School Mobility & Active Transportation Plans

Executive Summary

Prepared for:
El Monte Union High School District

Final Document Submitted October 8, 2021

LA20-3222.00

FEHR PEERS

CALIFORNIA CLIMATE INVESTMENTS
Cap and Trade Dollars at Work

Table of Contents

List of Figures

List of Tables

Introduction

The School Mobility & Active Transportation Plans were developed with the goal of identifying school-related mobility needs and solutions that will encourage active transportation for students within the El Monte Union High School District (the District). These Plans are part of California Climate Investments, a statewide initiative that puts billions of California's Cap-and-Trade Program dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment — particularly in disadvantaged communities.

The goal of the School Mobility & Active Transportation Plans is to identify project ideas that will make it more safe, comfortable, and fun to walk, bike, or take other types of low-emission transportation to get to campus. The Plans are tailored to the specific conditions and needs of the different schools and draw from industry best practices to inform future actions that can be taken in the years to come. They are informed by an analysis of existing conditions and circulation patterns, an inventory of existing infrastructure, and a school community survey.

Six schools which serve El Monte area students were included in the study:

- Arroyo High School, 4921 Cedar Ave., El Monte, CA 91732
- El Monte High School, 3048 Tyler Ave., El Monte, CA 91731
- Fernando R. Ledesma High School, 12347 Ramona Blvd., El Monte, CA 91732
- Mountain View High School, 2900 Parkway Dr., El Monte, CA 91732
- Rosemead High School, 9063 Mission Dr., Rosemead, CA 91770
- South El Monte High School, 1001 Durfee Ave., South El Monte, CA 91733

In addition, a seventh school, the Granada Transition Center (3513 Granada Ave., El Monte, CA 91731) expressed interest in being included in the project and was added to the set of participating schools. However, because this school will be relocating in the near future, it did not undergo an existing condition/built environment analysis or project development process. The recommendations that are developed through this process are location specific, and therefore would not be relevant after the school relocates. Though the Granada Transition Center does not have a full report, the survey was conducted, and its findings are included in this Executive Summary.

Before the COVID-19 pandemic, the schools ranged in size from about 500 students to over 2000, though enrollment in the 2019-2020 school year was lower. In all six schools, at least four in five students qualifies for a free or reduced-price meal. English learners comprise roughly one tenth to one third of students. They mainly speak Spanish, but students and their families also speak Cantonese, Vietnamese, and Albanian. Table 1 shows an overview of enrollment data of the schools:

Table 1: Overview of Enrollment Data

High School	2018-2019 Cumulative Enrollment	Free & Reduced-Price Meals	English Learners
Arroyo High School	2,183	83.5%	9.2%
El Monte High School	1,838	94.7%	21.0%
Ledesma High School	499	93.7%	33.6%
Mountain View High School	1,456	93.2%	29.6%
Rosemead High School	1,922	80.4%	18.2%
South El Monte High School	1,290	89.5%	16.7%
Granada Transition Center	(no data available)	(no data available)	(no data available)

Source: Education Data Partnership.

Process

In late 2020, the project team met with school administrators to understand existing conditions at each school and opportunities for improvements near the school. The purpose of these meetings was to discuss the goals and expectations for the project, to review the key transportation issues at the school, and finalize data collection efforts.

The project team also conducted an existing conditions assessment for each school. The project team conducted field observations, evaluated circulation patterns, analyzed historical collision data, and reviewed transit options offered by the City of El Monte, Foothill Transit, and Los Angeles County Metropolitan Transportation Authority (Metro). Because these observations were made during mandated school closures due to the COVID-19 pandemic, the project team was unable to watch student and faculty commute patterns and instead relied on community input, school attendance boundaries, and discussions with on-site school staff to develop an understanding of previously observed travel patterns.

In early 2021 the project team attended community meetings at each of the schools to collect ideas from students, parents, and staff about transportation improvements around the school. The project team also engaged City of El Monte and City of South El Monte traffic engineering and transportation staff to understand what project improvements may already be underway and where there is opportunity for further improvements. The project team attempted to engage with the City of Rosemead engineering staff, but did not receive any response to outreach efforts.

In addition to the review of existing conditions and presentations to student, parent, and staff meetings at each school, the project team conducted a survey inviting students, parents, and staff to describe their school travel experiences and offer input to the process of developing project ideas. The survey was made available for four weeks during Spring 2021, in English, Spanish, Mandarin, and Vietnamese. In total, the survey received over 900 valid responses from students, parents, and staff.

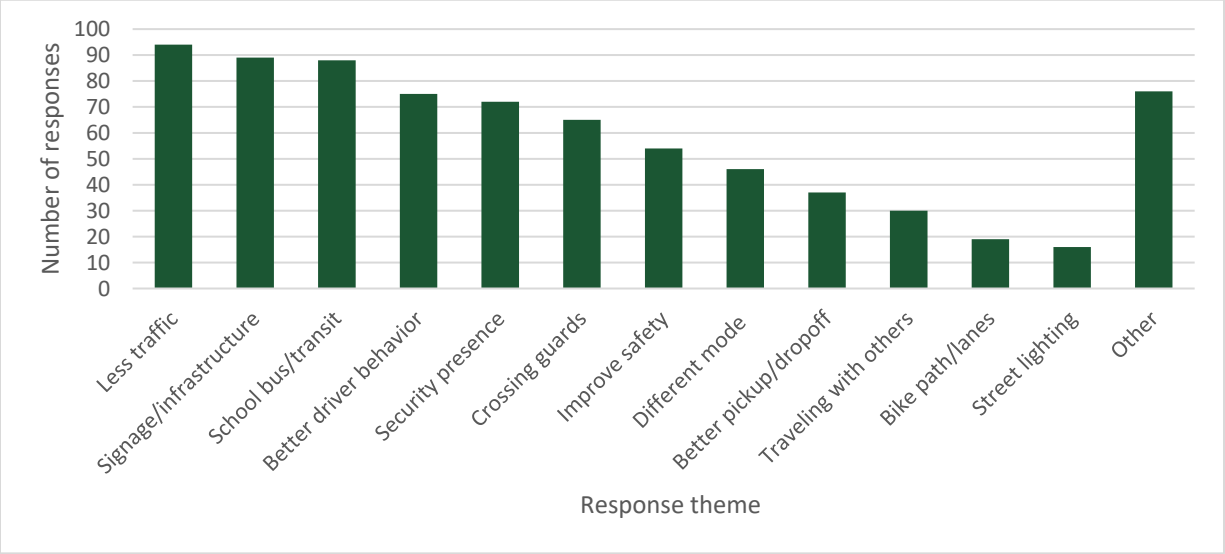
Key Findings

Survey Findings

The survey administered to students, parents, and staff at all seven schools found that all had concerns about safety when going to and from school. Many cited first-hand descriptions of congested drop-off zones around the school and near-miss incidents where aggressive drivers almost collide with students crossing the street near schools.

In response to the question, "If there were one thing you could change that would make your trip to school easier, safer, more comfortable, or more pleasant, what would it be?" students and parents shared insights on the concerns they have commuting to and from school. The most frequent themes cited by respondents across the seven schools were less traffic/congestion; signal, signage, or infrastructure improvements; and school bus or public transportation options. Figure 1 summarizes responses across all seven schools.

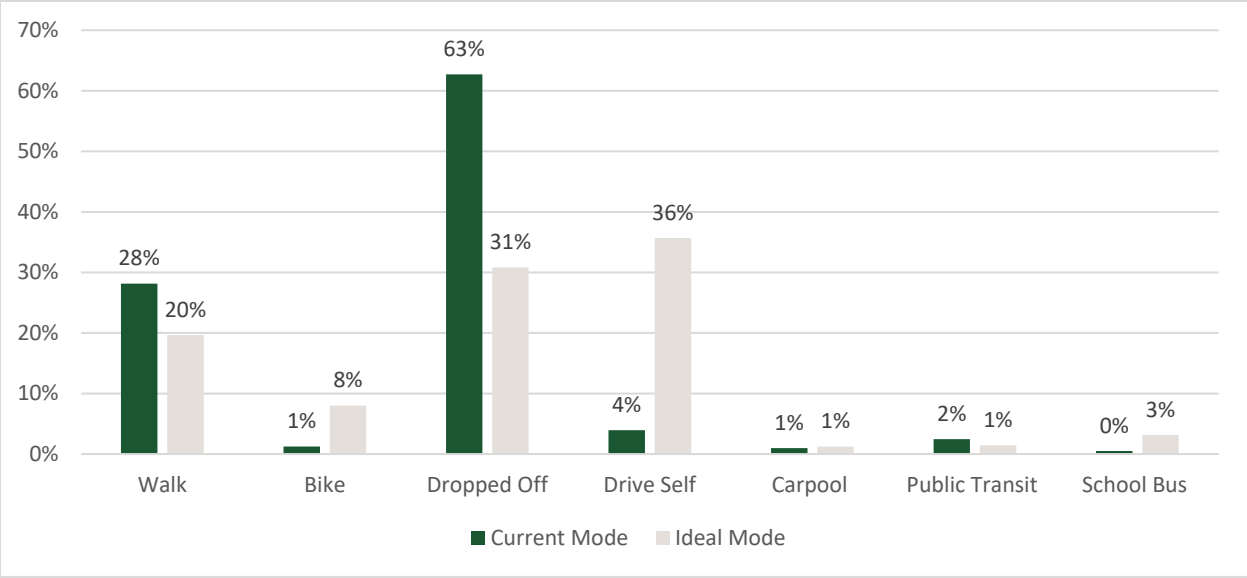
Figure 1: Top themes for making school trips easier, safer, more comfortable or more pleasant



The survey also asked students and parents about their current travel patterns to school and their travel patterns in an ideal world. While most reported being dropped off at school, a majority of students stated that in an ideal world they would drive themselves to school. This desire to drive oneself signals a latent demand for independent travel, which could be met (in part) by non-auto options if improvements to walking and bicycling infrastructure were made. The data shows opportunities for improving non-auto modes such as bike and school bus access, as these modes are very low in the current mode share but higher as ideal modes of transportation. Figure 2 summarizes students' current and ideal mode shares

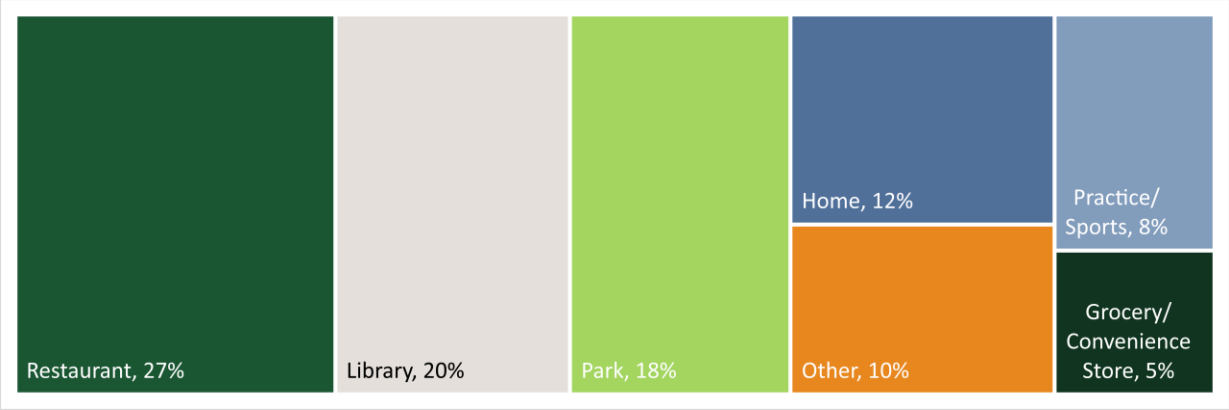
across all seven schools. It is worth noting the tension between students' simultaneous desire for less traffic/congestion and stated preference for driving oneself, which would lead to increased congestion.

Figure 2: Students' current and ideal mode share



The survey also asked students about their usual after-school destinations to better understand their travel patterns. Figure 3 presents the after-school destinations across all seven schools. Restaurants were the top after-school destination, followed by the library and park.

Figure 3: After-school destinations



Active Transportation Needs

Though classes were not being held in person due to the ongoing COVID-19 pandemic, fieldwork at the school sites and survey input revealed many areas that could improve conditions for students who are walking and biking to school. Audits of the schools' perimeters and nearby streets identified the following common issues:

- High posted speed limits and operating speeds
- Missing, narrow, or damaged sidewalks
- Lack of marked crosswalks or high visibility crosswalks
- Lack of supportive infrastructure to improve safety at marked crosswalks (such as crossing beacons)
- Missing curb ramps or curb ramps that do not appear compliant with the Americans with Disabilities Act (ADA)
- Lack of bike lanes
- The presence of unprotected bike lanes on high-speed corridors

Analyses of bicycle and pedestrian collisions show which streets and intersections have experienced the highest collision history patterns near each school, and along with input from the community survey, supported the identification of key intersections and corridors on which to focus project development ideas.

Project Recommendations

The Mobility & Active Transportation Plans provide recommendations for infrastructure improvements to make streets safer and encourage active transportation. Depending on the context these may include:

- New or repaired sidewalks
- High visibility continental crosswalks
- Lower speed limits
- Pedestrian median islands
- Pedestrian-scale lighting
- School-zone signage
- Driveway closures to reduce potential conflicts
- Bus loading zones
- Trees or other shading
- Protected bike lanes
- Signal timing changes

These improvements are summarized and defined in Appendix A: Project Idea Glossary. The Plans also include elements to bring sidewalks and crossings into compliance with the ADA.

The Plans make policies and program recommendations which provide for broader systemwide improvements to help support and enhance active transportation at the school and local level. Policies and program recommendations include designated student drop-off locations, crossing guards, improved transit service, connections to regional bike paths, and partnerships with local businesses to encourage walking and biking.

Finally, the Plans provide an overview of example costs associated with typical projects by type, to provide additional information that can support the District in prioritizing project ideas, coordinating with City engineering staff, pursuing grant funding or identifying other funding opportunities, and ultimately working towards implementation of projects and programs that will encourage more people to walk and bike to school, and improve the safety of those who do. Table 2 shows these example costs.

Table 2: Example Costs for Recommended Improvements

Recommended Improvements	Project Type	Cost Estimate
Sidewalk Enhancements	Sidewalks (per mile, one side)	$1,800,000
Pedestrian Crossing Enhancements	High-visibility crosswalk	$5,000
	Painted curb extensions (varying extents)	$15,000-$40,000
	Concrete curb extensions (varying extents)	$100,000-$125,000
	Rapid rectangular flashing beacon	$45,000
	Pedestrian hybrid beacon	$170,000
	Pedestrian signs (per sign)	$3,000
	Existing signal timing adjustments	$5,000-$10,000
	New or upgraded signal	$400,000-$500,000
	Reconstruct corners to reduce curb radius and close slip lanes	$200,000-$450,000
Speed Management	Re-stripe with narrowed or reconfigured lanes (per mile)	$300,000
Lighting	Roadway lighting (per mile)	$750,000
	Pedestrian-scale lighting (per mile)	$2,000,000
	Intersection lighting	$40,000
Bicycle Enhancements	Class I bicycle path (per mile)	$1,847,000
	Class II bicycle lane (per mile)	$245,000
	Class III bicycle route (per mile)	$358,000
	Class IV protected bicycle lane (per mile)	$2,634,000

Next Steps

The Mobility & Active Transportation Plans provide a roadmap to address school-related mobility needs and provide solutions that will encourage active transportation for both the school and local community. Each report highlights specific infrastructure improvements and policy changes that will allow all students to access their schools more safely. These goals are consistent with State goals for reducing vehicle miles traveled and greenhouse gas emissions, while also furthering complete streets and other goals in the General Plans of each city. The District and the Cities of El Monte, South El Monte, and Rosemead should work together to prioritize solutions that will encourage safer, more active, and sustainable transportation options for students and families.

Appendix A: Glossary of Active Transportation Terms

Term	Description
Class III Bike Route	Class III bike routes provide for shared use with motor vehicle traffic either to: (1) provide continuity to other bicycle facilities (typically Class II); or (2) designate preferred routes through high demand corridors. Established with bike route signs and shared roadway markings along the route. *Caltrans, 2020*
Class IV Bikeway	Class IV bikeways provide space on the roadway set aside for the exclusive use of bicycles, physically separated from vehicle traffic. Types of separation include, but are not limited to, grade separation, flexible posts, physical barriers, or on-street parking. *Fehr & Peers, 2021*
Closed Slip Lane	Modifies the corner of an intersection to remove the sweeping right turn lane for vehicles. Results in shorter crossings for pedestrians, reduced speed for turning vehicles, better sight lines, and space for landscaping and other amenities. *Fehr & Peers, 2021*
Curb Extensions	Widens the sidewalk at intersections or midblock crossings to shorten the pedestrian crossing distance, to make pedestrians more visible to vehicles, and to reduce the speed of turning vehicles at intersections. *Fehr & Peers, 2021*

Term	Description
High-Visibility Crosswalk	A crosswalk that is designed to be more visible to approaching drivers. Crosswalks should be designed with continental markings and use high-visibility material, such as inlay tape or thermoplastic tape instead of paint. *Fehr & Peers, 2021*
In-Roadway Warning Lights (IRWL)	In-Roadway Lights are special types of highway traffic signals installed in the roadway surface to warn road users that they are approaching a condition on or adjacent to the roadway that might not be readily apparent and might require the road users to slow down and/or come to a stop. *MUTCD, 2003*
Lane Narrowing	A reduction in lane width produces a traffic calming effect by encouraging motorists to travel at slower speeds, lowering the risk of collision with bicyclists, pedestrians, and other motorists. *Fehr & Peers, 2021*
Leading Pedestrian Interval (LPI)	Gives people walking a head start, making them more visible to drivers turning right or left. "WALK" signal comes on a few seconds before drivers get a green light. May be used in combination with No Right Turn on Red restrictions. *Fehr & Peers, 2021*
Pedestrian Refuge Island	Pedestrian refuge islands provide a protected area for pedestrians at the center of the roadway within a marked crosswalk. They reduce the exposure time for pedestrians crossing the road. They simplify crossings by allowing pedestrians to focus on one direction of traffic at a time. *Fehr & Peers, 2021*

Term	Description
Pedestrian Scramble	A form of pedestrian "WALK" phase at a signalized intersection in which all vehicular traffic is required to stop, allowing pedestrians to safely cross through the intersection in any direction, including diagonally. *Fehr & Peers, 2021*
Rectangular Rapid-Flashing Beacon (RRFB)	A Rectangular Rapid Flashing Beacon (RRFB) is a pedestrian-actuated conspicuity enhancement used in combination with a pedestrian, school, or trail crossing warning sign to improve safety at uncontrolled, marked crosswalks. The device includes two rectangular shaped yellow indications, each with an LED-array-based light source, that flash with high frequency when activated. *FHWA, 2018*
Lane Reconfiguration (Road Diet)	Depending on the street, a lane reconfiguration, sometimes called a road diet, may change the number of lanes, turn lanes, center turn lanes, bike lanes, parking lanes, and/or sidewalks. Lane reconfigurations optimize street space to benefit all users by reallocating excess travel lanes, improving the safety and comfort of pedestrians and bicyclists, and reducing vehicle speeds and the potential for rear end collisions. *Fehr & Peers, 2021*
Stop Bar	A stop bar is a solid white line extending across approach lanes to indicate the point at which the stop is intended or required to be made. A stop bar should be placed to allow sufficient sight distance to all other approaches to an intersection. *MUTCD, 2003*

Term	Description
Tactile Warning Pad	Tactile warning pads (sometimes called "truncated domes" or "warning domes") are applied to provide pedestrians physical notice that they are about to enter the roadway environment; these applications need to be detectable underfoot or by a long cane. The tactile warning should be complimented with a visual warning, as the use of a contrasting color will increase its conspicuity to pedestrians whose sight is limited but who are not completely blind. *ITE, 2015*
Walkshed	A walkshed is the area around a school – or any central destination—that is reachable on foot for the average person, typically up to ¼ or ½ mile, depending on the destination. *MWCOG, 2019*

Appendix B: El Monte Union High Schools Transportation Survey

The California Air Resources Board (CARB) awarded $9.8 million dollars to implement the Clean Mobility in Schools Pilot Project in disadvantaged neighborhoods throughout El Monte Union High School District. The Clean Mobility in Schools Pilot Project will provide all electric school buses, school bus charging infrastructure, and other clean mobility options throughout the District. The Clean Mobility in Schools Pilot Project is part of California Climate Investments, a statewide program that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy and improving public health and the environment — particularly in disadvantaged communities.

We want to make our schools safer and easier to get to. Help us make the best plan to get you or your student to school by taking this survey. The survey should take about 5 minutes. To thank you, we have a raffle for a $25 Gift Card from a local store in the El Monte Union High School District community. A winner will be selected from each of the student, parent, and staff/teacher groups.

Answer the survey questions as if we are holding in-person classes (pre-COVID).

1. Survey Language Preference/Preferencia de idioma de la encuesta
    a. English (Inglés)
    b. Spanish (Español)
    c. Chinese
    d. Vietnamese

If select D will be redirected to this survey.

2. Choose the option that best describes you:
    a. I'm a student
    b. I'm a parent or guardian with a student at this school
    c. I'm a teacher
    d. I'm a school employee

Student Survey

1. What school do you attend?
    a. El Monte High School

   b. Ledesma High School
   c. South El Monte High School
   d. Rosemead High School
   e. Arroyo High School
   f. Mountain View High School
   g. Granada Transition Center

2. How do you get to school most days?
   a. Walking
   b. Biking
   c. I get dropped off
   d. I drive myself
   e. I carpool with another driver
   f. Public transit
   g. School bus

3. In an ideal world, how would you prefer to get to school?
   a. Walking
   b. Biking
   c. Getting dropped off
   d. Driving myself
   e. Carpooling with another driver
   f. Public transit
   g. School bus
   h. Other

4. Are there streets that feel unsafe when traveling to school? If so, please list the street in the box below along with why/how it feels unsafe. For example, cars speed on the street or there isn't enough time for you to cross the street.
   a. [comment box here]

5. What places do you go after school? This can be a restaurant, library, park, or other places.
   a. [comment box here]

6. Are there locations where you have experienced close calls with getting hit by a car on your way to or from school? If so, please list them below.
   a. [comment box here]

7. What are some of the streets you use on your way to school?

    a. [comment box here]

8. If there were one thing you could change that would make your trip to school easier, safer, more comfortable, or more pleasant, what would it be?

9. Thank you for taking the survey! Don't forget to provide your email to be entered into the raffle! (optional)
    a. [enter email]

Parent Survey

1. What school does your student attend?
    a. El Monte High School
    b. Ledesma High School
    c. South El Monte High School
    d. Rosemead High School
    e. Arroyo High School
    f. Mountain View High School
    g. Granada Transition Center

2. How does your student get to school?
    a. Walking
    b. Biking
    c. I or another family member drop them off
    d. They drive themselves
    e. They carpool with another driver
    f. Public transit
    g. School bus

3. In an ideal world, how would you prefer your student get to school?
    a. Walking
    b. Biking
    c. Getting dropped off
    d. Driving themself
    e. Carpooling with another driver
    f. Public transit
    g. School bus
    h. Other

4. Are there streets that seem unsafe when traveling to your student's school? If so, please list the street in the box below along with why/how it feels unsafe. For example, cars speed on the street or there isn't enough time for you to cross the street.
    a. [comment box here]

5. What places does your student go after school? This can be a restaurant, library, park, or other places.
    a. [comment box here]

6. Are there locations where you have experienced close calls with getting hit by a car on your way to or from your student's school? If so, please list them below.
    a. [comment box here]

7. What are some of the streets you use on your way to school?
    b. [comment box here]

8. If there were one thing you could change that would make your trip to your student's school easier, safer, more comfortable, or more pleasant, what would it be?

9. Thank you for taking the survey! Don't forget to provide your email to be entered into the raffle! (optional)
    a. [enter email]

School Employee and Teacher Survey

1. What school do you work at?
    a. El Monte High School
    b. Ledesma High School
    c. South El Monte High School
    d. Rosemead High School
    e. Arroyo High School
    f. Mountain View High School
    g. Granada Transition Center

2. How do you get to school?
    a. Walking
    b. Biking
    c. I drive myself
    d. I carpool with another driver

e. I get dropped off
f. Public transit

3. In an ideal world, how would you prefer to get to school?
    a. Walking
    b. Biking
    c. Driving myself
    d. Carpooling with another driver
    e. Public transit
    f. School bus

4. Are there streets that seem unsafe when traveling to campus? If so, please list the street in the box below along with why/how it feels unsafe. For example, cars speed on the street or there isn't enough time for you to cross the street.
    a. [comment box here]

5. What places do you go after work near the school? This can be a restaurant, library, park, or other places.
    a. [comment box here]

6. Are there locations where you have experienced close calls with getting hit by a car on your way to or from school? If so, please list them below.
    a. [comment box here]

7. What are some of the streets you use on your way to school?
    a. [comment box here]

8. If there were one thing you could change that would make your trip to school easier, safer, more comfortable, or more pleasant, what would it be?