop bar
 - Trim vegetation on Mission View Drive, east of Leslie Street to improve visibility
 - Consider assigning a crossing guard to this intersection
- 5 Mission View Drive**
 - Install proposed bicycle boulevard treatments on Mission View Drive; calm traffic and make it safer to bicycle. Consider speed humps as a possible component of the bicycle boulevard to slow traffic
- 6 Mission View Drive Crossings**
 - Install transverse crosswalks at the intersections of Mission View Drive and Barbara Street, Michelle Street, Kelly Street, and Mueller Court. School Assembly B signs should accompany any yellow marked crosswalks
- 7 Paseo Padre Parkway/Mission View Drive**
 - Convert existing transverse crosswalk to high visibility crosswalk. Consider extending median to create refuge island
- 8 Paseo Padre Parkway/Baylis Street**
 - Stripe high visibility crosswalk across Baylis Street
 - Consider extending median to create refuge island
 - Install RRFB across Paseo Padre Parkway
 - Install curb extensions at the western approaches
- 9 Leslie Street**
 - Refresh red paint on curb along school frontage on Leslie Street

0 200 ft

Improvements not to scale



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.