

SAFE ROUTES TO SCHOOLS
SOQUEL UNION ELEMENTARY SCHOOL DISTRICT



Main Street School

Not only a School, but a Community

MAIN STREET
ELEMENTARY SCHOOL
SAFETY AUDIT AND SURVEY
11.20.14



Prepared for:



In Partnership with the City of Capitola
and the County of Santa Cruz

Prepared by

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INTRODUCTION

In partnership with the City of Capitola and the County of Santa Cruz, the Soquel Union Elementary School District (SUESD) received a Safe Routes to School (SRTS) grant to complete Walking and Bicycling Audits at each of its elementary and middle school campuses. Walking and bicycling audits are field visits to identify barriers or challenges to students using these modes of transportation to travel between home and school. Also known as assessments, audits generally include a tour of the school area where participants identify issues related to walking and biking, followed by a debriefing and brainstorming session to rank high-priority concerns and identify potential solutions. Walking and bicycling audits provide community stakeholders with the information they need to analyze the design and condition of the transportation network. This report summarizes the results of a parent survey conducted in Spring of 2014, existing conditions and field observations from walking and bicycling audits, and recommendations for the City, County, and SUESD to improve walking and bicycling conditions.

A Walking and Bicycling Audit was completed for Main Street Elementary School on May 1, 2014. Staff and parents from Main Street Elementary School, as well as staff from the Santa Cruz County and the District partnered with the selected engineering safety firm of Kimley-Horn to complete the field audit. This group constituted the site council for Main Street Elementary School. Subsequent to the field audit, the site council met to discuss observations and concerns and brainstorm improvements. These observations and recommendations for improvements were incorporated into the Safe Routes to School Walking and Biking Audit Draft Report for Main Street Elementary School, dated September 5, 2014. The Draft Report was reviewed by the site council and made available to a wider group for comment through inclusion in the SUESD Board October 15, 2014 meeting packet. Comments received on the Draft Report were reviewed and discussed at a follow-up meeting with the site council on October 29, 2014. This report, dated November 17, 2014, incorporates the agreed changes with the site council, and reflects the priorities to improving walking and bicycling conditions to Main Elementary School.

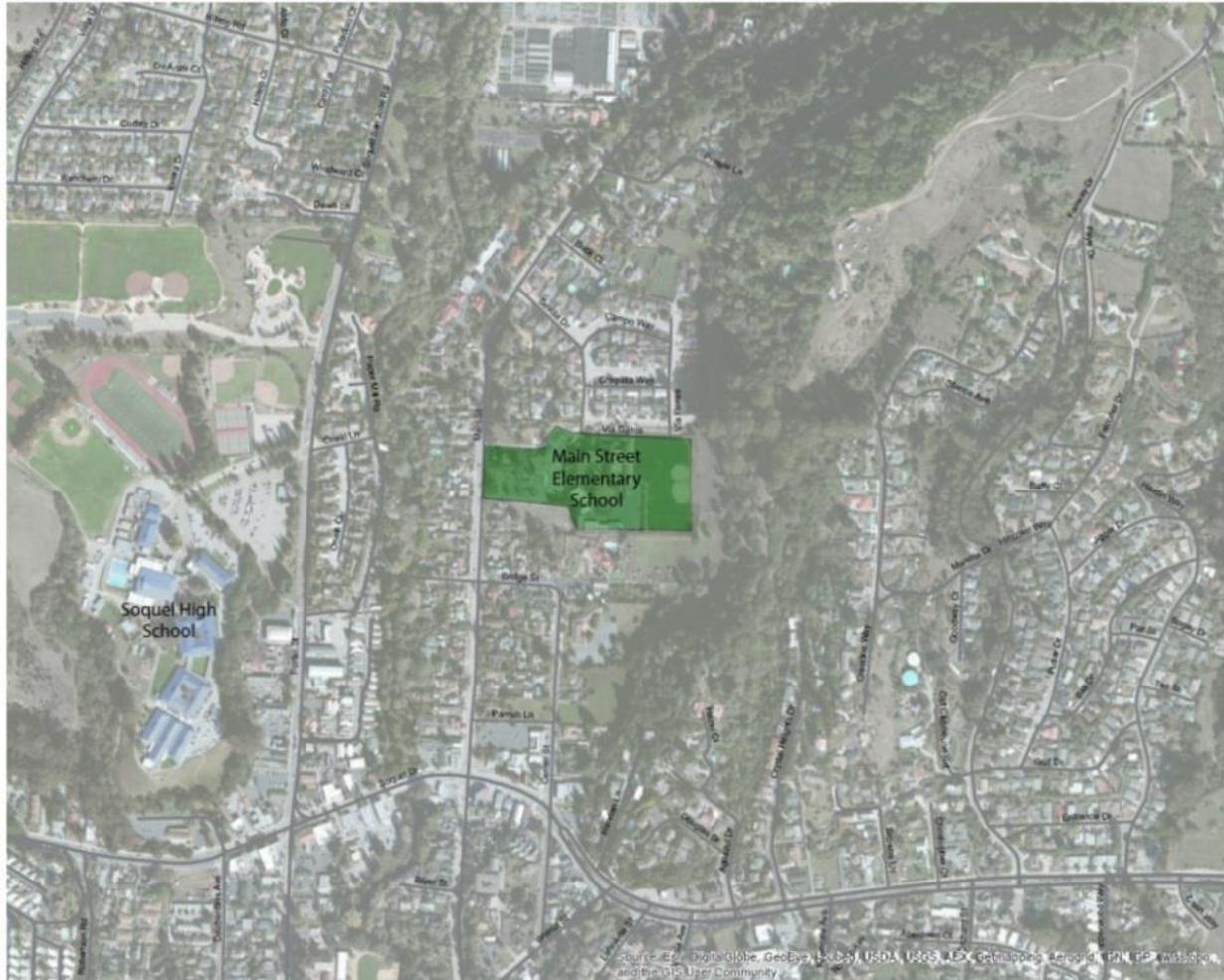
ADDITIONAL SAFE ROUTES TO SCHOOL RESOURCES

The City of Capitola and Santa Cruz County have both prepared studies and programs focused on providing safe walkways and pathways throughout their jurisdictions and specifically around schools. A brief list of those documents is included below for reference purposes:

- Santa Cruz County May 2012 Bike and Pedestrian Count Report
- City of Capitola Bicycle Plan
- County of Santa Cruz 2011 Bicycle Transportation Plan
- Sustainable Santa Cruz County Plan
- SCCRTC Final 2014 Regional Transportation Plan

MAIN STREET ELEMENTARY SCHOOL

Below is a map showing the Main Street Elementary School and its surrounding area. For the 2013/2014 school year Main Street Elementary had an enrollment of 491 students.



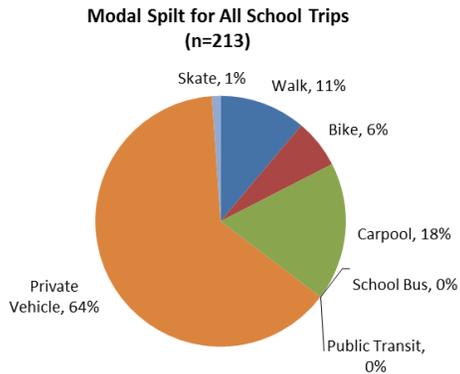
SURVEY RESULTS

In Spring of 2014, a parent survey was conducted for Main Street Elementary School. A total of 107 responses were collected. The number of responses varied per survey question and some questions allowed the selection of multiple answers. Below are a summary of the survey results related to Safe Route to Schools activities.

Based on responses, 7 percent of students live within a quarter mile of school while 12 percent of students live within a half mile from school. Sixty-two percent of students live more than a mile from school.

Approximate Distance between Home and School

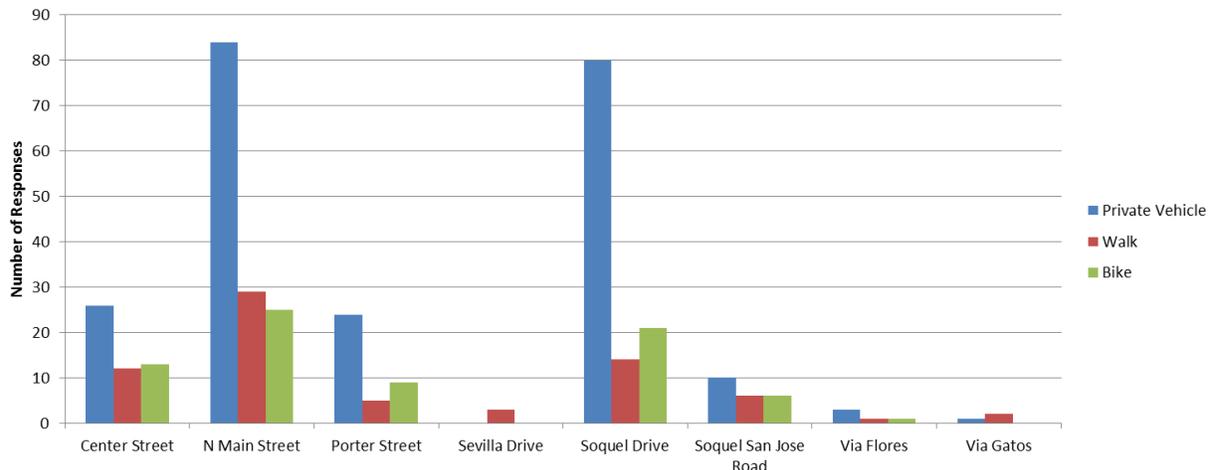
Distance	Number	Percent
¼ mile or less	8	7%
¼ to ½ mile	5	5%
½ to 1 mile	28	26%
1 to 2 mile	36	34%
2 miles or more	30	28%
Total	107	100%



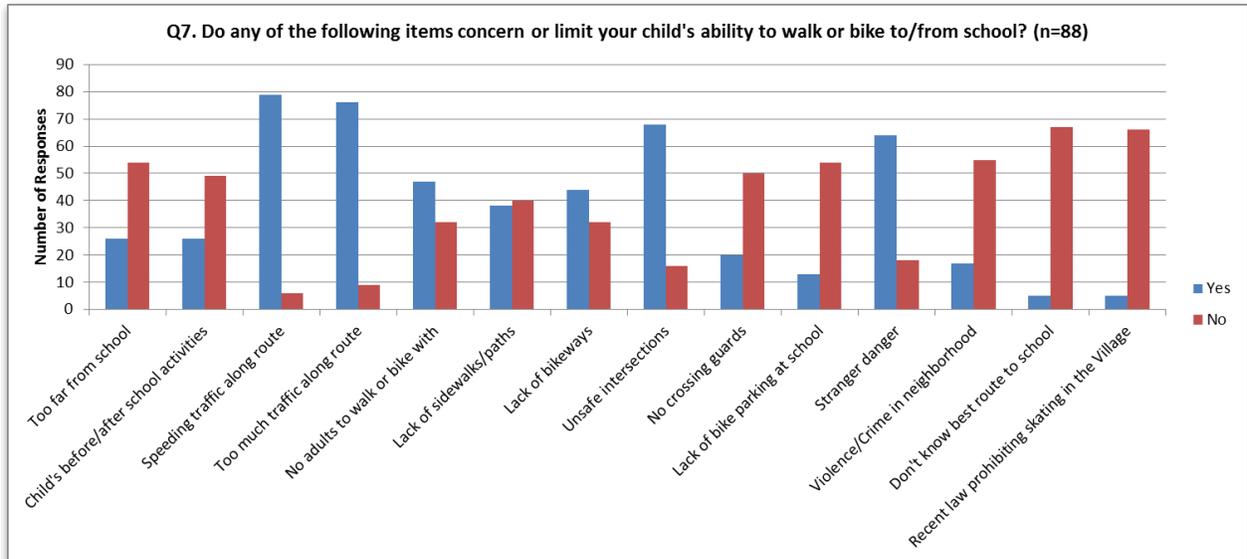
The main mode of transportation for all trips to and from school is private vehicles with 64 percent. The second and third most common means of getting to school is carpool at 18 percent and walking at 11 percent.

The most common roadways used by private vehicles include Center Street, N Main Street, Porter Street, and Soquel Drive. The most common roadways used by pedestrian walking to school include Center Street, N Main Street, and Soquel Drive. The most common roadways used by bicyclists include Center Street, N Main Street and Soquel Drive.

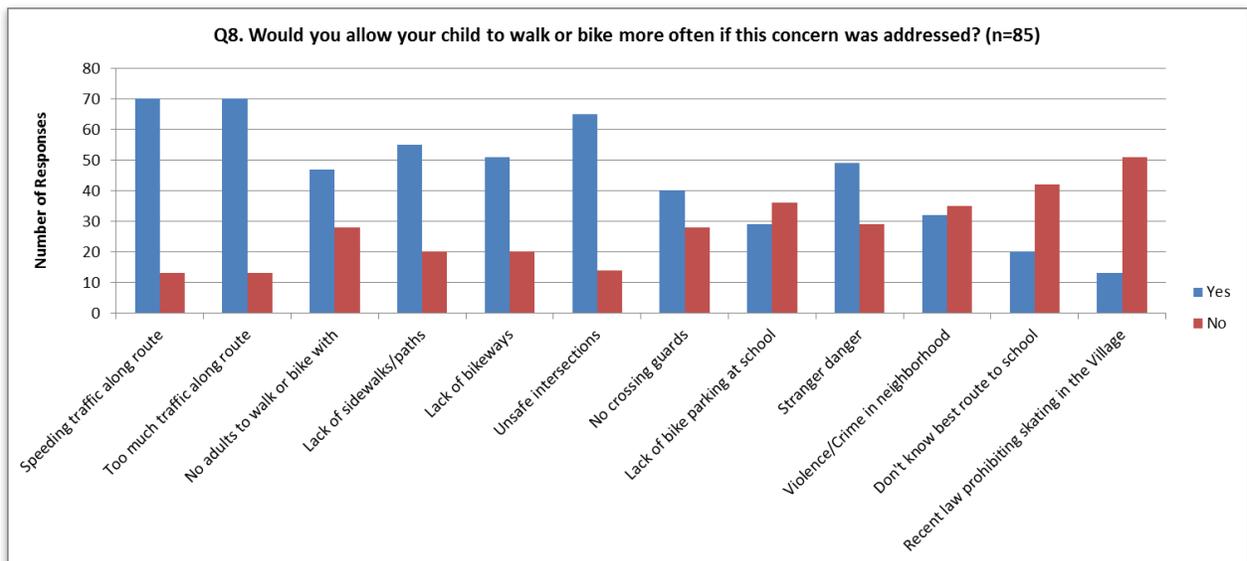
Q9. A list of roadways is listed below for the school your child attends. Which of these roadways does your child use to travel to/from school and using what mode? (n=104)



The survey inquired participants about what concerns or limitations that may hinder student’s ability to walk or bike to/from school. The most common responses included speeding traffic along routes, too much traffic along route, no adult to walk or bike with, lack of sidewalks/paths, lack of bikeways, unsafe intersections, and stranger danger.



Another question asked participants on which concerns, if they were addressed, would allow their students to walk or bike more to/from school. The most common responses include speeding traffic along route, too much traffic along route, no adult to walk or bike with, lack of sidewalks/paths, lack of bikeways, unsafe intersection, and stranger danger.



FIELD AUDIT

The field audit at Main Street Elementary School focused on the following main areas of concern by the group:

- Main Street (between Glen Haven Road and Soquel Drive): This section of Main Street experiences moderate level of pedestrian activity and moderate level of parking activity by parents. Some observations during the field audit include:
 - The school parking lots are located off of Main Street, north of Ladera Lane. The parking lot has a separate parking area for faculty and staff, as well as parking for parents to park and walk their students into class. In the school parking lot, there are two locations for student drop-off and pick-up. It was observed that the outer, larger loop was utilized more than the smaller inner loop. The queue for the drop-up and pick-up would extend onto Main Street until Bridge Street. This queue is managed by a school-assigned staff member who sets out cones and utilizes the curb-side no-parking area prior to the school entrance to manage the traffic queue while minimizing the impact to north/south traffic on Main Street.
 - It was observed that there was a lot of pedestrian activity on the exit driveway, but there are no sidewalks along the exit driveway. It may be recommended that sidewalks be installed adjacent to the school exit driveway.
 - There is no parking along Main Street between the school driveway and Bridge Street between 1:30 – 3:30 pm. Parents were seen parked along Bridge Street or Via Gatos.
 - The intersection of Main Street and Bridge Street has a yellow school crosswalk on the north leg, however it was observed that motorist often do not comply with the crossing.
 - On the east side of Main Street, there are no sidewalks south of Bridge Street. It is recommended that a sidewalk or pedestrian pathway be installed to close the pedestrian gap along Main Street.
- Center Street (between Bridge Street and Soquel Drive): This section of Center Street experiences a moderate level of vehicle traffic.
 - It was noted during the field audits, that parents would utilize Center Street rather than Main Street.
 - There were comments about possibly adding bike facilities on Center Street. Center Street is not wide enough to accommodate bike lanes, but bike Sharrows could be a possible option.
 - The intersection of Center Street and Soquel Drive was identified for not being very pedestrian friendly. Due to the lane geometry, vehicles may make a westbound right turn very fast. The crosswalk paint at this intersection is faded and vehicles not may stop at the crosswalks.

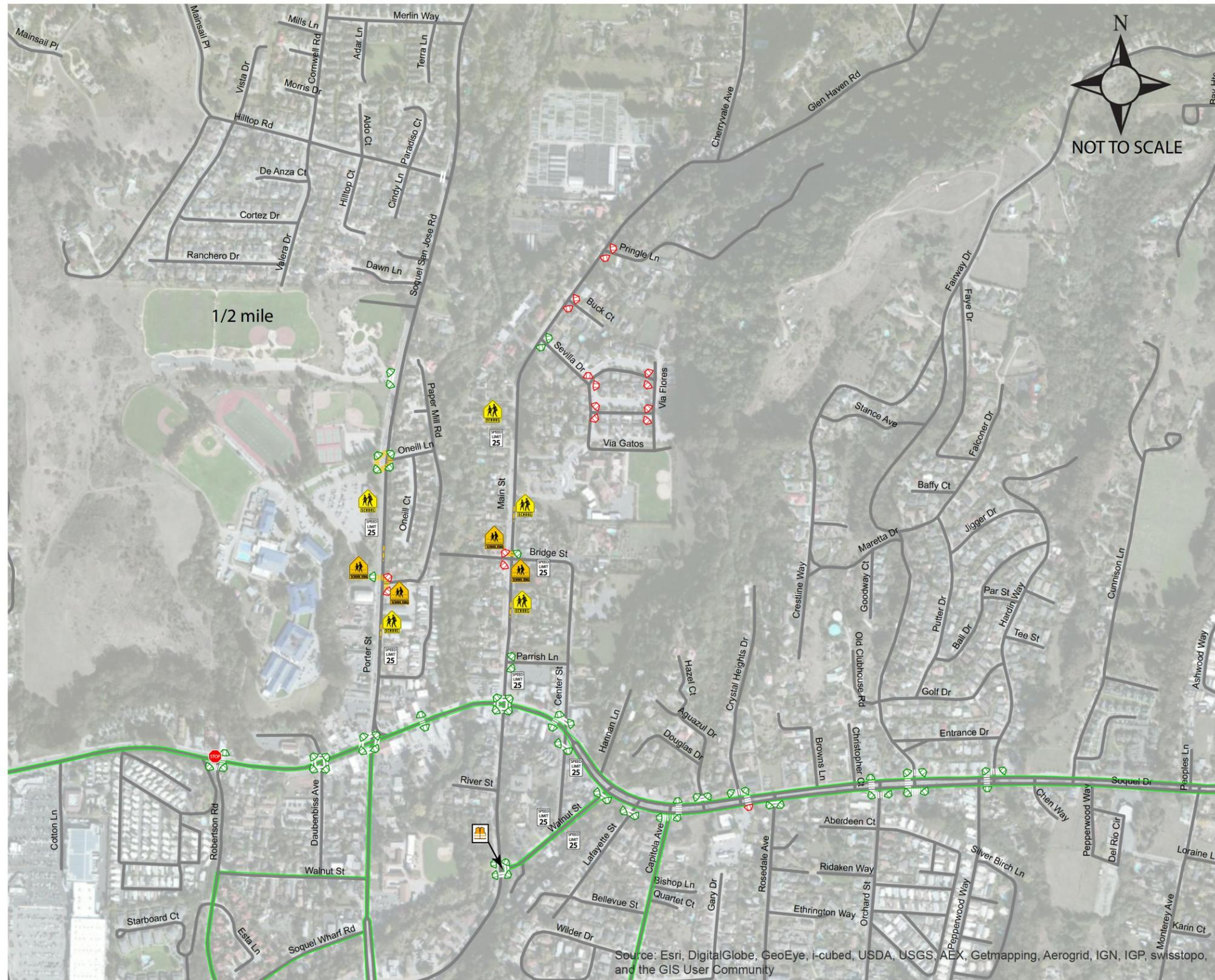
- Via Gatos (between Sevilla Drive and Via Flores): This section of Via Gatos experiences a moderate level of parking activity by parents. Some observations during the field audit include:
 - There is access to the school via stairs located on Via Gatos. It was observed that parents would park along Via Gatos and wait for students.
 - Drop-off and pickup activities along Via Gatos are discouraged by the school and signs posted outside school grounds discourage this activity as well. However, some students and parents are still using this location as an alternative to the drop-off and pickup activities in the school parking lot and along Main Street.

Additional observations about walking and biking activities near the school campus:

- Signage: Generally the school zone signage is well maintained, although it is observed that not all of the school zone and school crossing signs are consistent with the current California MUTCD signage recommendation.
- Walking to campus: Observations as well as experience from the site council noted that a moderate volume of students walk to/from campus daily and this is the most highly used alternative transportation mode besides parents using personal vehicles. In addition, many students and parents were observed to park outside the school campus on adjoining roadways and walk into campus.
- Biking to campus: A moderate level of students was observed to bike or scooter to/from school. Bike racks are located near the front of the school drop-off and pickup area. On a daily basis, bike racks appear to experience moderate to heavy usage and long term additional bike storage may be required if more students choose to bike or scooter to school.

The **Existing SRTS Elements** figure illustrates the existing pedestrian and bicycle safety devices already in place in the study area.

Main Street Elementary School Safe Route to School Safety Audit and Survey



Legend

-  School Zone Sign
-  School Crossing Sign
-  Speed Limit Sign
-  All-Way Stop Intersection
-  Existing Curb Ramp
-  No Curb Ramp
-  White Crosswalk
-  White Ladder Crosswalk
-  School Crosswalk
-  School Ladder Crosswalk
-  SLOW SCHOOL XING Pavement Marking
-  Bicycle Lane
-  Crossing Guard

PROPOSED SAFE ROUTES TO SCHOOL ELEMENTS

The **Proposed SRTS Elements** and **Proposed SRTS Elements (Near School)** figures illustrate the SRTS Plan on a conceptual basis. For project planning purposes, each improvement is estimated to occur in the Short-term (within 1 year), Medium-term (1-3 years), or Long-term (3+ years). In addition, the responsible lead agency is identified for each improvement. A brief discussion is provided below for each of the improvements proposed.

Main Street (North to South):



1. **Speed Feedback Sign:** It is recommended that speed feedback signs be installed 500 feet away from the school along Main Street. For northbound traffic, the sign should be installed north of Bridge Street and south of Sevilla Drive for southbound traffic. (Estimated time frame: Long-term, Responsible Lead Agency: County)



2. **Install Bott's dot array:** During the field audit it was mentioned that speeding was a problem along Main Street. Bott's dot arrays can be installed on the roadway to alert drivers of upcoming safety areas. It is suggested that Bott's dot arrays be installed on the roadway south of Sevilla Drive for southbound traffic and north of Bridge Street for northbound traffic. (Estimated time frame: Medium-term, Responsible Lead Agency: County)



3. **Install RRFB crossing:** It is recommended that a Rectangular Rapid Flashing Beacon (RRFB) be installed in front of the school to improve visibility for motorists of crossing pedestrians and specifically the elementary school students. The County has plans to implement this improvement and recently received a SRTS grant for funding of this improvement and others. (Estimated time frame: Medium-term, Responsible Lead Agency: County)



4. **Crossing Guard:** It is recommended that a crossing guard be instated at the proposed RRFB crossing in front of the school. (Estimated time frame: Short-term, Responsible Lead Agency: SUESD)



5. **Install Sidewalk:** There is a high number of pedestrians which utilize the area around the exit driveway, however there is no sidewalk. It is suggested that an internal sidewalk be installed along the south side of exit school driveway between its current terminus at the parking lot and the public sidewalk at the edge of the property. (Estimated time frame: Medium-term, Responsible Lead Agency: SUESD)



6. **Install Hatching and move Stop Bar:** It is recommended that hatching be installed between Main Street and the moved stopped bar. This hatching will create more space between vehicles exiting the school parking lot and pedestrians walking along Main Street. (Estimated time frame: Medium-term,

Responsible Lead Agency: SUESD)



7. **Install 'Entry Only' and 'Exit Only' Signs:** It is recommended that the entry and exit school driveways be signed to prevent drivers from entering through the wrong driveways. (Estimated time frame: Short-term, Responsible Lead Agency: SUESD)



8. **Install Sidewalk:** Currently there is no sidewalk on the west side of Main Street north of Bridge Street. It is suggested that a sidewalk or dedicated pathway be installed. The County has noted that there are interim plans for constructing a sidewalk on the west side of Main Street from Bridge Street to the school crosswalk. (Estimated time frame: Long-term, Responsible Lead Agency: County)



9. **Refresh Crosswalk:** The paint for the crosswalk on the north leg of Main Street and Bridge Street is faded. It is proposed that the paint be refreshed. (Estimated time frame: Short-term, Responsible Lead Agency: County)



10. **Install School Crosswalk:** It is recommended that a school crosswalk be installed on the east leg of Main Street and Bridge Street. The school crosswalk notifies drivers of possible students crossing the road. (Estimated time frame: Short-term, Responsible Lead Agency: County)



11. **Install Pedestrian Ramp:** It is proposed that pedestrian ramps be installed on the northwest and southeast corner of Main Street and Bridge Street as a gap closure. (Estimated time frame: Medium-term, Responsible Lead Agency: County)



12. **Trim Vegetation:** There is overgrown vegetation along Main Street which can be a visual obstruction for drivers. It is proposed that the vegetation on the east side of Main Street, south of Bridge Street be trimmed. (Estimated time frame: Short-term, Responsible Lead Agency: County)

Bridge Street (East to West):



13. **Install School Zone Sign:** Many parents from east of the school utilize Center Street and Bridge Street to drop their students off at school. It is recommended that a school zone sign be installed near the intersection of Bridge Street and Main Street (along Bridge Street) to notify motorist they are entering a school zone. (Estimated time frame: Short-term, Responsible Lead Agency: County)

Center Street (North to South):



- 14. Refresh Crosswalk and Improve Pedestrian Experience:** It is recommended that the two crosswalks on the north leg crosswalk at Soquel Drive and Center Street be repainted. To improve the pedestrian experience by shortening the crossing distance for the north leg, it is recommended to make the northeast corner a tighter turning radius and to expand the pork-chop in the northwest corner to further shorten the pedestrian crossing distance. (Estimated time frame: Medium-term, Responsible Lead Agency: County)

Overall School Zone Study Area:

15. A review was completed regarding the on-campus parking supply and setup, especially whether the faculty/staff parking lot should be converted to a parent/guest parking lot. It was determined that faculty/staff lot is already heavily utilized and removal of faculty/staff would most likely cause more all-day parking on adjacent streets.
16. Some of the current school-related roadway signage is not current based on the current version of the California Manual on Uniform Traffic Control Devices (MUTCD). This most recent version includes some updates to sign text and/or images, as well as standards for sign retro-reflectivity. It is recommended that future efforts for funding the elements of this plan also inventory the status of the current school signage and update all signs to the current standard. Specifically, many of the school zone and school crosswalk signs in the school area are based on previous sign standards and should be updated as other elements of the SRTS plan are implemented.

Vehicular Drop-off and Pickup Procedures:

17. Although the primary goal of the Walk and Bike Audit is to encourage additional walking and biking through safety improvements of physical roadway features, the general safety of school areas is also observed. In the Main Street Elementary parking lot, there are two lanes for student drop-off and pick-up. It is suggested that the pick-up plan be reviewed to determine how to better utilize both pick-up “loops”. As noted in the existing observations, a larger number of parents utilize the larger loop immediately adjacent to the school buildings to conduct drop-off and pickup. The school may consider a pickup procedure by grade that then better utilizes the smaller loop during pickup to more efficiently move vehicles through the parking lot.

Speed Limit in School Zone:

18. To aid in the enforcement of the speed limit along Soquel Drive, the County plans to conduct a revised Engineering and Traffic Survey in early 2015. This evaluation is required to enforce the posted speed limit and will assist the California Highway Patrol in better enforcement around the school area.

Improvements for Soquel Elementary School: The half mile radius for Main Street Elementary and Soquel Elementary school overlap. The following SRTS improvements were recommended for Soquel Elementary School that is within the half mile radius of Main Street Elementary School.



1. **Install School Zone Sign:** It is recommended that school zone sign be installed 500 feet away from Soquel Elementary on Main Street, north of River Street for southbound traffic. (Estimated time frame: Short-term, Responsible Lead Agency: County)



2. **Clear Vegetation:** On the east side of Main Street there is vegetation near the curb. It is suggested that this vegetation be cleared to make it easier for curbside drop-off and pick up. (Estimated time frame: Short-term, Responsible Lead Agency: County)



3. **Install School Crossing:** Currently the crosswalks at the intersection of Main Street and Walnut Street are white crosswalks. It is recommended that crosswalks be striped yellow. (Estimated time frame: Short-term, Responsible Lead Agency: County)



4. **Install 'No U-Turn' Sign:** It was observed that many parents would drop off their children and then make a U-turn at Walnut Street. It is proposed that a 'No U-turn' sign be installed near the intersection of Main Street and Walnut Street. (Estimated time frame: Medium-term, Responsible Lead Agency: County)



5. **Install Pedestrian Crossing:** Crosswalks help indicate to drivers the dedicated areas for pedestrians to cross the intersection. It is recommended that a crosswalk be installed on the west leg of Soquel Drive and Walnut Street. (Estimated time frame: Medium-term, Responsible Lead Agency: County)

Main Street Elementary School Safe Route to School Safety Audit and Survey



Legend

Existing

- School Zone Sign
- School Crossing Sign
- Speed Limit Sign
- All-Way Stop Intersection
- Existing Curb Ramp
- No Curb Ramp
- White Crosswalk
- White Ladder Crosswalk
- School Crosswalk
- School Ladder Crosswalk
- SLOW SCHOOL XING Pavement Marking
- Bicycle Lane
- Crossing Guard

Proposed Improvements

- School Zone Sign
- Speed Feedback Sign
- No U-turn Sign
- Entry and Exit Driveway Sign
- Curb Ramp
- Enhanced School Crosswalk (with Rectangular Rapid Flashing Beacon)
- School Crosswalk
- White Ladder Crosswalk
- Install Sidewalk
- Remove Vegetation
- Crossing Flags
- Improve Lighting
- Refresh Paint
- Install Bott's Dot Array
- Crossing Guard

Main Street Elementary School Safe Route to School Safety Audit and Survey



Legend

- | Existing | |
|-----------------------|--|
| | School Zone Sign |
| | School Crossing Sign |
| | Speed Limit Sign |
| | All-Way Stop Intersection |
| | Existing Curb Ramp |
| | No Curb Ramp |
| | School Crosswalk |
| | SLOW SCHOOL XING Pavement Marking |
| Proposed Improvements | |
| | School Zone Sign |
| | Speed Feedback Sign |
| | Entry and Exit Driveway Sign |
| | Curb Ramp |
| | Enhanced School Crosswalk (with Rectangular Rapid Flashing Beacon) |
| | School Crosswalk |
| | White Ladder Crosswalk |
| | Install Sidewalk |
| | Remove Vegetation |
| | Refresh Paint |
| | Install Bott's Dot Array |
| | Crossing Guard |

TYPICAL SAFE ROUTES TO SCHOOL SUMMARY

More details of the recommended elements included herein, as well as other typical SRTS elements are summarized in the table below.

ST2S Element	Application in accordance with:	Image	Dimensions (W x H)	Typical purpose	Typical Cost Range
SIGNS					
SCHOOL SPEED LIMIT	California MUTCD, Part 7, Section 7B.11 (School Speed Limit Assembly C (CA))		(24" x 8") + (18" x 24") + (24" x 10")	To indicated the speed limit where a reduce speed zone for a school area has been established	\$300 - \$500
SPEED LIMIT FEEDBACK	California MUTCD, Part 2, Sections 2B.13 (Vehicle Speed Feedback Sign)		(30" x 30")	To display to approaching drivers the speed at which they are traveling. Enhances driver awareness of their speed, especially when used in condition with speed limit sign (R2-1)	\$12, 500 - \$17, 500
NO PARKING ANYTIME	California MUTCD, Part 7, Section 7B.14 (R26(CA))		(12" x 18")	To prevent parked or waiting vehicles from blocking pedestrians' views , and drivers' view of pedestrians	\$300 - \$500
NO STOPPING ANYTIME	California MUTCD Part 2, Section 2B.39 (R26(S)(CA))		(12" x 18")	To inform motorist of a no stopping zone at a specific location where red curb marking is not used.	\$300 - \$500
SCHOOL PASSENGER LOADING ONLY	California MUTCD, Part 2, Section 2B.39 (R25D(CA))		(12" x 18")	To inform motorist of curb restriction at location for loading or unloading passengers for the time as specified by local ordinance.	\$300 - \$500
PEDESTRIAN ELEMENTS					
SCHOOL CROSSING WARNING SIGN	California MUTCD, Part 7, Section 7B.08 (School Warning Assembly A (CA))		(30" x 30") + (24" x 8")	Installed at marked crosswalk, or as close to it as possible to show the location of the school crossing.	\$300 - \$500
PEDESTRIAN COUNTDOWN SIGNAL	California MUTCD, Part 4, Section 4E.07			To inform pedestrians of the number of seconds remaining in the pedestrian change interval.	\$1,500
RECTANGULAR RAPID FLASHING BEACON (RRFB)	Federal High Administration approval per California MUTCD, Section 1A.10, Approval No. IA-11-83-RRFB-California Statewide		Beacon (4" x 29") + Warning Signs	For use at uncontrolled pedestrian and school crosswalk locations.	\$50,000
IN-ROADWAY LIGHTS	California MUTCD Part 4, Chapter 4L		~10" deep x ~7.5" Diameter	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 user to slow down and/or come to a stop.	\$50,000
CURB RAMP	Caltrans 2010 Standard Plan A88A and A88B		Varies	To make sidewalks accessible for those who need mobility or visual assistance.	\$500 - \$800
BICYCLE ELEMENTS					
BICYCLE LANE	California MUTCD, Part 9, Section 9C.04		Varies	Pavement marking designated that portion of the roadway for preferential use by bicyclists.	\$100-\$150 per bike and arrow
BICYCLE LANE SIGN	California MUTCD, Part 9, Section 9B.04 (R81(CA))		(12" x 8")	Installed at the beginning of each designated Bike Lane and along each Bike Lane at all major changes to regulated bicycle and motor vehicle traffic.	\$300 - \$500
NO PARKING BIKE LANE SIGN	California MUTCD, Part 9, Section 9B.10 (R7-9)		(12" x 18")	To restrict parking, standing, or stopping in a bicycle lane.	\$300 - \$500
BICYCLE + SHARE THE ROAD	California MUTCD, Part 9, Section 9B.18 (W11-1 + W16-1)		(30" x 30") + (18" x 24")	To warn motorist to watch for bicyclists traveling along the highway.	\$300 - \$500
ROADWAY IMPROVEMENTS					
CURB EXTENSIONS	City Jurisdiction		Varies	Improves safety for pedestrians and motorist at intersection. Increases visibility and reduces speed of turning vehicles.	Varies
RAISED PEDESTRIAN CROSSINGS	City Jurisdiction		Varies	Improves safety for pedestrians by increases visibility for drivers and reduces speed of vehicles.	Varies
SLOW SCHOOL XING PAVEMENT MARKINGS	California MUTCD, Part 7, Section 7C. 06 (7C-101 (CA))		N/A	Warning drivers in advance of all yellow school crosswalks.	\$400

Main Street Elementary School SRTS Safety Audit Site Council

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