CITY OF STOCKTON SAFE ROUTES TO SCHOOL PLAN



DECEMBER 2017





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Chapter 1 Introduction

The Stockton Safe Routes to School Plan provides recommendations to improve safety at 64 schools in four school districts across Stockton. A priority listing of infrastructure improvements around schools and programmatic recommendations for the City and school districts can help improve the safety of school-age children and their families as they travel to and from school. They can also help improve the health of students and their families as they spend more time being active.

Why Safe Routes to School?

This Plan is an important opportunity to identify ways to improve walking and bicycling access to schools for students and their families across Stockton. This will benefit the community in a number of ways:

- Reducing the number of cars on the road during the morning commute to school makes transportation safer for children and improves air quality
- Walking or riding a bike or scooter to school is good exercise, improves fitness, and has been demonstrated to positively impact school performance
- Walking or bicycling to school promotes a sense of community and enables students to become more familiar navigating the neighborhoods around their school and home
- Students who are responsible for getting themselves to school have lower rates of tardiness, and develop a sense of independence and confidence
- The use of fossil fuels is one of the leading contributors to global warming; shifting car trips to active forms of transportation helps our planet

The Five Es

This Plan's recommendations are categorized by the Five Es of Safe Routes to School planning. The Five Es are nationally recognized ways to implement Safe Routes to School programs, projects, and funding and include: education, encouragement, enforcement, engineering and evaluation.



Engineering addresses infrastructure and circulation-related issues to make walking and bicycling safer.



Education programs improve traffic safety and awareness. They can include inclassroom or after school programs that teach students how to safely cross the street or bicycle on the street. They may also include brochures, posters, or other information that targets pedestrians, bicyclists, or drivers.



Encouragement programs provide incentives and support to help students and families try walking or bicycling. They can include events or contests.

Enforcement programs enforce legal and respectful behavior from people walking, bicycling, and driving. They include a variety of tactics, ranging from police enforcement to neighborhood signage campaigns.

Evaluation programs measure progress toward program goals. They can include pedestrian and bicycle counts, student hand tallies, and parent surveys.

Spotlight on Health

The Department of Education collects health and fitness data on school-age children throughout California. In general, students in the four Stockton school districts are more likely to be obese or overweight, and less likely to meet physical fitness standards for their grade level, than their peers in San Joaquin County or California. Walking and bicycling to school are opportunities for students to incorporate physical activity into their daily routines, helping them lead active, healthy lives.

Studies show that physical activity also has positive effects on attention, memory, and academic performance. Children who walk or bicycle to school arrive ready to learn, have increased focus and problem-solving, and perform better on tests.¹

¹ CH Hillman et al., "The Effect of Acute Treadmill Walking on Cognitive Control and Academic Achievement in Preadolescent Children," *Neuroscience* 159, no. 3 (2009): doi:10.1016/j.neuroscience.2009.01.057.

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Chapter 2 Existing Conditions

Introduction

This chapter contains a review of existing programs related to walking, bicycling, and safety for children and their families in Stockton. Since 2009, the City of Stockton, Stockton Police Department, San Joaquin County Public Health Services (SJCPHS) and Safe Moves, a nonprofit organization, have collaborated to implement a Safe Routes to School (SRTS) Program in collaboration with four school districts: Lincoln Unified, Stockton Unified, Manteca Unified, and Lodi Unified.

Appendix A includes a review of relevant plans and policies.

Existing Programs

A comprehensive approach of engineering, education, encouragement, enforcement, and evaluation programs is important for teaching children and their families about safe and healthy ways to travel, motivating them to choose active transportation, and creating a pedestrian and bicycle friendly culture in the city. The following sections describe current engineering, education, encouragement, enforcement, and evaluation efforts in Stockton.

Engineering

The City of Stockton and several partners, including San Joaquin County Public Health Services, have implemented various SRTS infrastructure projects and safety education programs at schools across the community. For more detail on participating schools and facilities implemented, see Appendix D.

Education

The City of Stockton received a Safe Routes to School Pilot Program Expansion grant to provide pedestrian and bicycle education to students at 16 schools, in addition to the 10 schools that received it during the pilot phase. Education included student workshops to teach students about walking and bicycling safety, as well as on-foot and on-bicycle "rodeos" where students practice hand signals, yielding, and other rules of the road. Teachers also provide pedestrian and bicycle safety information on an ongoing basis.

Encouragement

Stockton Public Safety Day

The Stockton Police Department and Stockton Police Youth Activities hosted Public Safety Day in 2015, which included a bike rodeo and information on safe walking and biking. Children under 12 who participated in the bike safety course received a free helmet. Many local partners participated in the safety event.

Walk & Roll to School Day

San Joaquin County Public Health Services takes the lead on planning larger annual events such as Walk & Roll to School Day, which typically takes place in the fall. The event encourages students and their families to try active modes for traveling to school, and often involves a tally of which modes students used to get to school that day.

Bike to School Day

San Joaquin County Public Health Services also plans the annual Bike to School Day, which typically takes place in the spring. This event is focused on bicycling and often involves additional training and education activities about bicycle safety.

Family Bicycle Ride

Stockton's Volunteers in Police (VIP) leads a family bicycle ride in April to celebrate Earth Day. Families take a tour through Victory Park, in conjunction with the Annual Stockton Earth Day Festival. The event is intended to encourage bicycling as a form of transportation. Volunteers from the Police Department and representatives of the San Joaquin Council of Governments provide event support, secure bicycle parking, and information about bicycling at the event.

Bike to Work Week

The San Joaquin Council of Governments (SJCOG) sponsors the annual Bike to Work Week in May, which is also National Bike Month. City and County staff fill out pledge forms to bike to work prior to the week. The San Joaquin Council of Governments also holds a raffle for bikes, helmets, and other prizes for those who pledged to bike to work.

Ongoing Activities

Although the Kaiser Permanente grant expired in November 2015, SJCPHS has continued to have safety patrols and walking school buses in two schools. They have partnered with AAA and Community Partnership for Families of San Joaquin in their SRTS efforts. SJCPHS is available to give technical assistance to schools for events, walking school buses, and safety patrols, but do not currently have secured funding for SRTS activities.

The San Joaquin Bike Coalition continues to be a key implementation partner for the Stockton community. The nonprofit organization plans and hosts bicycle events in Stockton regularly, in addition to advocating for bicycling infrastructure and events throughout San Joaquin County.

Enforcement

Distracted Driving

The Stockton Police Department recognizes that the use of mobile devices while driving has significantly increased over the years and is linked to collisions resulting in injuries, fatalities, and property damage. In an effort to reduce and prevent distracted driving, the Police Department has deployed extra traffic enforcement officers and educational efforts to ticket distracted drivers and inform them about the risks of distracted driving.

Outreach

The Stockton Police Department participates in school events and community health and safety fairs to support safety education programs. Police officers have also accompanied Walk & Roll events.

Stockton Unified School District has a dedicated Police Department with a focus on students, staff, schools, and safety and security. The Department includes 37 sworn officers, eight dispatchers, three professional staff, and 90 civilian safety and security personnel, or "peace officers." Their mission is to provide a safe educational environment for the Stockton community.

Evaluation

The California Safe Routes to School Technical Assistance Resource Center evaluates California SRTS programs. An evaluation of the SRTS San Joaquin Regional Program shows that over 6,700 students in the Central Valley have benefitted from having the SRTS program. Preliminary data found a 37 percent increase in students walking to school and an 11 percent increase in students bicycling to school between 2010 and 2012. Student hand tallies and parent surveys have been collected throughout the pilot phase of the SRTS program.

Bicycle and pedestrian counts, community surveys, and report cards that show progress toward goals are recommended evaluation strategies in the San Joaquin Council of Governments Bicycle, Pedestrian, and Safe Routes to School Plan (2012).

Chapter 3 Engineering Recommendations

Background

As part of the Stockton Safe Routes to School Plan, an engineering field review of all schools involved in the project was conducted. From this review, a list of recommended improvements was developed for all project schools. Follow up school visits were conducted in order to refine the infrastructure improvement recommendations and an evaluation criteria was developed to guide project prioritization. Projects were evaluated on their potential benefits related to equity, mode shift (increase walking and bicycling), safety, health, cost effectiveness, and project readiness. Through this combination of indicators, the evaluation criteria considers both the current needs of the school and opportunities for benefits. In order to increase competitiveness and streamline the process for grant funding applications, similar indicators used for scoring in the most recent cycle (2016) of the Active Transportation Program (ATP) grant application were used to evaluate the projects. The data sources and scoring method for each of the evaluation criteria are described in the 'Prioritization' section below.

Recommendation Development Process

Recommended infrastructure projects were developed through an iterative process with extensive engagement of the Stockton community.

The project team conducted a field review and student mapping activity at all 64 schools in the City of Stockton. Staff, students, parents, and school administrators participated in these sessions to document safety concerns, challenging locations, and opportunities to improve the walking and bicycling environment.

Data from these sessions was refined by the project team through additional field review and assessment of relevant data and best practices. The draft recommendations were presented to the project technical advisory committee, which included school and district representatives, for comments and additional input.

Prioritization

Data was obtained and categorized as 'high', 'medium', or 'low' for each indicator, and combined into a composite score for each school. This evaluation process highlights the schools' needs and opportunities with regard to the various evaluation criteria. Within each school, specific projects can then be further examined and considered for implementation depending on their goals and available resources.

Equity

Equity was measured by two different indicators: the percentage of students who are eligible for the Free and Reduced Price Meal Program during the 2015-2016 school year, and whether the school is within an area designated as a Community of Concern by the CalEnviroScreen 3.0 mapping tool.

Eligibility for the Free and Reduced Price Meal Program was used as a proxy for income and data was obtained from the California Department of Education. The following categorization was used:

- High: Schools where 80-100 percent of students were eligible
- Medium: Schools where 60-79 percent of students were eligible
- Low: Schools where 0-59 percent of students were eligible

The CalEnviroScreen 3.0 tool was developed by the Office of Environmental Health Hazard Assessment and identifies communities that are disproportionally burdened by exposure to multiple types of environmental pollution (including ozone, fine particulate matter, diesel particulate matter, and traffic density) and population characteristics (including linguistic isolation, poverty, and unemployment) that make them more sensitive or vulnerable to these environmental exposures. Each census tract in California is assigned a weighted score and ranked by a percentile score which indicates the relative burden compared to other census tracts in the state. A higher percentile represents a higher relative burden. In the most recent cycle of the ATP grant application, census tracts that were in the 75th percentile or above were considered to be Communities of Concern. The last ATP cycle used an older version of the tool (CalEnviroScreen 2.0), and has since been updated to CalEnviroScreen 3.0, which uses more recent data and a refined methodology for calculating relative burden. For the Stockton SRTS project evaluation process, the same threshold (75th percentile or above) was applied to the results generated from the CalEnviroScreen 3.0 tool.

The following categorization was used:

- High: Schools located in a census tract that ranks in the 75th percentile or higher in CalEnviroScreen 3.0
- Low: Schools located in a census tract that ranks in the 74th percentile or lower in CalEnviroScreen 3.0

Mode Shift

The potential for mode shift was measured by the percentage of students currently walking and bicycling to school using fall 2016 hand tally data collected by the City. The following categorization was used:

- High: Schools where 30-100 percent of students walk or bike to school
- Medium: Schools where 15-29 percent of students walk or bike to school
- Low: Schools where 0-14 percent of students walk or bike to school

Safety

Safety was measured by the number of pedestrian and bicycle collisions that occurred within 500 feet of the school between 2011 and 2015. Collision data was obtained from the Statewide Integrated Traffic Records System (SWITRS) and the City's Crossroads collision database. The following categorization was used:

- High: Schools that experienced one or two collisions
- Low: Schools that experienced no collisions

Health

Health was measured by the percentage of students who were in the Healthy Fitness Zone during the 2015-2016 school year. The Healthy Fitness Zone is a standard established by The Cooper Institute representing levels of fitness, measured by aerobic capacity and body composition, which offer some degree of protection against diseases that can result from sedentary living. Data was obtained from the California Department of Education. The following categorization was used:

- High: Schools where 0-45 percent of students are in the Healthy Fitness Zone for body composition
- Medium: Schools where 46-59 percent of students are in the Healthy Fitness Zone for body composition
- Low: Schools where 60-100 percent of students are in the Healthy Fitness Zone for body composition

Cost Effectiveness

Cost effectiveness was measured by whether the school shares a site or is in close proximity to another school, with the rationale that projects that are located within the vicinity of multiple schools could have the potential to impact more students and maximize benefits. The following categorization was used:

- High: Schools that share a site or are in close proximity to another school
- Low: Schools that do not share a site or are not in close proximity to another school

Project Readiness

Project readiness was determined by whether the project is identified in other planning efforts. Previous and current plans were reviewed, including the Stockton General Plan 2035, City of Stockton Bicycle Master Plan, San Joaquin Council of Governments Regional Bicycle, Pedestrian, and Safe Routes to School Master Plan, and the City of Stockton's Traffic Calming Program. Project readiness was not factored into the school's composite score, but noted for individual projects to help inform the prioritization of individual projects for the schools.

Cost Estimates

Cost estimates were developed for project recommendations, and are included as Appendix C Project Recommendations Cost Breakdown. Appendix C includes the unit cost estimates for the project recommendations list.

Project Prioritization Results

As a result of the prioritization analysis described above, infrastructure recommendations were ranked by school priority level, then categorized by project type. Projects were categorized into five categories based on type of project to facilitate implementation. Categories include:

- Priority Safety Projects
- Sidewalk Network Completion
- New Signs and Striping
- Maintenance Projects
- ADA Projects

The following pages include tables listing each category of priority project, and reference maps that show the distribution of recommended improvements across the community.

For each project category, the City will likely take a different approach to implementation. For example, the Priority Safety and Sidewalk Network Completion Projects are likely good candidates for Active Transportation program and other grant funding sources. Both the New Signs and Striping and Maintenance Projects are potential low-cost solutions to improve safety in the shorter term near schools. Both can likely be evaluated by City Public Works staff and worked into ongoing maintenance, signage and striping programs. ADA Projects are recommendations to be evaluated when upgrades to the subject intersections are planned. These recommendations cover additions and upgrades to curb ramps and landings to improve accessibility near schools.

Other Safety Considerations

Many students in Stockton travel by school bus, with some walking to and from the bus stop nearest their home at the start and end of their trip. While it was not within the scope of this Safe Routes to School Plan to review areas outside the immediate school vicinity, pedestrian facilities near school bus stops are an important safety consideration. A future planning effort should consider pedestrian safety and amenities near school bus stops in residential areas, as funding allows.

		TADIE 3-1: PIT	uny salety i			
School Name	Percent of total possible points	Project Location - Intersection	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type
McKinley Elementary	89%	8th & Commerce (west of east leg)				New crosswalk, yield line, and RRFB
McKinley Elementary	89%	9th & El Dorado (north leg or south leg)				New HAWK or RRFB
McKinley Elementary	89%		W 8th Street	I-5	El Dorado Street	New road diet
Pittman Elementary	83%	Poplar & California (north and south leg)				New median
Pittman Elementary	83%	Grant & Park (east and west leg)				New median or bulb outs
Pittman Elementary	83%	Fremont & Grant				New median or bulb outs
Pittman Elementary	83%	Oak & Grant (west and east leg)				New median or bulb outs
Pittman Elementary	83%	Park & American (west or east leg)				New median or bulb outs
Pittman Elementary	83%	Grant & Park				New RRFB
George W. Bush Elementary	80%	Cornflower & Fred Russo				New median
George W. Bush Elementary	80%	Mirasol & Fred Russo				New median
John Marshall Elementary	80%	Lever & Dry Creek Way (east and west leg)				New median
John Marshall Elementary	80%	Lever Blvd/Kansas St (east or west leg)				New RRFB
Roosevelt Elementary	80%	Broadway & Main (east leg)				RRFB (potential)
Taylor Elementary	80%	Hawaii & Lever (west leg)				Median and bulb- outs
Taylor Elementary	80%	Hawaii & Lever				New crosswalk, bulb outs, raised median and yield line, and new curb ramp NW corner*
Taylor Elementary	80%	Georgia & Lever (west)				New median
Taylor Elementary	80%	Lever & Kansas (east leg)				New RRFB
Taylor Elementary	80%		Lever Blvd	W 8th Street	Dry Creek Way	New Striped buffered bike lanes

Table 3-1: Priority Safety Projects

		Table 3-1: Priority S	Safety Projec	ts (continued)		
School Name	Percent of total possible points	Project Location - Intersection	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type
Van Buren Elementary	80%	8th & Phelps				New RRFB
AG Spanos Elementary	78%		Hazelton	San Joaquin St	Wilson Way	New bike lane
AG Spanos Elementary	78%		California	E Alpine Ave	E 9th St	New road diet
Dolores Huerta Elementary	78%	Lincoln & Howard				New traffic circle
Edison High	78%		Center	Cleveland St	3rd St	New bike lane
Edison High	78%		El Dorado	Cleveland St	3rd St	New bike lane
Edison High	78%		French Camp Turnpike	S Lincoln St	S Center St	New bike lane
Edison High	78%	Center & Dr. Martin Luther King Jr. (west leg)				New pedestrian refuge
Edison High	78%	First & El Dorado (north or south leg)				New RRFB
Edison High	78%	Center & First (north leg)				New RRFB, crosswalk, and yield line
Lincoln Elementary	78%	Lincoln near school entrance				New striping
Westwood Elementary	78%		Caywood	Morada	Valmora	New bike lane
Westwood Elementary	78%	Caywood & Sandalwood (east leg)				New median
August Knodt Elementary	73%	Sacchetti & William Moss (east leg)				New median
Great Valley Elementary	73%	Star & Bess				New crosswalk and all way stop
Great Valley Elementary	73%	Star & Henry Long				New raised median
Great Valley Elementary	73%	Ridge River & Henry Long				New raised median
Hazelton Elementary	73%		Jefferson	Commerce	Monroe	New speed bumps
Hazelton Elementary	73%		Lincoln	Sonora Street	French Camp	Road diet
Cleveland Elementary	72%		Alpine	TBD		Road diet
El Dorado Elementary	72%		Harding	TBD		New bike lane

		Table 5-1. Thomy 5		s (continucu)		
School Name	Percent of total possible points	Project Location - Intersection	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type
El Dorado Elementary	72%	Lincoln fronting the school				New median
El Dorado Elementary	72%		Harding	TBD		Road diet
Sutherland Elementary	72%	Sutherland & Spring River				New stop sign and yield line
Victory Elementary	72%	Argonne & Monte Diablo & Picardy				New roundabout
Ansel Adams	67%		Inspiration	Glacier Point Dr	Holman Rd	New bike lane
Cesar Chavez High School	67%		Wildflower	Holman	East end of street	New bike lane
Cesar Chavez High School	67%		Holman	TBD		New buffered bike lane or Class IV
Creekside Elementary	67%	Estate at school front				New curb ramps and bulb-outs, new yield line and relocate signs*
Fillmore Elementary	67%		E Fremont	N Wilson Way	SR 99	New bike lane
Fillmore Elementary	67%	N Filbert & E Fremont				New median
George Washington Elementary	67%	S Los Angeles & W Sonora				New crosswalks and all-way stop
George Washington Elementary	67%	S Fresno & Church (north or south leg)				New signalized crosswalk
George Washington Elementary	67%	S Los Angeles & W Washington (east leg)				Upgrade crosswalk and new RRFB
Grunsky Elementary	67%	Sycamore & Harding (east and west leg)				New median
Grunsky Elementary	67%	Walnut & Sycamore (west leg)				New stop sign
John R. Williams	67%	Jasmine & Beech				New stop control and yield line
John R. Williams	67%	Beech & Sumac				New stop control and yield line
Parklane Elementary	67%		Tam O Shanter	Eerie Dr	Castle Oaks	New bike lane
Parklane Elementary	67%	Tam O Shanter & Lencoe				New RRFB
Rio Calaveras Elementary	67%	ljams & Bianchi (east leg)				New median

Table 3-1: Priority Safety Projects (continued)

		TADIE 3-1. FITUITLY 3	Parely Project	is (continueu)	/	
School Name	Percent of total possible points	Project Location - Intersection	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type
Rio Calaveras Elementary	67%	March & Bianchi (east and west)				New median
Rio Calaveras Elementary	67%	Bianchi & Tennalinde				Upgrade median
San Joaquin Elementary	67%		W 8th Ave	TBD		New bike lane
Taft Elementary	67%	Downing & I-5 interchange				Pedestrian enhancements*
Weston Ranch High	67%	Crown Peak & Ews Woods (south leg)				New striped refuge
Delta Sierra Middle School	61%		Wagner Heights	Thornton	Don	New bike lane
George Y Komure Elementary	61%	Cadet & Carolyn				New raised median
George Y Komure Elementary	61%	Aso Taro & Carolyn Weston (north leg)				New raised median
George Y Komure Elementary	61%	Carolyn Weston & Monet (south leg)				New raised median
King Elementary	61%	Marsh & Filbert (south leg)				New crossing control
John C. Fremont	60%	Flora & Watts				Install RRFB
Madison Elementary	60%		W Alpine Ave	Plymouth Rd	E Pershing Ave	New road diet
Madison Elementary	60%	Mendocino & Marine (south leg)				New stop sign
Wagner- Holt Elementary	60%	Don & Waudman (south leg)				New pedestrian refuge
George Lincoln Mosher Elementary	56%	Ornella & Gary Galli (east leg)				New stop sign
Harrison Elementary	56%		Alpine	El Pinal Dr	Singuittie	New median
Harrison Elementary	56%	Alpine & Sanguinetti (west leg)				New RRFB
Harrison Elementary	56%	Alpine (west of Pinal)				New speed feedback sign
Harrison Elementary	56%	Alpine (west of Sanguinetti)				New speed feedback sign

Table 3-1: Priority Safety Projects (continued)

		Table 3-1. FIIUITLY 3	arely FIUJECI	s (continueu)		
School Name	Percent of total possible points	Project Location - Intersection	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type
Ronald E. McNair High School	56%		Ronald E. McNair Wy	Front of school	N W Ln	New bike lane
Ronald E. McNair High School	56%		N W Ln			New bike lane
Ronald E. McNair High School	56%		Morada			New bike lane
Wilson Elementary	56%	Mariposa & Hunter (south leg)				New Stop Control
Pulliam Elementary	53%	Segovia & Presidio				New stop sign, yield line, and legend
Valentin M. Peyton Elementary	53%	Tiamo & Thistle (south leg)				New median
Valentin M. Peyton Elementary	53%	Chamberlain & Tiamo (south)				New median
Bear Creek High School	44%		Thornton	TBD		New bike lane
Claudia Landeen Elementary	44%	Boulder Creek & Feather River				Median
Julia Morgan	44%	A G Spanos & Iron Canyon (north leg)				New striped median
Manlio Silva	44%	Arrowwood & Scott Creek (east leg)				New median
Manlio Silva	44%	Lakemore & Scott Creek (east leg)				New median
Don Riggio Elementary	40%		Brookside	TBD		New bike lane
Brookside Elementary	33%		Brookside	Carousel Cir	Eastern School Boundary	New bike lane
Brookside Elementary	33%	Calaveras River Bike Path & Brookside				New enhanced bike crossing
Christa McAuliffe	33%	McAuliffe & Iron Canyon				New bike lane
Elkhorn Elementary	33%		Davis	School frontage		New bike lane
Elkhorn Elementary	33%	School entrance between Elkhorn and Whistler				New median

Table 3-1: Priorit	v Safetv Proi	iects (continu	ed)

Table 3-2: Sidewalk Network Completion						
School Name	Percent of total possible points	Project Location	Project Type			
McKinley Elementary	89%	9th & El Dorado (north leg or south leg)	New bulb-out			
McKinley Elementary	89%	9th & 10th (south leg)	New crosswalk and in-street paddle sign			
Stagg High	87%	Rosemarie & Pershing	New bulb-out			
Stagg High	87%	Brookside & Pershing (NW and NE)	New bulb-out			
Stagg High	87%	Rosemarie & Crown (SW leg)	New bulb-out and curb ramps			
Stagg High	87%	Brookside & Pershing (school entrance)	New sidewalk or paved walkway			
Pittman Elementary	83%	Grant & Park (east and west leg)	New median or bulb outs			
Pittman Elementary	83%	Fremont & Grant	New median or bulb outs			
Pittman Elementary	83%	Oak & Grant (west and east leg)	New median or bulb outs			
Pittman Elementary	83%	Park & American (west or east leg)	New median or bulb outs			
Roosevelt Elementary	80%	Broadway & Main (east leg)	New bulb-out			
Taylor Elementary	80%	Hawaii & Lever	New crosswalk, bulb outs, raised median and yield line, and new curb ramp NW corner			
Van Buren Elementary	80%	10th & Bieghle	New sidewalk			
Edison High	78%	Center & Dr. Martin Luther King Jr.	New bulb-out			
Edison High	78%	Center & Dr. Martin Luther King Jr. (west leg)	New pedestrian refuge			
John Adams Elementary	78%	Quincy from Inglewood to Altruras	New sidewalk			
John Adams Elementary	78%	Inglewood, from Glendora to the south	New sidewalk			
John Adams Elementary	78%	Glendora, east from Inglewood	New sidewalk			
John Adams Elementary	78%	Pearl	New sidewalk			
Hazelton Elementary	73%	Harrison & Jefferson (North leg)	New bulb-out and concrete landing area			
Great Valley Elementary	73%	Star & Henry Long	New raised median			
Great Valley Elementary	73%	Ridge River & Henry Long	New raised median			
Great Valley Elementary	73%	McDougal from S Parking Lot to Asjlynn	New sidewalk			
Great Valley Elementary	73%	Henry Long from Star to Woodchase	New sidewalk			
Victory Elementary	72%	Buena Vista & Monte Diablo (SW Corner)	New sidewalk			
Maxine Hong Kingston Elementary	67%	Quincy & Alturas	Gate and pedestrian path (on school grounds)			

School Name	Percent of total possible points	Project Location	Project Type
Creekside Elementary	67%	Estate & Frontage (SW corner)	New bulb-out
Fillmore Elementary	67%	Poplar at school entrance	New bulb-out
San Joaquin Elementary	67%	Fresno & Fort Hall (west side)	New bulb-outs and upgrade ADA ramp and maintain asphalt
San Joaquin Elementary	67%	Fresno & Bard	New bulb-outs and upgrade all ramps
Creekside Elementary	67%	Estate at school front	New curb ramps and bulb-outs, new yield line and relocate signs
Parklane Elementary	67%	Peeskill from Eerie to Hudson	New paved pathway
Parklane Elementary	67%	Peeskill & Gotham	New paved pathway
Cesar Chavez High School	67%	Holman from Wildflower to March	New sidewalk
Cesar Chavez High School	67%	Holman from Divac to Telstar	New sidewalk
Fillmore Elementary	67%	Golden Gate from Anita to Poplar	New sidewalk
Fillmore Elementary	67%	E Poplar St from N Filbert St to N Golden Gate	New sidewalk
George Washington Elementary	67%	S Los Angeles from Sonora to Main	New sidewalk
Maxine Hong Kingston Elementary	67%	Quincy from Inglewood to Altruras	New sidewalk
Montezuma Elementary	67%	Farmington Rd from Madrid Dr to S Netherton Ave	New sidewalk
Taft Elementary	67%	Downing from French Camp Turnpike to Odell	New sidewalk
Taft Elementary	67%	Mourfield from Downing south to school attendance boundary	New sidewalk
Taft Elementary	67%	French Camp Turnpike from Downing south to school attendance boundary	New sidewalk
Taft Elementary	67%	French Camp Turnpike & Downing	New sidewalk
Taft Elementary	67%	Odell from Ivy to Downing	New sidewalk
Creekside Elementary	67%	Estate east of Thornton	New sidewalks
Creekside Elementary	67%	Estate Drive School Frontage	New widened sidewalk
Taft Elementary	67%	Downing & I-5 interchange	Pedestrian enhancements
Montezuma Elementary	67%	Farmington Rd in front of school	Reconstruct sidewalk and drop- off

Table 3-2: Sidewalk Network Completion (continued)

Table	3-2. SIUEWAIK IN	ietwork completion (con	(Inded)
School Name	Percent of total possible points	Project Location	Project Type
Delta Sierra Middle School	61%	Shropshire near school entrance (NE corner)	New bulb-out
King Elementary	61%	Marsh & Filbert (SE corner)	New bulb-out
King Elementary	61%	Lafayette & Glacier (at existing crosswalk)	New bulb-outs with curb ramps
King Elementary	61%	Lafayette & Sequoia (west leg)	New bulb-outs with curb ramps
George Y Komure Elementary	61%	Cadet & Carolyn	New raised median
George Y Komure Elementary	61%	Aso Taro & Carolyn Weston (north leg)	New raised median
George Y Komure Elementary	61%	Carolyn Weston & Monet (south leg)	New raised median
Delta Sierra Middle School	61%	Wagner Heights from Thornton to school	New sidewalk
George Y Komure Elementary	61%	Henry Long from Carolyn Weston Blvd to east of Estes Ave	New sidewalk
King Elementary	61%	Lafayette St in front of school	New vertical curb
John C. Fremont	60%	Flora	Install sidewalks
John C. Fremont	60%	Wizard	Install sidewalks
Kennedy Elementary	60%	Antonio & Ponce de Leon (NE corner)	New curb ramps and bulb-outs
Wagner-Holt Elementary	60%	Don & Waudman (south leg)	New pedestrian refuge
John C. Fremont	60%	D from Anita to Waterloo	New sidewalk
Lincoln High	60%	Alexandria from Lincoln to Benjamin Holt	New sidewalk
Harrison Elementary	56%	Alpine & Sanguinetti (southwest corner)	New bulb-out
Harrison Elementary	56%	Alpine & El Pinal	New sidewalk
Harrison Elementary	56%	Alpine from 1827 Alpine to Palermo	New sidewalk
Valentin M. Peyton Elementary	53%	Tiamo from Thistle to Gold Brook	New sidewalk
Valentin M. Peyton Elementary	53%	Thistle from Tiamo to Blossom	New sidewalk
Oakwood Elementary	50%	Davis from Wagner Heights to Woodcreek	New pedestrian path
Sierra Middle	47%	Alexandria from Lincoln to Benjamin Holt	New sidewalks
Elkhorn Elementary	33%	school entrance between Elkhorn and Whistler	New pedestrian path
Elkhorn Elementary	33%	Davis from Whistler to front of school	New sidewalk

Table 3-2: Sidewalk Network Completion (continued)

	Table 3-3	8: New Signs and Striping	
School Name	Percent of total possible points	Project Location	Project Type
	89%	8th & Commerce (west of east leg)	New crosswalk, yield line, and RRFB
McKinley Elementary	89%	8th & San Joaquin (west leg)	New crosswalk
McKinley Elementary	89%	9th & 10th (south leg)	New crosswalk and in-street paddle sign
McKinley Elementary	89%	9th & 10th (south leg)	New in-street paddle sign
McKinley Elementary	89%	9th & Madison (west and east leg)	New crosswalk
McKinley Elementary	89%	Madison & Mosswood (east and west leg)	New crosswalks
Stagg High	87%	Brookside & McGaw (north and east legs)	New crosswalks
Stagg High	87%	Brookside at parking entrance	New yield line
Stagg High	87%	Rosemarie & Crown (west leg)	New crosswalk, yield line, and signs
Stagg High	87%	Rosemarie & McGaw	New crosswalks
Pittman Elementary	83%	Fremont & Grant (west or east leg)	New crosswalk
Pittman Elementary	83%	Oak & Grant (west and east leg)	New crosswalk
Pittman Elementary	83%	Park & American (west or east leg)	New crosswalk
George W. Bush Elementary	80%	Cornflower & Fred Russo (south leg)	New crosswalk and yield line
George W. Bush Elementary	80%	Mirasol & Fred Russo	New yield line
John Marshall Elementary	80%	Lever & Dry Creek Way (east and west leg)	New crosswalks
John Marshall Elementary	80%	Lever & Fresno (north and south leg)	New crosswalk
Roosevelt Elementary	80%	Broadway & Main (east leg)	New crosswalk and yield line
Taylor Elementary	80%	Hawaii & Lever	New crosswalk, bulb outs, raised median and yield line, and new curb ramp NW corner
Taylor Elementary	80%	Lever Blvd from W 8th Street to Dry Creek Way	New striped buffered bike lanes
Van Buren Elementary	80%	Scribner &10th (north and either E or W leg)	New crosswalks and advance stop bar
Van Buren Elementary	80%	Scribner St. from E. 10th Street to the north	Install school legend and sign
Van Buren Elementary	80%	Tiffany & 10th	New in-street paddle sign
AG Spanos Elementary	78%	California & Church (south and north leg)	New school crossing signs
AG Spanos Elementary	78%	California & Church (south leg)	New crosswalk
AG Spanos Elementary	78%	E Hazelton & S American	New crosswalk
AG Spanos Elementary	78%	Stanislaus & Hazelton	New crosswalk and yield line
Dolores Huerta Elementary	78%	Lincoln & 3rd (north and south leg)	New crosswalk, yield line, and school crossing signs

	TADIE 3-3. NEW	Signs and Simpling (continued)	
School Name	Percent of total possible points	Project Location	Project Type
Edison High	78%	Center & First (east leg)	New crosswalk
Edison High	78%	First & El Dorado (north or south leg)	New crosswalk
Edison High	78%	Turnpike, midblock between Lincoln and Dr. Martin Luther King	New crosswalk and yield line
John Adams Elementary	78%	Quincy & Inglewood (south leg)	New crosswalk
John Adams Elementary	78%	Quincy & Inglewood (south leg)	New yield line and in-street paddle sign
Lincoln Elementary	78%	Gettysburg & Stanton	Add crossing signs
Lincoln Elementary	78%	Gettysburg & Stanton (south leg)	New yield line
Lincoln Elementary	78%	Lincoln near school entrance	New striping
Westwood Elementary	78%	Caywood & Sandalwood (east leg)	New crosswalk and yield line
August Knodt Elementary	73%	Boardwalk & Ews Woods (N or S leg)	New crosswalk
August Knodt Elementary	73%	Little Hale & Ews Woods	New yield line
August Knodt Elementary	73%	Sacchetti & William Moss (east leg)	New crosswalk
Great Valley Elementary	73%	Ashlynn & McDougal (north or south leg)	New crosswalk
Great Valley Elementary	73%	McDougal & Bess (south leg)	New yield line
Great Valley Elementary	73%	Ridge River & Henry Long (west leg)	New crosswalk and yield line
Great Valley Elementary	73%	Star & Bess	New crosswalk and all way stop
Great Valley Elementary	73%	Star & Henry Long	New yield line
Hazelton Elementary	73%	Anderson & Madison (north and south leg)	New crosswalks
Hazelton Elementary	73%	Anderson & Van Buren (north and south leg)	New crosswalks
Hazelton Elementary	73%	Jefferson & Lincoln (north leg)	New crosswalks and yield line
Hazelton Elementary	73%	Jefferson from Commerce to Monroe	New yellow crosswalks
Hazelton Elementary	73%	Lincoln & Worth (north leg)	New crosswalk and curb ramps
Cleveland Elementary	72%	Fulton & front of school	New yield line
Cleveland Elementary	72%	Stadium & Commerce	New crosswalks
El Dorado Elementary	72%	Lincoln fronting the school	New yield line
Sutherland Elementary	72%	Sutherland & Hidden Creek (north leg)	New crosswalk
Sutherland Elementary	72%	Sutherland & Spring River	New stop sign and yield line
Victory Elementary	72%	Buena Vista & Lucerne	New crosswalks

Table 3-3: New Signs and Striping (continued)

School Name Percent of points Project Location Project Type Victory Elementary 72% Buena Vista & Rose (north and south legs) New yield line Victory Elementary 72% San Juan & Lucerne (cast and west legs) New crosswalks Victory Elementary 72% San Juan & Monte Diablo New crosswalks Victory Elementary 72% San Juan & Rose New crosswalk and signs Ansel Adams 67% Glacier Point & Bridatveil (north leg) New crosswalk and yield line (north leg) Caser Chavez High 67% Rayanna & Wildflower (north leg) New crosswalks, stops signs, and legends Clairmont Elementary 67% Chambord & Le Mans (cast and new crosswalks, stops signs, and legends New crosswalks, stops signs, and legends Creekside Elementary 67% Estate & Frontage (west leg) New crosswalk, yield line, and crossing signs Frilmore Elementary 67% Ehoplar & N Flibert (cast leg) New crosswalk Fillmore Elementary 67% Ehoplar & N Flibert (cast leg) New crosswalk Fillmore Elementary 67% Ehoplar & School entrance New vield line Grans		Table 3-3: New Signs and Striping (continued)				
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John R. Williams67%Beech & SumacNew stop control and yield lineJohn R. Williams67%Jasmine & BeechNew stop control and yield lineJohn R. Williams67%Meadow & AlexandriaAdd crosswalksJohn R. Williams67%Meadow & ParkwoodsAdd crosswalksJohn R. Williams67%Benjamin Holt (midblock)Install midblock crosswalk and yield lineMaxine Hong Kingston Elementary67%Glendora & AlturasNew crosswalk, yield line, and signMaxine Hong Kingston Elementary67%Quincy & AlturasNew yield lineMaxine Hong Kingston Elementary67%Bellevue & Carpenter (east leg)New crosswalkMaxine Hong Kingston Elementary67%Bellevue & Carpenter (east leg)New crosswalkMaxine Hong Kingston Elementary67%Bellevue & Carpenter (east leg)New crosswalkMaxine Hong Kingston Elementary67%Bellevue & Carpenter (east leg)New crosswalk	Grunsky Elementary	67%	Walnut & Sycamore (west leg)	New stop sign		
John R. Williams67%Jasmine & BeechNew stop control and yield lineJohn R. Williams67%Meadow & AlexandriaAdd crosswalksJohn R. Williams67%Meadow & ParkwoodsAdd crosswalksMaxine Hong Kingston67%Benjamin Holt (midblock)Install midblock crosswalk and yield lineMaxine Hong Kingston67%Glendora & AlturasNew crosswalk, yield line, and signMaxine Hong Kingston67%Quincy & AlturasNew yield lineMaxine Hong Kingston67%Quincy & AlturasNew yield lineMaxine Hong Kingston67%Bellevue & Carpenter (east leg)New crosswalkNightingale Elementary67%Peeskill & Fordham (north leg)New crosswalk	John R. Williams	67%	Beech & Sumac	New stop control and yield line		
John R. Williams67%Meadow & AlexandriaAdd crosswalksJohn R. Williams67%Meadow & ParkwoodsAdd crosswalksMaxine Hong Kingston Elementary67%Benjamin Holt (midblock)Install midblock crosswalk and yield lineMaxine Hong Kingston Elementary67%Glendora & AlturasNew crosswalk, yield line, and signMaxine Hong Kingston Elementary67%Quincy & AlturasNew yield lineMaxine Hong Kingston Elementary67%Quincy & AlturasNew yield lineMaxine Hong Kingston Elementary67%Bellevue & Carpenter (east leg)New crosswalkNightingale Elementary67%Peeskill & Fordham (north leg)New crosswalk	John R. Williams	67%	Jasmine & Beech	New stop control and yield line		
John R. Williams67%Meadow & ParkwoodsAdd crosswalksMaxine Hong Kingston67%Benjamin Holt (midblock)Install midblock crosswalk and yield lineMaxine Hong Kingston67%Glendora & AlturasNew crosswalk, yield line, and signMaxine Hong Kingston67%Quincy & AlturasNew yield lineMaxine Hong Kingston67%Quincy & AlturasNew yield lineMaxine Hong Kingston67%Quincy & AlturasNew pedestrian crossing legendMaxine Hong Kingston67%Bellevue & Carpenter (east leg)New crosswalkNightingale Elementary67%Peeskill & Fordham (north leg)New crosswalk	John R. Williams	67%	Meadow & Alexandria	Add crosswalks		
Maxine Hong Kingston Elementary67%Benjamin Holt (midblock)Install midblock crosswalk and yield lineMaxine Hong Kingston Elementary67%Glendora & AlturasNew crosswalk, yield line, 	John R. Williams	67%	Meadow & Parkwoods	Add crosswalks		
Maxine Hong Kingston Elementary67%Glendora & AlturasNew crosswalk, yield line, and signMaxine Hong Kingston Elementary67%Quincy & AlturasNew yield lineMaxine Hong Kingston Elementary67%New pedestrian crossing legendNightingale Elementary67%Bellevue & Carpenter (east leg)New crosswalkParklane Elementary67%Peeskill & Fordham (north leg)New crosswalk	Maxine Hong Kingston Elementary	67%	Benjamin Holt (midblock)	Install midblock crosswalk and yield line		
Maxine Hong Kingston Elementary67%Quincy & AlturasNew yield lineMaxine Hong Kingston Elementary67%New pedestrian crossing legendNightingale Elementary67%Bellevue & Carpenter (east leg)New crosswalkParklane Elementary67%Peeskill & Fordham (north leg)New crosswalk	Maxine Hong Kingston Elementary	67%	Glendora & Alturas	New crosswalk, yield line, and sign		
Maxine Hong Kingston67%New pedestrian crossing legendElementary67%Bellevue & Carpenter (east leg)New crosswalkParklane Elementary67%Peeskill & Fordham (north leg)New crosswalk	Maxine Hong Kingston Elementary	67%	Quincy & Alturas	New yield line		
Nightingale Elementary67%Bellevue & Carpenter (east leg)New crosswalkParklane Elementary67%Peeskill & Fordham (north leg)New crosswalk	Maxine Hong Kingston Elementary	67%		New pedestrian crossing legend		
Parklane Elementary 67% Peeskill & Fordham (north leg) New crosswalk	Nightingale Elementary	67%	Bellevue & Carpenter (east leg)	New crosswalk		
	Parklane Elementary	67%	Peeskill & Fordham (north leg)	New crosswalk		

Table 3-3: New Signs and Striping (continued)

	Table 3-3: New Signs and Striping (continued)				
School Name	Percent of total possible points	Project Location	Project Type		
Parklane Elementary	67%	Peeskill & Hudson (south leg)	New crosswalk		
Rio Calaveras Elementary	67%	Bianchi & Tennalinde (south leg)	New crosswalks		
San Joaquin Elementary	67%	Fresno & Bard (south leg)	New crossing signs		
San Joaquin Elementary	67%	Fresno & Bard (south leg)	New crosswalk and yield line		
San Joaquin Elementary	67%	Fresno & Fort Hall	New crossing signs		
San Joaquin Elementary	67%	Fresno & Fort Hall (south leg)	New crosswalks and yield line		
Taft Elementary	67%	French Camp Turnpike & Downing (east leg)	New crosswalk		
Weston Ranch High	67%	Crown Peak & Ews Woods (south leg)	New crosswalk		
Weston Ranch High	67%	Crown Peak & Ews Woods (south leg)	New striped refuge		
Weston Ranch High	67%	Venice & Henry Long (east leg)	New yield line		
Delta Sierra Middle School	61%	Branstetter & Burlington (south leg)	Install stop sign and legend		
Delta Sierra Middle School	61%	Shropshire near school entrance	New yield line		
Delta Sierra Middle School	61%	Wagner Heights & Ashburn (west leg)	New crosswalk and yield line		
George Y Komure Elementary	61%	Aso Taro & Carolyn Weston (north leg)	New crosswalk and yield line		
George Y Komure Elementary	61%	Cadet & Carolyn	New yield line		
George Y Komure Elementary	61%	Carolyn Weston & Monet (south leg)	New crosswalk and yield line		
George Y Komure Elementary	61%	Henry Long & Estes (east leg)	New yield line		
King Elementary	61%	Burkett & Marsh (east of west leg)	New crosswalk		
King Elementary	61%	Lafayette & Filbert (east leg)	New crosswalks		
King Elementary	61%	Lafayette & Golden Gate (south leg)	New crosswalk and stop sign		
King Elementary	61%	Lafayette & Rendon (south leg)	New crosswalk and stop sign		
King Elementary	61%	Lafayette & Sequoia (east leg)	New crosswalk		
King Elementary	61%	Marsh & Filbert (south leg)	New crossing control		
King Elementary	61%	Marsh & Filbert (south leg)	New crosswalk and sign		
King Elementary	61%	Yellowstone & Burkett (east leg)	New crosswalk and stop sign		
John C. Fremont	60%	Flora & D (east leg)	New yield line		
John C. Fremont	60%	Flora & Grattan (west leg)	New yield line and centerline striping		
John C. Fremont	60%	Flora & Laurel	New centerline striping and legend		
John C. Fremont	60%	Flora & Watts (east leg)	New yield line and centerline striping		

Table 3-3: New Signs and Striping (continued)				
School Name	Percent of total possible points	Project Location	Project Type	
Kennedy Elementary	60%	Antonio & Ponce de Leon	New crossing signs	
Kennedy Elementary	60%	Ponce de Leon & Santa Paula (east leg)	New crosswalk, yield line and signs	
Kennedy Elementary	60%	Santa Paula & Mosher Slough Levee	New crosswalk	
Lincoln High	60%	Alexandria & Lincoln	New yield line	
Lincoln High	60%	Alexandria & McClellan (north leg)	New yield line	
Lincoln High	60%	Stanton & Alexandria (south side)	New yield line	
Madison Elementary	60%	Mendocino & Marine (south leg)	New stop sign	
Madison Elementary	60%	Mission & Mendocino (north and south)	New in-street paddle signs	
Madison Elementary	60%	Mission & Michigan	New in-street paddle signs	
Wagner-Holt Elementary	60%	Blue Fox & Waudman (east or west)	New crosswalk, yield line, and sign	
Wagner-Holt Elementary	60%	Brattle & Waudman	New crossing signs	
Wagner-Holt Elementary	60%	Don & Waudman (south leg)	New crosswalks	
Wagner-Holt Elementary	60%	Waudeman & Bainbridge (south leg)	New crosswalk, yield line, and sign	
George Lincoln Mosher Elementary	56%	Massino Circle & Gary Galli (north leg)	New crosswalk	
George Lincoln Mosher Elementary	56%	Ornella & Gary Galli (east leg)	New stop sign	
George Lincoln Mosher Elementary	56%	Ornella & Gary Galli (south leg)	New yield line	
Wilson Elementary	56%	Hunter & Mendocino	New crossing signs	
Wilson Elementary	56%	Hunter & Mendocino (west leg)	New yield line and in-street paddle sign	
Wilson Elementary	56%	Mariposa & Hunter (south leg)	New stop control	
Wilson Elementary	56%	Mariposa & San Joaquin (west and north leg)	New crosswalks	
Wilson Elementary	56%	San Joaquin & Mendocino (west and south leg)	New crosswalks	
Pulliam Elementary	53%	Berrendo & Lincoln (south leg)	New crosswalk, yield line, and sign	
Pulliam Elementary	53%	El Dorado & Lincoln	New crosswalk	
Pulliam Elementary	53%	Goya & Lincoln	Install yield line and stop sign	
Pulliam Elementary	53%	Segovia & Presidio	New stop sign, yield line, and legend	
Valentin M. Peyton Elementary	53%	Chamberlain & Tiamo (south leg)	New crosswalk	
Valentin M. Peyton Elementary	53%	Gold Brook & school entrance	New crosswalk and yield line	

Table 3-3: New Signs and Striping (continued)

	TADIE 3-3. New	Signs and Striping (continued)	
School Name	Percent of total possible points	Project Location	Project Type
Valentin M. Peyton Elementary	53%	Gold Brook & school entrance	New in-street paddle signs
Mable Barron Elementary	50%	Five Forks & Five Mile (south leg)	New yield line and maintain striping
Mable Barron Elementary	50%	Mill Springs & Cumberland	New yield lines and in-street paddle sign
Oakwood Elementary	50%	Stonewood & Woodcreek	New legend
Sierra Middle	47%	Alexandria & Lincoln	New yield line
Sierra Middle	47%	Alexandria & McClellan (north leg)	New yield line
Sierra Middle	47%	Stanton & Alexandria (south side)	New yield line
Bear Creek High School	44%	Thornton & Lonnie Beck (north leg)	New crosswalk
John Muir Elementary	44%	Bear Creek Channel/Pixley Slough & Whistler	New crosswalk
John Muir Elementary	44%	Lonnie Beck & Greenbrook (east or west leg)	New crosswalk and crossing sign
John Muir Elementary	44%	Lonnie Beck & Winward (east or west leg)	New crosswalk and crossing sign
John Muir Elementary	44%	River Bluff & Whistler (east and west leg)	New left turn arrows
John Muir Elementary	44%	River Bluff & Whistler (north leg)	New crosswalk
John Muir Elementary	44%	Whistlery & Macon (east and west leg)	new left turn arrows
Julia Morgan	44%	A G Spanos & Iron Canyon	New yield line and new in- street paddle sign
Julia Morgan	44%	A G Spanos & Iron Canyon (north leg)	New striped median
Julia Morgan	44%	A G Spanos & Whistler	Add crossing signs
Manlio Silva	44%	Arrowwood & Scott Creek (east leg)	New yield line
Manlio Silva	44%	Lakemore & Scott Creek (east leg)	New crosswalk and yield line
Manlio Silva	44%	Scott Creek & Regatta (east leg)	New yield line and crossing sign
Don Riggio Elementary	40%	Gleneagles & Brookside (across side street)	New crosswalks
Brookside Elementary	33%	Brookside & front of school (south leg)	New crosswalk
Christa McAuliffe	33%	Iron Canyon & Black Butte (north leg)	New crosswalk, yield line and crossing sign
Christa McAuliffe	33%	Iron Canyon from Wind Cave Circle to AG Spanos Blvd	New bike warning indications
Christa McAuliffe	33%	McAuliffe & Iron Canyon (west leg)	New crossing sign
Christa McAuliffe	33%	Wind Cave & Iron Canyon	New yield line
Elkhorn Elementary	33%	Whistler & Waterbury (east and west legs)	New left turn arrows

Table 3-3: New Signs and Striping (continued)

School Name	Percent of total possible points	Project Location	Project Type
McKinley Elementary	89%	9th & El Dorado (west leg)	Maintain crosswalks
McKinley Elementary	89%	8th & Madison	Maintain crosswalks
Pittman Elementary	83%	Grant & Park (south and east leg)	Maintain crosswalk
Pittman Elementary	83%	Front of school on Park Street from American to Aurora	Maintain legend
Pittman Elementary	83%	Grant & Park (north and west of int.)	Maintain tree
George W. Bush Elementary	80%	Fred Russo Dr from Jaden Way to Hydrangea Dr	Edge line striping
Roosevelt Elementary	80%	Horner & Broadway (east leg)	Maintain striping
Van Buren Elementary	80%	Tiffany & 10th (west leg)	Maintain striping and signs
Van Buren Elementary	80%	10th & Bieghle	Maintain striping and signs
Van Buren Elementary	80%	Tiffany & 10th	Upgrade crossing and yield line
AG Spanos Elementary	78%	California & Hazelton	Maintain crosswalk
Westwood Elementary	78%	Tuscany & Caywood	Maintain crosswalk and new crossing signs
Westwood Elementary	78%	Caywood & Valmora	Maintain crosswalks
Edison High	78%	East 1st Street from Center to El Dorado St.	Maintain sidewalk
John Adams Elementary	78%	Quincy & Inglewood	Relocate crossing sign
John Adams Elementary	78%	Glendora & Inglewood	Relocate south crosswalk and yield line
Hazelton Elementary	73%	Harrison & Anderson	Maintain crosswalks
Hazelton Elementary	73%	Harrison & Jefferson	Maintain crosswalks
Cleveland Elementary	72%	Fulton & front of school	Maintain crosswalk
Victory Elementary	72%	Buena Vista & Monte Diablo	Maintain crosswalk
Clairmont Elementary	67%	Deauville & Le Mans	Maintain crossing sign and new legend
George Washington Elementary	67%	S Fresno & W Washington	Maintain crosswalk
Grunsky Elementary	67%	Wilson & Bradford	Maintain crosswalk
Grunsky Elementary	67%	Sycamore & Harding (north leg)	Maintain crosswalk
Maxine Hong Kingston Elementary	67%	Benjamin Holt & Alturas	Maintain crosswalk and advance stop bar
Montezuma Elementary	67%	Farmington-8th St & Mariposa	Maintain crosswalk and maintain signal timing
Parklane Elementary	67%	Erie & Peeskill	Maintain crosswalk and new sign
Creekside Elementary	67%	Treetop & Estate	Maintain crosswalks
Grunsky Elementary	67%	Wilson & Harding	Maintain crosswalks
Nightingale Elementary	67%	Bellevue & Ralph	Maintain crosswalks and crossing signs

Table 3-4: Maintenance Projects

School Name	Percent of total possible points	Project Location	Project Type
Cesar Chavez High School	67%	Holman & Wildflower	Maintain pedestrian signal
John R. Williams	67%	Meadow from Sumac to Rosewood	Maintain sidewalk
Grunsky Elementary	67%	Walnut & School	Maintain tree
Grunsky Elementary	67%	Walnut & Sycamore (SE corner)	Maintain tree
George Washington Elementary	67%	S Los Angeles & W Washington (east leg)	upgrade crosswalk and new RRFB
Parklane Elementary	67%	Tam O Shanter & Lencoe	Yield line
Delta Sierra Middle School	61%	Branstetter & Wagner Heights	Maintain crosswalk and asphalt
King Elementary	61%	Lafayette & Filbert	Maintain crosswalks
King Elementary	61%	Lafayette & Filbert (SE corner)	Maintain sidewalk
Delta Sierra Middle School	61%	Shropshire near school entrance (west leg)	Maintain tree
John C. Fremont	60%	Flora & D (east leg)	Centerline striping
Madison Elementary	60%	Mission & Michigan	Maintain crosswalk
Kennedy Elementary	60%	Antonio & Ponce de Leon	Maintain crosswalk and yield line
Madison Elementary	60%	Mission & Mendocino (west and south legs)	Maintain crosswalks
Harrison Elementary	56%	Alpine & El Pinal (south leg)	Maintain crosswalk
Harrison Elementary	56%	Alpine & Sanguinetti	Maintain crosswalk
Harrison Elementary	56%	Palmero & Alpine	Maintain crosswalk and advance stop bar
Ronald E. McNair High School	56%	N W Ln & Ronald E McNair	Maintain pedestrian signal
Valentin M. Peyton Elementary	53%	Tiamo & Gold Brook	Maintain crosswalk and new yield line
Valentin M. Peyton Elementary	53%	Cabin Creek & Gold Brook	Maintain crosswalk and new yield line
Pulliam Elementary	53%	Segovia & Presidio	Maintain striping
Pulliam Elementary	53%	Goya & Lincoln	Maintain tree
Oakwood Elementary	50%	Wagner Heights & Davis	Maintain crosswalk
Oakwood Elementary	50%	Bridgewood & Woodcreek	Maintain tree
Oakwood Elementary	50%	Bridgewood & Woodcreek (east and west legs)	Yield line, centerline striping, and legend
Claudia Landeen Elementary	44%	Boulder Creek & Feather River	Crossing signs
Manlio Silva	44%	Mokelume & Scott Creek	Maintain crosswalk
John Muir Elementary	44%	Whistlery & Macon	Maintain crosswalks and new school zone signs
Julia Morgan	44%	A G Spanish & Ignacio	Maintain speed feedback sign
Claudia Landeen Elementary	44%	Boulder Creek & Feather River	Yield line and relocate crossing sign
Podesta Ranch Elementary	33%	Prahser & Whistler (east of west leg)	Crosswalk, yield line, and signs
Elkhorn Elementary	33%	Whistler & Davis	Maintain crosswalks

Table 3-4: Maintenance Projects (continued)

	Table 3-5: ADA Projects				
School Name	Percent of total possible points	Project Location - Intersection (point)	Project Type		
Pittman Elementary	83%	Fronting school on Park Avenue	Upgrade curb ramps		
Roosevelt Elementary	80%	Horner & Broadway	Install and upgrade ADA curb ramps		
Roosevelt Elementary	80%	Broadway at parking lot entrance	New curb ramp		
Taylor Elementary	80%	Lever & Kansas	Upgrade curb ramp		
Taylor Elementary	80%	8th & Argonaut	Upgrade curb ramp		
Van Buren Elementary	80%	Scribner &10th (either east or west leg)	Install curb ramps and bulb- out		
Van Buren Elementary	80%	Tiffany & 11th	New curb ramps		
Van Buren Elementary	80%	10th & Bieghle	New curb ramps		
AG Spanos Elementary	78%	E Hazelton & S American (NE corner)	Upgrade ramp		
AG Spanos Elementary	78%	California & Church (NW corner)	Upgrade ramp		
AG Spanos Elementary	78%	California & Hazelton (NW, SW, SE corner)	Upgrade ramp		
AG Spanos Elementary	78%	Stanislaus & Hazelton (NE corner)	Upgrade ramp		
Edison High	78%	Center & Dr. Martin Luther King Jr.	Upgrade curb ramp		
Edison High	78%	Center & First	Upgrade curb ramp		
Edison High	78%	First & El Dorado	Upgrade curb ramp		
John Adams Elementary	78%	Quincy & Inglewood (south leg)	Install ADA curb ramps		
John Adams Elementary	78%	Glendora & Inglewood	Install ADA curb ramps		
Hazelton Elementary	73%	Harrison & Anderson	Install and upgrade ADA curb ramps		
Hazelton Elementary	73%	Jefferson & Lincoln	New and upgrade curbs ramps		
Hazelton Elementary	73%	Harrison & Jefferson	New and upgrade curbs ramps		
Hazelton Elementary	73%	Anderson & Madison	Upgrade ADA ramp		
Hazelton Elementary	73%	Anderson & Van Buren	Upgrade ramps		
El Dorado Elementary	72%	Walnut & Lincoln	Install curb ramps and crosswalks		
El Dorado Elementary	72%	Walnut & Lincoln	upgrade curb ramp		
Ansel Adams	67%	Glacier Point & Inspiration (northwest corner)	New curb ramps		
Clairmont Elementary	67%	Deauville & Le Mans	New and upgrade curbs ramps		
Clairmont Elementary	67%	Pyrenees & Le Mans	New and upgrade curbs ramps		
Clairmont Elementary	67%	Tours & Le Mans	New and upgrade curbs ramps		
Clairmont Elementary	67%	Chambord & Le Mans	upgrade curb ramps		

Table 3-5: ADA Projects (continued)				
School Name	Percent of total possible points	Project Location - Intersection (point)	Project Type	
Fillmore Elementary	67%	E Poplar & N Filbert	Upgrade and new curb ramps	
Fillmore Elementary	67%	N Filbert & E Fremont (east and west leg)	Upgrade curb ramps	
Grunsky Elementary	67%	Harding & School	Install and upgrade ADA curb ramps	
Grunsky Elementary	67%	Sycamore & Harding	New and upgrade ADA ramp	
Grunsky Elementary	67%	Walnut & School	New and upgrade curbs ramps	
Grunsky Elementary	67%	Walnut & Sycamore	New and upgrade curbs ramps	
Grunsky Elementary	67%	Walnut & Funston (west and north legs)	New curb ramps	
Grunsky Elementary	67%	Funston & Harding (west leg)	Upgrade curb ramp	
John R. Williams	67%	Jasmine & Beech	Install ADA curb ramps	
John R. Williams	67%	Beech & Sumac	Install ADA curb ramps	
John R. Williams	67%	Jasmine & Rosewood	Install ADA curb ramps	
John R. Williams	67%	Meadow & Rosewood (east leg)	New curb ramps	
John R. Williams	67%	Cypress & Beech (west leg)	New curb ramps	
Maxine Hong Kingston Elementary	67%	Quincy & Alturas (west leg)	Install and upgrade ADA curb ramps	
Maxine Hong Kingston Elementary	67%	Benjamin Holt & Alturas	New curb ramps	
Maxine Hong Kingston Elementary	67%	Glendora & Alturas	New curb ramps	
Parklane Elementary	67%	Peeskill & Gotham (north leg)	Install and upgrade ADA curb ramps	
Parklane Elementary	67%	Erie & Peeskill	Install and upgrade ADA curb ramps	
Parklane Elementary	67%	Peeskill & Fordham (north leg)	Upgrade curb ramp	
Parklane Elementary	67%	Tam O Shanter & Lencoe	Upgrade curb ramps	
Delta Sierra Middle School	61%	Shropshire near school entrance	Install and upgrade ADA curb ramps	
Delta Sierra Middle School	61%	Branstetter & Wagner Heights	Upgrade curb ramp	
King Elementary	61%	Lafayette & Rendon (SW and SE legs)	New curb ramps	
King Elementary	61%	Lafayette & Golden Gate (SW and SE legs)	New curb ramps	
King Elementary	61%	Yellowstone & Burkett (east leg)	New curb ramps	
King Elementary	61%	Burkett & Lafayette (SW and SE corners)	New curb ramps	
King Elementary	61%	Burkett & Marsh	Upgrade curb ramps	
King Elementary	61%	Lafayette & Filbert	Upgrade curb ramps	
John C. Fremont	60%	Flora & D	Install ADA curb ramps	

School Name	Percent of total possible points	Project Location - Intersection (point)	Project Type
John C. Fremont	60%	Flora & Grattan	New curb ramps
John C. Fremont	60%	Flora & Watts (east leg)	New curb ramps
John C. Fremont	60%	Flora & Laurel	New curb ramps
Kennedy Elementary	60%	Antonio & Ponce de Leon (NE corner)	New curb ramps and bulb- outs
Lincoln High	60%	Alexandria & McClellan (west side)	New curb ramps
Lincoln High	60%	Stanton & Alexandria (west side)	New curb ramps
Harrison Elementary	56%	Alpine & El Pinal (SW corner)	New curb ramp
Harrison Elementary	56%	Alpine & Sanguinetti	Upgrade curb ramps
Harrison Elementary	56%	Palmero & Alpine	Upgrade curb ramps
Wilson Elementary	56%	Mariposa & Hunter	New curb ramps
Pulliam Elementary	53%	Segovia & Presidio	Install ADA curb ramps
Pulliam Elementary	53%	Berrendo & Lincoln (SW corner)	New curb ramps
Pulliam Elementary	53%	El Dorado & Lincoln	Upgrade curb ramp
Oakwood Elementary	50%	Stonewood & Woodcreek	Install and upgrade ADA curb ramps
Oakwood Elementary	50%	Bridgewood & Woodcreek (NW corner)	New ADA ramp and improve concrete landing
Sierra Middle	47%	Alexandria & McClellan (west leg)	New curb ramp
Sierra Middle	47%	Stanton & Alexandria (west leg)	New curb ramp



Figure 3-1: Northeast Projects



Figure 3-2: Northwest Projects



Figure 3-3: Southeast Projects



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Chapter 4 Program Recommendations

Introduction

This chapter presents program recommendations related to students walking and biking to school. The recommendations are organized by the four non-infrastructure E's of Safe Routes to School planning:

- Education programs are designed to improve safety and awareness. They can include programs that teach students how to safely ride or teach drivers to expect bicyclists. They may also include brochures, posters, or other information that targets bicyclists or drivers.
- **Encouragement** programs provide incentives and support to help people leave their car at home and try biking instead.
- **Enforcement** programs enforce legal and respectful bicycling and driving. They include a variety of tactics, ranging from police enforcement to neighborhood signage campaigns.
- **Evaluation** programs are an important component of any investment. They help measure success at meeting the goals of this plan and to identify adjustments that may be necessary.

These recommendations complement the existing programs described in Chapter 1: Existing Conditions.

Education

Bicycle Safety Education

In-school curriculum that typically includes a discussion of traffic laws, standards signs, and decision-making skills to teach students appropriate behaviors for riding in traffic. This program content varies depending on the age of the audience. Bicycle safety education for 3rd through 6th graders are typically the bicycle rodeos currently held at most Stockton schools. Additional curriculum is included as part of this Plan and offered by Caltrans. Older students are typically taught bicycle skills, especially focused on riding with traffic.

Recommendation

This Plan recommends that all students in 7th and 8th grades receive bicycle safety education. This could be done on a rotating basis every other year and should be taught by a League Certified Instructor (LCI). This could be done as part of PE classes and culminate in a field trip taken by bicycle.

Pedestrian Safety Education

Pedestrian safety education aims to teach elementary school students basic traffic laws and safety rules. It teaches students basic traffic safety, sign identification, and decision-making tools. These classes can occur in classrooms as part of school curriculum or after school/on a weekend. Stockton schools have a history of presenting pedestrian safety education to students. The City of Stockton developed the "Walk, Ride & Roll" Bicycle and Pedestrian Safety Rodeo Skills Curriculum guide, which includes four lesson plans focused on pedestrian safety. Each lesson plan outlines the materials and set up needed, as well as key messages to emphasize during each lesson. The guide is intended for PE teachers, parent volunteers, after school coordinators, and other stakeholders.

Recommendation

This Plan recommends the schools update the pedestrian safety education curriculum to match the curriculum offered as part of this Plan. The pedestrian safety education lessons can be implemented separately or in conjunction with bicycle safety education lessons.



Family Bicycle Workshops

Family cycling clinics engage parents and kids in bicycle drills, games, and a neighborhood ride. Parents and kids learn together and ride together. Parents and guardians can review the laws and skills taught to their students during the school year. As parents make the transportation decisions for their families, it is helpful to give them an opportunity to practice being comfortable on their bicycles. These programs also remind parents to be good role models to show their children proper behavior in traffic. These programs are typically held by local bicycle organizations such as the San Joaquin Bike Coalition.

Recommendation

It is recommended to offer annual family bicycle workshops before the school year begins. This could be a weekend class. Classes should be taught by a League Cycling Instructor. Information may be found at http://www.bikeleague.org/content/find-take-class

Encouragement

Suggested Walking and Biking Routes to School Maps

Suggested Walking and Biking Routes to School Maps can help parents overcome fears and/or lack of knowledge of family friendly routes to school. Each identified school will have a uniquely tailored strategy, which will take into consideration that school's community, popular modes of student transportation, arrival and dismissal times, and student residences. These types of maps show stop signs, traffic signals, crosswalks, paths, overcrossings,
crossing guard locations, and similar elements that can help parents make decisions about choosing the Safe Passage Route that best fits their family's walking or biking needs. The Federal Highway Administration and CA-Manual on Uniform Traffic Control Devices (MUTCD) recommends that all schools develop school walk routes. ITE published Safe Routes to School Briefing Sheets, including guidance on School Route Maps. More information can be found at http://www.ite.org/safety/. Error! Reference source not found. shows an example of such a map from Davis, CA.



Figure 4-1: Suggested walking and biking route map

Recommendation

This Plan recommends the City of Stockton work with one or more school districts to develop a list of no more than five schools to pilot the development of Suggested Walking and Biking to School Maps. After the pilot maps have been developed and implemented, expand the program to all schools in Stockton.

Walk & Roll Days

Walk and Bike to School Days are events to encourage students to try walking or bicycling to school. The most popular events of this type are International Walk to School Day (held in early October) and Bike to School Day (held in early May). Many communities have expanded on this once a year event and hold monthly or weekly events such as Walk and Roll the First Friday (of every month) or Walk and Roll Wednesdays (held every Wednesday). Holding weekly or monthly Walk & Roll to School Day promotes regular use of active transportation and helps establish good habits. Resources are available at: http://www.walkbiketoschool.org/.

Cities and employers typically celebrate Bike to Work Day in May, but the concept of commute trips and school trips can be integrated in the fall as well, with Walk and Roll to Work/School Day.

Recommendation

In 2015, eight schools participated in Walk & Roll to School Day. This Plan recommends expanding the event to all Stockton schools.

Walking School Buses and Bike Trains

A Walking School Bus is an organized group of students who walk to school under the supervision of a parent/adult volunteer. Bike Trains are similar to Walking School Buses with students bicycling together. Parent champions take turns walking or bicycling along a set route to and from school, collecting children from designated "bus stops" along the way.

Recommendation

This Plan recommends each school identify a parent champion who can implement a Walking School Bus and/or a Bike Train. Schools and parent champions can encourage parents to form Walking School Buses or Bike Trains at the back-to-school orientation or other fall events. The City or school district should provide safety vests or marked umbrellas to indicate the leader(s). Incentives should also be provided for volunteers such as coffee at the school or gift cards for local shops.



Active Transportation Challenges/Competitions

Challenges, in general create, awareness and excitement about an event or program. For example, the Golden Sneaker Award is a challenge that rewards the class with the greatest number of students who walk or bike to school, or who are dropped off early and walk part way. These challenges can be between classrooms within a school or between schools in a school district.

Recommendation

This Plan recommends the school districts works with schools begin a Golden Sneaker Award challenge between classrooms. After one year, expand the challenge to create competition between schools in each district. Strive to have all 64 schools participate in the challenge within five years.

Promotional Competitions

Promotional competitions can build enthusiasm for SRTS events while also producing materials that can be used to promote walking and bicycling community-wide. Student art competitions showcase local artistic talent while teaching traffic safety principles. Students compete to have their artwork featured in a campaign such as Safe Havens (see below).

Recommendation

It is recommended each school hold a student competition that can include a logo context at the beginning of the school year, poster, or video contests as well as social media campaigns and competitions that would take place throughout the year.

Enforcement

Corner Captains

Corner Captains are parents, teachers, or other volunteers that are stationed outside at designated locations along Safe Passage routes to help students feel safe. Corner Captains should be outfitted with safety vests to provide legitimacy and walkie-talkies that allow the volunteers to radio for help if they are confronting a situation they cannot resolve.

Recommendation

This Plan recommends the City's Police Department hire and train Corner Captains. It is also recommended the Police Department assist the Captains with challenging situations and write tickets if necessary.



Source: http://www.dailymail.co.uk/news/article-2740370/School-starts-Chicago-safety-guards.html.

Crossing Guards

Crossing guards are adults hired by the school districts to provide crossing assistance. Crossing guards should be outfitted with proper equipment as outlined in the California Manual on Uniform Traffic Control Devices (CA MUTCD). Full descriptions of crossing guard duties, equipment, and a training curriculum are provided in the California School Crossing Guard Training Guidelines, available at

https://archive.cdph.ca.gov/HealthInfo/injviosaf/Documents/CASchoolCrossingGuardTrainin gGuidelines.pdf

Recommendation

This Plan recommends the school districts budget adequate funds to maintain and/or enhance the number of crossing guards provided. Ongoing monitoring by the school districts is also recommended to determine where crossing guards should be posted.

Safe Passages

Safe Passages is a program through which the community identified suggested routes for students walking or bicycling to school, with safe refuges and places to stop along the way (see Safe Havens below). Route maps should be passed out to families at the beginning of each school year showing Safe Passages and Safe Havens, and information about the program should be available online on City and school websites.

Recommendation

This Plan recommends the City work with school site and district staff to identify Safe Passage routes and teach students and families about the program.

Safe Havens

To supplement the Safe Passages and Corner Captains programs, Safe Havens are locations along Safe Passage routes that offer refuge to any student who may feel threatened while walking to or from school. Safe Haven locations are identified by a sign in the window indicating that children can find a friendly and safe shelter inside and ask adults for assistance.

Recommendation

This Plan recommends that school districts, with oversight by the City, develop a Safe Havens program. Work with local businesses along identified Safe Passage routes. Provide Safe Havens decals for businesses to place in windows along the routes. Work with each school to teach students about the Safe Havens program and to recognize the window decals.

More information is available at: <u>http://www.saferoutespartnership.org/sites/default/files/</u><u>resource_files/taking-back-the-streets-and-sidewalks.pdf</u>

Targeted Enforcement

If the City or School District police departments notice a trend in the types of infractions drivers are committing around schools, the Police Department can set up a targeted enforcement operation aimed at teaching offenders the proper way to react in certain situations. For example, if drivers are not yielding to pedestrians waiting to cross the road, a targeted enforcement operation can be set up to inform drivers of the need to yield. A police officer in plain clothes can wait on the side of the road at an intersection or marked crosswalk. The officer can start to move into the roadway as a vehicle approaches. If the vehicle fails to yield, a police vehicle parked nearby can pull the offender over and talk through the situation. Warnings should be given along with safety information about responsible driving behavior.

Recommendation

This Plan recommends the City work with the Police Department and school district Police Departments to determine the types of behavior common around schools and set up a targeted enforcement operation to reduce that type of behavior and to remind people driving a vehicle the proper rules of the road. The enforcement operations should be done at the beginning of each school year, though more is recommended.

Mobile Speed Feedback Trailers

Mobile speed feedback trailers are temporary trailers set up by the police department or public works that notify drivers of the speed they are traveling as they pass. Trailers can be moved to different locations within Stockton based on need. They can be bolted to the ground for extra security.

Recommendation

This Plan recommends the City of Stockton work with Stockton Police Department and the Public Works department to place mobile speed feedback trailers around school routes, especially at the beginning of the school year and after long holiday breaks.

Evaluation

Student Hand Tallies

Hand tallies are student surveys asking how each student got to and from school over a two to three day period. Students raise their hand when the mode they took is called and the teacher or a volunteer record it. Hand tallies are generally required of state and federal SRTS grant recipients and serve as a baseline for establishing program success.

Recommendation

It is recommended Stockton schools conduct hand tallies twice a year.



Parent Surveys

Parent surveys ask how children got to and from school as well as basic demographic information via a paper or online survey. Parent surveys also ask questions about the issues that affect whether or not a parent allows their child to walk or bike to/from school, health information or perception of crime and other social behaviors. They can provide insight into major barriers for parents' willingness to let their children walk or bike to school.

Recommendation

It is recommended schools distribute parent surveys every three years.

Safe Routes to School Report Card/Evaluation Report

Evaluation reports and report cards track progress, call out success stories, and highlight lessons learned and areas for improvement. This report can be used to track where SRTS grants and programs are being implemented. It can also be used to celebrate successes and build awareness for SRTS among schools, leaders, and the general public and to evaluate the regional needs. In addition to programmatic successes, the report can also provide an update on engineering improvements for each school such as the number of bike parking spaces available.

Recommendation

This Plan recommends each school district develop a SRTS Report Card to be updated every two years. Collect baseline data and track ongoing implementation at each participating school to ensure that consistent data is available for this type of ongoing report.

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Appendix A. Funding Sources

This appendix presents the potential funding sources Stockton could utilize in order to fund this Plan's projects and programs.

Federal Sources

The Fixing America's Surface Transportation Act (FAST Act)

The FAST Act, which replaced Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2015, provides long-term funding certainty for surface transportation projects, meaning states and local governments can move forward with critical transportation projects with the confidence that they will have a Federal partner over the long term (at least five years).

The law makes changes and reforms to many federal transportation programs, including streamlining the approval processes for new transportation projects and providing new safety tools. It also allows local entities that are direct recipients of federal dollars to use a design publication that is different than one used by their state DOT, such as the *Urban Bikeway Design Guide by the* National Association of City Transportation Officials.

More information: https://www.transportation.gov/fastact

Surface Transportation Block Grant Program (STBGP)

The Surface Transportation Block Grant Program (STBGP) provides states with flexible funds which may be used for a variety of highway, road, bridge, and transit projects. A wide variety of bicycle and pedestrian improvements are eligible, including trails, sidewalks, bike lanes, crosswalks, pedestrian signals, and other ancillary facilities. Modification of sidewalks to comply with the requirements of the Americans with Disabilities Act (ADA) is also an eligible activity. Unlike most highway projects, STBGP-funded pedestrian facilities may be located on local and collector roads which are not part of the Federal-aid Highway System.

Fifty percent of each state's STBGP funds are sub-allocated geographically by population. These funds are funneled through Caltrans to the MPOs in the state. The remaining 50 percent may be spent in any area of the state.

STBGP Set-Aside: Transportation Alternatives Program

Transportation Alternatives Program (TAP) has been folded into the Surface Transportation Block Grant program (STBG) as a set-aside funded at \$835 million for 2016 and 2017, and \$850 million for 2018, 2019, and 2020. Up to 50 percent of the set-aside is able to be transferred for broader STBGP eligibility.

Improvements eligible for this set-aside fall under three categories: Transportation Enhancements (TE), Safe Routes to School (SR2S), and the Recreational Trails Program (RTP).

These funds may be used for a variety of pedestrian and streetscape projects including sidewalks, multi-use paths, and rail-trails. TAP funds may also be used for selected education and encouragement programming such as Safe Routes to School.

Non-profit organizations are now eligible to apply for funding for transportation safety projects and programs, including Safe Routes to School programs and bike share.

Complete eligibilities for TAP include:

- Transportation Alternatives. This category includes the construction, planning, and design of a range of pedestrian infrastructure including "on-road and off- road trail facilities for pedestrians, bicyclists, and other active forms of transportation, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act of 1990." Infrastructure projects and systems that provide "Safe Routes for Non-Drivers" is still an eligible activity.
- 2. Recreational Trails. TAP funds may be used to develop and maintain recreational trails and trail-related facilities for both active and motorized recreational trail uses. Examples of trail uses include hiking, in-line skating, equestrian use, and other active and motorized uses. These funds are available for both paved and unpaved trails, but may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails, including unpaved trails
- Acquisition or easements of property for trails
- State administrative costs related to this program (limited to seven percent of a state's funds)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a state's funds)
- 3. Safe Routes to School. There are two separate Safe Routes to School Programs administered by Caltrans. There is the federal program referred to as SRTS, and the state-legislated program referred to as SR2S. Both programs are intended to achieve the same basic goal of increasing the number of children walking and bicycling to school by making it safer for them to do so. All projects must be within two miles of primary or middle schools (K-8).

The Safe Routes to School Program funds non-motorized facilities in conjunction with improving access to schools through the Caltrans Safe Routes to School Coordinator. Eligible projects may include:

- Engineering improvements. These physical improvements are designed to reduce potential bicycle and pedestrian conflicts with motor vehicles.
- Physical improvements may also reduce motor vehicle traffic volumes around schools, establish safer and more accessible crossings, or construct walkways or trails. Eligible improvements include sidewalk improvements, traffic calming/speed reduction, and pedestrian crossing improvements.
- Education and Encouragement Efforts. These programs are designed to teach children safe walking skills while educating them about the health benefits and environmental impacts. Projects and programs may include creation, distribution and implementation

of educational materials; safety based field trips; interactive pedestrian safety video games; and promotional events and activities (e.g., assemblies, walking school buses).

- Enforcement Efforts. These programs aim to ensure that traffic laws near schools are obeyed. Law enforcement activities apply to cyclists, pedestrians and motor vehicles alike. Projects may include development of a crossing guard program, enforcement equipment, photo enforcement, and pedestrian sting operations.
- 4. Planning, designing, or constructing roadways within the right-of-way of former Interstate routes or divided highways. At the time of writing, detailed guidance from the Federal Highway Administration on this new eligible activity was not available.

405 National Priority Safety Program

Approximately \$14 million annually (five percent of the \$280 million allocated to the program overall) will be awarded to states to decrease bike and pedestrian crashes with motor vehicles. States where bike and pedestrian fatalities exceed 15 percent of their overall traffic fatalities will be eligible for grants that can be used for:

- Training law enforcement officials on bike/pedestrian related traffic laws.
- Enforcement campaigns related to bike/pedestrian safety
- Education and awareness programs related to relevant bike/pedestrian traffic laws

Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) provides \$2.4 billion nationally for projects that help communities achieve significant reductions in traffic fatalities and serious injuries on all public roads, bikeways, and walkways. Non-infrastructure projects are no longer eligible. Eligible projects are no longer required to collect data on all public roads. Pedestrian safety improvements, enforcement activities, traffic calming projects, and crossing treatments for active transportation users in school zones are examples of eligible projects. All HSIP projects must be consistent with the state's Strategic Highway Safety Plan.

The 2015 California SHSP is located here:

http://www.dot.ca.gov/trafficops/shsp/.

Partnership for Sustainable Communities

Founded in 2009, the Partnership for Sustainable Communities is a joint project of the Environmental Protection Agency (EPA), the U.S. Department of Housing and Urban Development (HUD), and the U.S. Department of Transportation (USDOT). The partnership aims to "improve access to affordable housing, more transportation options, and lower transportation costs while protecting the environment in communities nationwide." The Partnership is based on five Livability Principles, one of which explicitly addresses the need for pedestrian infrastructure ("Provide more transportation choices: Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health").

The Partnership is not a formal agency with a regular annual grant program. Nevertheless, it is an important effort that has already led to some new grant opportunities (including the TIGER grants).

More information: <u>https://www.sustainablecommunities.gov/</u>.

Community Development Block Grants

The Community Development Block Grants (CDBG) program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal CDBG grantees may "use Community Development Block Grant funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grant funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs."

More information: <u>www.hud.gov/cdbg</u>.

State Sources

Active Transportation Program (ATP)

In 2013, Governor Brown signed legislation creating the Active Transportation Program (ATP). This program is a consolidation of the Federal Transportation Alternatives Program (TAP), California's Bicycle Transportation Account (BTA), and Federal and California Safe Routes to School (SRTS) programs.

The ATP program is administered by Caltrans Division of Local Assistance, Office of Active Transportation and Special Programs.

The ATP program goals include:

- Increase the proportion of trips accomplished by biking and walking,
- Increase safety and mobility for non-motorized users,
- Advance the active transportation efforts of regional agencies to achieve greenhouse gas reduction goals,
- Enhance public health,
- Ensure that disadvantaged communities fully share in the benefits of the program, and
- Provide a broad spectrum of projects to benefit many types of active transportation users.

The California Transportation Commission ATP Guidelines are available here: <u>http://www.catc.ca.gov/meetings/agenda/2014Agenda/2014_03/03_4.12.pdf</u>

Eligible bicycle and Safe Routes to School projects include:

- Infrastructure Projects: Capital improvements that will further program goals. This category typically includes planning, design, and construction.
- Non-Infrastructure Projects: Education, encouragement, enforcement, and planning activities that further program goals. The focus of this category is on pilot and start-up projects that can demonstrate funding for ongoing efforts.
- Infrastructure projects with non-infrastructure components

The minimum request for non-SRTS projects is \$250,000. There is no minimum for SRTS projects.

More information: http://www.dot.ca.gov/hq/LocalPrograms/atp/.

Office of Traffic Safety (OTS) Grants

Office of Traffic Safety Grants are supported by federal funding under the National Highway Safety Act and SAFETEA-LU. In California, the grants are administered by the Office of Traffic Safety.

Grants are used to establish new traffic safety programs, expand ongoing programs or address deficiencies in current programs. Eligible grantees are governmental agencies, state colleges, state universities, local city and county government agencies, school districts, fire departments, and public emergency services providers. Grant funding cannot replace existing program expenditures, nor can traffic safety funds be used for program maintenance, research, rehabilitation, or construction. Grants are awarded on a competitive basis, and priority is given to agencies with the greatest need. Evaluation criteria to assess need include potential traffic safety impact, collision statistics and rankings, seriousness of problems, and performance on previous OTS grants.

The California application deadline is January of each year. There is no maximum cap to the amount requested, but all items in the proposal must be justified to meet the objectives of the proposal.

More information: http://www.ots.ca.gov/.

TRANSPORTATION DEVELOPMENT Act Article 3 Funds

Transportation Development Act (TDA) Article III funds awarded annually to local jurisdictions for bicycle and pedestrian projects in California. These funds originate from the state gasoline tax and are distributed to counties based on population. Funds may be used for the following bicycle and pedestrian activities:

- Engineering expenses
- Right-of-way acquisition
- Construction and reconstruction
- Retrofitting existing bicycle and pedestrian facilities, including signage installation and ADA compliance
- Route improvements such as signal controls for cyclists, bicycle loop detectors, rubberized rail crossings and bicycle-friendly drainage grates
- Support facilities, such as bicycle parking and pedestrian amenities

More information: <u>http://www.dot.ca.gov/hq/MassTrans/State-TDA.html</u>.

Regional and Local Sources

Regional Active Transportation Program

A portion of the statewide ATP program is distributed to local CMAs and MPOs for distribution locally. The Regional ATP targets projects that increase walking, improve safety, and benefit disadvantaged communities. In San Joaquin County, regional ATP funding is distributed through San Joaquin Council of Governments.

Regional ATP applications are generally the same as the application for the statewide program, with a few additional questions. Applications not funded in the statewide program are no longer automatically considered for the regional program. Applicants must complete the additional questions and apply separately.

More information: <u>http://www.sjcog.org/index.aspx?NID=109</u>.

Measure K

Measure K is a half-cent sales tax in San Joaquin County dedicated to transportation projects. Since being enacted in 1990, Measure K funds have been allocated to 46 projects in the county. The measure, which was renewed in 2007 for 30 years, is estimated to generate an additional \$2.5 billion for transportation.

Eligible projects include highway expansions, pedestrian improvements, bicycle paths, and improvements to local streets throughout San Joaquin County. Investments in preservation or maintenance of local streets may also be eligible.

School District Operating Budgets

School districts should consider SRTS program activities when developing their annual budgets, and support implementation or maintenance of programs where feasible. Priority program activities for school districts to support include crossing guards and development of materials to educate parents about the program.

Developer Impact Fees

As a condition for development approval, municipalities can require developers to provide certain infrastructure improvements, which can include bikeway projects. These projects have commonly provided Class II facilities for portions of on-street, previously-planned routes. They can also be used to provide bicycle parking or shower and locker facilities. The type of facility that should be required to be built by developers should reflect the greatest need for the particular project and its local area. Legal challenges to these types of fees have resulted in the requirement to illustrate a clear nexus between the particular project and the mandated improvement and cost.

Roadway Construction, Repair and Upgrade

Future road widening and construction projects are one means of providing improved pedestrian and bicycle facilities. To ensure that roadway construction projects provide these facilities where needed, it is important that the review process includes input pertaining to consistency with the proposed system. In addition, California's 2008 Complete Streets Act and Caltrans Deputy Directive 64 require that the needs of all roadway users be considered during "all phases of state highway projects, from planning to construction to maintenance and repair."

More information: <u>http://www.dot.ca.gov/hq/tpp/offices/ocp/complete_streets.html</u>

Utility Projects

By monitoring the capital improvement plans of local utility companies, it may be possible to coordinate upcoming utility projects with the installation of bicycle and pedestrian infrastructure within the same area or corridor. Often times, the utility companies will mobilize the same type of forces required to construct bikeways and sidewalks, resulting in the potential for a significant cost savings. These types of joint projects require a great deal of coordination, a careful delineation of scope items and some type of agreement or memorandum of understanding, which may need to be approved by multiple governing bodies.

Cable Installation Projects

Cable television and telephone companies sometimes need new cable routes within public right-of-way. Recently, this has most commonly occurred during expansion of fiber optic networks. Since these projects require a significant amount of advance planning and disruption of curb lanes, it may be possible to request reimbursement for affected bicycle facilities to mitigate construction impacts. In cases where cable routes cross undeveloped areas, it may be possible to provide for new bikeway facilities following completion of the cable trenching, such as sharing the use of maintenance roads.

Local Bond Measure

Local bond measures, or levies, are usually initiated by voter-approved general obligation bonds for specific projects. Bond measures are typically limited by time, based on the debt load of the local government or the project under focus. Funding from bond measures can be used for right-of-way acquisition, engineering, design, and construction of pedestrian and bicycle facilities. Bond measures are often used by cities for local match in grant applications. Transportation-specific bond measures featuring a significant bicycle/pedestrian facility element have passed in other communities, such as Seattle's "Closing the Gap" measure.



Appendix B. Stockton School Skills Curriculum

This appendix presents a school curriculum to teach bicycle and pedestrian safety to Stockton students.

The curriculum to teach hands-on pedestrian and bicycle skills was developed by Safe Moves as part of this Plan. In addition, a classroom-based curriculum is available from the California Active Transportation Resource Center. This Bicycle and Pedestrian Safety Curriculum for 4th and 5th Grade Students includes nine lesson plans that align with California Common Core Standards.

The curriculum is available at:

https://archive.cdph.ca.gov/HealthInfo/injviosaf/Documents/CaliforniaPedBicycleSafetyCurri culum.pdf

City of Stockton

"WALK, RIDE & ROLL"

Bicycle and Pedestrian Safety Rodeo Skills Activities

For Elementary School Children





ACKNOWLEDGMENTS

The City of Stockton's "Walk, Ride & Roll" Bicycle and Pedestrian Safety Rodeo Skills Curriculum was developed through the efforts of the Steering Committee and an Active Transportation Program grant provided by Caltrans and in collaboration with the City of Stockton.

We wish to thank the many people who provided valuable information in the development and revision of this guide. We appreciate their caring dedication to the protection and enhancement of children's lives through pedestrian and bicycle safety education.

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Dear Educator:

Thanks for being a part of the "Walk, Ride & Roll" Program. The "Walk, Ride & Roll" Program curriculum is designed for elementary school children in the City of Stockton. "Walk, Ride & Roll" will help students to develop life-long skills through on-foot and on-bike skills practice. Students will learn traffic rules and regulations, traffic hazards and handling skills needed to bike and walk safely and effectively to and from school.

The "Walk, Ride & Roll" Program is created for PE teachers, parent volunteers, after school coordinators and other stakeholders. This booklet is organized into a step-by-step implementation plan and consists of lessons that meet a variety of National Physical Education Standards.

National Physical Education Standards:

Standard 1: The physically literate individual demonstrates competency in a variety of motor skills and movement patterns.

Standard 2: The physically literate individual applies knowledge of concepts, principles, strategies and tactics related to movement and performance.

Standard 3: The physically literate individual applies knowledge and skills to achieve and maintain a healthy-enhancing level of physical activity and fitness.

Standard 4: The physically literate individual exhibits responsible personal and social behavior that respects self and others.

Standard 5: The physically literate individual recognizes the value of physical activity for health, enjoyment, challenge, self-expression and/or social interaction.

Goals for the "Walk, Ride & Roll" Program Curriculum are:

Increase the number of students who safely walk and bicycle to school

Increase safety of student pedestrians and bicyclists

Improve the lives of children by improving health, learning capacity and independence

To help reduce traffic accidents – the benefit of schools that teach walking and bicycling skills result in a decrease in pedestrian and bicycle collision rates

To foster independence – children who walk or bike to school are more likely to walk to other destinations in the community

To increase physical activity - children need sixty minutes of physical activity every day

The "Walk, Ride & Roll" Program calls for commitment in teaching time, equipment and training. Students will be safer, healthier and more productive, and school sites will benefit from an environment that is less congested.

Thanks again for making our school environments more walkable and bikeable.

Why do elementary school children need pedestrian and bicycle skills education?

- One-fifth (21%) of children 14 and younger killed in traffic crashes were pedestrians.
- An estimated 9% of children 10 to 14 years old were injured as pedestrians the highest among the age categories.
- An estimated 11% of all bicycle collisions were children.
- An estimated one million children are injured annually in bicycle related accidents.
- 65% of child cycling injuries involved a male child and for all male casualties this rose to 81%.
- Approximately half of biking collisions occur in children under age 16.
- Head injuries make up 75% of serious injuries in bicycle collisions.
- Most cycling and pedestrian collisions happen in urban areas where children are traveling to and from school.
- Around 80% of collisions occur in daylight between the hours of 8:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m. on weekdays.
- One of five children under the age of 14 are killed in pedestrian related collisions.

Often, developmental characteristics can influence a student's behavior as bicyclists and pedestrians.

These characteristics include:

- Having a narrower field of vision
- Cannot easily judge car's speed and distance
- Have limited sense of danger
- Yield to peer pressure in risk taking behaviors
- Asymmetrical development in the brain
- Impulse response due to lack of brain development
- Invincibility

In the past, most programs focused on booklets, posters, brochures or videos to educate children on bicycle and pedestrian safety. Research shows that these forms of education are far less successful than those using interactive experiential learning models.





The "Walk, Ride and Roll" Program is based on experiential learning principals that allow students to learn by interacting with a traffic environment, including the people, cars and hazardous situations. It is learning by doing that promotes exploration of behaviors. Effective experiential learning can affect students attitudes, perceptions and behavioral patterns. The student will believe in the safety lessons when they are discovered by themselves. The reason that experiential learning works is that it takes more than just information to change actions and attitudes – it must be an active rather than a passive learning experience.

STEP 1: EQUIPMENT

You will need the following:

- Cones (10)
- Chalk
- Cardboard boxes for building (10) 3' x 4'
 - House with Garage
 - Apartment Building
 - School
 - Stores (hardware, café, bike shop)
 - Library
 - Police Station
 - Fire Department
- Template for buildings
- Cardboard boxes for car (4) 2' x 3'
 - One (1) passenger on cell phone
 - Two (2) passengers
 - One (1) passenger
- Template for cars
- Cardboard box (1) 5' x 2'
 - Bus or Truck
- Template for large vehicle
 - Poster paint & Brushes
 - 10 sand bags or weighted objects
- Traffic Signs (Cardboard)
 - Traffic Light
 - Pedestrian Signal
 - Stop Sign
 - Railroad Sign
 - Railroad Flashing Signal
 - Railroad Crossing Guard
 - Railroad Tracks
- Template for signs
 - Bicycles & Helmets

Note: It is recommended that students bring their own bicycles and helmets. The other option is to secure bicycle handle bars to simulate bicycle riding, but it should be required that students bring their own helmets.

See Appendix for equipment resources.







STEP 2: RODEO STAFF/VOLUNTEERS

Make a list of volunteers and agencies that can be a part of your Rodeo Team.

These agencies could include:

- After School Coordinators/Staff
- Parent Organizations (PTAs/PTOs)
- PE Teachers & School Nurse
- Bike & Pedestrian Advocates
- Bike shop owners
- Law Enforcement agencies
- School Resource Officers
- Fire Departments
- Hospitals
- Local Businesses and Organizations
- Community Resource Centers
- Rotary Clubs and Civic Groups

See Appendix for volunteer solicitation letter.





STEP 3: LOCATION

Choose a location for your rodeo. Locations for your rodeo can be conducted at schools or public locations:

School Options:

- Playground
- Auditorium
- Classroom

Community Options:

- Parks
- Recreational Centers
- Libraries
- Police Stations
- Shopping Centers (parking lots closed to traffic)
- Community events (health fairs, art festivals)





Review the school calendar to avoid conflicts with testing, field trips and other school activities.



STEP 5: RODEO SCHEDULE

For School Rodeos, organize your schedule by classroom and by grade level. See Appendix for Rodeo Schedule Form. This schedule should be reviewed by the principal or student coordinator with input from the teachers.



STEP 6: PROMOTION

If your rodeo will be conducted at schools, an email to school staff should be sent to notify them of the event. Parents should also receive notification and permission form allowing their children to participate.

See Appendix for Sample Permission Form.





STEP 7: FUNDING

Find the funds to purchase your rodeo supplies. You can request money from your PTA or check with your school resources.

Other opportunities for funding are:

- Bike Clubs
- Local Non-Profits
- After School Coordinators/Staff
- Parent Organizations (PTAs/PTOs)
- PE Teachers & School Nurse
- Bike & Pedestrian Advocates
- Bike shop owners
- Law Enforcement agencies/School Resource
 Officers
- Fire Departments
- Hospitals
- Local Businesses
- Community Resource Centers
- Rotary Clubs and Civic Groups
- City/County Transportation Departments







To make sure bicycles are functional and to teach students basic maintenance and repair.

BACKGROUND

Although there is no documentation on collisions caused by bicycle malfunction, having a bicycle in good working condition can prevent any chances of mechanical failure.

Request a bike shop to provide a bike mechanic to conduct bike inspection. If that is not possible, check with your PTA to see if there are parents who are knowledgeable about bike repair.

Equipment needed to conduct a basic check:

- Tire Pump
- Wrenches, Pliers, Allen Wrenches, Screw Drivers
- Lubricants

If time allows, students should be taught to inspect, check and, if necessary, repair.

PROCEDURE

Air: Check tire pressure. Squeeze front and back tires for firmness. If the tire does not have the appropriate amount of air in it, it could damage the tire and you may get a flat or in a crash. Tires should be inflated to a rated pressure printed on the sidewall (pounds/square inch, or PSA) of the tire. Check for damage to the sidewalls and tread. Damage to the sidewall is common if the brakes are not properly adjusted. If the fabric of the tire shows below the surface, replace the tire immediately and do not ride it.

Brakes: Check the brakes. Squeeze the brake levers. There should be a finger width between the handle bar and brake lever. Hold down the brakes and try to move the bike back and forth. If it doesn't roll, the brakes are working properly. Look at the brake pads. The brakes are positioned properly when the pads are parallel to and aligned with the side rim and not rubbing on the tire.





Chains: Look at the chain. It shouldn't be rusty or orange. The chain should have a light coat of oil on it. Also check that the chain fits snugly and is not kinked. If the chain appears too loose or drooping, it may need adjustment. Do not ride a bike with a loose chain.

To properly fit a helmet to be comfortable, level and stable enough to resist even violent shakes or hard blows and stay in place.

BACKGROUND

Research shows that up to 60% of deaths from bicycle crashes are the result of head trauma. A properly worn and certified helmet cushions and protects the head from the damaging impacts.

PROCEDURE

The helmet should be level on student's head, covering their forehead. To test this, the student should place two fingers above their eyebrows. Their top finger should touch the bottom of their helmet.

Slider (straps) should be positioned in a "V" or "Y" under their earlobes. This makes the helmet fit comfortably and helps it to stay in place.

The student should be able to open their mouth wide and talk normally, but they should feel their helmet pull down on their head by opening your mouth wide. No more than two fingers should fit under their chinstrap.





RIGHT

WRONG





To teach cyclists how to start and stop their bicycles safely and efficiently.

BACKGROUND

Starting and stopping are skills necessary in order to avoid skidding stops and falls.

PROCEDURE

Starts:

Have bicyclists mount their bike with enough space to straddle the seat with both feet on the ground. Raise the right pedal to the ten o'clock position (see photo); this provides power to start. Put your right foot on the pedal (left foot still on the ground). Push off with the left foot and at the same time stand on the raised pedal; do not pedal after pushing off. Coast to a stop while standing on the pedal that has been push down. When the cyclists are comfortable with this procedure, have them place their second foot on the other pedal, while sitting on the seat and keep pedaling.

Stops:

For coaster bikes, make sure the rider knows how to pedal backward to apply pressure that stops the bikes. For hand brakes, make sure the rider squeezes the brake levers evenly with both hands. Explain that using one brake is not the best way to stop and can be dangerous.

How to stop and dismount a bicycle:

Cyclists slow down using the brakes. As the bike nears a stop, cyclist slides off the seat and puts his weight on a pedal in the down position. Cyclist takes his other foot off of the pedal and prepares to place it on the ground when they are going slowly enough. If the cyclist is using hand brakes, he should be sure to keep pressure on the brake levers.







LESSON 4: SCANNING

OBJECTIVE

Teach cyclist to look behind for traffic without swerving or falling.

BACKGROUND

Sudden swerves and left hand turns without looking are major causes of crashes. Students must learn to scan while not deviating from their path of intended travel.

PROCEDURE

Cyclist rides through the course the first time concentrating on riding in a straight line. Cyclist rides through the course a second time and is instructed to look over the left shoulder when they hear their name called to see if there is a car present or not. A cardboard car or sign is held up so the cyclist can call out "Car" or "No Car". Cyclist rides through several times to practice the skill.





Teach cyclists control and balance, and how to avoid hazards while riding.

BACKGROUND

Cyclists often fail to notice street hazards before there is a fall. Cyclist either fail to notice a hazard or react at the last minute to avoid.

PROCEDURE

Cyclists are to ride straight toward the obstacles and steer around them at the last minute. They should steer by turning the handlebars first one way (to avoid the obstacles), then turning back the other way to put the bike back in the intended line of travel. Stress to the cyclist to keep up speed to avoid the obstacle. In real life situations on the street you would avoid turning into traffic.





Teach cyclist to stop at the end of their driveway and look both ways to determine if it is safe before turning onto the street.

BACKGROUND

Young cyclists are seriously injured or killed when they ride out into the path of an oncoming car. Visual obstructions are often a contributing factor.

PROCEDURE

Cyclist rides out and forgets to look for traffic and pedestrians. The behavior to teach is for them to stop at the end of the driveway, look left, right and left again for traffic, wait for traffic and turn onto the street. A power takeoff occurs when the cyclist prepares for takeoff by positioning a pedal in the ten o'clock position. This allows for quick momentum and minimal hesitation when the coast is clear. Traffic conditions can quickly change, so a fumble at the takeoff can result in a hazardous situation.

Cyclists are to stop at the mouth of the driveway and check for traffic. Cyclists are to walk their bicycles from their garage to end of the driveway.





Teach cyclists to stop at stop signs, wait for traffic, look left, right and left, position pedal power take off, and go when there is no conflicting traffic.

BACKGROUND

Running stop signs is the number one cause of injuryproducing bicycle and pedestrian car crashes. Cyclists too often don't think through the risk involved in not stopping at an intersection, or the importance of scanning in all directions for oncoming traffic. They should learn to negotiate intersections safely by stopping, scanning for traffic, being seen and signaling, if necessary, before going through an intersection.

PROCEDURE

Cyclist approaches the stop sign, they check sidewalks and crosswalks for pedestrians. The cyclist stops and waits behind the "stop line" if anyone is about to cross. The cyclist pulls far enough forward to get a good view of traffic, put one pedal in the proper position for a power take off, wait until it is clear, signal and cross. Remind each rider that's it's not safe to just follow a friend, but to look for traffic to decide if it's safe to go.

Less experienced cyclists may be challenged by a straight-through maneuver or instructed how to walk the left turn using the crosswalks. The more experienced cyclist should be challenged to perform a left hand turn as they go through the intersection.

Cyclists are shown proper street positions so they can make safe maneuvers. Cyclists ride through the intersection straight through or to make a turn.







LESSON 8: RIDE THROUGH

OBJECTIVE

Provide cyclists with opportunity to demonstrate the skills learned in Lesson Plan 3 through 7.

BACKGROUND

Cyclists benefit from practicing skills necessary to effectively deal with assorted street conditions.

PROCEDURE

Set up practice course to simulate all lessons outlined in Lessons 3-7 using:

- Stop sign
- Intersection, driveway
- Left and right hand turn
- Scanning
- Hazard avoidance
- Sight obstructions
- Parked cars

Cyclists practice the following skills:

- Looking left, right and left
- Sighting and avoiding an obstacle
- Making safe turns
- Power take offs
- Scanning techniques
- Spotting and avoiding hazards
- Signaling
- Riding in a straight line
- Stopping, braking, mounting



PEDESTRIAN SKILLS

The skills taught are basic pedestrian safety including how to walk near traffic, crossing intersections, crossing driveways, walking on the street when sidewalks are not present, recognizing hazardous situations.

When crossing streets children should be taught to always;

- Cross at the corner or intersection
- Look left, right, left, behind and forward for moving cars
- Cross when clear and keep looking left and right
- Walk don't run or dart into the street
- Look for signs that a car is about to move (rear lights, exhaust smoke, sound of motor, wheels turning)

Common Types of Collisions Between Young Pedestrians and Motorists

1. Child darting out into street at corner or mid-block.

This type of crash commonly occurs in neighborhoods where children are playing. A ball might roll into the street and the child runs to chase after it. Teach children to ask an adult for help before retrieving a ball or any object in the street.

2. Vehicle turning into path of a child.

Children may assume that a green light or WALK signal clears them from danger. It is important to teach children to be responsible and cautious regardless of signs or signals.

3. Child hidden from view by an ice cream truck.

Anxious and excited children near ice cream trucks may not be aware of their surroundings and run into the street. Cars should stop before slowly passing the ice cream truck.

4. Child hidden from view by bus – driver does not stop.

All States require traffic in both directions to stop on undivided highways when students are getting on or off a school bus. Children who must cross the street after exiting the bus should walk to the edge of the bus, look left-right-left, and cross when it is clear and the bus driver has signaled it is safe to cross.

5. Vehicle backing up in roadways, driveways, or parking lots.

Children should be taught to look for people in the driver's seat and illuminated reverse tail lights before walking behind vehicles. Treat driveways like other intersections — stop at the edge and look LEFT-RIGHT-LEFT for cars pulling into or backing out of driveways.











Crossing streets safely

BACKGROUND

Jaywalking is often cited as a poor pedestrian behavior that leads to pedestrian injuries and fatalities. There are several types of pedestrian behavior that qualify as jaywalking:

- walking against a pedestrian walk signal
- crossing a street where there is no crosswalk (midblock crossing)
- crossing a street outside of a marked crosswalk where one is present
- walking on a street along with the traffic flow

PROCEDURE

Students are shown the crosswalks and traffic signs and signals. A car is positioned at the intersection so the student can practice making eye contact with the driver. Cross streets at a corner, using traffic signals where available and crosswalks.

Safety Lessons

- Always look left, right, and left again and watch for cars turning left and right before crossing a street, and keep watching as you cross. Be aware that drivers have differing levels of eyesight and skill in operating motor vehicles.
- Pedestrians should be especially careful at intersections, where drivers may fail to yield the right-of-way to pedestrians while turning onto another street.





Make sure you are seen:

- Make eye contact with drivers when crossing busy streets.
- Wear bright colors or reflective clothing if you are walking near traffic at night.
- Carry a flashlight when walking in the dark.
- Walk on the sidewalk whenever possible. If sidewalks are not available, walk facing traffic on the edge of the road, as far from the travel lane as possible.
- Walk defensively and be ready for unexpected events. Know what's going on around you and don't allow your vision to be blocked by clothing, hats, or items that you are carrying.
- Watch the pedestrian signals, not the traffic signal, and follow the "WALK/DON'T WALK" lights (they're set up to help you cross safely). Look for pedestrian push buttons for crossing protection at signalized intersections.
LESSON 2:

OBJECTIVE

Traffic Signs and Signals

BACKGROUND

Road signs are there to tell students what they are allowed to do and what they must not do.

Students need to understand road signs and do what they say.

PROCEDURE

Students are shown the placement and explanation of the traffic signs and signals.

Safety Lessons:



STOP SIGN: Drivers, bicyclists and pedestrians **STOP** must come to a complete stop at all STOP SIGNS.

TRAFFIC LIGHT:



Green: When signal turns green cars go. When student crosses the street at a signal, they wait for the walk signal.

Yellow: When signal turns yellow, cars should slow down and prepare to stop. When the student waits to cross the street, they should not cross if the light is yellow.

Red: When the signal turns red, cars stop. Students do not cross the street.



WALK (WORDS): The walk signal is found at intersections with the traffic light. The WALK means students can cross the street.



WALK SIGNAL (SYMBOL): The symbol is the same as the WALK sign. The person walking means it is safe to cross.



DON'T WALK (WORDS): The DON'T WALK signal is part of the walk signal. Students don't cross the street until the signal changes to WALK.



DON'T WALK (SYMBOL): This symbol is the same as the DON'T WALK sign. It is part of the



signal with the picture of the person walking. This is a picture of a red hand, meaning you should STOP. You should wait to cross the street until the white picture of the person walking is showing.

DON'T WALK (FLASHING SYMBOL): When the red DON'T WALK sign is flashing, it means use caution. If you are in the street, finish crossing the street. If you have not started crossing the street, stay on the curb.

CROSSWALK SIGN: This sign means that a crosswalk is ahead. Car drivers and bicyclists must stop to allow people in the crosswalk to cross the street. If you are using a crosswalk



to cross the street, students need to look left, right and left again and for turning cars before crossing.

SCHOOL CROSSWALK SIGN: This sign means:

When school is opening in the morning and closing in the afternoon, the school is a very busy and crowded area.



It is important for students to carefully look to the left, right and left again and for turning cars.

RAILROAD SIGN: This sign means a railroad crossing is ahead.

RAILROAD CROSSING SIGN: This sign has red flashing lights that will flash and a bell will ring when a train is coming.



RAILROAD CROSSING GATE: The gate will be horizontal when a train is coming and in the upward position when it is safe to cross.

LESSON 3:

OBJECTIVE

Understanding Driver Behavior

BACKGROUND

Among all of the causes of car collisions in the United States, reckless or distracted driving is at the top of the list. There are many different kinds of behaviors that can constitute as reckless driving. Some of the most common include behaviors like:

- Drinking and driving
- Speeding
- Tailgating
- Refusing to yield
- Running red lights
- Running stop signs
- Using the cell phone (texting and calling)
- Putting on make-up

PROCEDURE

Position the cars at intersections and ask students to identify all the dangerous behaviors of drivers.





LESSON 4:

OBJECTIVE

Using Crosswalks

BACKGROUND

Intersections are a hotspot for pedestrian accidents. Using signaled crosswalks dramatically reduces the risk. Clearly marked pedestrian pathways are vital at or near parking lots because drivers are less likely to see people when they're focused on parking.

PROCEDURE

Safety Lessons:

<u>Sidewalks</u>: Make it clear to the students that walking in the street is completely unacceptable. Sidewalks are made for pedestrian use, so be sure to have students utilize them at all times. Teach students to be a careful pedestrian by making sure they always stick to the sidewalks, even if traffic doesn't look too heavy.

<u>Pedestrian Crossings:</u> Remind students that no matter what the emergency (spotting a friend or a family member on the road), they are not to dash from one side of the street to the other and to only cross at the crosswalk. It is essential that students use traffic signals and crosswalks whenever crossing a street.

<u>To Walk or Not to Walk:</u> Though drivers are supposed to stop at crosswalks, not all do. Teach students to be a careful pedestrian by letting them know that it is only safe to cross when the signal says 'Walk.'

<u>Left, Right, Left:</u> Teach students to look on both sides of the street and for turning cars before crossing, as well as to keep an eye out for cars that are backing up or turning left or right.

<u>Wait and Make Eye Contact:</u> Teach students to wait at a crosswalk for vehicles to come to a complete halt. Making eye contact with the driver before or during crossing is also a good crosswalk safety tip for pedestrians.

<u>No Music, No Cellphones:</u> Teach student about the hazards of walking the streets wearing their headphones (not being able to hear an approaching vehicle) or talking with someone on the phone.





Whether walking or bicycling with friends or family, learning basic pedestrian and bicycle safety may help prevent injuries and prepare children for a lifetime of safe walking and bicycling. Preventing pedestrian and bicycle injuries and preparing children to make safe and effective active transportation choices. Preventing pedestrian and bicycle injuries requires a combination of approaches: engineering strategies to improve the infrastructure, enforcement strategies to reduce vehicle speeds and education strategies to increase safety skills. In the "Walk, Ride & Roll" Program students will learn how to walk and bicycle safely near traffic, cross the street at a crosswalk and recognize visual barriers and avoid obstacles. Throughout the program, students will be learning rules of the road, safety check for their bicycles, how to properly fit a helmet, how to effectively pedal and brake, where to walk, ride and roll and how to communicate with drivers and negotiate traffic.

This curriculum is a product of research and development by safety educators, bike and pedestrian advocates, health field professionals and transportation planners. Some elementary school children are traveling further and are allowed greater independence. By providing them with traffic skills, they will be safer and more confident in their travels and parents will feel more secure in their children's desire for more responsibility and independence.

Learning safe pedestrian and bicycling skills will increase the level of confidence for safe travel as well as increase physical activity for healthier children. Walking and bicycling is an excellent form of exercise for the increasing unhealthy, inactive and overweight youth population. Promoting walking and bicycling as a means of transportation will develop a population of more active and healthy children, teens and later adults.

The overall goal of the Walk, Ride and Roll is to promote skill development. Although elementary school children have a general understanding of bicycle and pedestrian safety, the goal is to make the understanding an automatic response in behaviors.

No single factor is completely responsible for the problem of pedestrian and bicycle / vehicle crashes resulting in injuries and fatalities. A combination of

Physical Environment Lack of Crosswalks/ **Drivers** Sidewalks • Misperception of • Width of Road Risk (cell phones, Absence or Lack of alcohol) Sidewalks • Excessive Vehicle Vision Barriers Speed Vehicle Type •High Traffic Volume Pedestrian & Bicyclist **Crash Triangle Pedestrian & Bicyclist Behaviors** Jaywalking Wrong Way Cycling • Disobeying Traffic Signs & Signals Not Wearing a Helmet Misperception of Risk Lack of Awareness of Laws Poor Understanding of Driver **Behavior**

unsafe pedestrian behavior, vehicle and driver factors, problematic physical environments, and other special conditions all contribute to them.

Most pedestrian and bicycle collisions will be the result of failures on all three sides of the Bicycle and Pedestrian Collision Triangle: pedestrians and bicyclists who are inattentive or incapable of using the street safely; drivers who are distracted and physical environments that encourage unsafe pedestrian and/ or driver behavior. The importance of each side of the triangle will vary from problem to problem. Fixing any one side may reduce the problems, but fixing more than one side of the triangle increases the safety of pedestrians and bicyclists.

ADDITIONAL RESOURCES

Bike Rodeos

Bicycling Life - http://www.bicyclinglife.com/ SafetySkills/BicycleRodeo.htm

United Cycle Bike Rodeo Resource Kit - http://bikes. unitedcycle.com/page.cfm?pageld=90

Bike Cornell, Organizer's Guide to Bike Rodeos - http:// www.bike.cornell.edu/pdfs/Bike_Rodeo_404.2.pdf

Cascade Bicycle Club Education Foundation - http:// www.cbcef.org/pdf/bike_rodeo06.pdf

Washington Area Bicyclist Association - http://www. waba.org/bikingforkids/leaders.php

Brain Injury Association of New Jersey Bike Rodeo Manual - http://www.bianj.org/Websites/bianj/Images/ Wheeled%20Sport%20Bike%20Rodeo%20Manual.pdf

Safe Routes to School

National Center for Safe Routes to School - http://www.saferoutesinfo.org/

CDOT Safe Routes to School Program - www.dot.state. co.us/BikePed/SafeRoutesToSchool.htm

Helmet Promotion and Resources

Toolkit for Helmet Promotion Programs - http://www. helmets.org/toolkit.htm

Helmets R Us (really) - http://www.helmetsrus.net/

Bicycle Helmet Fitting - http://www.helmets.org/fit.htm

Bicycle Helmet Fitting from Denver Health - http:// www.denverhealth.org/portal/Portals/0/docs/ BicycleHelmets.pdf

Egg drop helmet demo instructions - http://www. minnesotasafetycouncil.org/family/walktoschool/ eggdrop.pdf

Bike Course Equipment

Volta Bike Rodeo Speed Bumps, Lightweight and Stable Obstacles, Amazon.com

Chalk, Amazon.com

Traffic Cones, Uline.com

Traffic Signs, Guidecraft Drivetime Signs (Set of 6), Walmart.com

Bicycling Resources

League of American Bicyclists - http://www.bikeleague. org/

Bicycle Colorado - http://bicyclecolo.org/

Health & Safety

California Pedestrian and Bicycle Safety Curriculum for 4th and 5th Grade - https://archive.cdph.ca.gov/ HealthInfo/injviosaf/Documents/ CaliforniaPedBicycleSafetyCurriculum.pdf

California Active Transportation Resource Center - http://www.caatpresources.org

California School Crossing Guard Training Guidelines - https://archive.cdph.ca.gov/HealthInfo/injviosaf/ Documents/ CASchoolCrossingGuardTrainingGuidelines.pdf

APPENDIX

Rodeo Course Equipment

Templates for Rodeo Set-Up

Rodeo Schedule Form Rodeo

Permission Form

Rodeo Course Equipment



Volta Bike Rodeo Speed Bumps Lightweight and Stable Obstacles Amazon.com



Chalk Amazon.com



Traffic Cones Uline.com



Traffic Signs Guidecraft Drivetime Signs (Set of 6) Walmart.com

Template for Bicycle and Pedestrian Rodeo Set-Up



Template for Bicycle Rodeo Set-Up



Bicycle and Pedestrian Rodeo Schedule School Day Rodeo

Class	Number of Students	Start Time	End Time
1			
2			
3			
4			
Lunch	-		
5			
6			
7			
8			

PERMISSION FORM

Bicycle and Pedestrian Safety Rodeo

(SCHOOL / LOCATION)

(DATE)

Child's Name:		Grade:
School:		
Address:		
City:	State:	Zip:
Telephone No.:	Cell No:	

I, parent or legal guardian of the child named above, do hereby agree to allow my child to participate in the Bicycle and Pedestrian Safety Rodeo.

I further agree to indemnify and hold harmless (School Name) and other sponsoring organizations and their employees, officers and volunteers from and against any and all liability associated with my child's participation in the Bicycle and Pedestrian Safety Rodeo.

I hereby consent and authorize (school and/or agency) to take the photograph/video image of the child listed below, for whom I am the parent and/or legal guardian. I acknowledge and agree that (school and/or agency) may publish, display or use the image for any (school and/or agency) purpose and by any means whatsoever including, but not limited to, electronic or digital means.

Name of Parent or Legal Guardian: _____

Signature of Parent or Legal Guardian:

Date:

AM & ANA

Cost Estimates

Cost estimates were developed for project recommendations, and are included below.

Improvement	Cost/Action	Unit
New Crosswalk	\$14	per ft
New School Crossing Signs	\$300	each
Upgrade Curb Ramp	\$5,000	each
New Bike Lane	\$8	per ft
New Pedestrian Refuge	\$15,000	each
New bulb-out	\$7,600	each
New Road Diet	\$65	per ft
Maintain Crosswalk	\$14	per ft
School Sign	\$300	each
New Traffic Circle	\$40,000	each
New Sidewalk	\$72	per ft
New RRFB	\$22,000	each
New Roundabout	\$1,000,000	each
New Sidewalk	calc SW	
New Yield Line	\$60	lane
New In-Street Paddle Sign	\$360	each
New Median	\$15,000	each
New Legend	\$450	each
Maintain Tree	\$3,000	each
New Stop Sign	\$300	each
New Speed Feedback Sign	\$5,500	each
New Speed Bumps	\$35	lf
New Vertical Curb	\$40	lf
Maintain Striping		
New Crossing Signs	\$300	each
New Stop Control	\$300	each
New Pedestrian Path	\$15	sf

Table C-1: Cost Estimates

Improvement	Cost/Action	Unit
New Paved Pathway	\$9	sf
Maintain Pedestrian Signal	\$36	lf
New Asphalt	\$9	sf
New Raised Median	calc	
Maintain Speed Feedback Sign	\$200	each
HAWK	\$200,000	each
New crosswalk and yield line	\$750	each
New crosswalk, yield line, and school crossing signs	\$1,350	each
New RRFB, crosswalk, and yield line	\$23,000	each
New crosswalk and signs	\$1,300	each
Upgrade and new curb ramps	\$7,500	each
New Curb Ramp	\$5,000	each
Maintain new signal timing	\$10,000	each
Centerline stripe (21)	\$1	lf
Striped median Detail (28)	\$1	lf
2-way left-turn (31)	\$1	lf
Enhanced Crossing with bulbouts or median	\$35,000	each
New Buffered Bike Lane	\$10	per ft
New Neighborhood Roundabout	\$500,000	each
Edgeline Stripe	\$1	lf

Table C-1: Cost Estimates (continued)

Table C-2: Project Cost Estimates

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
AG Spanos Elementa	ry					3 crosswalks, school crossing signs, 4 upgraded curb ramps, 1 road diet, 1 bike lane, 2 school signs			\$1,400,169.00	\$280,034	\$420,051	\$2,100,254
California & Church (south leg)				New crosswalk	City		46	\$14.00	\$644.00	\$129	\$193	\$966
California & Church (south and north leg)				New school crossing signs	City	Assembly D	2	\$300.00	\$600.00	\$120	\$180	\$900
California & Church (NW corner)				Upgrade curb ramp	City		1	\$5,000.00	\$5,000.00	\$1,000	\$1,500	\$7,500
California road diet	California	E Alpine Ave	E 9th St	New road diet	City	3.8 Miles	20,100	\$65.00	\$1,306,500.00	\$261,300	\$391,950	\$1,959,750
California & Hazelton				Maintain crosswalk	City		225	\$14.00	\$3,150.00	\$630	\$945	\$4,725
California & Hazelton (NW, SW, SE corner)				Upgrade curb ramp	City		3	\$5,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Stanislaus & Hazelton				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Stanislaus & Hazelton (NE corner)				Upgrade curb ramp	City		1	\$5,000.00	\$5,000.00	\$1,000	\$1,500	\$7,500
N/A- General Note				School sign	City		4	\$300.00	\$1,200.00	\$240	\$360	\$1,800
Hazelton bike lane	Hazelton	San Joaquin St	Wilson Way	New bike lane	City	Cost is full length of bike lane segment	7,578	\$7.50	\$56,835.00	\$11,367	\$17,051	\$85,253
E Hazelton & S American (NE corner)				Upgrade curb ramp	City		1	\$5,000.00	\$5,000.00	\$1,000	\$1,500	\$7,500
E Hazelton & S American				New crosswalk	City		35	\$14.00	\$490.00	\$98	\$147	\$735
Dolores Huerta Eleme	entary					1 traffic circle, crosswalk, yield line, and school crossing sign			\$42,700.00	\$8,540	\$12,810	\$64,050
Lincoln & Howard				New traffic circle	City		1	\$40,000.00	\$40,000.00	\$8,000	\$12,000	\$60,000
Lincoln & 3rd (north and south leg)				New crosswalk, yield line, and school crossing signs	City		2	\$1,350.00	\$2,700.00	\$540	\$810	\$4,050
Edison High						3 bike lanes, 1 pedestrian refuge, 1 bulb-out, 3 curb ramps, 4 crosswalks, 2 yield lines, 2 RRFB, 1 sidewalk, 1 roundabout			\$1,650,868.00	\$330,174	\$495,261	\$2,476,303
Center bike lane	Center	Cleveland St	3rd St	New bike lane	City	Cost is full length of bike lane segment	27,772.8	\$7.50	\$208,296.00	\$41,659	\$62,489	\$312,444
El Dorado bike lane	El Dorado	Cleveland St	3rd St	New bike lane	City	Cost is full length of bike lane segment	27,772.8	\$7.50	\$208,296.00	\$41,659	\$62,489	\$312,444
French Camp bike lane	French Camp Turnpike	S Lincoln St	S Center St	New bike lane	City	Cost is full length of bike lane segment	5,000	\$7.50	\$37,500.00	\$7,500	\$11,250	\$56,250
Center & Dr. Martin Luther King Jr. (west leg)				New pedestrian refuge	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Center & Dr. Martin Luther King Jr.				New bulb-out	City		4	\$7,600.00	\$30,400.00	\$6,080	\$9,120	\$45,600
Center & Dr. Martin Luther King Jr.				Upgrade curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Center & First (east leg)				New crosswalk	City		36	\$14.00	\$504.00	\$101	\$151	\$756

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
Center & First (north leg)				New RRFB, crosswalk, and yield line	City		1	\$23,000.00	\$23,000.00	\$4,600	\$6,900	\$34,500
Center & First				Upgrade curb ramp			2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
E 1st Street sidewalk	E 1st Street	Center Street	El Dorado Street	New sidewalk	City		250	\$72.00	\$27,600.00	\$5,520	\$8,280	\$41,400
Turnpike, midblock between Lincoln and Dr. Martin Luther King				New crosswalk and yield line	City		1	\$750.00	\$27,600.00	\$5,520	\$8,280	\$41,400
First & El Dorado (north or south leg)				New crosswalk			48	\$14.00	\$672.00	\$134	\$202	\$1,008
First & El Dorado (north or south leg)				New RRFB	City		1	\$22,000.00	\$22,000.00	\$4,400	\$6,600	\$33,000
First & El Dorado				Upgrade curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Turnpike & Dr. Martin Luther King Jr.				New roundabout	City		1	\$1,000,000.00	\$1,000,000.00	\$200,000	\$300,000	\$1,500,000
Fillmore Elementary						1 bike lane, 2 sidewalks, 2 crosswalks, 1 yield line, 1 in-street paddle sign, 1 bulb-out, 2 curb ramps, 1 median			\$338,602.00	\$67,720	\$101,581	\$507,903
Fremont bike lane	E Fremont	N Wilson Way	SR 99	New bike lane	City	cost is full length of bike lane segment	17,001.6	\$7.50	\$127,512.00	\$25,502	\$38,254	\$191,268
Golden Gate sidewalk	Golden Gate	Anita	Poplar	New sidewalk	City		380	\$72.00	\$21,000.00	\$4,200	\$6,300	\$31,500
Chitwood & E Poplar (south leg)				New crosswalk	City		42	\$14.00	\$588.00	\$118	\$177	\$883
Poplar at school entrance				New bulb-out	City		2	\$7,600.00	\$15,200.00	\$3,040	\$4,560	\$22,800
Poplar at school entrance				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Poplar at school entrance				New in-street paddle sign	City		2	\$360.00	\$720.00	\$144	\$216	\$1,080
E Poplar & N Filbert (east leg)				New crosswalk	City		33	\$14.00	\$462.00	\$92	\$139	\$693
E Poplar & N Filbert				Upgrade and new curb ramps	City		6	\$7,500.00	\$30,000.00	\$6,000	\$9,000	\$45,000
N Filbert & E Fremont				New median	City	Raised median	1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
N Filbert & E Fremont (east and west leg)				Upgrade curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
E Poplar sidewalk	E Poplar St	N Filbert St	N Golden Gate	New sidewalk	City		1,500	\$72.00	\$108,000.00	\$21,600	\$32,400	\$162,000
George Washington	Elementary					1 sidewalk, 7 crosswalks, 1 all-way stop, 1 RRFB			\$257,226.00	\$51,445	\$77,168	\$385,839
S. Los Angeles sidewalk	S Los Angeles	Sonora	Main	New sidewalk	City		1,500	\$72.00	\$108,000.00	\$21,600	\$32,400	\$162,000
S Los Angeles & W Sonora				New crosswalks and all-way stop	City		1	\$2,684.00	\$2,684.00	\$537	\$805	\$4,026
S Los Angeles & W Washington (east leg)				New RRFB, crosswalk, and yield line	City		1	\$23,000.00	\$23,000.00	\$4,600	\$6,900	\$34,500

Table C-2: Proiect	Cost Estimates	(continued)
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Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
S Fresno & W Washington				Maintain crosswalk	City		253	\$14.00	\$3,542.00	\$708	\$1,063	\$5,313
S Fresno & Church (north or south leg)				New signalized crosswalk	City		1	\$120,000.00	\$120,000.00	\$24,000	\$36,000	\$180,000
Grunsky Elementary						5 crosswalks, 3 yield lines, 1 legend, 6 curb ramps, 2 tree maintenance, 1 stop sign, 1 median			\$214,678.00	\$42,936	\$64,404	\$322,018
Walnut & School (east leg)				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Walnut & School (west leg)				New legend		"School crossing"	1	\$450.00	\$450.00	\$90	\$135	\$675
Walnut & School				Upgrade and new curb ramps	City		4	\$7,500.00	\$30,000.00	\$6,000	\$9,000	\$45,000
Walnut & School				Maintain tree	City		1	\$3,000.00	\$3,000.00	\$600	\$900	\$4,500
Walnut & Funston				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Walnut & Funston (west and north leg)				New curb ramp	City		3	\$5,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Walnut & Sycamore (west leg)				New stop sign	City		1	\$300.00	\$300.00	\$60	\$90	\$450
Walnut & Sycamore				Upgrade and new curb ramps	City		3	\$7,500.00	\$22,500.00	\$4,500	\$6,750	\$33,750
Walnut & Sycamore (SE corner)				Maintain tree	City		1	\$3,000.00	\$3,000.00	\$600	\$900	\$4,500
Sycamore & Harding (west and east leg)				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Sycamore & Harding (north leg)				Upgrade and new curb ramps	City		4	\$7,500.00	\$30,000.00	\$6,000	\$9,000	\$45,000
Sycamore & Harding (east and west leg)				New median	City		2	\$15,000.00	\$30,000.00	\$6,000	\$9,000	\$45,000
Sycamore & Harding				Upgrade and new curb ramps	City		4	\$7,500.00	\$30,000.00	\$6,000	\$9,000	\$45,000
Funston & Harding (west leg)				Upgrade curb ramp	City		3	\$5,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Harding & School				Upgrade and new curb ramps	City		4	\$7,500.00	\$30,000.00	\$6,000	\$9,000	\$45,000
Wilson & Harding				Maintain crosswalk	City	Assumed new striping	137	\$14.00	\$1,918.00	\$384	\$576	\$2,878
Wilson & Bradford				Maintain crosswalk	City	Assumed new striping	135	\$14.00	\$1,890.00	\$378	\$567	\$2,835
Harrison Elementary						2 sidewalks, 3 curb ramps, 3 crosswalk, 1 advance stop bar, 2 speed feedback signs, 1 median, 1 bulb-out, 1 RRFB			\$274,694.00	\$54,939	\$82,408	\$412,041
Alpine & El Pinal				New sidewalk	City		1,670	\$72.00	\$120,240.00	\$24,048	\$36,072	\$180,360
Alpine & El Pinal (SW corner)				New curb ramp	City		1	\$5,000.00	\$5,000.00	\$1,000	\$1,500	\$7,500
Alpine & El Pinal (south leg)				Maintain crosswalk	City		56	\$14.00	\$784.00	\$157	\$235	\$1,176
Alpine sidewalk	Alpine	1827 Alpine	Palermo	New sidewalk	City		690	\$72.00	\$49,680.00	\$9,936	\$14,904	\$74,520
Alpine (west of Pinal)				New speed feedback sign	City		1	\$5,500.00	\$5,500.00	\$1,100	\$1,650	\$8,250

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
Alpine (west of Sanguinetti)				New speed feedback sign	City		1	\$5,500.00	\$5,500.00	\$1,100	\$1,650	\$8,250
Alpine Median	Alpine	El Pinal Dr	Singuittie	New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Alpine & Sanguinetti (SW corner)				New bulb-out	City		2	\$7,600.00	\$15,200.00	\$3,040	\$4,560	\$22,800
Alpine & Sanguinetti				Maintain crosswalk	City		360	\$14.00	\$5,040.00	\$1,008	\$1,512	\$7,560
Alpine & Sanguinetti				Upgrade curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Alpine & Sanguinetti (west leg)				New RRFB	City		1	\$22,000.00	\$22,000.00	\$4,400	\$6,600	\$33,000
Palmero & Alpine				Upgrade curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Palmero & Alpine				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Hazelton Elementary						1 speed bump, 7 crosswalks, 1 yield line, 6 curb ramps, 1 bulb-out, 1 road diet			\$455,096.00	\$91,019	\$136,529	\$682,644
	Jefferson	Commerce	Monroe	New speed bumps	City	Not included: extended distance from school						
	Jefferson	Commerce	Monroe	New crosswalk	City	Not included: extended distance from school						
Jefferson & Lincoln (north leg)				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Jefferson & Lincoln				Upgrade and new curb ramps	City		4	\$7,500.00	\$30,000.00	\$6,000	\$9,000	\$45,000
Lincoln & Worth (north leg)				Upgrade curb ramp	City	New crosswalk and curb ramps	4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Anderson & Van Buren (north and south leg)				New crosswalk	City		110	\$14.00	\$1,540.00	\$308	\$462	\$2,310
Anderson & Van Buren				Upgrade curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Anderson & Madison (north and south leg)				New crosswalk	City	Not included: extended distance from school						
Anderson & Madison				Upgrade curb ramp	City	Not included: extended distance from school						
Harrison & Anderson				Maintain crosswalk	City		104	\$14.00	\$1,456.00	\$291	\$437	\$2,184
Harrison & Anderson				Upgrade and new curb ramps	City		4	\$7,500.00	\$30,000.00	\$6,000	\$9,000	\$45,000
Harrison & Jefferson				Upgrade and new curb ramps	City		4	\$7,500.00	\$30,000.00	\$6,000	\$9,000	\$45,000
Harrison & Jefferson (north leg)				New bulb-out	City	new bulb-out and concrete landing area	1	\$7,600.00	\$7,600.00	\$1,520	\$2,280	\$11,400
Harrison & Jefferson				Maintain crosswalk	City		125	\$14.00	\$1,750.00	\$350	\$525	\$2,625
Lincoln road diet	Lincoln	Sonora Street	French Camp	New road diet	City		4,800	\$65.00	\$312,000.00	\$62,400	\$93,600	\$468,000

Table C-2 [.] Project Cost Estimates	(continued)
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Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
John Marshall Elemen	ntary					1 RRFB, 2 crosswalks, 1 median			\$39,576.00	\$7,915	\$11,873	\$59,364
Lever Blvd/Kansas St (east or west leg)				New RRFB	City		1	\$22,000.00	\$22,000.00	\$4,400	\$6,600	\$33,000
Lever & Dry Creek Way (east and west leg)				New crosswalk	City		100	\$14.00	\$1,400.00	\$280	\$420	\$2,100
Lever & Dry Creek Way (east and west leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Lever & Fresno (north and south leg)				New crosswalk	City		84	\$14.00	\$1,176.00	\$235	\$353	\$1,764
King Elementary						7 crosswalks, 1 school crossing sign, 3 stop signs, 7 curb ramps, 1 vertical curb, 3 bulb- outs, 1 RRFB or HAWK, 1 sidewalk			\$343,410.00	\$68,682	\$103,023	\$515,115
Lafayette & Rendon (south leg)				New crosswalk	City	New crosswalk and stop sign	45	\$14.00	\$630.00	\$126	\$189	\$945
Lafayette & Rendon (SW and SE corner)				New curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Lafayette & Golden Gate (south leg)				New crosswalk	City	New crosswalk and stop sign	40	\$14.00	\$560.00	\$112	\$168	\$840
Lafayette & Golden Gate (SW and SE corner)				New curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Yellowstone & Burkett (east leg)				New crosswalk	City	New crosswalk and stop sign	40	\$14.00	\$560.00	\$112	\$168	\$840
Yellowstone & Burkett (east leg)				New curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Lafayette St in front of school	Lafayette Street	Burkett Ave	East of school	New vertical curb	City		470	\$40.00	\$18,800.00	\$3,760	\$5,640	\$28,200
Lafayette & Glacier (at existing crosswalk)				New bulb-out	City		2	\$7,600.00	\$15,200.00	\$3,040	\$4,560	\$22,800
Lafayette & Sequoia (west leg)				New bulb-out	City		2	\$7,600.00	\$15,200.00	\$3,040	\$4,560	\$22,800
Lafayette & Sequoia (east leg)				New crosswalk	City		40	\$14.00	\$560.00	\$112	\$168	\$840
Burkett & Lafayette (SW and SE corner)				New curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Burkett & Marsh (east or west leg)				New crosswalk	City		80	\$14.00	\$1,120.00	\$224	\$336	\$1,680
Burkett & Marsh				Upgrade curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Marsh & Filbert (south leg)				New crosswalk	City	New crosswalk and sign	34	\$14.00	\$476.00	\$95	\$143	\$714
Marsh & Filbert (south leg)				HAWK	City	New crossing control: RRFB or HAWK. Assumed to be HAWK.	1	\$200,000.00	\$200,000.00	\$40,000	\$60,000	\$300,000
Marsh & Filbert (SE corner)				New bulb-out			2	\$7,600.00	\$15,200.00	\$3,040	\$4,560	\$22,800
Lafayette & Filbert				Maintain crosswalk	City		186	\$14.00	\$2,604.00	\$521	\$781	\$3,906

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
Lafayette & Filbert (east leg)				New crosswalk	City		50	\$14.00	\$700.00	\$140	\$210	\$1,050
Lafayette & Filbert				Upgrade curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Lafayette & Filbert (SE corner)				New sidewalk	City		25	\$72.00	\$1,800.00	\$360	\$540	\$2,700
Madison Elementary						2 in-street paddle signs, 2 crosswalks, 1 stop sign, 1 road diet			\$395,540.00	\$79,108	\$118,662	\$593,310
Mission & Mendocino (north and south leg)				New in-street paddle sign	City		2	\$360.00	\$720.00	\$144	\$216	\$1,080
Mission & Mendocino (west and south leg)				Maintain crosswalk	City		65	\$14.00	\$910.00	\$182	\$273	\$1,365
Mission & Michigan				New in-street paddle sign	City		4	\$360.00	\$1,440.00	\$288	\$432	\$2,160
Mission & Michigan				Maintain crosswalk	City		155	\$14.00	\$2,170.00	\$434	\$651	\$3,255
Mendocino & Marine (south leg)				New stop sign	City		1	\$300.00	\$300.00	\$60	\$90	\$450
Alpine road diet	W Alpine Ave	Plymouth Rd	E Pershing Ave	New road diet	City		6,000	\$65.00	\$390,000.00	\$78,000	\$117,000	\$585,000
McKinley Elementary						7 crosswalks, 1 yield line, 2 in-street paddle signs, 1 raised median, 1 bulb-out, 2 RRFB or HAWK, 1 road diet			\$469,588.00	\$93,918	\$140,877	\$704,383
9th & El Dorado (west leg)				Maintain crosswalk	City		36	\$14.00	\$504.00	\$101	\$151	\$756
9th & El Dorado (north leg)				New median	City	New crosswalk and raised median	1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
9th & El Dorado (north or south leg)				New bulb-out	City		2	\$7,600.00	\$15,200.00	\$3,040	\$4,560	\$22,800
9th & El Dorado (north or south leg)				HAWKk	City	HAWK or RRFB. Assumed Hawk.	1	\$200,000.00	\$200,000.00	\$40,000	\$60,000	\$300,000
8th & San Joaquin (west leg)				New crosswalk	City		33	\$14.00	\$462.00	\$92	\$139	\$693
8th Road Diet	W 8th Street	I-5	El Dorado Street	New road diet	City		3250	\$65.00	\$211,250.00	\$42,250	\$63,375	\$316,875
8th & Madison				Maintain crosswalk	City		136	\$14.00	\$1,904.00	\$381	\$571	\$2,856
8th & Commerce (west or east leg)				New RRFB	City	New crosswalk, yield line and RRFB	1	\$22,000.00	\$22,000.00	\$4,400	\$6,600	\$33,000
9th & Madison (west and east leg)				New Crosswalk	City		65	\$14.00	\$910.00	\$182	\$273	\$1,365
9th & 10th (south leg)				New crosswalk	City		43	\$14.00	\$602.00	\$120	\$181	\$903
9th & 10th (south leg)				New in-street paddle sign	City		2	\$360.00	\$720.00	\$144	\$216	\$1,080
Madison & Mosswood (east and west leg)				New crosswalk	City		74	\$14.00	\$1,036.00	\$207	\$311	\$1,554

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
Montezuma Elementa	ary					2 sidewalks, 1 drop-off reconstruction, 1 crosswalk, 1 maintained signal timing			\$178,400.00	\$35,680	\$53,520	\$267,600
Farmington sidewalk	Farmington Rd	Madrid Dr	S Netherton Ave	New sidewalk	City		950	\$72.00	\$68,400.00	\$13,680	\$20,520	\$102,600
Farmington Frontage	Farmington Rd	in front of school		Reconstruct sidewalk and drop-off	City				\$100,000.00	\$20,000	\$30,000	\$150,000
Farmington-8th St & Mariposa				Maintain new signal timing	City	Maintain crosswalk and maintain signal timing	1	\$10,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Nightingale Elementa	iry					2 crosswalks, school crossing signs			\$1,882.00	\$376	\$565	\$2,823
Bellevue & Carpenter (east leg)				New crosswalk	City		38	\$14.00	\$532.00	\$106	\$160	\$798
Bellevue & Ralph				New crosswalk, yield line, and school crossing signs	City	Maintain crosswalks and crossing signs	1	\$1,350.00	\$1,350.00	\$270	\$405	\$2,025
Pittman Elementary						5 medians or bulb-outs, 3 crosswalks, 1 tree maintenance, 1 RRFB, 1 curb ramp, 1 legend			\$95,106.00	\$19,021	\$28,532	\$142,659
Grant & Park (east and west leg)				New bulb-out	City	New median or bulb outs	1	\$7,600.00	\$7,600.00	\$1,520	\$2,280	\$11,400
Grant & Park (south and east leg)				Maintain crosswalk	City		90	\$14.00	\$1,260.00	\$252	\$378	\$1,890
Grant & Park (north and west of int.)				Maintain tree	City		1	\$3,000.00	\$3,000.00	\$600	\$900	\$4,500
Grant & Park				New RRFB	City		1	\$22,000.00	\$22,000.00	\$4,400	\$6,600	\$33,000
Fremont & Grant (west or east leg)				New crosswalk	City		66	\$14.00	\$924.00	\$185	\$277	\$1,386
Fremont & Grant				New bulb-out	City	New median or bulb outs	1	\$7,600.00	\$7,600.00	\$1,520	\$2,280	\$11,400
Oak & Grant (west and east leg)				New crosswalk	City		72	\$14.00	\$1,008.00	\$202	\$303	\$1,513
Oak & Grant (west and east leg)				New bulb-out	City	New median or bulb outs	1	\$7,600.00	\$7,600.00	\$1,520	\$2,280	\$11,400
Park & American (west or east leg)				New crosswalk	City		76	\$14.00	\$1,064.00	\$213	\$319	\$1,596
Park & American (west or east leg)				New bulb-out	City	New median or bulb outs	1	\$7,600.00	\$7,600.00	\$1,520	\$2,280	\$11,400
Poplar & California (north and south leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Fronting school	Park Street			Upgrade curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Front of school	Park Street	American	Aurora	New legend	City		1	\$450.00	\$450.00	\$90	\$135	\$675
Roosevelt Elementary	/					1 striping maintenance, 2 curb ramps, 1 crosswalk, 1 yield line, 1 bulb-out, 1 RRFB			\$66,058.00	\$13,212	\$19,818	\$99,088
Horner & Broadway (east leg)				Maintain crosswalk	City		33	\$14.00	\$462.00	\$92	\$139	\$693
Horner & Broadway				Upgrade and new curb ramps	City		3	\$7,500.00	\$22,500.00	\$4,500	\$6,750	\$33,750
Broadway & Main (east leg)				Maintain crosswalk	City	New crosswalk and yield line	64	\$14.00	\$896.00	\$179	\$269	\$1,344

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
Broadway & Main (east leg)				New bulb-out	City		2	\$7,600.00	\$15,200.00	\$3,040	\$4,560	\$22,800
Broadway & Main (east leg)				New RRFB	City		1	\$22,000.00	\$22,000.00	\$4,400	\$6,600	\$33,000
	E Main Street	Near school		Education	School			N/A				
Broadway at parking lot entrance				New curb ramp	City		1	\$5,000.00	\$5,000.00	\$1,000	\$1,500	\$7,500
Taft Elementary						5 sidewalks, 1 crosswalk			\$591,296.00	\$118,259	\$177,389	\$886,944
Downing & I-5 interchange				Pedestrian enhancements	City							
Downing	Downing	French Camp Turnpike	Odell	New sidewalk	City	North side	1,900	\$72.00	\$136,800.00	\$27,360	\$41,040	\$205,200
Mourfield	Mourfield	Downing	South to school attendance boundary	New sidewalk	City	Both sides	3,100	\$72.00	\$223,200.00	\$44,640	\$66,960	\$334,800
French Camp Turnpike	French Camp Turnpike	Downing	South to school attendance boundary	New sidewalk	City	East side	1,550	\$72.00	\$111,600.00	\$22,320	\$33,480	\$167,400
French Camp Turnpike & Downing (east leg)				New crosswalk	City		64	\$14.00	\$896.00	\$179	\$269	\$1,344
French Camp Turnpike & Downing				New sidewalk	City		250	\$72.00	\$18,000.00	\$3,600	\$5,400	\$27,000
Odell	Odell	lvy	Downing	New sidewalk	City	West side	1,400	\$72.00	\$100,800.00	\$20,160	\$30,240	\$151,200
Taylor Elementary						1 median, 1 crosswalk, 2 bulb-out, 2 raised median, 1 yield line, 3 curb ramps, 1 bike lane, 1 RRFB			\$147,200.00	\$29,440	\$44,160	\$220,800
Georgia & Lever (west leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Hawaii & Lever				Enhanced crossing with bulb-outs or median	City	New crosswalk, bulb-outs, raised median and yield line, and new curb ramp on NW corner	1	\$35,000.00	\$35,000.00	\$7,000	\$10,500	\$52,500
Hawaii & Lever (west leg)				New bulb-out	City	assumed bulb-outs	2	\$7,600.00	\$15,200.00	\$3,040	\$4,560	\$22,800
Lever Blvd	Lever Blvd	w 8th Street	Dry Creek Way	New buffered bike lane	City		4,000	\$10.00	\$40,000.00	\$8,000	\$12,000	\$60,000
Lever & Kansas (east leg)				New RRFB	City		1	\$22,000.00	\$22,000.00	\$4,400	\$6,600	\$33,000
Lever & Kansas				Upgrade curb ramp	City	For the crossing, the curb ramp is not faced in the correct direction. Direction is only for pedestrians on sidewalk currently.	1	\$5,000.00	\$5,000.00	\$1,000	\$1,500	\$7,500
8th & Argonaut				Upgrade curb ramp	City		3	\$5,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
Van Buren Elementar	ry					2 curb ramps, 3 crosswalks, 1 yield line, 1 in- street paddle sign, 1 advance stop bar, 2 maintained striping and signs, 1 bulb-out, 1 sidewalk, 1 school legend, I school sign, 1 RRFB			\$246,590.00	\$49,318	\$73,977	\$369,885
Tiffany & 11th				New curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Tiffany & 10th				Maintain crosswalk	City		30	\$14.00	\$420.00	\$84	\$126	\$630
Tiffany & 10th				New in-street paddle sign	City		2	\$360.00	\$720.00	\$144	\$216	\$1,080
Tiffany & 10th (west leg)				New school crossing signs	City	Maintain striping and signs	2	\$300.00	\$600.00	\$120	\$180	\$900
Scribner &10th (north and either east or west leg)				Maintain crosswalk	City	New crosswalks and advance stop bar	100	\$14.00	\$1,400.00	\$280	\$420	\$2,100
Scribner &10th (either east or west leg)				New bulb-out	City	Install curb ramps and bulb-out	1	\$7,600.00	\$7,600.00	\$1,520	\$2,280	\$11,400
10th & Bieghle				New sidewalk	City	Assumed full length from Bieghle to B St. both sides	2,400	\$72.00	\$172,800.00	\$34,560	\$51,840	\$259,200
10th & Bieghle				New school crossing signs	City	Maintain striping and signs	2	\$300.00	\$600.00	\$120	\$180	\$900
10th & Bieghle				New curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
	Scribner St.	E. 10th Street	To the north	New legend	City	Install school legend and sign	1	\$450.00	\$450.00	\$90	\$135	\$675
8th & Phelps				New RRFB	City		1	\$22,000.00	\$22,000.00	\$4,400	\$6,600	\$33,000
Victory Elementary						1 sidewalk, 5 crosswalks, 1 yield line, 1 school crossing sign, 1 roundabout			\$533,482.00	\$106,696	\$160,045	\$800,223
Buena Vista & Monte Diablo (SW corner)				New sidewalk	City		315	\$72.00	\$22,680.00	\$4,536	\$6,804	\$34,020
Buena Vista & Monte Diablo				Maintain crosswalk	City		200	\$14.00	\$2,800.00	\$560	\$840	\$4,200
Buena Vista & Rose (north and south leg)				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Argonne & Monte Diablo & Picardy				New neighborhood roundabout	City		1	\$500,000.00	\$500,000.00	\$100,000	\$150,000	\$750,000
Buena Vista & Lucerne				New crosswalk	City		200	\$14.00	\$2,800.00	\$560	\$840	\$4,200
San Juan & Monte Diablo				New crosswalk	City		155	\$14.00	\$2,170.00	\$434	\$651	\$3,255
San Juan & Rose				New crosswalk	City	New crosswalk and signs	58	\$14.00	\$812.00	\$162	\$244	\$1,218
San Juan & Lucerne (east and west leg)				New crosswalk	City		150	\$14.00	\$2,100.00	\$420	\$630	\$3,150
Wilson Elementary						3 crosswalks, 2 yield line, 1 in-street paddle sign, 1 stop sign, 1 school crossing sign, 1 curb ramp			\$23,900.00	\$4,780	\$7,170	\$35,850
Hunter & Mendocino (west leg)				New in-street paddle sign	City	New yield line and in-street paddle sign	2	\$360.00	\$720.00	\$144	\$216	\$1,080
Hunter & Mendocino				New crossing Signs	City		2	\$300.00	\$600.00	\$120	\$180	\$900

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
San Joaquin & Mendocino (west and south leg)				New crosswalk	City		60	\$14.00	\$840.00	\$168	\$252	\$1,260
Mariposa & San Joaquin (west and north leg)				New crosswalk	City		60	\$14.00	\$840.00	\$168	\$252	\$ 1,260
Mariposa & Hunter (south leg)				New stop control	City		1	\$300.00	\$300.00	\$60	\$90	\$450
Mariposa & Hunter (west leg)				New school crossing signs	City	New crosswalks, yield line, and crossing signs	2	\$300.00	\$600.00	\$120	\$180	\$900
Mariposa & Hunter				New curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Ansel Adams						1 crosswalk, 1 yield line, 1 curb ramp, 1 bike lane			\$17,305.00	\$3,461	\$5,192	\$25,958
Glacier Point & Bridalveil (north leg)				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Glacier Point & Inspiration (north leg)				Maintain crosswalk	City	New crosswalk and yield line	40	\$14.00	\$560.00	\$112	\$168	\$840
Glacier Point & Inspiration (NW corner)				New curb ramp	City		1	\$5,000.00	\$5,000.00	\$1,000	\$1,500	\$7,500
Inspiration bike lane	Inspiration	Glacier Point Dr	Holman Rd	New bike lane	City		1,550	\$7.50	\$11,625.00	\$2,325	\$3,488	\$17,438
Bear Creek High Scho	lool					1 bike lane, 1 crosswalk			\$34,344.00	\$6,869	\$10,303	\$51,516
Thornton bike lane	Thornton	8 Mile Road	AG Spanos Blvd	New bike lane	City		4,400	\$7.50	\$33,000.00	\$6,600	\$9,900	\$49,500
Thornton & Lonnie Beck (north leg)				New crosswalk	City		96	\$14.00	\$1,344.00	\$269	\$403	\$2,016
Christa McAuliffe						1 crosswalk, 2 yield lines, 2 school crossing signs, 1 bike warning indication			\$56,390.00	\$11,278	\$16,917	\$84,585
Iron Canyon & Black Butte (north leg)				Maintain crosswalk	City	New crosswalk, yield line and crossing sign	55	\$14.00	\$770.00	\$154	\$231	\$1,155
McAuliffe & Iron Canyon (west leg)				New crossing signs	City		1	\$300.00	\$300.00	\$60	\$90	\$450
McAuliffe & Iron Canyon	Iron Canyon	AG Spanos	AG Spanos Blvd	New bike lane	City		6,800	\$7.50	\$51,000.00	\$10,200	\$15,300	\$76,500
Wind Cave & Iron Canyon				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Iron Canyon signs	Iron Canyon	Wind Cave Cir	AG Spanos Blvd	School sign	City	"Share the Road" signs	14	\$300.00	\$4,200.00	\$840	\$1,260	\$6,300
Clairmont Elementary	/					2 crosswalks, 1 centerline striping, 15 new or upgraded curb ramps			\$83,070.00	\$16,614	\$24,921	\$124,605
Chambord & Le Mans (east and west leg)				New crosswalk and signs	City	New crosswalks, stops signs, and legends	1	\$1,300.00	\$1,300.00	\$260	\$390	\$1,950
Chambord & Le Mans				Upgrade curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Deauville & Le Mans				Upgrade and new curb ramps	City		2	\$7,500.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Deauville & Le Mans				New crossing Signs	City	Maintain crossing sign and new legend	2	\$300.00	\$600.00	\$120	\$180	\$900
LeMans Avenue	Le Mans Ave	School frontage		Centerline stripe (21)	City	New centerline striping	1,000	\$1.17	\$1,170.00	\$234	\$351	\$1,755

Table C-2: Project Cost Estimates (continued)	
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				Table (C-2: Proje	ect Cost Estimates (contin	nued)					
Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
Pyrenees & Le Mans				Upgrade and new curb ramps	City		3	\$7,500.00	\$22,500.00	\$4,500	\$6,750	\$33,750
Tours & Le Mans				Upgrade and new curb ramps	City		3	\$7,500.00	\$22,500.00	\$4,500	\$6,750	\$33,750
Creekside Elementary	у					3 crosswalks, 3 yield lines, 2 school crossing sign, 1 curb ramp, 2 bulb-outs, 2 sidewalks			\$164,000.00	\$32,800	\$49,200	\$246,000
Treetop & Estate				Maintain crosswalk	City		250	\$14.00	\$3,500.00	\$700	\$1,050	\$5,250
Mineral Springs & Estate (east leg)				New crosswalk, yield line, and school crossing signs	City	New crosswalk, yield line, and signs	1	\$1,350.00	\$1,350.00	\$270	\$405	\$2,025
Estate at school front				Enhanced crossing with bulb-outs or median	City	New curb ramps and bulb-outs, new yield line and relocate signs	1	\$35,000.00	\$35,000.00	\$7,000	\$10,500	\$52,500
Estate Drive	Estate Drive	School frontage		New sidewalk	City	New widened sidewalk	1,500	\$72.00	\$108,000.00	\$21,600	\$32,400	\$162,000
Estate & Frontage (SW corner)				New bulb-out	City		1	\$7,600.00	\$7,600.00	\$1,520	\$2,280	\$11,400
Estate & Frontage (west leg)				New crosswalk, yield line, and school crossing signs	City		1	\$1,350.00	\$1,350.00	\$270	\$405	\$2,025
Estate Drive	Estate	East of Thornton		New sidewalk	City		100	\$72.00	\$7,200.00	\$1,440	\$2,160	\$10,800
Delta Sierra Middle S	chool					1 stop sign, 1 legend, 1 sidewalk, 2 crosswalks, 2 yield lines, 1 bike lane, 1 bulb- out, 2 curb ramps, 1 tree maintenance			\$95,600.00	\$19,120	\$28,680	\$143,400
Branstetter & Burlington (south leg)				New stop sign	City	Install stop sign and legend	1	\$300.00	\$300.00	\$60	\$90	\$450
Wagner Heights	Wagner Heights	Thornton	School	New sidewalk	City		350	\$72.00	\$25,200.00	\$5,040	\$7,560	\$37,800
Wagner Heights & Ashburn (west leg)				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Wagner Heights	Wagner Heights	Thornton	Don	New bike lane	City		3,960	\$7.50	\$29,700.00	\$5,940	\$8,910	\$44,550
Shropshire near school entrance				New yield line	City		1	\$60.00	\$60.00	\$12	\$18	\$90
Shropshire near school entrance (NE corner)				New bulb-out	City		1	\$7,600.00	\$7,600.00	\$1,520	\$2,280	\$11,400
Shropshire near school entrance				New curb ramp			1	\$5,000.00	\$5,000.00	\$1,000	\$1,500	\$7,500
Shropshire near school entrance (west leg)				Maintain tree	City		1	\$3,000.00	\$3,000.00	\$600	\$900	\$4,500
Branstetter & Wagner Heights				Upgrade curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Branstetter & Wagner Heights				Maintain crosswalk	City		285	\$14.00	\$3,990.00	\$798	\$1,197	\$5,985

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
Elkhorn Elementary						1 left turn arrow, 1 bike lane, 1 crosswalk, 1 sidewalk, 1 pedestrian path, 1 median			\$126,730.00	\$25,346	\$38,019	\$190,095
Whistler & Waterbury (east and west leg)				New legend	City	New left turn arrows	1	\$450.00	\$450.00	\$90	\$135	\$675
Davis	Davis	8 Mile Road	Wagner Heights	New bike lane	City		7,920	\$7.50	\$59,400.00	\$11,880	\$17,820	\$89,100
Whistler & Davis				Maintain crosswalk	City		320	\$14.00	\$4,480.00	\$896	\$1,344	\$6,720
Davis sidewalk	Davis	Whistler	Front of school	New sidewalk	City		575	\$72.00	\$41,400.00	\$8,280	\$12,420	\$62,100
School entrance between Elkhorn and Whistler				New pedestrian path	City		400	\$15.00	\$6,000.00	\$1,200	\$1,800	\$9,000
School entrance between Elkhorn and Whistler				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
George Lincoln Mosh	er Elementary					1 crosswalk, 1 yield line, 1 stop sign			\$948.00	\$190	\$285	\$1,423
Ornella & Gary Galli (south leg)				New yield line	City		1	\$60.00	\$60.00	\$12	\$18	\$90
Ornella & Gary Galli (east leg)				New stop sign	City		1	\$300.00	\$300.00	\$60	\$90	\$450
Massino Circle & Gary Galli (north leg)				New crosswalk	City		42	\$14.00	\$588.00	\$118	\$177	\$883
John Muir Elementary	у					5 crosswalks, 1 school zone sign, 2 school crossing signs, 2 left turn arrows			\$10,198.00	\$2,040	\$3,060	\$15,298
Whistler & Macon				New crosswalk and signs	City	Maintain crosswalks and new school zone signs	4	\$1,300.00	\$5,200.00	\$1,040	\$1,560	\$7,800
Whistler & Macon (east and west leg)				New legend	City	New left turn arrows	1	\$450.00	\$450.00	\$90	\$135	\$675
Bear Creek Channel/Pixley Slough & Whistler				New crosswalk	City		50	\$14.00	\$700.00	\$140	\$210	\$1,050
River Bluff & Whistler (north leg)				New crosswalk	City		57	\$14.00	\$798.00	\$160	\$240	\$1,198
River Bluff & Whistler (east and west leg)				New legend	City	New left turn arrows	1	\$450.00	\$450.00	\$90	\$135	\$675
Lonnie Beck & Greenbrook (east or west leg)				New crosswalk and signs	City	New crosswalk and crossing sign	1	\$1,300.00	\$1,300.00	\$260	\$390	\$1,950
Lonnie Beck & Winward (east or west leg)				New crosswalk and signs	City	New crosswalk and crossing sign	1	\$1,300.00	\$1,300.00	\$260	\$390	\$1,950
Julia Morgan						1 striped median, 1 yield line, 1 in-street paddle sign, 1 speed feedback sign, 1 school crossing sign			\$1,445.00	\$289	\$434	\$2,168
A G Spanos & Iron Canyon (north leg)				Striped median detail (28)	City	Striped median - assumed full length past the school	500	\$1.17	\$585.00	\$117	\$176	\$878
A G Spanos & Iron Canyon				New in-street paddle sign	City	New yield line and new in-street paddle sign	1	\$360.00	\$360.00	\$72	\$108	\$540
A G Spanish & Ignacio				Maintain speed feedback sign	City		1	\$200.00	\$200.00	\$40	\$60	\$300

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
A G Spanos & Whistler				New crossing signs	City		1	\$300.00	\$300.00	\$60	\$90	\$450
Manlio Silva						2 crosswalks, 3 yield lines, 2 medians, 1 school crossing sign			\$36,490.00	\$7,298	\$10,947	\$54,735
Scott Creek & Regatta (east leg)				New crosswalk, yield line, and school crossing signs	City		1	\$1,350.00	\$1,350.00	\$270	\$405	\$2,025
Arrowwood & Scott Creek (east leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Arrowwood & Scott Creek (east leg)				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Lakemore & Scott Creek (east leg)				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Lakemore & Scott Creek (east leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Mokelume & Scott Creek				Maintain crosswalk	City		305	\$14.00	\$4,270.00	\$854	\$1,281	\$6,405
Oakwood Elementary	/					1 crosswalk, 2 legends, 2 curb ramps, 1 yield line, 1 center striping, 1 tree maintenance, 1 pedestrian path			\$39,172.50	\$7,835	\$11,752	\$58,760
Wagner Heights & Davis				Maintain crosswalk	City		148	\$14.00	\$2,072.00	\$414	\$622	\$3,108
Stonewood & Woodcreek				New legend	City	Assumed "Slow School Xing"	1	\$450.00	\$450.00	\$90	\$135	\$675
Stonewood & Woodcreek				Upgrade curb ramp	City	Install and upgrade ADA curb ramps	3	\$5,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Bridgewood & Woodcreek (east and west leg)				Centerline stripe (21)	City	Yield line, centerline striping, and legend	150	\$1.17	\$175.50	\$35	\$53	\$264
Bridgewood & Woodcreek (NW corner)				New bulb-out	City	New ADA ramp and improve concrete landing	1	\$7,600.00	\$7,600.00	\$1,520	\$2,280	\$11,400
Bridgewood & Woodcreek				Maintain tree	City		1	\$3,000.00	\$3,000.00	\$600	\$900	\$4,500
Davis pedestrian path	Davis	Wagner Heights	Woodcreek	New pedestrian path	City		725	\$15.00	\$10,875.00	\$2,175	\$3,263	\$16,313
Parklane Elementary						3 crosswalks, 2 paved pathways, 4curb ramps, 1 school crossing sign, 1 yield line, 1 RRFB, 1 bike lane			\$111,538.00	\$22,308	\$33,462	\$167,308
Peeskill & Hudson (south leg)				New crosswalk	City		52	\$14.00	\$728.00	\$146	\$219	\$1,093
Peeskill path	Peeskill	Eerie	Hudson	New paved pathway	City		910	\$9.00	\$8,190.00	\$1,638	\$2,457	\$12,285
Peeskill & Gotham (north leg)				Upgrade and new curb ramps	City		2	\$7,500.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Peeskill & Gotham				New paved pathway	City	included in part of the "Peeskill path" paved pathway						
Peeskill & Fordham (north leg)				New crosswalk	City		50	\$14.00	\$700.00	\$140	\$210	\$1,050
Peeskill & Fordham (north leg)				Upgrade curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
Erie & Peeskill				New crosswalk and signs	City		1	\$1,300.00	\$1,300.00	\$260	\$390	\$1,950
Erie & Peeskill				Upgrade and new curb ramps	City		3	\$7,500.00	\$22,500.00	\$4,500	\$6,750	\$33,750
Tam O Shanter & Lencoe				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Tam O Shanter & Lencoe				New RRFB	City		1	\$22,000.00	\$22,000.00	\$4,400	\$6,600	\$33,000
Tam O Shanter & Lencoe				Upgrade curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Tam O Shanter bike lane	Tam O Shanter	E Hammer Ln	Castle Oaks	New bike lane	City		2,800	\$7.50	\$21,000.00	\$4,200	\$6,300	\$31,500
Podesta Ranch Eleme	entary					1 crosswalk, 1 yield line, 1 school crossing sign			\$1,300.00	\$260	\$390	\$1,950
Prahser & Whistler (east or west leg)				New crosswalk and signs	City	Crosswalk, yield line, and signs	1	\$1,300.00	\$1,300.00	\$260	\$390	\$1,950
Rio Calaveras Elemen	itary					3 medians, 1 crosswalk			\$45,980.00	\$9,196	\$13,794	\$68,970
ljams & Bianchi (east leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Bianchi & Tennalinde (south leg)				New crosswalk	City		70	\$14.00	\$980.00	\$196	\$294	\$1,470
Bianchi & Tennalinde				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
March & Bianchi (east and west leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Ronald E. McNair Hig	h School					3 bike lanes, 1 pedestrian signal			\$127,000.00	\$25,400	\$38,100	\$190,500
Ronald E. McNair Way	Ronald E. McNair Way	Front of school	N W Ln	New bike lane	City		2,400	\$7.50	\$ 18,000.00	\$3,600	\$5,400	\$27,000
N W Ln bike lane	N W Ln	E Morada	E Hammer Ln	New bike lane	City		5,900	\$7.50	\$ 44,250.00	\$8,850	\$13,275	\$66,375
Morada Ln	Morada	N W Ln	Holman Rd	New bike lane	City		7,300	\$7.50	\$ 54,750.00	\$10,950	\$16,425	\$82,125
N W Ln & Ronald E McNair				Maintain new signal timing	City	Maintain pedestrian signal	1	\$10,000.00	\$ 10,000.00	\$2,000	\$3,000	\$15,000
San Joaquin Elementa	ary					2 bulb-outs, 2 curb ramps, 2 crosswalks, 2 yield lines, 2 school crossing signs, 1 bike lane			\$119,000.00	\$23,800	\$35,700	\$178,500
Fresno & Fort Hall (west side)				New bulb-out	City	New bulb-outs and upgrade ADA ramp and maintain asphalt	4	\$7,600.00	\$30,400.00	\$6,080	\$9,120	\$45,600
Fresno & Fort Hall (south leg)				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Fresno & Fort Hall				New crossing signs	City		2	\$300.00	\$600.00	\$120	\$180	\$900
Fresno & Bard				New bulb-out	City	New bulb-outs and upgrade all ramps	4	\$7,600.00	\$30,400.00	\$6,080	\$9,120	\$45,600
Fresno & Bard (south leg)				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Fresno & Bard (south leg)				New crossing signs	City		2	\$300.00	\$600.00	\$120	\$180	\$900
W 8th Avenue	W 8th Ave	Houston Avenue	I-5	New bike lane	City		7,400	\$7.50	\$55,500.00	\$11,100	\$16,650	\$83,250

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total
Stagg High						3 bulb-outs, 3 crosswalks, 2 yield lines, 1 school crossing sign, 1 curb ramp, 1 sidewalk			\$102,720.00	\$20,544	\$30,816	\$154,080
Rosemarie & Pershing				New bulb-out	City		4	\$7,600.00	\$30,400.00	\$6,080	\$9,120	\$45,600
Rosemarie & Crown (west leg)				New crosswalk, yield line, and school crossing signs	City		1	\$1,350.00	\$1,350.00	\$270	\$405	\$2,025
Rosemarie & Crown (SW leg)				New bulb-out	City	New bulb-out and curb ramps	1	\$7,600.00	\$7,600.00	\$1,520	\$2,280	\$11,400
Rosemarie & McGaw				New crosswalk	City		200	\$14.00	\$2,800.00	\$560	\$840	\$4,200
Brookside & McGaw (north and east leg)				New crosswalk	City		95	\$14.00	\$1,330.00	\$266	\$399	\$1,995
Brookside at parking entrance				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Brookside sidewalk	Brookside	Pershing	School entrance	New sidewalk	City	New sidewalk or paved walkway	610	\$72.00	\$43,920.00	\$8,784	\$13,176	\$65,880
Brookside & Pershing (NW and NE corner)				New bulb-out	City		2	\$7,600.00	\$15,200.00	\$3,040	\$4,560	\$22,800
Sutherland Elementa	ry					1 crosswalk, 1 yield line, 1 stop sign			\$930.00	\$186	\$279	\$1,395
Sutherland & Spring River				New stop control	City	New stop sign and yield line	1	\$300.00	\$300.00	\$60	\$90	\$450
Sutherland & Hidden Creek (north leg)				New crosswalk	City		45	\$14.00	\$630.00	\$126	\$189	\$945
Wagner-Holt Elemen	tary					3 crosswalks, 3 school crossing signs, 2 yield lines, 1 pedestrian refuge			\$39,042.00	\$7,808	\$11,713	\$58,563
Brattle & Waudman				New crossing signs	City		2	\$300.00	\$600.00	\$120	\$180	\$900
Blue Fox & Waudman (east or west leg)				New crosswalk, yield line, and school crossing signs	City		1	\$1,350.00	\$1,350.00	\$270	\$405	\$2,025
Don & Waudman (south leg)				New crosswalk	City		53	\$14.00	\$742.00	\$148	\$223	\$1,113
Don & Waudman (south leg)				Enhanced crossing with bulb-outs or median	City		1	\$35,000.00	\$35,000.00	\$7,000	\$10,500	\$52,500
Waudeman & Bainbridge (south leg)				New crosswalk, yield line, and school crossing signs	City		1	\$1,350.00	\$1,350.00	\$270	\$405	\$2,025
Westwood Elementa	ry					3 crosswalks, 1 school crossing sign, 1 yield line, 1 bike lane, 1 median			\$32,860.00	\$6,572	\$9,858	\$49,290
Caywood & Valmora				Maintain crosswalk	City		215	\$14.00	\$3,010.00	\$602	\$903	\$4,515
Tuscany & Caywood				New crosswalk, yield line, and school crossing signs	City		1	\$1,350.00	\$1,350.00	\$270	\$405	\$2,025
Caywood bike lane	Caywood	Morada	Sandalwood Dr	New bike lane	City		1,700	\$7.50	\$12,750.00	\$2,550	\$3,825	\$19,125

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Caywood & Sandalwood (east leg)				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Caywood & Sandalwood (east leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
August Knodt Elemer	ntary					2 crosswalks, 1 yield line, 1 median			\$16,688.00	\$3,338	\$5,007	\$25,033
Little Hale & Ews Woods				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Boardwalk & Ews Woods (north or south leg)				New crosswalk	City		56	\$14.00	\$784.00	\$157	\$235	\$1,176
Sacchetti & William Moss (east leg)				New crosswalk	City		56	\$14.00	\$784.00	\$157	\$235	\$1,176
Sacchetti & William Moss (east leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Brookside Elementary	/					1 crosswalk, 1 bike lane, 1 enhanced bike crossing			\$47,714.00	\$9,543	\$14,314	\$71,571
Calaveras River bike path & Brookside				Enhanced crossing with bulb-outs or median	City	New enhanced bike crossing	1	\$35,000.00	\$35,000.00	\$7,000	\$10,500	\$52,500
Brookside bike lane	Brookside	Carousel Cir	Eastern school boundary	New bike lane	City		1,600	\$7.50	\$12,000.00	\$2,400	\$3,600	\$18,000
Brookside & front of school (south leg)				New crosswalk	City		51	\$14.00	\$714.00	\$143	\$214	\$1,071
Cesar Chavez High So	chool					2 sidewalks, 1 crosswalk, 1 pedestrian signal, 2 bike lanes			\$333,691.00	\$66,738	\$100,107	\$500,536
Holman sidewalk	Holman	Wildflower	March	New sidewalk	City		1,550	\$72.00	\$111,600.00	\$22,320	\$33,480	\$167,400
Holman sidewalk	Holman	Divac	Telstar	New sidewalk	City		1,898	\$72.00	\$136,656.00	\$27,331	\$40,997	\$204,984
Rayanna & Wildflower (north and south)				New crosswalk	City		90	\$14.00	\$1,260.00	\$252	\$378	\$1,890
Holman & Wildflower				Maintain new signal timing	City	Updated pedestrian crossing signal timing	1	\$10,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Holman bike lane	Holman	E Hammer Ln	March Ln	New buffered bike lane	City	New buffered bike lane or Class IV	6,000	\$10.00	\$60,000.00	\$12,000	\$18,000	\$90,000
Wildflower	Wildflower	Holman	East end of street	New bike lane	City		1,890	\$7.50	\$14,175.00	\$2,835	\$4,253	\$21,263
Claudia Landeen Elen	nentary					1 yield line, 2 school crossing signs. 1 median			\$17,250.00	\$3,450	\$5,175	\$25,875
Boulder Creek & Feather River				New crosswalk, yield line, and school crossing signs	City	Yield line and relocate crossing sign	1	\$1,350.00	\$1,350.00	\$270	\$405	\$2,025
Boulder Creek & Feather River				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Boulder Creek & Feather River				New school crossing signs	City	New school crossing signs	3	\$300.00	\$900.00	\$180	\$270	\$1,350

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Cleveland Elementar	y					2 crosswalks, 1 yield line, 1 road diet			\$430,380.00	\$86,076	\$129,114	\$645,570
Fulton & front of school				Maintain crosswalk	City		55	\$14.00	\$770.00	\$154	\$231	\$1,155
Fulton & front of school				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Stadium & Commerce				New crosswalk	City	assumed north leg	35	\$14.00	\$490.00	\$98	\$147	\$735
Alpine road diet	Alpine	Pacific	N W Ln	New road diet	City		6,600	\$65.00	\$429,000.00	\$85,800	\$128,700	\$643,500
Don Riggio Elementa	iry					1 crosswalk, 1 bike lane			\$23,550.00	\$4,710	\$7,065	\$35,325
Gleneagles & Brookside (across side street)				New crosswalk	City		75	\$14.00	\$1,050.00	\$210	\$315	\$1,575
Brookside bike lane	Brookside	March Ln	Carousel Cir	New bike lane	City		3,000	\$7.50	\$22,500.00	\$4,500	\$6,750	\$33,750
El Dorado Elementar	У					1 road diet, 1 bike lane. 1 median, 1 yield line, 2 curb ramps, 1 crosswalk			\$585,680.00	\$117,136	\$175,704	\$878,520
Harding road diet	Harding	Edison Lane	Airport Way	New road diet	City		7,700	\$65.00	\$500,500.00	\$100,100	\$150,150	\$750,750
Harding bike lanes	Harding	Edison Lane	Airport Way	New bike lane	City		7,700	\$7.50	\$57,750.00	\$11,550	\$17,325	\$86,625
Lincoln fronting the school				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Lincoln fronting the school				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Walnut & Lincoln				Maintain crosswalk	City		165	\$14.00	\$2,310.00	\$462	\$693	\$3,465
Walnut & Lincoln				Upgrade curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
George W. Bush Elen	nentary					1 edge line striping, 1 crosswalk, 2 yield lines, 2 medians			\$33,387.00	\$6,677	\$10,016	\$50,080
Fred Russo Dr	Fred Russo Dr	Jayden Way	Hydrangea Dr	Edge line stripe	City		2,100	\$1.17	\$2,457.00	\$491	\$737	\$3,685
Cornflower & Fred Russo (south leg)				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Cornflower & Fred Russo				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Mirasol & Fred Russo				New yield line	City		3	\$60.00	\$180.00	\$36	\$54	\$270
Mirasol & Fred Russo				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
George Y Komure Ele	ementary					2 crosswalks, 4 yield lines, 3 raised medians, 1 sidewalk			\$145,560.00	\$29,112	\$43,668	\$218,340
Cadet & Carolyn				New yield line	City		5	\$60.00	\$300.00	\$60	\$90	\$450
Cadet & Carolyn				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Aso Taro & Carolyn Weston (north leg)				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Aso Taro & Carolyn Weston (north leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Carolyn Weston & Monet (south leg)				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Carolyn Weston & Monet (south leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500

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Henry Long & Estes (east leg)				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Henry Long sidewalk	Henry Long	Carolyn Weston Blvd	East of Estes Ave	New sidewalk	City		1370	\$72.00	\$98,640.00	\$19,728	\$29,592	\$147,960
Great Valley Elementa	ary					3 crosswalks, 3 yield lines, 2 raised medians, 2 sidewalks, 1 all-way stop			\$121,178.00	\$24,236	\$36,354	\$181,768
Star & Henry Long				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Star & Henry Long				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Ridge River & Henry Long (west leg)				New crosswalk and yield line	City		1	\$750.00	\$750.00	\$150	\$225	\$1,125
Ridge River & Henry Long				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Ashlynn & McDougal (north or south leg)				New crosswalk	City		58	\$14.00	\$812.00	\$162	\$244	\$1,218
McDougal sidewalk	McDougal	S parking lot	Ashlynn	New sidewalk	City		223	\$72.00	\$16,056.00	\$3,211	\$4,817	\$24,084
McDougal & Bess (south leg)				New yield line	City		4	\$60.00	\$240.00	\$48	\$72	\$360
Star & Bess				New stop control	City	New crosswalk and all way stop	4	\$300.00	\$1,200.00	\$240	\$360	\$1,800
Henry Long sidewalk	Henry Long	Star	Woodchase	New sidewalk	City		1,000	\$72.00	\$72,000.00	\$14,400	\$21,600	\$108,000
John Adams Element	ary					2 crosswalks, 2 yield lines, 1 in-street paddle sign, 2 curb ramps, 4 sidewalks, 1 sign relocation			\$397,728.00	\$79,546	\$119,319	\$596,593
Quincy & Inglewood (south leg)				New in-street paddle sign	City	New yield line and in-street paddle sign	2	\$360.00	\$720.00	\$144	\$216	\$1,080
Quincy & Inglewood (south leg)				New curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Quincy & Inglewood (south leg)				New crosswalk	City		58	\$14.00	\$812.00	\$162	\$244	\$1,218
Quincy & Inglewood				School sign	City	Relocate crossing sign	1	\$300.00	\$300.00	\$60	\$90	\$450
Quincy sidewalk	Quincy	Inglewood	Alturas	New sidewalk	City		900	\$72.00	\$64,800.00	\$12,960	\$19,440	\$97,200
Glendora & Inglewood				New curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Glendora & Inglewood				New crosswalk	City	Relocate south crosswalk and yield line	128	\$14.00	\$1,792.00	\$358	\$538	\$2,688
Inglewood sidewalk	Inglewood	Glendora	Marengo	New sidewalk	City		427	\$72.00	\$30,744.00	\$6,149	\$9,223	\$46,116
Glendora sidewalk	Glendora	Inglewood	Alturas	New sidewalk	City		730	\$72.00	\$52,560.00	\$10,512	\$15,768	\$78,840
Pearl sidewalk	Pearl	Evelyn	Alturas	New sidewalk	City		3,000	\$72.00	\$216,000.00	\$43,200	\$64,800	\$324,000
John C. Fremont						4 curb ramps, 2 yield lines, 3 centerline stripings, 1 center lane installation, 3 sidewalks, 1 RRFB			\$547,100.00	\$109,420	\$164,130	\$820,650
Flora & D				New curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Flora & D (east leg)				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Flora & D (east leg)				Centerline stripe (21)	City		100	\$1.17	\$117.00	\$23	\$35	\$175
D Street sidewalk	D	Anita	Waterloo	New sidewalk	City		3595	\$72.00	\$258,840.00	\$51,768	\$77,652	\$388,260
Flora & Grattan				New curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000

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Flora & Grattan (west leg)				Centerline stripe (21)	City	New yield line and centerline striping	100	\$1.17	\$117.00	\$23	\$35	\$175
Flora & Watts				New RRFB	City		1	\$22,000.00	\$22,000.00	\$4,400	\$6,600	\$33,000
Flora & Watts (east leg)				New curb ramp	City		3	\$5,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Flora & Watts (east leg)				Centerline stripe (21)	City	New yield line and centerline striping	100	\$1.17	\$117.00	\$23	\$35	\$175
Flora & Laurel				New curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Flora & Laurel				Centerline stripe (21)	City	New centerline striping and legend	100	\$1.17	\$117.00	\$23	\$35	\$175
Flora sidewalk	Flora			New sidewalk	City	Assumed to the track	413	\$72.00	\$29,736.00	\$5,947	\$8,921	\$44,604
Wizard sidewalk	Wizard	Roosevelt	Fremont	New sidewalk	City		2,500	\$72.00	\$180,000.00	\$36,000	\$54,000	\$270,000
D Street turn lane	D	Anita	Flora	Centerline stripe (21)	City		800	\$1.17	\$936.00	\$187	\$281	\$1,404
John R. Williams						2 stop controls, 2 yield lines, 5 curb ramps, 1 sidewalk, 2 crosswalks			\$94,894.00	\$18,979	\$28,468	\$142,341
Jasmine & Beech				New stop control	City	New stop control and yield line	1	\$300.00	\$300.00	\$60	\$90	\$450
Jasmine & Beech				New curb ramp	City		3	\$5,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Beech & Sumac				New stop control	City	New stop control and yield line	1	\$300.00	\$300.00	\$60	\$90	\$450
Beech & Sumac				New curb ramp	City		3	\$5,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Meadow sidewalk	Meadow	Sumac	Rosewood	New Sidewalk	City		410	\$72.00	\$29,520.00	\$5,904	\$8,856	\$44,280
Meadow & Alexandria				New crosswalk	City		280	\$14.00	\$3,920.00	\$784	\$1,176	\$5,880
Meadow & Rosewood (east side)				New curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Meadow & Parkwoods				New crosswalk	City		61	\$14.00	\$854.00	\$171	\$256	\$1,281
Jasmine & Rosewood				New curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Cypress & Beech (west side)				New curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000
Kennedy Elementary						3 crosswalks, 2 yield lines, 2 school crossing signs, 1 curb ramp, 1 bulb-out			\$26,770.00	\$5,354	\$8,031	\$40,155
Santa Paula & Mosher Slough Levee				New crosswalk	City		30	\$14.00	\$420.00	\$84	\$126	\$630
Antonio & Ponce de Leon				New crosswalk and signs	City	Maintain crosswalk and yield line	1	\$1,300.00	\$1,300.00	\$260	\$390	\$1,950
Antonio & Ponce de Leon (NE corner)				New bulb-out	City	New curb ramps and bulb-outs	3	\$7,600.00	\$22,800.00	\$4,560	\$6,840	\$34,200
Antonio & Ponce de Leon				New school crossing signs	City		3	\$300.00	\$900.00	\$180	\$270	\$1,350
Ponce de Leon & Santa Paula (east leg)				New crosswalk, yield line, and school crossing signs	City	New crosswalk, yield line, and signs	1	\$1,350.00	\$1,350.00	\$270	\$405	\$2,025

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Lincoln Elementary						1 striping, 1 yield line, 1 school crossing sign			\$2,715.00	\$543	\$815	\$4,073
Lincoln near school entrance				Centerline stripe (21)	City	New striping	1,500	\$1.17	\$1,755.00	\$351	\$527	\$2,633
Gettysburg & Stanton (south leg)				New yield line	City		1	\$60.00	\$60.00	\$12	\$18	\$90
Gettysburg & Stanton				New crossing signs	City		3	\$300.00	\$900.00	\$180	\$270	\$1,350
Lincoln High						3 yield lines, 2 curb ramps, 1 sidewalk			\$197,560.00	\$39,512	\$59,268	\$296,340
Alexandria & McClellan (north leg)				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Alexandria & McClellan (west side)				New curb ramp	City		1	\$5,000.00	\$5,000.00	\$1,000	\$1,500	\$7,500
Stanton & Alexandria (south side)				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Stanton & Alexandria (west side)				New curb ramp	City		1	\$5,000.00	\$5,000.00	\$1,000	\$1,500	\$7,500
Alexandria & Lincoln				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Alexandria sidewalk	Alexandria	Lincoln	Benjamin Holt	New sidewalk	City		2,600	\$72.00	\$187,200.00	\$37,440	\$56,160	\$280,800
Mable Barron Elemen	tary					2 yield lines, 1 in-street paddle sign, 1 striping			\$1,470.00	\$294	\$441	\$2,205
Mill Springs & Cumberland				New in-street paddle sign	City	New yield lines and in-street paddle sign	2	\$360.00	\$720.00	\$144	\$216	\$1,080
Five Forks & Five Mile (south leg)				New crosswalk and yield line	City	New yield line and maintain striping	1	\$750.00	\$750.00	\$150	\$225	\$1,125
Maxine Hong Kingsto	n Elementary					3 crosswalks, 1 advance stop bar, 2 curb ramps, 3 yield lines, 1 gate and pedestrian path, 1 legend			\$152,392.00	\$30,478	\$45,718	\$228,588
Benjamin Holt & Alturas				Maintain crosswalk	City	Maintain crosswalk and advance stop bar	48	\$14.00	\$672.00	\$134	\$202	\$1,008
Benjamin Holt & Alturas				New curb ramp	City		3	\$5,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Quincy & Alturas				New yield line	City		2	\$60.00	\$120.00	\$24	\$36	\$180
Quincy & Alturas (west leg)				Upgrade and new curb ramps	City		2	\$7,500.00	\$15,000.00	\$3,000	\$4,500	\$22,500
Glendora & Alturas				New curb ramp	City		4	\$5,000.00	\$20,000.00	\$4,000	\$6,000	\$30,000
Glendora & Alturas				New crosswalk, yield line, and school crossing signs	City	New crosswalk, yield line, and sign	1	\$1,350.00	\$1,350.00	\$270	\$405	\$2,025
Alturas	Alturas	Benjamin Holt	Glendora	New legend	City	New pedestrian crossing legend	1	\$450.00	\$450.00	\$90	\$135	\$675
Benjamin Holt (midblock)				Enhanced crossing with bulb-outs or median	City	Install midblock crosswalk and yield line	1	\$35,000.00	\$35,000.00	\$7,000	\$10,500	\$52,500
Quincy sidewalk	Quincy	Inglewood	Alturas	New sidewalk	City		900	\$72.00	\$64,800.00	\$12,960	\$19,440	\$97,200

Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total			
Pulliam Elementary						2 crosswalks, 3 yield lines, 3 curb ramps, 2 stop signs, 1 legend, 1 striping, 1 tree maintenance			\$36,960.00	\$7,392	\$11,088	\$55,440			
El Dorado & Lincoln				New crosswalk	City		90	\$14.00	\$1,260.00	\$252	\$378	\$1,890			
El Dorado & Lincoln				Upgrade curb ramp	City		2	\$5,000.00	\$10,000.00	\$2,000	\$3,000	\$15,000			
Segovia & Presidio				New stop control	City	New stop sign, yield line, and legend	1	\$300.00	\$300.00	\$60	\$90	\$450			
Segovia & Presidio				New curb ramp	City		3	\$5,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500			
Segovia & Presidio				New legend	City	"Slow School Xing"	1	\$450.00	\$450.00	\$90	\$135	\$675			
Goya & Lincoln				New stop control	City	Install yield line and stop sign	2	\$300.00	\$600.00	\$120	\$180	\$900			
Goya & Lincoln				Maintain tree	City		1	\$3,000.00	\$3,000.00	\$600	\$900	\$4,500			
Berrendo & Lincoln (south leg)				New crosswalk, yield line, and school crossing signs	City	New crosswalk, yield line, and sign	1	\$1,350.00	\$1,350.00	\$270	\$405	\$2,025			
Berrendo & Lincoln (SW corner)				New curb ramp	City		1	\$5,000.00	\$5,000.00	\$1,000	\$1,500	\$7,500			
Sierra Middle						3 yield lines, 2 curb ramps, 1 sidewalk			-						
Alexandria & McClellan (north leg)				New yield line	City										
Alexandria & McClellan (west side)				New curb ramp	City		_								
Stanton & Alexandria (south side)				New yield line	City			These are the same improvements as Lincoln High School							
Stanton & Alexandria (west side)				New curb ramp	City		-								
Alexandria & Lincoln				New yield line	City										
Alexandria sidewalk	Alexandria	Lincoln	Benjamin Holt	New sidewalk	City		_								
Valentin M. Peyton El	lementary					2 sidewalks, 1 median, 4 crosswalks, 3 yield lines, 1 in-street paddle sign, 2 medians			\$116,028.00	\$23,206	\$34,809	\$174,043			
Tiamo sidewalk	Tiamo	Thistle	Gold Brook	New sidewalk	City		701	\$72.00	\$50,472.00	\$10,094	\$15,142	\$75,708			
Thistle sidewalk	Thistle	Tiamo	Blossom	New sidewalk	City		430	\$72.00	\$30,960.00	\$6,192	\$9,288	\$46,440			
Tiamo & Thistle (south leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500			
Chamberlain & Tiamo (south leg)				New crosswalk	City		33	\$14.00	\$462.00	\$92	\$139	\$693			
Chamberlain & Tiamo (south leg)				New median	City		1	\$15,000.00	\$15,000.00	\$3,000	\$4,500	\$22,500			
Tiamo & Gold Brook				Maintain crosswalk	City	Maintain crosswalk and new yield line	100	\$14.00	\$1,400.00	\$280	\$420	\$2,100			
Gold Brook & school entrance				New crosswalk and yield line		New crosswalk and yield line	1	\$750.00	\$750.00	\$150	\$225	\$1,125			
Gold Brook & school entrance				New in-street paddle sign	City		1	\$360.00	\$360.00	\$72	\$108	\$540			
Cabin Creek & Gold Brook				Maintain crosswalk	City	Maintain crosswalk and new yield line	116	\$14.00	\$1,624.00	\$325	\$487	\$2,436			

Table C-2: Project (Cost Estimates	(continued)
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Project Location - Intersection (point)	Project Location - Corridor Street	Project Location - Corridor Start	Project Location - Corridor End	Project Type	Responsible Agency	Projects Summary	Quantity (Number/feet)	Unit Cost	Subtotal	Design (20%)	Contingency (25%)	Total	
Weston Ranch High						1 crosswalk, 1 yield line, 1 striped refuge			\$1,821.32	\$364	\$546		\$2,731
Venice & Henry Long (east leg)				New yield line	City		2	\$60.00	\$120.00	\$24	\$36		\$180
Crown Peak & Ews Woods (south leg)				New crosswalk			55	\$14.00	\$770.00	\$154	\$231		\$1,155
Crown Peak & Ews Woods (south leg)				Striped median detail (28)	City	New striped refuge	796	\$1.17	\$931.32	\$186	\$279		\$1,396
Totals									\$12,342,639.82			\$18,5	513,960



Appendix D. Existing Conditions Background

This appendix presents additional background data and detail on existing walking and bicycling environments in Stockton.

Previous SRTS Efforts

Engineering

San Joaquin County Public Health Services received a grant from Kaiser Permanente to conduct walk audits and community mapping at nine schools.

City of Stockton Safe Routes to School related infrastructure projects currently in construction include:

- HSIP Cycle 5 Rectangular Rapid Flashing Beacons (RRFBs) at existing school crosswalks
 - School sites include:
 - George Komure Elementary School
 - Claudia Landeen Elementary School
 - Stagg High School
 - Sierra Middle School
 - Lincoln High School
 - Delta Sierra Middle School
 - Parklane Elementary School
 - Manlio Silva Elementary School
 - Elkhorn Elementary School
- HSIP Cycle 6 RRFBs at existing school crosswalks
 - School sites included:
 - Julia Morgan Elementary School
 - Creekside Elementary School
 - Fremont Elementary School
 - Van Buren Elementary School
 - Marshall Elementary School
 - Taylor Leadership Academy
 - Edison High School
- ATP McKinley Elementary SRTS
 - Pedestrian Hybrid Beacon on El Dorado Street and RRFBs on Ninth Street at existing school crosswalks
- SRTS Harrison Elementary
 - Install a raised curb median on Alpine Avenue with a left turn pocket serving El Pinal Drive. To increase awareness of pedestrians and cyclists, radar feedback signs and a high visibility crosswalk with an RRFB will also be installed at El Pinal Drive.

Education

The City of Stockton received a Safe Routes to School Pilot Program Expansion grant to provide pedestrian and bicycle education to students at 16 schools, in addition to the 10 schools that received it during the pilot phase. Education includes three activities: student workshops, bicycle rodeos, and pedestrian rodeos, and was provided at the schools listed below.

Student Workshops

Student workshops are events where students are taught about pedestrian and bicycle safety.

Bicycle Rodeos

Bicycle rodeos are workshops where students learn bicycle safety skills, including on-bike skills practice, helmet fitting, and rules of the road training. In the City of Stockton, two to three rodeos are offered each year, and are typically sponsored by a school or community organization. The Police Department provides a Bike Safety Handbook with instructions and information on how to hold a bike rodeo.

Pedestrian Rodeos

Pedestrian rodeos are workshops that teach students pedestrian safety skills, including how to cross streets safely, where to walk on the roadway, and how to recognize common street signs and signals.

Schools that received SRTS education through the initial Pilot Program (2010-2012) include:

Lincoln Unified School District

• Lincoln Elementary

Lodi Unified School District

- Ansel Adams Elementary
- Clairmont Elementary

Manteca Unified School District

• George Y. Komure Elementary

Stockton Unified School District

• El Dorado Elementary

- Fillmore Elementary
- Harrison Elementary
- Taft Elementary/Montessori Magnet
- Washington Elementary
- Wilson Elementary

Schools receiving SRTS education through the Pilot Program Expansion (2015-2017) include:

Lincoln Unified School District

- Brookside Elementary
- Claudia Landeen Elementary

Lodi Unified School District

- Parklane Elementary
- Podesta Ranch Elementary
- Wagner-Holt Elementary

Manteca Unified School District

- Great Valley Elementary
- August Knodt Elementary

Stockton Unified School District

- George W. Bush Elementary
- Cleveland Elementary
- Commodore Stockton Skills School
- Kennedy Elementary
- Madison Elementary
- Montezuma Elementary
- Nightingale Charter School
- Valentine Peyton Elementary
- San Joaquin Elementary

City of Stockton, Stockton Police Department, Safe Moves

The City of Stockton, Stockton Police Department, and Safe Moves work together to lead educational programs in schools. Education components of the program include parent transportation advisory committees at schools, student assemblies about pedestrian and bicycle safety, bicycle rodeos, and parent education workshops.

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Appendix E. Visual Glossary

This appendix presents illustrations and brief descriptions of the various infrastructure improvements recommended in this Plan. The information in this appendix reflects typical configurations and applications, and should not be interpreted as design standards or improvement plans for specific project locations.

Sidewalk

Sidewalks provide a place for pedestrian travel along the edge of a roadway. There are a few 'zones' of sidewalks that serve different purposes:

- Through Zone: the clear passageway for pedestrian travel
- Planter or Furnishing Zone: between the through zone and the curb, this area may include landscaping, street trees, bicycle parking, transit stops, benches, trash receptacles, or other amenities
- Frontage Zone: between the through zone and the building or property edge, this area may include seating for restaurants or cafes, displays for retail establishments, or other features.



Bulb Out or Curb Extension

Bulb outs are a traffic calming device used to narrow roadway widths, shorten pedestrian crossing distances, and increase visibility of pedestrians. Bulb outs may be installed on one or both sides of a roadway, at intersections or at midblock locations. They are typically installed on streets with on-street parking, and should not extend into any bicycle lane or travel lane. To preserve existing drainage systems, some bulb outs may be constructed detached from the existing curb face. The resulting channel can be covered with a grate to preserve drainage while providing a level walking surface.



Curb Ramp

Curb ramps are necessary for people who use wheelchairs to access sidewalks and crosswalks, and are helpful to people pushing strollers, using mobility devices, or those who may have difficulty stepping onto a raised curb. The Americans with Disabilities Act (ADA) requires the installation of curb ramps with all new sidewalk installations and retrofits.

The preferred configuration is two curb ramps per corner, one facing each crosswalk (if two crosswalks are present). Providing a single diagonal curb ramp to serve two crosswalks is acceptable but not preferred. Detectable warnings, such as truncated domes, must be used to assist sight-impaired pedestrians in locating the curb ramp.



Crosswalk

Crosswalks are a legal extension of the sidewalk and provide guidance for pedestrians who are crossing roadways by defining and delineating their path of travel. Crosswalks are not required to be marked, however marked crosswalks alert drivers of a pedestrian crossing location and increase yielding for pedestrians.

Typically, marked crosswalks consist of either standard or "transverse" markings, two parallel white lines, or high visibility markings. Continental crosswalks use bold perpendicular lines that are more conspicuous to approaching drivers. Ladder crosswalks combine transverse lines with bold perpendicular stripes for added visibility. The City of Stockton's preferred high visibility marking is shown in the illustration below.



Paddle Sign

Paddle signs are installed in the middle of the roadway at marked crosswalks to increase motorist yielding to pedestrians. They may be used in combination with other features such as refuge islands, curb extensions, or RRFBs.

Paddle signs can be installed on permanent fixed mounts in roadways, or with detachable mounts that allow the signs to be placed and removed at certain times. Many communities put paddle signs out during school drop-off and pick-up to alert drivers to the increased pedestrian activity in the area.



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Pedestrian Refuge

A pedestrian refuge is a waiting area that allows pedestrians to break up a long crossing into two segments, crossing one direction of traffic at a time. Ideally, pedestrian refuges include raised median segments on either side of the waiting area to provide some protection from traffic, although striped refuges may also be used. (See image at middle of page.)

Advance Yield or Stop Line

Advance yield or stop lines are used at marked crosswalks to discourage motorists from encroaching into the pedestrian space. Stop lines are used with crosswalks at stop-controlled locations, such as intersections with a stop sign or traffic signal. Yield lines are used at locations with no traffic controls, such as midblock crossings. (See image at middle of page.)

Rectangular Rapid-Flashing Beacon (RRFB)

Rectangular rapid-flashing beacons, or RRFBs, are pedestrian activated warning devices used to facilitate crossings at locations that do not have a traffic signal or stop sign. RRFBs are mounted adjacent to the roadway, and may be supplemented by a beacon on a pedestrian refuge island if one is present. Some units are powered by integrated solar panels. The beacon lights are rectangular LED lights that flash in an alternating pattern when a pedestrian pushes the button. The beacon is dark when not activated.



Pedestrian Hybrid Beacon

Pedestrian hybrid beacons, sometimes called high-intensity activated crosswalks or HAWKs, are similar to RRFBs but incorporate a red traffic signal for motorists that requires a full stop rather than flashing yellow warning lights. The beacon is dark until activated by a pedestrian, when it begins flashing in an alternating pattern. Then a solid red light is illuminated for motorists, and a WALK signal is illuminated for pedestrians. When the walk phase is complete, the beacon goes dark again and motorists are permitted to proceed.



Bikeways

Class I Shared Use Paths

Class I pathways are off-street facilities, dedicated exclusively for the use of bicyclists, pedestrians, and other non-motorized travel such as roller skating and skateboarding. They generally allow two-way travel, and may either parallel a roadway or run through greenways or open space.



Class II Bicycle Lanes

Class II bicycle lanes delineate a portion of the street for bicyclists. They generally allow oneway travel in the same direction as vehicle travel.



Class II Buffered Bicycle Lanes

Class II buffered bicycle lanes are enhanced with a buffer area either between the bicycle lane and the vehicle lane, or between the bicycle lane and on-street parking. This buffer can increase bicyclist comfort by increasing separation from moving traffic, and by providing a buffer area into which parked car doors are opened.



Class III Bicycle Routes

Class III bicycle routes are travel lanes shared by drivers and bicyclists. These routes are generally appropriate on local, neighborhood streets with low speeds and little traffic. No Class III bicycle routes are identified in this Stockton SRTS Plan.



Class IV Separated Bikeway

Class IV separated bikeways are on-street bicycle facilities that are separated from vehicle traffic by some kind of physical protection. This might include a raised curb, on-street parking, flexible bollards, or concrete planters. They can provide either one- or two-way travel on each side of the roadway. No Class IV separated bikeways are identified in this Stockton SRTS Plan.



Roundabout

A roundabout is an intersection configuration that allows motorists to proceed around a circular island at low speeds without requiring a stop sign or other control. Motorists and bicyclists yield to others in the circle when entering, but can proceed if no others are present.

Roundabouts reduce the number and severity of conflicts at intersections compared to conventional stop signs or traffic signals.

