# IMPERIAL COUNTY Safe Routes to School REGIONAL MASTER PLAN







ROUTE





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### 1. Introduction

Imperial County has embarked on an effort to improve transportation safety at all of its public schools. A California State Department of Transportation (Caltrans) grant, in partnership with the Southern California Association of Governments (SCAG), was awarded to the Imperial County Transportation Commission (ICTC) to create a countywide Safe Routes to School (SRTS) Plan (the Plan). The Plan includes results of public workshops where local stakeholders identified safety issues and other barriers that discourage more students from walking or bicycling to the schools in Imperial County. It also includes a plan for each school to make engineering improvements to the most important location as was identified by stakeholders. These improvements range from intersection modification to new sidewalks or bikeways. This Plan details work completed thus far and future steps.

The Plan provides a roadmap for physical improvements and programs for implementation of physical modifications to the street and an enactment of programs. There are two primary purposes for SRTS plans:

- 1. To make it safer for students to walk and bicycle to school
- 2. To increase the number of students walking and bicycling to school

In addition to safety benefits, there are health benefits for students who walk and bike to school. Environmental benefits result as fewer parents drive their children to school every day. Additionally, as children and families adopt more active lifestyles, their quality of life increases, they have more free time from driving less, and community relationships are strengthened. All of these benefits combine to create more livable neighborhoods surrounding schools where children walk or bike to school.

The Imperial County Public Health Department (ICPHD) served as a key partner in the process to develop and implement the Plan. The Plan follows earlier efforts by ICPHD to spearheaded SRTS efforts in Imperial County over the last several years. Previous efforts by ICPHD include:

- Completed SRTS surveys at selected schools.
- A SRTS workshop conducted by the California Department of Public Health as part of National Walk to School Day in 2013.
- Supporting the San Pasqual Valley Unified School District in producing a SRTS Plan in 2011 to use as the basis for funding applications and the beginning of programs.

As part of the current Plan, the schools conducted surveys to obtain information from parents about their children's trip to and from school, including perceptions of safety, traffic conditions, and parents' opinions regarding whether walking and bicycling to school is appropriate for their child.

The Plan was initiated in March of 2015 when a consultant team was brought on to conduct the core work. The consultant team coordinated the Plan development, including contacting each of the school districts and schools, setting up and facilitating workshops together to gather key information, circulating surveys, and developing the SRTS Plan.

A nationally certified SRTS instructor from the consultant team facilitated the SRTS workshops in each school district. The workshops began with a presentation that described why SRTS is important, along with a sampling of engineering devices that can be applied to make walking and bicycling safer. The presentation also included information about the programmatic components: education, encouragement, enforcement and evaluation. After the presentation, stakeholder attendees drew on large-scale maps of their schools and the surrounding areas. Each group marked common walking and cycling routes to their school and identified key issues and locations needing improvement. They identified general safety issues, as well as location-specific safety issues. The groups then identified their number one location-specific concern at each of the schools. These led to the creation of SRTS plans for each school. As part of the workshops the SRTS instructor also collected information regarding the types of education, encouragement and enforcement programs the schools currently carry out, and might like to enact in the future. Attendees also discussed the importance of forming SRTS committees to manage the programs.

Following the workshop, the consultant team conducted fieldwork for each of school's number one location-specific concern to provide engineering recommendations. This can be found under the "Existing Conditions and Engineering Recommendations" section in each school's SRTS plan.

This Plan contains a program for a "5 E" approach to making walking and bicycling safer and more attractive to Imperial County's students and parents. The 5Es include the following:

- Engineering—to make physical improvements to the routes that students use to walk or bicycle to school
- **Education**—to teach students safe walking and bicycling habits, to teach parents the importance of safe driving habits, and to emphasize health and environmental benefits
- **Encouragement**—to promote walking and bicycling to school so more students choose to do so
- **Enforcement**—to ensure that rules and laws of the road are followed, as well as safe pick-up and drop-off practices are adhered to at the schools
- **Evaluation**—to track the Plan to assess its success and to modify it accordingly.

Experience shows that this approach yields successful results in both making our communities safer to walk and bicycle in, and increasing the number of students doing so.

### 2. Planning Context

Some of the improvement locations listed in this Plan coincide with work conducted for other planning efforts. This Plan compliments and expands upon these previous efforts to create a well-connected network for pedestrians and bicyclists throughout the County.

Following is a brief summary of each of the County's respective non-motorized transportation studies.

### City of Brawley Non-Motorized Transportation Plan (NMTP) (2013)

The City of Brawley's NMTP serves as a guiding document for a comprehensive pedestrian and bicycle network and an update to the existing 2002 Bicycle Master Plan. The purpose is to improve the overall safety and enhance multi-modal connections through a well-established pedestrian and bicycle network.

For an estimated cost of \$6,137,500, 46 miles of bikeways are proposed to emphasize connectivity to key destinations, including schools, activity centers and residential areas. This includes 6 miles of Class I bike paths, 22.5 miles of Class II bike lanes, and 17.5 miles of Class III bike route facilities. The plan also proposes pedestrian networking improvements, including sidewalk infill projects, intersection improvements, streetscape enhancements, suggested routes to schools, and traffic calming recommendations. The cost estimates for these pedestrian improvements total to \$6,064,000.

### **Imperial County Bicycle Master Plan (2012)**

The County of Imperial's Bicycle Master Plan aims to create an integrated network of bicycle facilities and programs for the unincorporated areas of the County. The purpose of this Plan is to expand on the existing network spelled out in the 2003 Countywide Plan in order to qualify for state and federal funding for implementation.

The Plan recommends approximately 270 miles of on-street bikeways (Class II bike lanes and Class III bike routes), 63.8 miles of off-street Class I bike paths, and 102.9 miles of Class III bike routes along shoulders of state highways. The Plan provides a detailed prioritization strategy for implementation and estimates a total cost for the bikeway network (not including the Class III bike routes along state highways) to be \$68,291,000. At full build out, the County of Imperial will have over 435 miles of proposed bikeways to improve connections between key destinations, as well as the incorporated cities and the more rural unincorporated areas of the County.

### San Pasqual Unified School District's Fort Yuma Safe Routes to School Project (2011)

The San Pasqual Valley Unified School District produced a Safe Routes to School (SRTS) plan in 2011 called the "Fort Yuma Safe Routes to School Project". This project proposes a comprehensive "5E" approach—engineering, education, encouragement, enforcement and evaluation—to make walking and bicycling safer and more attractive around the school. A SRTS Committee was formed to carry out the programs.

#### **City of El Centro Bicycle Master Plan (2010)**

The 2010 City of El Centro Bicycle Master Plan is an update to the 2000 Master Plan. The purpose of this Plan is to create continuous and interconnected bicycle facility links to the County of Imperial's regional and proposed network. It serves as the basis for applying for federal funding for the implementation of the Plan.

The Plan examines existing facilities, bicycle needs assessment, recommended bicycle network, funding costs and a phased implementation strategy. This Plan recommends the implementation of 20.60 miles of bicycle facilities for an estimated cost of \$5,181,521. The plan includes 5.9 miles of Class I bike paths, 5.5 miles of Class II bike lanes, and 9.2 miles of Class III bike route facilities. Developers will construct an additional 27.3 miles of bike routes. These facilities will provide strong connections to local destinations and surrounding areas.

### **County of Imperial Bicycle Master Plan (2003)**

The previous County of Imperial Bicycle Master Plan includes summaries of the existing and proposed bicycle facilities for the Holtville Bicycle Master Plan (2008), City of Imperial Bicycle Master Plan (2002), Calexico Bicycle Master Plan (2002), Westmorland Bicycle Master Plan (2002), and Calipatria Bicycle Master Plan. The City of Holtville has prioritized approximately 10.35 miles of bikeways at an estimated cost of \$932,460. A complete document for the cities of Imperial, Calexico, Westmorland, and Calipatria were not available for review as of the publication of this report.

### 3. Evaluation

In the first months of the planning process, baseline surveys were taken to learn about existing commute to school patterns. As the Plan's programs unfold, they should show increases in the number of students walking and bicycling. Since engineering improvements (physical modifications made to streets and intersections) will likely be made after this planning effort ends, initial increases in bicycling and walking will result from the programs alone. Further increases can be expected once the physical improvements are made.

#### **Baseline Commute to School Tally**

In Table B.1, the Baseline Commute to School Tally in Appendix B shows the results of a school tally conducted in the classrooms, where teachers ask their students how they got to school.

#### Parent Surveys

A more in depth parent survey was circulated. This questionnaire used the survey instrument, described in Appendix A, created by the National Center for Safe Routes to School. These surveys were passed out by teachers to each student to take home to their parents to gather information about current commute to school patterns, and the attitudes parents hold regarding permitting their children to walk or bicycle to school. This gave us further information regarding barriers preventing parents from allowing their children to walk or bicycle, as well as what might be done to alleviate those barriers. These surveys were conducted in English and Spanish.

Table 3.1. shows the parent responses for schools within the San Pasqual Union School District on how their children typical arrive and leave for school. Results for the remaining schools and school districts are displayed in the Table B.2. in Appendix B.

School	Morning (M); Afternoon (A)	# of Trips San	Walk % Pasqual	Bicycle % Valley Un	School Bus %	Family Vehicle %	Carpool with Children of Other Family %	Imperial County Bus %	Other %
	М	128	0.8	0	77	22	0	0.8	0
Aggregate	Α	108	2	0.9	85	12	0	0	0
San Pasqual	М	114	0.9	0	75	24	0	0.9	0
ES	A	97	2	1	86	11	0	0	0
San Pasqual	М	12	0	0	92	8	0	0	0
MS	А	10	0	0	80	20	0	0	0
San Pasqual	М	2	0	0	100	0	0	0	0
HS	А	1	0	0	100	0	0	0	0

## Table 3.1. Parent Survey Results – Typical Mode of Arrival At and Departure from School (San Pasqual Valley Union School District Only)

#### Parent Survey Results Summary

Based on parent survey results from all the schools in this Plan, a majority of students lived within 2 miles from their school, with 68% of children living within 1 mile of the school and 34% within  $\frac{1}{4}$  mile.

A large majority of students were typically driven in a family vehicle to and from school, with 67% of students arriving and 61% departing from school in a car. Walking was the second highest mode of travel, with 18% of students walking to school in the morning and 23% of students walking home in the afternoon. Bicycling remained constant at 1% to and from school. These trends suggest that a portion of the students being driven to school in the morning may be walking back home in the afternoon.

Of the respondents that lived within 1/4 mile, 37% of the students walked to school and 41% of students walked home; and 1% of the students biked to school and 2% biked home. 57% of students were still being dropped off and 54% were being picked up from school in a family vehicle within that 1/4 mile distance. The percentage of trips in a family vehicle to and from school increases as the distance from home to school increases between 1/4 mile to 2 miles. For distances greater than 2 miles, the percentage of trips in a car actually decreases slightly while the number of school bus trips is at its peak, with 31% of trips to school and 32% of trips from school.

The greatest barriers that prevent parents from encouraging their children to walk and bike to and from school include: (1) the speed of vehicular traffic [58%], (2) the safety at intersections and crossings [53%], (3) the distance from home to school [52%], and (4) the hot climate [50%].

Reducing the distance to and from school [57%] was identified as the top solution to alleviating children being driven and encouraging them to walk and bike. Addressing climate concerns [41%] and the safety of intersections and crossings [37%] were perceived as additional opportunities in promoting more walking and biking amongst children.

As a summary of overall survey perceptions, distance to and from school was identified as an opportunity but also a barrier that prevents parents from encouraging their students to walk and bike. The reported average walking trip in the region is ½ mile, or a ten-minute walk, but 67% of walking trips remain less than ¼ mile (SCAG RTP/SCS 2016). The parent survey trends also show the percentage of walking trips decreasing as distances beyond ¼-mile increase.

This Plan addresses concerns of distance and safety by improving walking and biking conditions adjacent to and within reasonable distance to the schools. While hot weather conditions were also perceived as a barrier, the Plan aims to encourage more walking and biking through physical improvements that increase the overall comfort and ease in getting to and from school.

### 4. Ongoing Programs

The recommendations that follow are the result of school and community outreach, background research, fieldwork, and experience for what makes effective Safe Routes to School programs. Throughout the outreach process, each school identified specific programs for education, encouragement, and enforcement that would work best for it. What follows here are programs the County could consider offering and implementing citywide, with the opportunity for each school to tailor the programs to its needs.

"Using a comprehensive "5 E" approach will allow the County to have the greatest impact and encourage more students to walk and bike to school. The Education programs will teach students, parents, and neighbors safe walking, bicycling, and driving habits, as well as the health and environment benefits of SRTS. The Encouragement programs aim to engage students, parents, school staff, and neighbors to promote walking and cycling to and from school. The Enforcement efforts seek to ensure that traffic laws and drop-off and pick-up procedures are followed. Evaluation tracks the program to assess what is effective and what might be modified. The Engineering improvements make physical changes to streets and intersections to remedy safety issues, and create a more comfortable environment for people walking and bicycling.

### 4.1. General Guide to Program Development

As the County develops each program, staff should keep in mind the following concepts recommended by the Pedestrian and Bicycle Information Center (PBIC):

- 1. **Make walking and bicycling "try-able."** Give people a chance to try walking and bicycling instead of driving. This could be by organizing a group ride to school or providing route maps for a citywide walk event, etc.
- 2. **Communicate the behavior you want to see.** Bumper stickers, banners, signs, pamphlets, and public service announcements can all convey messages to encourage travel by foot or bicycle.
- 3. **Reward behavior.** Provide incentives and gifts to motivate people to try walking and bicycling for a trip. These strategies are especially effective for school children.
- 4. **Make it convenient.** Design pedestrian and bike-friendly places throughout the city; prioritize improvements to key destinations.
- 5. **Institutionalize support for walking and bicycling.** Strong policies that support walking and bicycling will help guide programs and ensure ideas have staying power.
- 6. **Capitalize on other agendas.** Make walking and bicycling part of the solution to a wider range of issues the community faces, such as obesity, health, environmental concerns, and economic development.

### 4.2. Education

Educational programs should be tailored to specific audiences in order to effectively address the behaviors the programs seek to modify. For example, a child bicyclist will need different education on how to ride compared to an adult bicyclist. Similarly, different messaging will resonate with teen drivers than adult drivers. The most common audiences that will benefit from education programs include:

- Road users—bicyclists, pedestrians (children, teens, adults, parents, neighbors, seniors), and drivers (young, adult, older)
- Commuters and employers
- Officials and policy makers—engineers, planners, council members, law enforcement
- Students
- Teachers
- Neighbors
- Visitors

For each group, the County should consider when and how the audience should receive the information, and the demographic factors that may affect how the audience understands and perceives the information. Descriptions of educational campaigns and programs that were prioritized during the SRTS outreach process are detailed below.

#### Table 4.2. Education Programs

Program	Description	Implementation Steps
Bicycle rodeo	A bicycle safety clinic featuring bike safety inspections and a safety lecture, followed by a ride on a miniature "chalk street" course where young cyclists are shown where and how to apply the rules.	Work with Imperial County Sheriff's Department, IUSD, each school, and IUSD School Police to sponsor at least annual bicycle rodeos for each school.
Pedestrian and bicycle safety skills course for adults	Adults often do not know current regulations or protocols for safe walking or bicycling. These skills are important for parents to pass on to their children.	Work with organizations such as the League of American Bicyclists, Imperial County Sheriff's Department, and IUSD School Police to offer regularly scheduled multilingual skills courses in walking and bicycling for adults at local parks and the civic center.
Pedestrian and bicycle safety skills course for youth	These courses provide hands-on learning for young children on how to walk safely and ride a bicycle. Pedestrian skills training should be targeted to first and third graders, and bicycle skills training for third and fifth graders.	Work with organizations such as the League of American Bicyclists, Imperial County Sheriff's Department, and IUSD School Police to offer regularly scheduled, multilingual skills courses in walking and bicycling for adults at local parks and/or each school. Work with IUSD to institutionalize bicycle and pedestrian skills course training at each school.

Program	Description	Implementation Steps
Personal safety training	Training on personal safety prepares students to address any issues on their way to school, where they feel unsafe due to crime, harassment or violence.	Work with the Imperial County Sheriff's Department and IUSD School Police to understand what materials exist around personal safety to train and distribute to students and parents.
Print and media campaign with safe walking, bicycling, and driving messages	Promote educational messages such as "STOP! It could be someone you love in the crosswalk" or "Use the other pedal and slow down" into media coverage, events, street banners, maps, posters, stickers, guides, etc. Consider distributing "neighborhood slow zone" signage for residents to place in their yards, and flyers to schools. Messaging should be multilingual.	The County can develop or adapt nationally recognized media campaign materials, including flyers, stickers, and talking points, and distribute to the schools. Communication channels include messages from the principal through tele- parent (automatic calls), parent meetings, the family center, flyers, coffee with the principal, back to school night, parent- teacher meetings, school marquis, a monthly newsletter, and social media.
Safe driving tips	Information about safe driving in Cudahy and around schools.	Create and/or adapt existing materials on safe driving to distribute to community members and parents who are dropping off or picking up their children at school.
Safe walking and bicycling tips	Information about safe walking and bicycling.	Create and/or adapt existing materials on safe walking and bicycling to distribute to community members and parents. Materials are available through the National Center for Safe Routes to School, FHWA, and others.

### 4.3. Encouragement

These programs generate excitement about walking and bicycling, and help spread the message that walking and bicycling is not only beneficial for health, social, and economic reasons, but enjoyable as well. Encouragement strategies are especially important when working with youth. Coordinating with individual schools to select prizes that are appropriate and customized will enhance encouragement programs. In addition to youth, parents should also be targeted in order to increase their involvement in SRTS.

Program	Description	Implementation Steps
"Caught being good"	Law enforcement officers distribute "tickets" to students that are "caught being good," which means they were following safety rules. The "tickets" are typically coupons for discounts at local businesses or a certificate.	The County can approach law enforcement officials to see whether they are interested in spearheading such an encouragement program, as well as coordinate with local businesses to receive coupons that appeal to youth.
International Walk-to- School Day	International Walk to School Day, held in October each year, joins children and adults from around the world to celebrate walking and bicycling to school.	Generally, the County can help provide support to schools by providing incentive items, law enforcement support along pre- determined walking routes, and meeting locations throughout the county, as well as participating in the event.
Open streets events	Local streets are closed to vehicle traffic for a short period of time, so residents and visitors can experience this public space in a new way. CicLAvia in Los Angeles helps residents get used to walking and bicycling in a safe environment without cars.	The County can work with organizations to organize an open streets event in the community and encourage attendance. Volunteers are needed to support the event.
Parent awards	Distribute awards to parents that support the SRTS program.	Provide the schools with certificates to recognize parents who have been exemplary volunteers to support SRTS. Recognize key school and parent staff at City Council meetings.
Park and walk	A pre-determined parking lot acts as the meeting area for families who drive and then park and walk the remaining distance to school.	Work with local businesses to create agreements that allow their parking lots to serve as park and walk meeting locations. Distribute this information to the schools and promote the opportunity throughout the community.
Principal, mayor, and/or teacher-led walks	Key community leaders, such as the mayor, council members, principals and teachers, can lead regular walks in the community outside of school hours to encourage walking.	The County can organize staff to help lead walking events and/or a separate walk as part of existing events, such as the Imperial Valley Expo.

Program	Description	Implementation Steps
Student or classroom competitions with prizes	Contests encourage children either to begin walking and bicycling to school or to increase their current amount of physical activity by making it fun and rewarding. Competitions can be between students (e.g., student with most miles walked), or between classrooms (e.g., classroom with the most students walking to school). Generally, children track their progress and get a small gift or a chance to win a prize after they reach a certain goal.	The implementation of student or classroom competitions is typically school-driven. There are many existing templates for tracking progress. These include templates for punch cards that are marked whenever a child walks and programs such as "Fire up your Feet" which track information online. The County can support a citywide competition and provide materials for competitions, such as pedometers, reflectors, stickers, and plaques.
Walk and roll Wednesdays	Designated day where students are encouraged to ride their bicycles or walk together to school and/or for short trips.	The County can promote a regular walking and bicycling day of the week or month for the community, and advertise it through available channels (at school, town hall, council meetings, etc.).
Walking school bus/ bicycle train	A walking school bus consists of groups of students accompanied by adults who walk a pre-planned route to school. Bicycle trains work like walking school buses. Adults, or older students, can lead the ride to school along a route that others can join on.	The implementation of walking school buses and bicycle trains is typically parent and school-driven. The County can support walking school buses and bicycle trains by volunteering to lead walks/rides, providing police support along pre-determined routes, and reviewing routes for any safety concerns.

### 4.4. Enforcement

Enforcement programs help deter unsafe behaviors of drivers, pedestrians, and bicyclists, and encourage all road users to obey traffic laws and share the road safely. The Imperial County Sheriff's Department, local school police, and other law enforcement agencies will need to be involved in the execution of these programs.

Program	Description	Implementation Steps
Corner captains	Adult volunteers stand at corners along routes to school so they can monitor students walking and deter any activity that may be harmful to students.	The County can alert neighbors along key routes to school to participate in the corner captain program by coming out to their front yard during the morning walk to school.
Crossing guards	Crossing guards promote safe behaviors at crosswalks by helping children safely cross the street at key locations and reminding drivers of the presence of pedestrians.	The County already has a crossing guard program, which could be expanded to cover additional intersections near each school.
Law enforcement presence	Provide an enforcement presence that discourages dangerous behaviors on and off the school campus. This may mean issuing warnings to drivers breaking traffic laws. Drivers who have made a minor error will often respond to a warning from an officer by being more careful. Drivers who continue to violate traffic laws need to be ticketed.	The County can work with the Sheriff's Department and local school police to target enforcement based on areas of most concern.
Neighborhood watch	Neighborhoods work with police to observe motor vehicle speeds and report crimes.	The County can provide regular updates to the local Neighborhood Watch group about any activity, and on the Safe Routes to School program.
Pedestrian decoy program	This program is used in areas where drivers are not yielding to pedestrians in marked crosswalks. Plainclothes police officers cross the street, while another officer monitors driver behavior from a distance. The officer then will issue a warning or citation and educational materials depending on the situation.	The County can share this idea with the Imperial County Sheriff's Department, and collect data from observational surveys to understand appropriate locations for law enforcement to monitor.

### Table 4.4. Enforcement Programs

Program	Description	Implementation Steps
Radar enforcement	Strict enforcement of speed laws in school zones can improve the safety for children walking and bicycling to school. A 'zero tolerance' policy for speeders in school zones, and an increase in fines for drivers who violate the posted school zone speed limit, are both potential approaches.	The County can work with the Sheriff's Department and local school police to target enforcement based on areas of most concern.
Speed trailers, active speed monitors, and photo enforcement	Speed trailers and active speed monitors display the speed of oncoming vehicles. Both devices help officers track motorist speed, display current speed to motorists, and create awareness of the posted speed limit.	The County can work with the Sheriff's Department to use and/or purchase equipment to monitor and enforce speed, and target areas of known speeding.
Student safety patrol (valet)	Student safety patrols enhance enforcement of drop-off and pick- up procedures at school by increasing safety for students and traffic flow efficiency for parents.	The school typically spearheads a student safety patrol or valet system. The County can assist by providing vests for participating students, as well as information material about setting up successful valet programs.

### 4.5. Future Evaluation

Evaluation of this program will consist of periodic surveys to determine how commute to school patterns have changed, as well as to assess what is working and what may need modifying. Annual student tallies like the baseline tallies conducted for this Plan will inform the County and schools if fewer students are arriving by car and more are walking or bicycling, and by how much.

Program	Description	Implementation Steps	
Bicycle and pedestrian counts	Counting numbers of bicyclists and pedestrians around the County can help staff prioritize improvements. These counts can also be included in travel demand models. The Southern California Association of Governments developed a count methodology that is now available for use by local jurisdictions.	The County should conduct a pedestrian and bicycle count at least every other year and preferably annually. The County can work with organizations to organize and administer a count. The counts typically require volunteers.	
Parent attitudinal surveys	Survey questions, such as "what deters you from bicycling?" or "what mode do you use for short trips?" aim to understand attitudes toward walking, bicycling, and common concerns with letting students walk or bicycle to school.	The National Center for Safe Routes to School has a standard parent survey form that the County should distribute to schools annually for administration. The County should collect completed forms, analyze data, and submit results to the schools and the National Center.	
Student tallies	This survey asks what mode a respondent used for a certain trip. Mode of travel surveys are commonly done in schools as part of SRTS to find out how many children walked, bicycled, were driven, etc.	The National Center for Safe Routes to School has a standard student tally form that the County should distribute to schools annually for administration. Or, the schools can use a simple "how did you get to school today" raise your hand tally. Ideally, this should be done every year.	

### Table 4.5. Evaluation Programs

### 4.6. Engineering (Conceptual)

Imperial County aspires to have streets that enhance quality of life available to all residents and provide safe and comfortable means of travel by foot, bicycle, transit, and vehicle. The pedestrian and bicycle engineering treatments included in this Plan will certainly help the County towards this goal. However, the recommendations included here are specific to the trip to and from school, with an eye toward students safely walking and bicycling to school. The County will continue to actively engage the community to ensure safety of all street users is a priority.

The recommendations included here are summarized in the following section "SRTS Plans by School".

### 5. SRTS Plans by School

Comments from SRTS workshops were brought along when fieldwork was conducted so that the resulting plans address the issues raised. The fieldwork also identified new issues, which the plans address at each of the following schools:

### **Brawley Elementary School District**

- Barbara Worth Junior High School
- J.W. Oakley Elementary School
- Miguel Hidalgo Elementary School
- Myron D. Witter Elementary School
- Phil D. Swing Elementary School

### **Brawley Union High School District**

- Brawley Union High School
- Desert Valley High School

### **Calexico Unified School District**

- Aurora High School
- Blanche Charles Elementary School
- Calexico High School
- Cesar Chavez Elementary
- De Anza 9th Grade Academy
- Dool Elementary
- Enrique Camarena Junior High School
- Jefferson Elementary
- Kennedy Gardens Elementary
- Mains Elementary
- Rockwood Elementary
- William Moreno J.H.S.

#### **Calipatria Unified School District**

- Bill Smith Jr. Middle School
- Calexico Community School
- Calipatria High School
- Fremont Primary School
- Grace Smith Elementary School

### **Central Union High School District**

- Central High School
- Desert Oasis High School
- Southwest High School

### El Centro Elementary School District

Ballington Academy for the Arts and Sciences

- De Anza Magnet School
- Desert Garden Elementary School
- Harding Elementary School
- Hedrick Elementary School
- Imagine Imperial Valley
- John F. Kennedy Middle School
- Lincoln Elementary School
- Martin Luther King Jr. Elementary School
- McKinley Elementary School
- Sunflower Elementary School
- Woodrow Wilson Junior High School

### **Heber Elementary School District**

- Dogwood Elementary School
- Heber Elementary School

### **Holtville Unified School District**

- Emmett S. Finley Elementary School
- Holtville Middle School
- Holtville High School

#### **Imperial Unified School District**

- Ben Hulse Elementary School
- Frank Wright Middle School
- Imperial Avenue Holbrook High School
- Imperial High School
- T.L. Waggoner Elementary School

### San Pasqual Valley Unified School District

- San Pasqual Elementary School
- San Pasqual Middle School
- San Pasqual Valley High School

#### **Seeley Union School District**

Seeley Elementary School

### Westmorland Union Elementary School District

Westmorland Elementary School

The planned physical improvements along school routes are described in the following pages. The design section at the end of this Plan provides definitions and guidance on these improvements. All bulb-outs and curb extensions will include perpendicular curb ramps and truncated dome tactile devices for the sight-impaired. All pedestrian signals will include audible signals for the sight-impaired.

For each school, a planned list of improvements was created. The list gives the County and local jurisdictions projects that they can seek funds for. The County and local jurisdictions may want to change the list over time, as the list is conceptual. Engineering will need to be conducted prior to construction.

Maps on the following pages illustrate common routes that students take to get to school. The proposed improvements were planned along these routes. The crossing improvements are numbered and shown on the map with their corresponding numbers.

Shade from trees also serves as an important factor to encourage more walking and bicycling. It is encouraged to plant native, drought-tolerant shade trees along walking and bicycling routes, where appropriate. Shade trees are important given the county has half the days of the year over 90 degrees.



### **Barbara Worth Junior High School**

Brawley Elementary School District

### **SRTS Workshop**

A SRTS workshop was conducted on October 1, 2015 for the Brawley Elementary District schools. The following key stakeholders from Barbara Worth Junior High attended:

- School principal
- Parents
- Students
- School District Superintendent
- Representatives from the City of Brawley
  Public Works Department
- Representative from the City of Brawley Parks
  Department
- Representatives from the Brawley Police
  Department
- Representatives from the Imperial County Transportation Commission
- Representative from Caltrans District 11

### Safety Issues Raised at the Stakeholder Workshop

### General

- Lack of crosswalks
- Speeding
- No designated drop-off and pick-up zones
- Lack of street lights around schools
- Unfavorable weather/climate
- Cars do not stop to give way to pedestrians

### **Location Specific**

- Imperial Ave. & D St.
  - o need crossing guards and sign
- Main St. (SR-86) & 6<sup>th</sup> St.
  - o need crossing guard
- Western Ave. & C St.
  - o no marked crosswalk or signs
- 1<sup>st</sup> St. & C St.
  - o no marked crosswalk and signs



### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



### Bicycle and Pedestrian Collisions 2008 - 2012

Barbara Worth Junior High School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



### **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

### Imperial Ave. & D St.

#### Existing

- 2-way stop for D St.
- Yellow ladder crosswalks on all legs
- Assembly B signs on both approaches to the north and south leg crosswalks

#### Proposed

- Add advance stop lines to the east and west legs (2)
- Add advance yield lines to the north and south leg crosswalks (2)
- Add Assembly D signs to the north leg crosswalk (2)
- Add a R1-6 sign to the north leg crosswalk (1)
- Add Assembly B and D signs to the south leg crosswalk (2)
- Add R1-5 signs to the north and south leg crosswalks (2)
- Add curb extensions to the north, south, and east legs (6)



### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

### **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through the SRTS Committee.

### Education

- Bicycle safety education; involve both students and parents
- Parent driver safety education
- Establish drop-off and pick-up zones
- Personal safety education
- Include high school students with junior high students in safety education programs

### Encouragement

- Walking school buses
- International Walk-to-School Day
- Contests and prizes (certificates and gift cards)
- Include parents in the contests and prizes

### Enforcement

- Law enforcement visibility
- Speed trailers
- Need more crossing guards
- Need more crosswalks and signs

# Brawley Elementary School District



J.W. Oakley Elementary School

### J.W. Oakley Elementary School

Brawley Elementary School District

### **SRTS Workshop**

A SRTS workshop was conducted on October 1, 2015 for the Brawley Elementary District schools. The following key stakeholders from J.W. Oakley attended:

- School principal
- Parents
- Students
- School District Superintendent
- Representatives from the Brawley Police
  Department
- Representatives from the City of Brawley Public Works Department
- Representative from the City of Brawley Parks
  Department
- Representative from the Imperial County Transportation Commission
- Representative from Caltrans District 11

### Safety Issues Raised at the Stakeholder Workshop

#### General

- Double parking
- Doors opening onto the road
- Parking and dropping off in the "no parking "
  zone
- Use of empty lots for drop-off and pick-up
- Speeding
- U-turns

### **Location Specific**

- B St. & Eastern Ave.
  - safety concerns between cars and crossing pedestrians



### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



### Bicycle and Pedestrian Collisions 2008 - 2012

J.W. Oakley Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan J.W. Oakley Elementary School

### **Existing Conditions and Engineering Recommendations**

### **Crossing Improvement**

### B St. & Eastern Ave.

#### Existing

- 4-way stop
- Yellow ladder crosswalks on all legs

### Proposed

- Add raised yellow zebra-stripe crosswalks to the north and west legs (2)
- Add advance stop lines to all legs (4)
- Add curb extensions to all legs (8)



### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

### **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through the SRTS Committee.

### Education

- Bicycle safety education; involve both students and parents
- Track students that walk or bike to school and reward students that do

### Encouragement

- Bike Rodeos
- International Walk-to-School day (held on October 7, 2015)
- Bike helmet stickers

### Enforcement

- Rader trailer
- Police give tickets to students for "caught being good"

# Brawley Elementary School District



Miguel Hidalgo Elementary School

### **Miguel Hidalgo Elementary School**

Brawley Elementary School District

### **SRTS Workshop**

A SRTS workshop was conducted on October 1, 2015 for the Brawley Elementary District schools. The following key stakeholders from Miguel Hidalgo Elementary School attended:

- School principal
- Parents
- Students
- School District Superintendent
- Representatives from the City of Brawley Public Works Department
- Representative from the City of Brawley Parks
  Department
- Representatives from the Brawley Police
  Department
- Representative from the Imperial County Transportation Commission
- Representative from Caltrans District 11

### Safety Issues Raised at the Stakeholder Workshop

### General

• While attendees were present, no responses were submitted for "General" safety issues

### **Location Specific**

- Cesar Chavez St. & K St.
  o pedestrians not using the crosswalk, crossing mid-block
- Cesar Chavez St. & J St.
  - o no stop sign
- Along J St. from Cesar Chavez St. to 11<sup>th</sup> St.
  pedestrians crossing mid-block
  - Along Malan St. from 9<sup>th</sup> St. to Palm Ave.
    - o truck route
    - o dangerous crossing for students crossing from the south to school



### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



### Bicycle and Pedestrian Collisions 2008 - 2012

Miguel Hidalgo Elementary School

Source of Data: University of California Transportation Injury Mapping System
The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Miguel Hidalgo Elementary School

#### **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvements**

#### 1. Cesar Chavez St. & K St.

Existing

- 4-way stop
- Yellow transverse-line crosswalks on all legs

#### Proposed

- Add yellow zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- All curb extensions to all legs (8)



#### 2. Cesar Chavez St. & J St.

#### Existing

- Uncontrolled intersection
- · Yellow transverse-line crosswalks on the east and west legs

#### Proposed

- Add zebra-stripe crosswalks to the east and west legs (2)
- Add a raised zebra-stripe crosswalk to the south leg (1)
- Add advance yield lines to the east, west and south leg crosswalks (3)
- Add R1-5 signs to the east, west and south leg crosswalks (3)
- Add Assembly B and D signs to the approaches to the east and west leg crosswalks (2)
- Add advance yield lines on both approaches to the south leg crosswalk (2)
- Add a R1-6 sign to the south leg crosswalk (2)
- Add R1-5 signs to the south leg crosswalk (2)
- Add Assembly D signs to both approaches to the south leg (2)
- Replace the left turn lane and add crossing islands to the south leg crosswalk (1 pair)
- Add curb extensions to the east, west, and south legs (6)



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

#### **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. While attendees were present, no responses were submitted.



Walk to School Day was held on October 7, 2015

# Brawley Elementary School District



Myron D. Witter Elementary School

## **Myron D. Witter Elementary School**

Brawley Elementary School District

#### SRTS Workshop

A SRTS workshop was conducted on October 1, 2015 for the Brawley Elementary District schools. The following key stakeholders from Myron J. Witter Elementary School attended:

- School principal
- Parents
- Students
- School District Superintendent
- Representatives from the City of Brawley Public Works Department
- Representative from the City of Brawley Parks Department
- Representatives from the Brawley Police Department
- Representative from the Imperial County Transportation Commission
- Representative from Caltrans District 11

#### Safety Issues Raised at the Stakeholder Workshop

#### General

- Double parking
- Cars are parked in front of the school all day
- Speeding
- Disregard of crossing guards
- People crossing mid-block, not using crosswalks

#### **Location Specific**

- Missing sidewalks
  - o along 2<sup>nd</sup> St. from K St. to J St.
  - along J St. from 2<sup>nd</sup> ST. to 3<sup>rd</sup> St.
    along 3<sup>rd</sup> St. from J St. to K St.

  - o along Malan St. from 2<sup>nd</sup> St. to Imperial Ave.
- Along K St. from 1<sup>st</sup> St. to 2<sup>nd</sup> St.
  - o general traffic congestion and crossing concerns



#### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



## Bicycle and Pedestrian Collisions 2008 - 2012

Myron J. Witter Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Myron D. Witter Elementary School

#### **Existing Conditions and Engineering Recommendations**

#### Linear Improvements

#### 2<sup>nd</sup> St. from K St. to J St.; J St. from 2<sup>nd</sup> ST. to 3<sup>rd</sup> St.; 3<sup>rd</sup> St. from J St. to K St.

- Add sidewalks
  - o Along 2<sup>nd</sup> St. from K St. to J St. (approximately 380')
  - o Along J St. from 2<sup>nd</sup> ST. to 3<sup>rd</sup> St. (approximately 670')
  - o Along 3rd St. from J St. to K St. . (approximately 370')

#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

#### **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through the SRTS Committee.

#### Education

- Designate student loading zones
- Expand safety patrol

#### Encouragement

- Walking school buses
- Walk and bike contests

#### Enforcement

- Crossing guards
- Safety patrol
- Repair and maintenance of crosswalks and street lights

## Brawley Elementary School District



Phil D. Swing Elementary School

## **Phil D. Swing Elementary School**

Brawley Elementary School District

#### **SRTS Workshop**

A SRTS workshop was conducted on October 1, 2015 for the Brawley Elementary District schools. The following key stakeholders from Phil D. Swing Elementary School attended:

- School principal
- Parents
- Students
- School District Superintendent
- Representatives from the City of Brawley Public
  Works Department
- Representative from the City of Brawley Parks
   Department
- Representatives from the Brawley Police
   Department
- Representative from the Imperial County Transportation Commission
- Representative from Caltrans District 11

#### Safety Issues Raised at the Stakeholder Workshop

#### General

- Double parking
- Speeding
- Unsafe crossings mid-block
- Parking in "no parking" zone/illegal parking

#### **Location Specific**

- Western Ave. & A St.
  - o major traffic safety concerns
  - Western Ave. & River Dr. o major traffic safety concerns
    - Along Western Ave. from A St. to River St.
  - o major traffic safety concerns
- Along A St. from El Cerrito Dr. to Western Ave.
   o lack of street lighting
- Along Western Ave. from A St. to E St.
   o lack of street lighting
- Along River Dr. from El Cerrito Dr. to Hovley Rd.
  - o major traffic safety concerns
- A St. & 1<sup>st</sup> St.
  - o safety concerns between cars and crossing pedestrians



#### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



## Bicycle and Pedestrian Collisions 2008 - 2012

Phil D. Swing Elementary School Source of Data: University of California Transportation Injury Mapping System The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Phil D. Swing Elementary School

#### **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvements**

#### 1. Western Ave. & A St.

Existing

- 4-way stop
- Yellow ladder crosswalks on all legs

#### Proposed

- Add raised yellow zebra-stripe crosswalks on the north and west legs (2)
- Add advance stop lines to all legs (4)
- Add curb extensions to all legs (8)



#### 2. Western Ave. & River Dr.

#### Existing

- 2-way stop for River Dr.
- Yellow transverse-line crosswalks on the north and west legs
- Assembly B signs on the north leg crosswalk
- Assembly D signs on both approaches to the north leg crosswalk
- Speed feedback signs

#### Proposed

- Add a raised zebra-stripe crosswalk to the north leg crosswalk (1)
- Add advance yield lines to both approaches to the north leg crosswalk (2)
- Add R1-5 signs to both approaches to the north leg crosswalk (2)
- Add an advance stop line to the west leg crosswalk (1)
- Add curb extensions to the north and west legs (4)



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

#### **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through the SRTS Committee.

#### Education

- Bicycle safety education; involve both students and parents
- Pedestrian safety education; involve both students and parents
- Parent driver safety education
- Personal safety education
- Health and environmental education

#### Encouragement

- Walking Wednesdays
- Walking school buses
- International Walk-to-School Day
- Contests and donations
- Park-and-walk sites

#### Enforcement

- Parents to teach and reinforce safety skills
- Parent driver safety enforcement
- Crossing guards
- Enforcement of traffic laws
- Speed monitors

## Brawley Union High School District



Brawley Union High School

### **Brawley Union High School**

Brawley Union High School District

#### **SRTS Workshop**

A SRTS workshop was conducted on October 7, 2015 for the Brawley Union High District schools. The following key stakeholders from Desert Valley High School attended:

- School principal
- Parents
- Students
- Representatives from the Brawley Police
   Department
- Representative from the Imperial County Transportation Commission
- Representative from Caltrans District 11

#### Safety Issues Raised at the Stakeholder Workshop

#### General

- Drivers do not yield to pedestrians
- Missing curb ramps at sidewalk corners

#### **Location Specific**

- 5<sup>th</sup> St. & A St.
  - o need a crossing guard
- Imperial Ave. & A St.
   o need a crossing guard
- Imperial Ave. & B St.
  - o need a crossing guard
- Imperial Ave. & D St.
  - need a crossing guard
- 5<sup>th</sup> St. & C St.
  - o need a crossing guard
- 5<sup>th</sup> St. & D St.
  - o no crosswalk
- 7<sup>th</sup> St. & C St.
  - o safety issues with crossing
- 7<sup>th</sup> St. & A St.
  - o safety issues with crossing
- 8<sup>th</sup> St. & B St.
  - o safety issues with crossing
- Plaza St. & Main St. (SR-78) (west end)

   no crosswalk marking
- Plaza St. & Main St. (SR-78) (east end)
  - o no crosswalk marking





#### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



## Bicycle and Pedestrian Collisions 2008 - 2012

Brawley Union High School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Brawley Union High School

#### **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

#### 5<sup>th</sup> St. & A St.

#### Existing

- T-intersection
- 1-way stop for 5<sup>th</sup> St.
- Yellow transverse-line crosswalks on the east, south, and west legs
- Speed feedback sign on the east leg

#### Proposed

- Add yellow zebra-stripe crosswalks on the east, west and north legs (3)
- Add an advance stop line to the north leg crosswalk (1)
- Add advance yield lines to the approaches to the east and west leg crosswalks (2)
- Add R1-6 signs to the east and west leg crosswalks (2)
- Add R1-5 signs to the approaches to the east and west leg crosswalks (2)
- Add Assembly D signs to the approaches to the east and west leg crosswalks (2)
- Add curb extensions to all legs (6)



#### **Bicycle Parking**

• Add racks for 30 bicycles as described in the Design Guidance section. Add racks for 30 skateboards/scooters. Add more if needed.

#### **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

#### Education

- Create a website for parents
- Broadcast announcements on radio stations
- Brochures and flyers

#### Encouragement

- Parades
- More traffic signs that alert drivers
- Create a mobile app
- Create a bike map that lists the bikeway routes
- Pedestrian "decoy"

#### Enforcement

- Crossing guards
- More police enforcement for safety patrols
- Better training for safety officials

## Brawley Union High School District



Desert Valley High School

### **Desert Valley High School**

Brawley Union High School District

#### SRTS Workshop

A SRTS workshop was conducted on October 7, 2015 for the Brawley Union High District schools. The following key stakeholders from Desert Valley High School attended:

- School principal
- Parents
- Students
- Representatives from the Brawley Police
   Department
- Representative from the Imperial County Transportation Commission
- Representative from Caltrans District 11

#### Safety Issues Raised at the Stakeholder Workshop

#### General

- No curbs/sidewalks
- No marked bike lanes
- No loading/unloading areas
- No traffic signs and speed signs
- Lack of crosswalks

#### **Location Specific**

- No sidewalks
  - o west side of 2<sup>nd</sup> Street from Magnolia St. to A St.
  - o south side of Magnolia St. from the existing sidewalk just east of 1<sup>st</sup> St. to 2<sup>nd</sup> St.
  - o north side of Magnolia St. from the 1<sup>st</sup> St. to 3<sup>rd</sup> St.
  - o west side of 3<sup>rd</sup> St from Magnolia St. to A St.
- Imperial Ave. & A St.
  - o unattended crossing
- Imperial Ave. & B St.
  - unattended crossing
- 5<sup>th</sup> St. & A St.
  - o unattended crossing
- 7<sup>th</sup> St. & A St.
  - o unattended crossing
- 8<sup>th</sup> St. & A St.
  - o no crosswalk
- 8<sup>th</sup> St. & C St.
  - o no crosswalk





#### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



## Bicycle and Pedestrian Collisions 2008 - 2012

Desert Valley High School Source of Data: University of California Transportation Injury Mapping System The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Desert Valley High School

#### **Existing Conditions and Engineering Recommendations**

#### Linear Improvements

2<sup>nd</sup> Street from Magnolia St. to A St.; Magnolia St. just east of 1<sup>st</sup> St. to 2<sup>nd</sup> St.; Magnolia St. from the 1<sup>st</sup> St. to 3<sup>rd</sup> St.; 3<sup>rd</sup> St from Magnolia St. to A St.

- Add sidewalks
  - o west side of 2<sup>nd</sup> Street from Magnolia St. to A St. (approximately 330')
  - south side of Magnolia St. from the existing sidewalk just east of 1<sup>st</sup> St. to 2<sup>nd</sup> St. (approximately 420')
  - o north side of Magnolia St. from the 1<sup>st</sup> St. to 3<sup>rd</sup> St. (approximately 1340')
  - o west side of 3<sup>rd</sup> St from Magnolia St. to A St. (approximately 320')

#### **Bicycle Parking**

• Add racks for 30 bicycles as described in the Design Guidance section. Add racks for 30 skateboards/scooters. Add more if needed.

#### **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

#### Education

- Pedestrian safety education; involve both students and parents
- More signage to alert vehicles

#### Encouragement

• Free prizes for walking to school (snow cones, passes for Ricochet)

#### Enforcement

- Crossing guards
- Mailers to parents on enforcement policies
- Bicyclists riding in the wrong direction

## Calexico Unified School District



Aurora High School



De Anza 9th Grade Academy



Kennedy Gardens Elementary School



Blanche Charles Elementary School



**Dool Elementary School** 



Mains Elementary School



Calexico High School



Enrique Camarena Junior High School



Rockwood Elementary School



Cesar Chavez Elementary School



Jefferson Elementary School



William Moreno Junior High School

## **Calexico Unified School District Overview**

Aurora High School, Blanche Charles Elementary School, Calexico High School, Cesar Chavez Elementary School, De Anza 9th Grade Academy, Dool Elementary School, Enrique Camarena Junior High School, Jefferson Elementary School, Kennedy Gardens Elementary School, Mains Elementary School, Rockwood Elementary School, William Moreno Junior High School

#### **SRTS Workshop**

A SRTS workshop was conducted on September 23, 2015 for all schools within the Calexico Unified School District. While the workshop was very well attended, not all schools sent representatives. As a result, the general safety issues and program plans are combined for all schools. Some attendees were familiar enough with different schools from their own such that they provided input regarding the location specific issues at each school.

The following key stakeholders from the Calexico School District attended:

- School principal
- Parents
- Students
- Representative from the City of Calexico
- Representative from the Imperial County Transportation Commission
- Representative of the Southern California
   Association of Governments
- Representative from Caltrans District 11

#### Safety Issues Raised at the Stakeholder Workshop

#### General

- Double parking
- Drivers not obeying traffic laws and signs
- Speeding
- Poor street lighting
- Drivers running stop signs
- Texting and driving
- Drivers not obeying crossing guards
- Hot climate
- Insufficient crosswalks
- People crossing mid-block in undesignated crossing areas
- Lack of bike lanes
- Traffic/congestion
- Lack of sidewalks
- Blind spots created from wide corner turns
- Loading/drop-off/pick-up zones create congestion
- Children/parents living far away from school



• Students crossing Imperial Highway

#### **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

#### Education

- Bicycle and pedestrian safety education; involve both students and parents

   Can be provided by Calexico Police Department
  - Pedestrian safety education; involve both students, parents, teachers, and drivers
    - Train students on how to keep within range of an adult while crossing
       Teach students the rules and signals for crossing
- Bicycle and pedestrian rodeos
- Distribute printed materials
- Promote greater awareness of crossing guards through police safety patrols
- Drop-off and pick-up safety education and procedures
- Greater awareness of health and environmental advantages

#### Encouragement

- Walking and biking events
- Annual walk events (currently held in October)
- Weekly/monthly walk events
- Walking school buses and bicycle trains
- International Walk-to-School Day
- Contests with prizes
- Greater awareness of obesity problems
- Drivers to drive slower speeds during school hours
- · Mailers to parents about school safety

#### Enforcement

- School speed limit signs
- More traffic sign and stop signs
- Lane enforcement
- Pedestrian "decoys"
- Photo enforcement
- Programs on how to share the road with bicyclists
- Police enforcement
- Speed trailers and speed feedback signs
- Ensure marked crosswalks
- Inform parents of safer designated routes students can take
- Monitor school drop-off and pick-up times
- Follow crossing guards
- Safety patrols
- Regulate pedestrian, bicyclist, and driver behaviors
- Traffic complaint hotline

# Aurora High School Calexico Unified School District

#### Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

- Rockwood Ave. & 7<sup>th</sup> St. • o too congested
- Encinas Ave. & 7<sup>th</sup> St. •
  - o drivers do not obey traffic signs
- Paulin Ave. & 6<sup>th</sup> St. •
  - o safety issues with crossing
- Belcher St. & Encinas Ave. . o no crossing guard
- Linda St. & Encinas Ave. • o safety issues with crossing



#### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



## Bicycle and Pedestrian Collisions 2008 - 2012

Aurora High School Source of Data: University of California Transportation Injury Mapping System The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Aurora High School

#### **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

#### Rockwood Ave. & 7<sup>th</sup> St.

#### Existing

- 4-way stop
- No marked crosswalks

#### Proposed

- Add yellow zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add curb extensions to all legs (8)



#### **Bicycle Parking**

• Add racks for 30 bicycles as described in the Design Guidance section. Add racks for 30 skateboards/scooters. Add more if needed.

# Blanche Charles Elementary School Calexico Unified School District

#### Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

- Lack of bike lanes along streets surrounding Blanche Charles Elementary School o Kloke Rd. from Sam Ellis St. to Birch St. •

  - o Kloke Rd. from Birch St. to Grant St.



#### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



## Bicycle and Pedestrian Collisions 2008 - 2012

Blanche Charles Elementary School Source of Data: University of California Transportation Injury Mapping System


SRTS Plan Blanche Charles Elementary School

#### **Linear Improvements**

#### 1a. Kloke Rd. from Sam Ellis St. to Birch St.

Existing

- 80' curb-to-curb, 4 lanes, center-turn lane
- On-street parking on both sides

#### Proposed Option 1

- Reduce the number of lanes from 4 to 2
- Widen the center-turn lane to 20' and add dispersed landscaped median islands
- Add buffered bike lanes on both sides (0.4 miles)

#### Proposed Option 2

• Add buffered bike lanes on both sides (0.4 miles)

#### 1b. Kloke Rd. from Birch St. to Grant St.

Existing

- 72' curb-to-curb, 4 lanes
- On-street parking on both sides

#### Proposed Option 1

- Reduce number of lanes from 4 to 2
- Add a landscaped median (0.3 miles)
- Add buffered bike lanes on both sides (0.3 miles)

#### Proposed Option 2

• Add buffered bike lanes on both sides (0.3 miles)

#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# Calexico High School Calexico Unified School District

## Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

- Birch St. (SR-98) from Imperial Ave. (SR-111) to Rivera Ave.
  - o very dangerous
  - o students cross in undesignated areas
- Birch St. (SR-98) & Rockwood • Ave.
  - o need more police
  - o need signals and
  - intersection improvements
- Birch St. (SR-98) & Perry Ave.
  - o need more police to monitor crossings
  - o cars drive to fast
- General area directly south of Calexico High School
  - o students walking and crossing in undesignated areas
  - o need better enforcement from crossing guards



The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Calexico High School Source of Data: University of California Transportation Injury Mapping System



SRTS Plan Calexico High School

#### Linear Improvements

#### 1a. Birch St. (SR-98) from Rockwood Ave. to Andrade Ave.

Existing

• 78' curb-to-curb, 4 lanes, center turn lane

Proposed

- Add colored buffered bike lanes on both sides
- Add dispersed landscaped median islands

#### 1b. Birch St. (SR-98) from Andrade Ave. to Rivera Ave.

Existing

• 98' curb-to-curb, 4 lanes, center turn lane

Proposed

- Add colored buffered bike lanes on both sides
- Add dispersed landscaped median islands



#### **Bicycle Parking**

• Add racks for 30 bicycles as described in the Design Guidance section. Add racks for 30 skateboards/scooters. Add more if needed.

# **Cesar Chavez Elementary School** Calexico Unified School District

# Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

- Medina St. & Zapata St. o no crosswalk
  - o no designated loading zone



The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Cesar Chavez Elementary School Source of Data: University of California Transportation Injury Mapping System



SRTS Plan Cesar Chavez Elementary School

#### **Crossing Improvement**

#### Medina St. & Zapata St.

#### Existing

- T-intersection
- Yellow transverse-line crosswalks on the east and south legs
- 1-way stop for Medina St.
- Assembly C signs on both approaches to east leg crosswalk
- Crossing guard
- 'School Xing' Sign

### Proposed

- Add a yellow zebra-stripe crosswalk to the south leg (1)
- Add a raised yellow zebra-stripe crosswalk to the east leg (1)
- Add an advance stop line to the south leg (1)
- Add advance yield lines to both approaches to the east leg crosswalk (2)
- Replace existing 'School Xing Stop When Occupied' sign with a R1-6 sign (1)
- Add R1-5 signs to both approaches to the east leg crosswalk (2)
- Replace 'School Xing' sign with Assembly D signs to both approaches to the east leg crosswalk (2)
- Add curb extensions to the east and south legs (4)
- Add 'Slow School Xing' pavement markings to both approaches to the east leg (2)



## **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# De Anza 9<sup>th</sup> Grade Academy Calexico Unified School District

# Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

- Birch St. (SR-98) & Blair Ave. • o heavy traffic
- Blair Ave. & Rosemont St. •
  - o blind spots for drivers at the intersection
- Along Blair Ave. from Rosemont St. to Sherman St. •
  - o double parking
  - o heavy traffic



The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

De Anza 9th Grade Academy Source of Data: University of California Transportation Injury Mapping System



SRTS Plan De Anza 9th Grade Academy

#### **Crossing Improvement**

#### Birch St. (SR-98) & Blair Ave.

#### Existing

- T-intersection
- One-way stop for Blair Ave.

#### Proposed

- Add zebra-stripe crosswalks to the west and south legs (2)
- Add an advanced stop line to the south leg crosswalk (1)
- Add advanced yield lines to both approaches to the west leg crosswalk (1)
- Add R1-5 signs to both approaches to the west leg crosswalk (2)
- Add Assembly B and D signs to both approaches to the west leg crosswalk (2)
- Add rapid-flash beacons to the west leg (1 set)
- Add crossing islands to the west leg crosswalk (1 pair)
- Add curb extensions to the south leg (2)



#### **Bicycle Parking**

Add racks for 30 bicycles as described in the Design Guidance section. Add racks for 30 skateboards/scooters. Add more if needed

# **Dool Elementary School** Calexico Unified School District

## Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

Nearby park (bounded by Heber Ave. to the west, Mary Ave. to the east, 7<sup>th</sup> St. to the north, and 5<sup>th</sup> St. to the south) attracts intoxicated people and • unwanted activity



The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Dool Elementary School Source of Data: University of California Transportation Injury Mapping System



Dool Elementary School

#### **Crossing Improvement**

## Encinas Ave. & 7<sup>th</sup> St.

#### Existing

- 4-way stop
- Yellow transverse-line crosswalks on all legs

#### Proposed

- Add zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add curb extensions to all legs (8)



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# Enrique Camarena Junior High School Calexico Unified School District

## Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

- Rivera Ave. from Birch St. (SR-• 98) to Paseo Camino Real
  - no sidewalks on the east side
- Paseo Camino Real & G Anaya Ave.
  - o not a 4-way stop
- Birch St. (SR-98) & Lavigne Rd.
  - o big highway with lots of traffic
  - o commercial truck route Birch St. (SR-98), east of
- Rivera Ave.
  - o no sidewalks



There were no recorded bicyclist or pedestrian involved crashes for a five-year period between 2008 and 2012 near this school. (University of California Transportation Injury Mapping System)



#### Linear Improvement

#### Riviera Ave. from Birch St. (SR-98) to Paseo Camino Real

• Add sidewalks on the east side of Riviera Ave. from Birch St. to Paseo Camino Real (approximately 1580')

#### **Bicycle Parking**

• Add racks for 20 bicycles as described in the Design Guidance section. Add racks for 20 skateboards/scooters. Add more if needed.

# Jefferson Elementary School Calexico Unified School District

# Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

- Paseo de Alteza & 7<sup>th</sup> St. • o no crossing guard
- 7<sup>th</sup> St. from Andrade Ave. to Paseo de Altez
  - o needs police surveillance
  - o needs sidewalk improvements
  - 5<sup>th</sup> St. & Paseo de Altez
    - o no crossing guard
- 5<sup>th</sup> St. from Andrade Ave. to Paseo de Altez
  - o no crossing guard



The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Jefferson Elementary School Source of Data: University of California Transportation Injury Mapping System



SRTS Plan Jefferson Elementary School

#### **Crossing Improvement**

#### Paseo de Alteza & 7<sup>th</sup> St.

#### Existing

- 4-way stop
- No marked crosswalks

#### Proposed

- Add zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add curb extensions to all legs (8)



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# Kennedy Gardens Elementary School Calexico Unified School District

# Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

•

- Rockwood Ave. & Robert Kennedy • St.
  - o blind spots
  - o speeding
  - Martin Luther King Ave. & Daniel St.
    - o double parking
    - o U-turns



The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Kennedy Gardens Elementary School Source of Data: University of California Transportation Injury Mapping System



Kennedy Gardens Elementary School

#### **Crossing Improvement**

#### Rockwood Ave. & Robert Kennedy St.

#### Existing

- T-intersection
- 1-way stop for Robert Kennedy St.
- Yellow transverse-line crosswalks on the north and east legs
- Assembly B and D signs on both approaches to the north leg crosswalk

#### Proposed

- Add a zebra-stripe crosswalks to the east leg (1)
- Add a raised zebra-stripe crosswalk to the north leg (1)
- Add an advance stop line to the east leg crosswalk (1)
- Add advance yield lines to both approaches to the north leg crosswalk (2)
- Add R1-5 signs to both approaches to the north leg crosswalk (2)
- Replace Assembly B signs with a R1-6 signs to the north leg crosswalk (2)
- Add curb extensions to the north and east legs (4)
- Add 'Slow School Xing' pavement marking to the south approach of the north leg crossing (1)



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# Mains Elementary School Calexico Unified School District

# Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

•

- Birch St. (SR-98) & V. V. Williams • Ave.
  - o no crosswalk
  - o needs a stop sign
  - Birch St. (SR-98) & Eady Ave. o safety issues with crossing



The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Mains Elementary School Source of Data: University of California Transportation Injury Mapping System



Mains Elementary School

#### **Crossing Improvement**

#### Birch St. (SR-98) & V. V. Williams Ave.

#### Existing

- T-intersection
- 1-way stop for V.V. Williams Ave.

#### Proposed

- Add zebra-stripe crosswalks to the north and west legs (2)
- Add an advance stop line to the north leg crosswalk (1)
- Add advance yield lines to both approaches to the west leg crosswalk (2)
- Add R1-5 signs to both approaches to the west leg crosswalk (2)
- Add Assembly B and D signs to both crossing approaches to the west leg crosswalk (2)
- Add rapid-flash beacons to the west leg crosswalk (1 set)
- Add crossing islands to the west leg crosswalk (1 pair)
- Add curb extensions to the northwest corner (2)
- Add a sidewalk on the west side of V.V. Williams Ave. from Canal St. to Birch St. (SR-98) (approximately 70')
- Add a sidewalk on the south side of Birch Ave. from the crosswalk to Lee Ave. (approximately 60')



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.
# Rockwood Elementary School Calexico Unified School District

## Safety Issues Raised at the Stakeholder Workshop

## **Location Specific**

- Birch St. (SR-98) & Imperial Ave. (SR-111) •
  - o safety issues with crossing
- No bike lanes along streets around Rockwood Elementary •



## Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



## Bicycle and Pedestrian Collisions 2008 - 2012

Rockwood Elementary School Source of Data: University of California Transportation Injury Mapping System The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Rockwood Elementary School

## **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

## Birch St. (SR-98) & Imperial Ave. (SR-111)

Existing

- Signalized intersection
- Transverse-line crosswalks on all legs
- Left-turn phases on all legs

#### Proposed

- Add zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add countdown signals to all crossings (8)
- Narrow travel and turn lanes down to 11'
- Add tapered curb extensions on east and north legs (4)



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# William Moreno Junior High School Calexico Unified School District

## Safety Issues Raised at the Stakeholder Workshop

## **Location Specific**

- Kloke Rd. & Birch St. (SR-98) • o too much traffic
- Kloke Rd. & Sunset St. •
  - o double parking
  - o too much traffic during drop-off and pick-up timės
  - o no bike lanes



## Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



## Bicycle and Pedestrian Collisions 2008 - 2012

William Moreno Junior High School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan William Moreno Junior High School

## **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

## Kloke Rd. & Birch St. (SR-98)

Existing

- Signalized intersection
- Yellow transverse-line crosswalks on all legs
- Left-turn phases on all legs

Proposed Option 1

- Add yellow zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add curb extensions to the south leg (2)
- Extend curbs to line up with travel lanes on the east, west, and east legs (3)
- Taper down the north leg from 90' to 62'
- Add countdown signals

Proposed Option 2 with Road Diet:

· Add a median adjacent to left-turn lane



## **Bicycle Parking**

• Add racks for 20 bicycles as described in the Design Guidance section. Add racks for 20 skateboards/scooters. Add more if needed.

## Calipatria Unified School District



Fremont Primary School



Bill Smith Jr. Middle School



Calipatria High School

## Fremont Primary School, Bill Smith Jr. Middle School, Calipatria High School

Calipatria Unified School District

## **SRTS Workshop**

A SRTS workshop was conducted on April 29, 2015. Since the Fremont Primary School, Bill Smith Jr. Middle School and Calipatria High School all share the same grounds the issues were discussed simultaneously. The following key stakeholders attended:

- Elementary school principal
- Parents
- Grandparents
- Calipatria Mayor Pro-Tem
- Two Calipatria Board of Trustees
- Members of the representative from the SRTS Committee
- Representatives of the Imperial County Food Bank

## Safety Issues Raised at the Stakeholder Workshop



## General

- Double parking
- Congestion
- Students crossing the street in the middle of the block
- Parents dropping children off on the other side of the street, and at random locations
- Parking in the drop-off driveway
- Bicycles on sidewalks
- Need a crossing guard in front of the school
- Dogs
- Lack of signage

## **Location Specific**

- Many students cross the street at Main St. and International Blvd.
- There is no crosswalk where students cross International Blvd. at Alamo St.
- Sorenson Ave. (SR-111) is a major street that students cross at Main St.
- Parents making U-turns in front of the west end of the school grounds
- Conflicts occur at the school driveway on Main St. with parents' cars and students crossing
- Students ride bicycles on the sidewalk along International Blvd. to get from Alamo St. to the entrance
- Conflicts occur at the bus drop off on International Blvd. with students walking and others coming off the bus
- There are some stray dogs in the block SE of the intersection of Main St. and International Blvd.

## Maps

There were no recorded bicyclist or pedestrian involved crashes for a five-year period between 2008 and 2012 near these schools. (University of California Transportation Injury Mapping System)

The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Fremont Primary/Bill E Young Jr Middle/ Midway High Schools

## **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvements**

## 1. Main St. and International Blvd.

## Existing

- 4-way stop
- Angled parking on Main St.
- Yellow transverse-line crosswalks on all legs
- International Blvd. is 51' wide with on-street parking

#### Proposed

- Add yellow zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add large curb extensions to inset the angled parking on Main St. (4)
- Add curb extensions to the north and south legs (4)
- Add crossing islands to all legs (4 pairs)



## 2. International Blvd. and Alamo St.

## Existing

- T-intersection
- 1-way stop for Alamo St.
- No marked crosswalk
- No sidewalks on International Blvd. south of Alamo St.
- No sidewalks on Alamo St.
- The school driveway on the west side is directly across from Alamo St.

## Proposed

- Add yellow zebra-stripe crosswalks to the north and south legs, north and south of the school driveway (2)
- Add a yellow zebra stripe crosswalk to the east leg (1)
- Add a new sidewalk on the east side of International Blvd. from Alamo St. to the new south leg crosswalk (approximately 120')
- Add curb extensions to north, south and east legs (6)
- Add crossing islands to north and south leg crosswalks (2 pairs)
- Add advance yield lines to north and south leg crosswalks (4)
- Add R1-6 signs to north and south leg crosswalks (2)
- Ad R1-5 signs to north and south leg crosswalks (4)
- Add Assembly D signs to north and south leg crosswalks (4)



## 3. Main St. (SR-115 east of SR-111) and Sorenson Ave. (SR-111)

Existing

- 4-way stop
- Sorenson Ave. becomes 4 lanes only in the center of Calipatria
- Textured crosswalks on all legs
- Islands on Sorenson Ave. are blocking the crosswalks

Proposed Option 1

- Bring both streets down to 2 lanes and add bike lanes (0.3 mi. on SR-111; 0.85 mi. on Main St.)
- Replace stop signs with a roundabout
- Add curb extensions to all legs to choke the intersection down (8)
- Coordinate with Caltrans for changes on SR-111 and SR-115

Proposed Option 2

- Bring both streets down to 2 lanes and add bike lanes (0.3 mi. on SR-111; 0.85 mi. on Main St.)
- Add curb extensions on all legs to choke the intersection down (8)
- Add zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Coordinate with Caltrans for changes on Sorenson Ave.



## **Bicycle Parking**

• Add racks for 40 bicycles as described in the Design Guidance section. Add racks for 20 skateboards/scooters. Place these racks at each the three schools. Add more if needed.

## **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through the SRTS Committee.

## Education

- Bicycle safety education; involve both students and parents
- Pedestrian safety education; involve both students and parents
- Parent driver safety education
- Personal safety education with a focus on prevention of bullying
- Bike rodeos

## Encouragement

- Walking Wednesdays
- International Walk-to-School Day
- Police give tickets to students for "caught being good"
- Walking school buses
- Contests with prizes

#### Enforcement

- Police presence during drop-off and pick-up
- Police enforce traffic laws

# Calipatria Unified School District



Grace Smith Elementary School

## **Grace Smith Elementary School**

Calipatria Unified School District

## SRTS Workshop

A SRTS workshop for the Calipatria Unified School District was conducted on April 29, 2015. No stakeholders directly from Grace Smith Elementary School in Niland attended. However, the Board of Trustee members that attended and others we able to talk about the issues facing students at this school. The program portion of this Plan will be the same for Grace Smith Elementary as for schools in Calipatria. The following key stakeholders attended:

- Elementary school principal
- Parents
- Grandparents
- Calipatria Mayor Pro-Tem
- Two Calipatria Board of Trustees
- A representative from the school SRTS Committee
- Representatives of the Imperial County Food Bank

## Safety Issues Raised at the Stakeholder Workshop



## General

- Crossing a major street
- Speeding
- Dogs

## **Location Specific**

- The crossing of SR-111 at 4<sup>th</sup> St. in front of the school is difficult because the cars are going fast
- There are no sidewalks along Isis Ave.
- The intersection of Isis Ave. and 3<sup>rd</sup> St. has congestion and is difficult
- The intersection of Isis Ave. and 4<sup>th</sup> St. has congestion and is difficult
- There are stray dogs along 1<sup>st</sup> St. between SR-111 and Isis Ave.
- There are abandoned buildings and personal safety issues along 1<sup>st</sup> St. between SR-111 and Isis Ave. and along SR-111 between 1<sup>st</sup> St. and 2<sup>nd</sup> St.

## Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



Source of Data: University of California Transportaion Injury Mapping System

The map below shows the proposed engineering project along common routes used by students to get to school.



Grace Smith Elementary School

## **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

## SR-111 and 4<sup>th</sup> St.

#### Existing

• Uncontrolled yellow transverse-line crosswalk on south leg crossing SR-111

## Proposed

- Add rumble bars on both approaches to the crosswalk (3 sets on each side)
- Add a yellow zebra-stripe crosswalk to the south leg (1)
- Add advance yield lines to both approaches to the south leg crosswalk (2)
- Add R1-5 signs to both approaches to the south leg crosswalk (2)
- Add Assembly B and D signs to both approaches to the south leg crosswalk (2)
- Add a sidewalk on the south side of 4<sup>th</sup> St. from SR-111 to the existing sidewalk (approximately 45')



## **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

## **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

## Education

- Bicycle safety education; involve both students and parents
- Pedestrian safety education; involve both students and parents
- Parent driver safety education
- Personal safety education with a focus on prevention of bullying
- Bike rodeos

## Encouragement

- Walking Wednesdays
- International Walk-to-School Day
- Police give tickets to students for "caught being good"
- Walking school buses
- Contests with prizes

#### Enforcement

- Police presence during drop-off and pick-up
- Police enforce traffic laws

# Central Union High School District



Central High School

**Central High School** 

Central Union High School District

## SRTS Workshop

A SRTS workshop was conducted on May 28, 2015 for the Central Union High School District schools. The following key stakeholders from Central High School attended:

- School principal
- Parents
- Students
- Representative from the Imperial County Transportation Commission

## Safety Issues Raised at the Stakeholder Workshop

#### General

- Speeding
- Unsafe driving by motorists

## **Location Specific**

- Imperial Ave. & Brighton Ave.
  o no designated crosswalk over Imperial Ave.
- Imperial Ave. & Holt Ave.
  - o difficult crossing of Imperial Ave.
- Holt Ave. & Wilson St.
  - o safety issues with crossing
  - Parking lot on Holt Ave.
    - o students walking in area where cars entering/exiting conflict
- Orange Ave. & 8<sup>th</sup> St.
  - o students not crossing properly
- Brighton Ave. & 8<sup>th</sup> St.
  - o safety issues with crossing
- Orange Ave. & 7<sup>th</sup> St.
  - o safety issues with crossing
- Orange Ave. & 4<sup>th</sup> St.
  - o personal safety issue
- 4<sup>th</sup> St. between Hamilton Ave. & Ross Ave.
  - o speeding



## Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Central Union High School

## **Existing Conditions and Engineering Recommendations**

## **Crossing Improvement**

## Imperial Ave. & Brighton Ave.

Existing

- 2-way stop for Brighton Ave.
- Uncontrolled crossing over Imperial Ave.

## Proposed

- Add traffic signals to all legs (4)
- Add yellow zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add curb extensions to all legs (8)
- Add countdown signals to all legs (8)



## Linear Improvement

#### Imperial Ave. from State St. to Holt Ave.

#### Existing

- 76' curb-to-curb, 4 lanes, center turn lane,
- On-street parking on west side;

#### Proposed

• Colored bike lanes

#### **Bicycle Parking**

• Add racks for 30 bicycles as described in the Design Guidance section. Add racks for 30 skateboards/scooters. Add more if needed.

## **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

#### Education

- Personal safety training for students
- Safe driving near the school
- Assembly with safety training
- Assembly with safe driving training

#### Encouragement

• Promote off-site drop-off and pick-up locations

#### Enforcement

• Enforce unsafe driving

# Central Union High School District



Desert Oasis High School

## **Desert Oasis High School**

Central Union High School District

## **SRTS Workshop**

A SRTS workshop was conducted on May 28, 2015 for the Central Union High School District schools. The following key stakeholders from Desert Oasis High School attended:

- School principal
- Parent
- Representative of the Imperial County Transportation Commission

## Safety Issues Raised at the Stakeholder Workshop

## General

- Speeding
- Motorists turning to quickly at intersections
- Limited safe crossings

## **Location Specific**

- Ross Ave. & 3<sup>rd</sup> St.
  - o no designated crossing over Ross Ave.
  - o speeding
- 4<sup>th</sup> St. (SR-86) between Ross Ave. & Orange Ave.
  - o no designated crosswalks
- Ross Ave. between Hope St. & 3<sup>rd</sup> St.
  - o missing sidewalks on both sides between Hope St. & 2<sup>nd</sup> St.
  - o missing sidewalk on the north side between 2<sup>nd</sup> St. & 3<sup>rd</sup> St.



## Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



Desert Oasis High School

## **Existing Conditions and Engineering Recommendations**

## **Crossing & Linear Improvements**

## Ross Ave. & 3<sup>rd</sup> St.

## Existing

- T-intersection
- 1-way stop for 3<sup>rd</sup> St.

## Proposed

- Add yellow zebra-strip crosswalks to the south and west legs (2)
- Use the protected buffer of the protected bike lanes to provide a pedestrian refuge on both Ross Ave. and 3<sup>rd</sup> St. and to narrow the crossings
- Extend the sidewalk on the north side of Ross Ave. to the west leg crosswalk (approximately 40')
- Use the medians as crossing islands on the south and west legs (2 pairs)
- Add an advance stop line to the south leg crosswalk (1)
- Add advance yield lines to both approaches to the west leg crosswalk (2)
- Add R1-5 signs to both approaches to the west leg (2)
- Add Assembly B and D signs to both approaches to the west leg crosswalk (4)
- Add rectangular rapid-flash beacons to the west leg (1 set)
- Add curb extensions in the parking lanes on the west and south legs (4)



## Ross Ave. from 4th St. to Aurora Dr.

Note: Ross Ave. is currently designated as a 4-lane arterial. The City will need to reconsider reducing Ross Ave. to a 2-lane street in order for this recommended configuration to work. In the future, this design may not be compatible with City plans.

• Protected bike lanes on Ross Ave. from 4th St. to 3rd St. (64' – show configuration (0.2 mi.)



• Protected bike lanes on 3<sup>rd</sup> St. from Ross Ave. to Aurora Dr. (64' – show configuration (0.2 mi.)



## **Bicycle Parking**

• Add racks for 30 bicycles as described in the Design Guidance section. Add racks for 30 skateboards/scooters. Add more if needed.

## **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

## Enforcement

• Speed feedback signs on Ross Ave. and on 3<sup>rd</sup> St.

# Central Union High School District



Southwest High School

## **Southwest High School**

Central Union High School District

## **SRTS Workshop**

A SRTS workshop was conducted on May 28, 2015 for the Central Union High School District schools. The following key stakeholders from Southwest High School attended:

- School principal
- Crossing guard

## Safety Issues Raised at the Stakeholder Workshop

#### General

- Lack of designated pedestrian crossings
- Traffic
- Students crossing midblock
- · Parents dropping off students in the wrong places
- No bike lanes
- Lack of sidewalks
- No speed monitors and signs

## **Location Specific**

- La Brucherie Rd. & Wake Ave.
- Along Ocotillo Dr.
  - o lack of designated pedestrian crossings
  - o heavy traffic
- Along La Brucherie Rd.
  - o heavy traffic
- Ocotillo Dr. between Lotus Ave. & 24<sup>th</sup> St.
  - o students crossing the street midblock
- Ocotillo Dr. & 22<sup>nd</sup> St.
  - o parents dropping off students at the corner


The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



The map below shows the proposed engineering projects along common routes used by students to get to school.



Southwest High School

### **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

#### La Brucherie Rd. & Wake Ave.

#### Existing

- Uncontrolled crosswalk on the north leg crossing
- Unmarked crosswalk

#### Proposed

- Add a zebra-stripe crosswalk on the north leg (1)
- Add a curb extension on the west side of the north leg (1)
- Add advance yield lines on both approaches to the north leg (2)
- Add R1-5 signs to both approaches to the north leg (2)
- Add Assembly B and D signs to both approaches to the north leg (2)
- Add rapid-flash beacons (1 set)
- Add a small center island for the rectangular rapid-flash beacon (1)



#### **Bicycle Parking**

• Add racks for 30 bicycles as described in the Design Guidance section. Add racks for 30 skateboards/scooters. Add more if needed.

## **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

#### Education

- Social media presence on Facebook and Twitter; create contest for students that bike and walk to school on social media
- Parent flyers

#### Encouragement

- Contests and recognition
- Award food vouchers from healthy business establishments

#### Enforcement

- Well-lit crosswalks
- More street lighting
- Provide free bike lights

# El Centro Elementary School District



Ballington Academy for the Arts and Sciences



De Anza Magnet Elementary School



Hedrick Elementary School



Imagine Schools Imperial Valley



John F. Kennedy Middle School



Lincoln Elementary School



Martin Luther King Jr. Elementary School



McKinley Elementary School



Sunflower Elementary School



Washington Elementary School



Woodrow Wilson Junior High School



Desert Garden Elementary School



Harding Elementary School

# **El Centro School District Overview:**

Ballington Academy for the Arts and Sciences, De Anza Magnet School, Desert Garden Elementary School, Harding Elementary School, Hedrick Elementary School, Imagine Imperial Valley, John F. Kennedy Middle School, Lincoln Elementary School, Martin Luther King Jr. Elementary School, McKinley Elementary School, Sunflower Elementary School, Washington Elementary School, Woodrow Wilson Junior High School

# **SRTS Workshop**

A SRTS workshop was conducted on September 24, 2015 for all schools within the El Centro School District. While the workshop was very well attended, not all schools sent representatives. As a result, the general safety issues and program plans are combined for all schools. Some attendees were familiar enough with different schools from their own such that they provided input regarding the location specific issues at each school.

The following key stakeholders from the El Centro School District attended:

- School principal
- Parents
- Students
- Representatives from the City of El Centro
- Representative from the El Centro Police Department
- Representative from the Imperial County Transportation Commission
- Representative from Imperial County
- Representative from the Southern California Association of Governments
- Representative from Caltrans
   District 11Representative of
   Congressman Juan Vargas



## Safety Issues Raised at the Stakeholder Workshop

#### General

- Lack of sidewalks
- Crossing concerns
- Crossing in undesignated areas
- Need better monitoring of crosswalks
- Curbs need to be repainted
- Need speed feedback signs
- Need signs to restrict parking in "no parking"/red zone
- Speeding cars
- Unsafe railroad crossing/highway crossing
- No paved roads in some places
- Parking in handicapped zones
- Parking in the drop-off and pickup zones
- Lack of crosswalks
- Need ADA ramps
- Need sidewalk repairs
- No signage
- Unsignalized crossings
- Cars double parking
- Lack of street lighting



## **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through the SRTS Committee.

#### Education

• Bicycle safety education; involve both students and parents

#### Encouragement

- Contests with prizes and recognition
- Weekly walks with parents and students

#### Enforcement

- Traffic safety classes for students and parents
- Police enforcement

# Ballington Academy for the Arts and Sciences El Centro School District

# Safety Issues Raised at the Stakeholder Workshop

### **Location Specific**

- La Brucherie Rd. & Main St.
  - o no sidewalks
  - o speeding
- Brighton Ave. & Imperial Ave.
  - o speeding

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Ballington Academy for the Arts and Sciences

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Ballington Academy for the Arts and Sciences

### **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

#### La Brucherie Rd. & Main St.

Note: The City is currently has plans to redesign and modernize this intersection, and will incorporate these recommendations. The project will be completed in 2017.

#### Existing

- Signalized intersection
- Transverse-line crosswalks on all legs
- Countdown signals for La Brucherie Rd. (northbound and southbound traffic)
- Left turn phases on all legs
- Missing sidewalks on all legs (curb ramp exists on northeast and northwest corners)

#### Proposed

- Add zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add a sidewalk on the north side of Main St. to connect to existing sidewalks (approximately 40' east, and approximately 290' west to 21<sup>st</sup> St.)
- Add sidewalk on the south side of Main St. to connect to existing sidewalk (approximately 340' east, and approximately 800' west to Solano Ave.)
- Add countdown signals for Main St. (eastbound and westbound traffic)



### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# De Anza Magnet Elementary School El Centro School District

# Safety Issues Raised at the Stakeholder Workshop

### **Location Specific**

- Pepper Dr. & Waterman Ave.
  - o very congested
  - o speeding
- Desert Gardens Dr. & Waterman Ave.
  - o difficulty seeing cars coming northbound and southbound
- Aurora Dr. & Waterman Ave.
  - o double parking
- Ocotillo Dr. & Waterman Ave.
  - o speeding

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

De Anza Magnet School Source of Data: University of California Transportation Injury Mapping System The map below shows the proposed engineering projects along common routes used by students to get to school.



De Anza Magnet School

## **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

#### Pepper Dr. & Waterman Dr.

#### Existing

- T-intersection
- 1-way stop for Pepper Dr.
- Yellow transverse-line crosswalks on the north and east legs
- Advance stop line for the east leg crosswalk

#### Proposed

- Add a yellow zebra-stripe crosswalk to the east leg (1)
- Add a raised yellow zebra-stripe crosswalk to the north leg (1)
- Add advance yield lines to both approaches to the north leg crosswalk (2)
- Add a R1-6 sign to the north leg crosswalk (1)
- Add R1-5 signs to both approaches to the north leg crosswalk (2)
- Add Assembly D signs to both approaches to the north leg crosswalks (2)
- Add curb extensions to the north and east legs (4)



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# Desert Garden Elementary School El Centro School District

# Safety Issues Raised at the Stakeholder Workshop

# **Location Specific**

- Driftwood Dr. & 6<sup>th</sup> St.
  - o congestion
- Aurora Dr. & 6<sup>th</sup> St.
  - o no stop sign

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Desert Garden Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Desert Garden Elementary School

### **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvements**

#### Driftwood Dr. & 6<sup>th</sup> St.

#### Existing

- 4-way stop
- No marked crosswalks
- No curb ramps on northwest, northeast, and southwest corners

#### Proposed

- Add yellow zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add curb extensions to all legs (8)



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# Harding Elementary School El Centro School District

# Safety Issues Raised at the Stakeholder Workshop

### **Location Specific**

- 8<sup>th</sup> St. & Wensley Ave.
  - o lack of crosswalks
  - o mid-block crossings occur
- speeding along 8<sup>th</sup> St.
  Wensley Ave from 8<sup>th</sup> St. to 7<sup>th</sup> St.
  - o double parking in school drop-off/pick-up zone

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Harding Elementary School Source of Data: University of California Transportation Injury Mapping System The map below shows the proposed engineering projects along common routes used by students to get to school.



Harding Elementary School

## **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

#### 8<sup>th</sup> St. & Wensley Ave.

#### Existing

- 2-way stop for Wensley Ave.
- No marked crosswalks

#### Proposed

- Add zebra-stripe crosswalks on the north, east, and west legs (3)
- Add advance stop lines to the east and west leg crosswalks (2)
- Add advance yield lines to both approaches to the north leg crosswalk (2)
- Add R1-5 signs to both approaches to the north leg crosswalk (2)
- Add Assembly B and D signs to both approaches to the north leg crosswalk (2)
- Add crossing islands to the north leg crosswalk between the southbound left-turn lane and the #1 travel lane (1 pair)
  - On-street parking will be removed near the intersection to accommodate crossing islands
- Add rapid-flash beacons to the north leg crosswalk (1 set)
- Add curb extensions to the east and west legs (4)



#### Bicycle Parking

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# Hedrick Elementary School El Centro School District

# Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

- Orange Ave. & Waterman Ave. •
  - o busy intersection
- Waterman Ave. from Orange Ave. to Hamilton Ave.
  - o lots of traffic with adjacent St. Mary's School
- La Brucherie Rd. from Main St. to Orange Ave.
  - o needs improvement

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Hedrick Elementary School Source of Data: University of California Transportation Injury Mapping System The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Hedrick Elementary School

## **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

#### Orange Ave. & Waterman Ave.

#### Existing

- 4-way stop
- Yellow transverse-line crosswalk on the west leg
- Yellow ladder crosswalk on the south leg
- Advance stop line on the south leg

#### Proposed

- Add yellow zebra-stripe crosswalks to the north, west, and east legs (3)
- Add a raised yellow zebra-stripe crosswalk to the south leg (1)
- Add advance stop lines to the north, west, and east leg crosswalks (3)
- Add curb extensions to all legs (8)



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# Imagine Schools Imperial Valley El Centro School District:

## Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

- Scott Ave. & Frontage Rd.
  - o no stop sign
- Scott Ave. & Imperial Ave. (SR-86)
  - o dangerous crossing
  - o high-volume street
- Villa Ave. & La Brucherie Rd.
  - o no crossing
  - o stop light only

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Imagine Schools Imperial Valley Source of Data: University of California Transportation Injury Mapping System The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Imagine Schools Imperial Valley

## **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

## 1. Scott Ave. & Frontage Rd.

#### Existing

• 2-way stop for Frontage Rd.

#### Proposed

- Add a zebra-stripe crosswalk to the north leg (1)
- Add an advance stop line to the north leg crosswalk (1)
- Add curb extensions to the north leg (2)

### 2. Scott Ave. & Imperial Ave. (SR-86)

#### Existing

- Signalized intersection
- Transverse-line crosswalks on the west, north and east legs

#### Proposed

- Add zebra-stripe crosswalks to the east, north and west legs (3)
- Add advance stop lines to the east, north and west legs (3)
- Add a median nose to the north leg crosswalk (1)
- Square off the center median on the north leg so it does not impede into the north leg crosswalk (1)
- Expand the center median on the north leg to remove the excess roadway on the #1 northbound lane (1)
- Remove the painted island for the right-turn southbound lane on the north leg on and the right-turn northbound lane on the south leg, and extend curbs to square off the right turn lanes (2)
- Add curb extensions to the east leg (2)
- Extend curb to line up with the excess shoulder on the northeast corner (1)
- Add countdown signals to all crossings (8)



# **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# John F. Kennedy Middle School El Centro School District

# Safety Issues Raised at the Stakeholder Workshop

#### **Location Specific**

- 6<sup>th</sup> St. from Sandy Ave. to RR crossing o speeding
- 6<sup>th</sup> St. from Lincoln Ave. to Pico Rd.
  - o no sidewalks
- Villa Ave. from 8<sup>th</sup> St. to 6<sup>th</sup> St.
  - o no sidewalks

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

John F. Kennedy Middle School Source of Data: University of California Transportation Injury Mapping System


SRTS Plan John F. Kennedy Middle School

#### Linear Improvement

# 6<sup>th</sup> St. from Sandy Ave. to RR crossing

#### Existing

- 40' curb-to-curb, 2 lanes, parking both sides
- Assembly C signs
- Existing Class III bike route

#### Proposed

- Add 6' colored bike lanes northbound
- Add greenback sharrows southbound
- Add dispersed curb extensions
- Add a parking stripe on the west side of 6<sup>th</sup> St.
- Add a raised yellow zebra-stripe crosswalk on the south side of school (1)
- Add advance yield lines to both approaches to the south school crossing (2)
- Add a R1-6 sign to the south school crossing (1)
- Add R1-5 signs to both approaches to the south school crossing (2)
- Add Assembly D signs to both approaches to the south school crossing (2)



#### Bicycle Parking

• Add racks for 20 bicycles as described in the Design Guidance section. Add racks for 20 skateboards/scooters. Add more if needed.

# Lincoln Elementary School El Centro School District

## Safety Issues Raised at the Stakeholder Workshop

- 12<sup>th</sup> St. & Adams Ave. (SR-86) o difficult crossing
- 12<sup>th</sup> St. from El Centro Ave. to Main St.
  - o congestion
  - o need improved signage

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Lincoln Elementary School

Source of Data: University of California Transportation Injury Mapping System



SRTS Plan Lincoln Elementary School

#### **Crossing Improvements**

#### 12th St. & Adams Ave. (SR-86)

#### Existing

- 2-way stop for 12<sup>th</sup> St.
- Yellow transverse-line crosswalk on the west leg

#### Proposed

- Add traffic signals to all legs (4)
- Add zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add a median nose to the west and east leg crosswalks (2)
- Add curb extensions to all legs (8)



#### Linear Improvements

#### Adams St./4th St. from just east of Euclid Ave. to Main St.

Existing

- 33' curb-to-median, 2 lanes
- On-street parking on both sides

#### Proposed

- Remove on-street parking
- Add buffered bike lanes on both sides (1.5 miles)
  - o 7' bike lanes
  - o 2' buffer

#### Bicycle Parking

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# Martin Luther King Jr. Elementary School El Centro School District

# Safety Issues Raised at the Stakeholder Workshop

- Villa Ave. from La Brucherie Rd. to Imperial Ave. (SR-86)
  - o speeding
  - o no sidewalks
- La Brucherie Rd. from Villa Ave. to RR crossing
  - o need pedestrian improvements
- 19<sup>th</sup> St. & Villa Ave.
  - o need pedestrian improvements
- 17<sup>th</sup> St. & Villa Ave.
  - o need pedestrian improvements

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Martin Luther King Jr. Elementary School

Source of Data: University of California Transportation Injury Mapping System



SRTS Plan Martin Luther King Jr. Elementary

#### **Linear Improvement**

#### Villa Ave. from N. La Brucherie Rd. to Imperial Ave. (SR-86)

• Add a sidewalk to the north side of Villa Ave. from the east side of school to Imperial Ave. (approximately 1770')

#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# McKinley Elementary School El Centro School District

# Safety Issues Raised at the Stakeholder Workshop

- Imperial Ave. (SR-86) & Pico Rd. o safety issues with crossing
- Imperial Ave. (SR-86) & Villa Ave. •
  - o no crosswalk
- Oleander Ave. from 12<sup>th</sup> Rd. to 8<sup>th</sup> St. •
  - o open canal
- 8<sup>th</sup> St. from Pico Rd. to Adams Ave. (CA-86)
  - o needs street improvement
  - o speeding
  - o RR track blocks visibility of street

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

McKinley Elementary School Source of Data: University of California Transportation Injury Mapping System



SRTS Plan McKinley Elementary School

#### **Crossing Improvement**

#### Imperial Ave. (SR-86) & Pico Ave.

#### Existing

- Signalized intersection
- Transverse-line crosswalks on the east and south legs
- Left-turn phases on east and south legs

#### Proposed

- Add zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add median noses to the north and south legs (2)
- Add curb extensions to the west leg (2)
- Add curb extensions to the west corners of the north and south legs (2)
- Reduce the curb return on the east leg (2)
- Reduce the curb return on the west side of the main part of Imperial Ave. and extend the curbs on the Frontage Rd. separators to straighten the crossings over Frontage Rd. (1)
- Add full 8-phase signalization



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# Sunflower Elementary School El Centro School District

# Safety Issues Raised at the Stakeholder Workshop

- 23<sup>rd</sup> St. & Main St.
  - o people crossing in undesignated crossing area
- Lotus Ave. & Main St.
  - o speeding
  - o disobeying the crossing guard

There were no recorded bicyclist or pedestrian involved crashes for a five-year period between 2008 and 2012 near this school. (University of California Transportation Injury Mapping System)



SRTS Plan Sunflower Elementary School

#### **Crossing Improvement**

## 23<sup>rd</sup> St. & Main St.

#### Existing

- T-intersection
- 1-way stop for 23<sup>rd</sup> St.
- No marked crosswalks

#### Proposed

- Add zebra-stripe crosswalks on south and west legs (2)
- Add an advance stop line to the south leg crosswalk (1)
- Add advance yield lines to both approaches to the west leg crosswalk (2)
- Add R1-5 signs to both approaches to the west leg crosswalk (2)
- Add Assembly B and D signs to both approaches to the west leg crosswalk (2)
- Add crossing islands to the west leg crosswalk (1 pair)
- Add rapid-flash beacons to the west leg crosswalk (1 set)
- Add curb extensions to the south and west legs (4)
  - Extend the curb on the southwest corner far enough west to create a direct crosswalk on the west leg that avoids the School driveway on the north side



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# Washington Elementary School El Centro School District

# Safety Issues Raised at the Stakeholder Workshop

- Brighton Ave. & 1<sup>st</sup> St. o no marked crosswalk
- Main St. & 1<sup>st</sup> St.
  - o no marked crosswalk

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Washington Elementary School Source of Data: University of California Transportation Injury Mapping System



SRTS Plan Washington Elementary School

#### **Crossing Improvement**

#### Brighton Ave. & 1<sup>st</sup> St.

Existing

- 2-way stop for Brighton Ave.
- No marked crosswalks

#### Proposed

- Add zebra-stripe crosswalks to the east, west, and south legs (2)
- Add a raised zebra-stripe crosswalk to the north leg (1)
- Add advance stop lines on the east and west leg crosswalks (2)
- Add advance yield lines to the north and south leg crosswalks (2)
- Add R1-6 signs to the north and south leg crosswalks (2)
- Add R1-5 signs to the approaches to the north and south leg crosswalks (2)
- Add Assembly D signs to the approaches to the north and south leg crosswalks (2)
- Add curb extensions to all legs (8)



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# Woodrow Wilson Junior High School

El Centro School District

# Safety Issues Raised at the Stakeholder Workshop

- La Brucherie Rd. & Hamilton Ave.
  - o no marked crosswalk
  - o speeding
  - o no crossing guard
  - o no stop sign
- La Brucherie Rd. & Orange Ave.
  - o speeding
- Imperial Ave. & Holt Ave.
  - o speeding
  - o no stop sign
- Hamilton Ave. & Imperial Ave.
  - o speeding

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Woodrow Wilson Junior High School

Source of Data: University of California Transportation Injury Mapping System



Woodrow Wilson Jr. High School

#### **Crossing Improvement**

#### La Brucherie Rd. & Hamilton Ave.

#### Existing

- 2-way stop for Hamilton Ave.
- Transverse-line crosswalk on the south leg
- Assembly B and D signs on both approaches to the south leg crosswalk

#### Proposed

- Add traffic signals to all legs (4)
- Add zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add perpendicular curb ramps to the northeast corner (2)
- Add a sidewalk on the south side of Hamilton Ave. just east of La Brucherie Rd. (approximately 85')



#### **Bicycle Parking**

• Add racks for 20 bicycles as described in the Design Guidance section. Add racks for 20 skateboards/scooters. Add more if needed.

# Heber Elementary School District



Dogwood Elementary School

# Dogwood Elementary School Heber Elementary School District

# SRTS Workshop

A SRTS workshop was conducted on September 30, 2015 for the Heber Elementary District schools. The following stakeholders from Dogwood key Elementary School attended:

- School principal •
- Parents
- Students
- Representative from the Imperial County Transportation Commission
- Representative of the Southern California Association of Governments
- Representative of Caltrans District11
- **County Supervisor**

# Safety Issues Raised at the Stakeholder Workshop

#### General

- No sidewalks must walk and bike in traffic lanes
- No ADA access
- Lack of streetlights
- Speeding cars
- Unsafe intersections
- Need crossing guards
- No stop signs and crosswalks
- Need curbs and gutters

- west side of Dogwood Rd. from Black Hills Rd. to just north of Main St.
  - o speeding
  - o no sidewalks
  - o need bike lanes
- east side of Dogwood Rd. from Correll Rd. to Main St.
  - o no sidewalks
- Main St. & Dogwood Rd.
  - o no streetlights
  - o no sidewalks





- Heber Ave. from Correll Rd. to Main St.
  o need sidewalk on the west side
- Heber Ave. & Main St.
  - o sidewalks are not ADA-compliant
- Correll Rd. from Heber Ave. to Bloomfield St.
  - o speeding
  - o no bike lanes

There were no recorded bicyclist or pedestrian involved crashes for a five-year period between 2008 and 2012 near this school. (University of California Transportation Injury Mapping System)

The map below shows the proposed engineering projects along common routes used by students to get to school.



Dogwood Elementary School

#### Linear Improvement

#### Dogwood Rd. from Black Hills Rd. to Main St.

Existing

- Missing sidewalks
  - o west side of Dogwood Rd. just north of Main St.
  - o east side of Dogwood Rd. from Correll Rd. to Main St.
- Assembly C signs
- Dogwood Rd. from Black Hills Rd. to Correll Rd.
  - o 106' curb-to-curb, 4 lanes, center turn lane
  - o 5' bike lanes
- Dogwood Rd. from Correll Rd. to just north of Main St.
  - o 72' curb-to-curb, 4 lanes, center turn lane
  - o 5' bike lanes

Proposed Option 1

- Add colored buffered bike lanes on both sides (0.75 mi.)
- Add protective islands to buffer the bike lanes along Dogwood Rd. (4 sets)
- Widen the center turn lane to 48' and add a 58' landscaped median from Black Hills Rd. to Correll Rd.
- Widen the center turn lane to 14' and add dispersed landscaped median islands from Correll Rd. to just north of Main St.
- Add speed feedback signs along Dogwood Rd. (4)
- Add a large curb extension on the northeast corner of Correll Rd. & Dogwood Rd. to line up with existing southeast corner (1)
- Add a sidewalk with a landscaped buffer on the east side from Correll Rd. to Main St. (approximately 2590')

Proposed Option 2

- Widen the center turn lane to 32' and add a 42' landscaped median from Black Hills Rd. to Correll Rd.
- Add sidewalks with a 8' landscaped buffer on both sides from Black Hills Rd. to Correll Rd. (approximately 1430')



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

### **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through the SRTS Committee.

### Education

- Bicycle safety education; involve both students and parents
- Pedestrian safety education; involve both students and parents
- Social media presence and publicity (school marquee, Teleparent, Facebook)
- Events

#### Encouragement

- Prize incentives and recognition
- Competitions
- Bike pedometers and distance counters
- Crossing guard training
- Walking Wednesdays
- Walking school buses
- International Walk-to-School Day

#### Enforcement

- Police presence during drop-off and pick-up
- Police enforce traffic laws
- Bicyclist safety
- Strategies to stagger drop-off and pick-up times
- Crossing guard monitoring
- Speed feedback signs
- More speed limit signs
- Speed bumps

# Heber Elementary School District



Heber Elementary School
# **Heber Elementary School**

Heber Elementary School District

# SRTS Workshop

A SRTS workshop was conducted on September 30, 2015 for the Heber Elementary District schools. The following key stakeholders from Heber Elementary School attended:

- School principal
- Parents
- Students
- Representative from the Imperial County Transportation Commission
- Representative of the Southern California Association of Governments
- Representative of Caltrans District 11
- County Supervisor

#### Safety Issues Raised at the Stakeholder Workshop

#### General

- No sidewalks
- Mud/dirt pathways
- No ADA access
- Gang activity/bullying
- Lack of crosswalks and stop signs
- Need parent/culture change
- Speeding cars
- Need traffic enforcement to control speeding cars
- Need curbs and gutters

#### **Location Specific**

- Speeding issues
  - o Heber Rd & Main St. (SR-86)
  - o Main St. (SR-86) from Dogwood Rd. to Hefferman Rd.
  - o Heber Ave. from 6<sup>th</sup> St. to Fawcett Rd.
  - o Hawk St. & Dogwood Rd.
  - o Parkyns Ave. from 6<sup>th</sup> St. to 11<sup>th</sup> St.
  - Hefferman Rd. from 6<sup>th</sup> St. to 11<sup>th</sup> St.
- Missing sidewalks
  - o 14<sup>th</sup> St. from Heber Ave. to Hefferman Rd.





- o Fawcett Rd. from Heber Ave. to Hefferman Rd.
- Main St. & Rockwood Rd.
  o missing sidewalks and railroad signs

# Maps

There were no recorded bicyclist or pedestrian involved crashes for a five-year period between 2008 and 2012 near this school. (University of California Transportation Injury Mapping System)

The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Heber Elementary School

# **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvements**

#### 1. Heber Ave. & Main St. (SR-86)

#### Existing

- 2-way stop for Heber Ave.
- Yellow ladder crosswalk on the east leg
- Advance yield lines on both approaches to the east leg crosswalk
- Assembly B and D signs on both approaches to the east leg crosswalk
- Assembly C signs on the approach to the east leg crosswalk
- No curb ramps on the northeast, southeast, and southwest corners

- Replace the yellow ladder crosswalk on the east leg with a white zebra-stripe crosswalk on the east leg (1)
- Replace advance yield lines on the east leg and move them in advance of the crosswalk (2)
- Add R1-5 signs to both approaches to the east leg crosswalk (2)
- Add rumble bars on both approaches to the east leg crosswalk (3 sets on each side)
- Add curb ramps to the northeast, southeast, and southwest corners (3)
- Add crossing islands to the east leg crosswalk (1 pair)
- Add rectangular rapid-flash beacons to the east leg crosswalk (1 set)



#### **Linear Improvements**

#### 2. Main St. (SR-86) from Dogwood Rd. to Hefferman Rd.

Existing

- 44' to 56' curb-to-curb, 2 lanes
- Missing sidewalks
  - o south side of Main St. from Dogwood Rd. to Heber St.
  - o both sides of Main St. from Heber St. to Hefferman Rd.

#### Proposed

- Add buffered colored bike lanes on both sides (0.4 mi.)
- Add speed feedback signs along Main St. (4)
- Add a sidewalk with a landscaped buffer on the south side of Main St. from Dogwood Rd. to Heber St. (approximately 1320')
- Add sidewalks with landscaped buffers on both sides of Main St. form Heber St. to Hefferman Rd. (approximately 750' each side)

#### 3. Heber Rd. from 6<sup>th</sup> St. to Fawcett Rd.

#### Existing

- Missing sidewalks
  - o west side of Heber Rd. from 10<sup>th</sup> St. to Fawcett Rd.
  - o ~~ east side of Heber Rd. from 14th St. to Fawcett Rd.
- Heber Rd. from 6<sup>th</sup> St. to Main St. (SR-86)
  72' curb-to-curb, 2 lanes, parking both sides
- Heber Rd. from Main St. (SR-86) to 10<sup>th</sup> St.
  - o 52' curb-to-curb, 2 lanes, parking both sides
- Heber Rd. from 10<sup>th</sup> St. to Fawcett Rd.
  45' ourb to ourb, 2 longe, parking both side
  - o 45' curb to curb, 2 lanes, parking both sides

- Add a sidewalk with a landscaped buffer on the west side of Heber Rd. from 10<sup>th</sup> St. to Fawcett Rd. (approximately 1880')
- Add a sidewalk with a landscaped buffer on the east side of Heber Rd. from 14<sup>th</sup> St. to Fawcett Rd. (approximately 350')

#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

## **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through the SRTS Committee.

#### Education

- Bicycle safety education; involve both students and parents
- Pedestrian safety education; involve both students and parents
- Parent driver safety education (especially during drop-off and pick-up areas)
- Personal safety education with a focus on prevention of bullying and drug use

#### Encouragement

- Contests with prizes and recognition
- Bike pedometers and distance counters
- Walking Wednesdays
- Walking school buses
- International Walk-to-School Day
- Morning bike inspections (helmet, safety tips, course set-up)
- Agency involvement from Sheriffs Department, CHP, and Caltrans

#### Enforcement

- Sheriff presence during drop-off and pick-up
- Sheriff enforce speeding and traffic laws
- Crossing guard monitoring
- Speed feedback signs and flash beacons at crosswalks

# Hotville Unified School District School District



Emmett S. Finley Elementary School

# Emmett S. Finley Elementary School Holtville Unified School District

# **SRTS Workshop**

A SRTS workshop was conducted on October 8, 2015 for all schools within the Holtville Unified School District. The following key stakeholders attended:

- School superintendent
- Parents
- Students
- Representative from the Imperial County Transportation Commission

#### Safety Issues Raised at the Stakeholder Workshop

#### General

- Drivers do not give way for pedestrians •
- More parking might prevent double parking
- Lack of curb ramps
- Lack of signs
- Lack of street lighting
- Stray dogs in the neighborhood •
- Narrow sidewalks
- Sidewalks are in bad condition

#### **Location Specific**

- 5<sup>th</sup> St. & Grape Ave.
  - o no stop sign
- 6<sup>th</sup> St. & Figueroa Ave.
- o no curb ramps
- 6<sup>th</sup> St. & Maple Ave.
  - o no curb ramps
- 5<sup>th</sup> St. & Chestnut Ave.
  - o Drivers do not give way to pedestrians
- Along Chestnut Ave from 6<sup>th</sup> St. to 7<sup>th</sup> St.
  - o students cross the street mid-block between cars





## Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Emmett S. Finley Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.





# **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

### 5<sup>th</sup> St. & Grape Ave.

#### Existing

- 2-way stop for Grape Ave.
- Transverse-line crosswalk on the west leg
- Yellow transverse-line crosswalk on the south leg
- Assembly B sign for the south leg crosswalk

- Add zebra-stripe crosswalks to the west and south legs (2)
- Add an advance stop line to the south leg crosswalk (1)
- Add advance yield lines to both approaches to the west leg crosswalk (2)
- Add R1-5 signs to both approaches to the west leg crosswalk (2)
- Add Assembly B and D signs to both approaches to the west leg crosswalk (4)
- Add crossing islands to the west leg crosswalk (1 pair)
- Add rectangular rapid-flash beacons to the west leg (1 set)
- Add curb extensions to the south leg (2)
- Add smaller curb extensions to fit the crossing islands on the west leg (2)
- Add rumble bars to the east approach of the west leg crosswalk (3 sets)
- Add a gateway over the east leg (1)



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

#### Education

- Teach students how to cross safely
- Obey traffic signs and signals

#### Encouragement

- Bicycle raffles
- Prizes (pool tickets, pizza parties)

#### Enforcement

- More signs
- Police enforcement and presence

# Hotville Unified School District School District



Holtville Middle School

# **Holtville Middle School**

Holtville Unified School District

# **SRTS Workshop**

A SRTS workshop was conducted on October 8, 2015 for all schools within the Holtville Unified School District. The following key stakeholders attended:

- School superintendent
- Parents
- Students
- Representative from the Imperial County Transportation Commission

# Safety Issues Raised at the Stakeholder Workshop

#### General

- Double parking
- Students crossing without looking
- Traffic signs are not visible (i.e. move stop signs higher)
- Need better sidewalks
- Lack of bicycle lanes

#### **Location Specific**

- 8<sup>th</sup> St. & Beale Ave.
  - o no stop sign



# Maps

There were no recorded bicyclist or pedestrian involved crashes for a five-year period between 2008 and 2012 near this school. (University of California Transportation Injury Mapping System)

The map below shows the proposed engineering projects along common routes used by students to get to school.



Holtville Middle School

# **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

#### 8<sup>th</sup> St. & Beale Ave.

#### Existing

- T-intersection
- 1-way stop for 8<sup>th</sup> St.
- Yellow transverse-line crosswalks on the north and west leg

- Add yellow zebra-stripe crosswalks to the north and west legs (2)
- Add an advance stop line to the west leg crosswalk (1)
- Add advance yield lines to both approaches to the north leg crosswalk (2)
- Add a R1-6 sign to the north leg crosswalk (1)
- Add R1-5 signs to both approaches to the north leg crosswalk (2)
- Add Assembly D signs to both approaches to the north leg crosswalk (2)
- Add crossing islands to the north leg crosswalk (1 pair)
- Add curb extensions to the north and west legs (4)



#### **Bicycle Parking**

• Add racks for 20 bicycles as described in the Design Guidance section. Add racks for 20 skateboards/scooters. Add more if needed.

#### **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

#### Education

- Crosswalk painting
- Delineated bike lanes
- Pedestrian crossing safety education
- Educate drivers to obey traffic laws and signaling

#### Encouragement

- More walk and bike events
- Awards and recognition for students that walk and bike

#### Enforcement

- Speed monitors at street corners
- More speed signs

# Hotville Unified School District School District



Holtville High School

# **Holtville High School**

Holtville Unified School District

# **SRTS Workshop**

A SRTS workshop was conducted on October 8, 2015 for all schools within the Holtville Unified School District. The following key stakeholders attended:

- School superintendent
- Parents
- Students
- Representative from the Imperial County Transportation Commission

### Safety Issues Raised at the Stakeholder Workshop

#### General

- Scary dogs
- Sidewalks in disrepair
- Speeding cars
- Streets are difficult to cross
- Unsafe streets for students to ride bicycles

#### **Location Specific**

- 8<sup>th</sup> St. & Olive Ave.
  - o missing traffic light/pedestrian signs
- 7<sup>th</sup> St. & Olive Ave.
  - o missing sidewalks and visible signs
  - o missing police enforcement
  - Olive Ave. from 7<sup>th</sup> St. to 8<sup>th</sup> St
    - o general safety concern
- 8<sup>th</sup> St. & Holt Rd.
  - o missing stop sign
  - o missing traffic signs
  - o missing crosswalk markings
- 7<sup>th</sup> St. & Holt Rd.
  - o safety issues with crossing
- 6<sup>th</sup> St. & Holt Rd.
  - o missing stop sign
  - o missing traffic signs
  - o missing crosswalk markings
  - o missing pedestrian signs





#### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



# Bicycle and Pedestrian Collisions 2008 - 2012

Holtville High School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Holtville High School

# **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvements**

# 1.8<sup>th</sup> St. & Olive Ave.

#### Existing

- 4-way stop
- Yellow transverse-line crosswalks on all legs

- Add zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add curb extensions to all legs (8)
  - West curb extension on the south leg will extend further out to line up with the existing parking



## 2. 7<sup>th</sup> St. & Olive Ave.

#### Existing

- 4-way stop
- Yellow transverse-line crosswalks on all legs
- No curb ramps on any corner
  - o no direct connection from the north and west crosswalks into school

- Add zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Extend large curb extension on the north leg west to existing sidewalk (1)
- Extend large curb extension on the north leg north to line up with existing angled parking (1)
- Add curb extensions to the east, south, and west legs (6)



#### **Bicycle Parking**

• Add racks for 30 bicycles as described in the Design Guidance section. Add racks for 30 skateboards/scooters. Add more if needed.

#### **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

#### Education

- Pedestrian signaling
- Traffic safety education, with a focus on obeying traffic signs
- Pedestrian safety education; involve both students and parents

#### Encouragement

• Biking and walking competitions/rewards

#### Enforcement

- Police enforcement during drop-off and pick-up times
- Ensure parents are obeying traffic signs and regulations

# Imperial Unified School District



Ben Hulse Elementary School

# **Ben Hulse Elementary School**

Imperial Unified School District

# **SRTS Workshop**

A SRTS workshop was conducted on May 26, 2015 for the Imperial Unified School District schools. The following key stakeholders from Ben Hulse Elementary School attended:

- School principal
- Superintendent
- School resource officer
- Former school board member
- Representative from the Imperial County Transportation Commission
- Representative from the Imperial County Department of Public Health

## Safety Issues Raised at the Stakeholder Workshop

#### General

- Double parking
- Unsafe means of dropping off and picking up
- Adults not using the crosswalk
- Adults not following the rules

#### **Location Specific**

• 6<sup>th</sup> St. & D St.

•

- o very congested
- o difficult crossing
- Worthington Rd. from Nance Rd. to Dahlia Ln.
  - o missing sidewalks on both sides



# Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



Ben Hulse Elementary School

# **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

#### 6<sup>th</sup> St. & D St.

#### Existing

- T-intersection
- 3-way stop
- Yellow transverse-line crosswalks on the north and south legs
- No curb ramps on the south side

- Add yellow zebra-stripe crosswalks to the east and south legs (2)
- Add a raised zebra-stripe crosswalk to the north leg (1)
- Add advance stop lines to all legs (3)
- Add curb extensions to all legs (6)
- Connect this south leg crosswalk with paving through the parkway to the existing school sidewalk (approximately 6' of new sidewalk)



#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

#### Education

- Bicycle safety education
- Pedestrian crossing safety education
- Educate parents to drive safely around the school and to follow drop-off and pick-up procedures
- Educate students and parents on the health benefits of physical activity

#### Encouragement

- Events like Walk to School Day with music, etc.
- The Parent Teacher Organization could help to coordinate events

#### Enforcement

- Complaint hotline
- Photo enforcement
- Already have 5<sup>th</sup> grade safety patrol, but they need more training and more participants

# Imperial Unified School District



Frank Wright Middle School

# HelHelImpeFrank Wright Middle School

Imperial Unified School District

# **SRTS Workshop**

A SRTS workshop was conducted on May 26, 2015 for the Imperial Unified School District schools. The following key stakeholders from Frank Wright Middle School attended:

- Teacher
- Parents
- Superintendent
- School resource officer
- Former school board member
- Representative from the Imperial County
  Transportation Commission
- Representative from the Imperial County
  Department of Public Health

# Safety Issues Raised at the Stakeholder Workshop

#### General

- Dogs
- Students need safety vests
- Lack of sidewalks
- Motorists not coming to a complete stop
- Students texting while walking
- Students listening to music with earphones can't hear cars

#### **Location Specific**

- 15<sup>th</sup> St. & Imperial Ave.
  - o difficult crossing
  - o speeding
  - o congestion
- 15<sup>th</sup> St. in front of the school
  - o congestion
  - o missing sidewalks



# Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



Frank Wright Middle School

## **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

# 15<sup>th</sup> St. & Imperial Ave.

#### Existing

- 4-way stop
- Transverse-line crosswalks on the east and west legs

- Add zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to all legs (4)
- Add curb extensions to all legs (8)
- Add flashing LED lights to all stop signs (4)



### Linear Improvements

#### 15<sup>th</sup> St. from Imperial Ave. to F St.; Imperial Ave. from Belford Rd. to 13<sup>th</sup> St.

- Add buffered bike lanes to 15<sup>th</sup> St. (52' wide) from Imperial Ave. to F St. (0.2 mi.)
- Add 7' wide bike lanes to Imperial Ave. (48' wide) from Belford Rd. to 13<sup>th</sup> St. (0.4 mi.)

### **Bicycle Parking**

• Add racks for 20 bicycles as described in the Design Guidance section. Add racks for 20 skateboards/scooters. Add more if needed.

# **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

## Education

• Warm up exercises

## Encouragement

- Competitions
- Walking school buses from Eager Park
- Work with incoming 8th graders

#### Enforcement

• Police officer presence
# Imperial Unified School District



Imperial Avenue Holbrook School

# **Imperial Avenue Holbrook High School**

Imperial Unified School District

# **SRTS Workshop**

A SRTS workshop was conducted on May 26, 2015 for the Imperial Unified School District schools. The following key stakeholders from Imperial Avenue Holbrook School attended:

- Superintendent
- School resource officer
- Former school board member
- Representative from the Imperial County Transportation Commission
- Representative from the Imperial County Department of Public Health

# Safety Issues Raised at the Stakeholder Workshop

#### General

• Speeding

#### **Location Specific**

- 11<sup>th</sup> St. & Imperial Ave.
  - o needs better markings, crosswalk, signs, etc.



# Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



Imperial Ave Holbrook High School

# **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

# 11<sup>th</sup> St. & Imperial Ave.

#### Existing

- 2-way stop for 11<sup>th</sup> St.
- Yellow transverse-line crosswalk on the west leg

#### Proposed

- Add yellow zebra-stripe crosswalks to all legs (4)
- Add advance stop lines to the east and west legs (2)
- Add advance yield lines to both approaches to the north and south legs (2)
- Add R1-5 signs to both approaches to the north and south legs (2)
- Add Assembly B and D signs to both approaches to the north and south legs (4)
- Add curb extensions to all legs (8)



# Linear Treatment

#### Imperial Ave. from 13<sup>th</sup> St. to Barioni Blvd.

• Add a buffered bike lane on Imperial Ave. from 13<sup>th</sup> St. to Barioni Blvd. (0.35 mi.)

#### **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

#### Education

• Bike rodeo on a Saturday or coordinate with Imperial High School

#### Encouragement

- Walking school buses
- Bike racks
- Golden sneaker award for walkers

#### Enforcement

Signs

# Imperial Unified School District



Imperial High School

# **Imperial High School**

Imperial Unified School District

# **SRTS Workshop**

A SRTS workshop was conducted on May 26, 2015 for the Imperial Unified School District schools. The following key stakeholders from Imperial High School attended:

- Parents
- Superintendent
- School resource officer
- Former school board member
- Representative from the Imperial County Transportation Commission
- Representative from the Imperial County Department of Public Health

# Safety Issues Raised at the Stakeholder Workshop

#### General

- Speeding
- Parents parking in the disabled parking
- Double parking
- Students not looking both ways
- Loose dogs
- Not enough bike lanes

# Location Specific

- Mid-block on Barioni Blvd. between D St. and E St.
  - o many students crossing without a marked and improved crosswalk
  - o lots of traffic



# Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan Imperial High School

# **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvement**

### Mid-block on Barioni Blvd. between D St. & E St.

#### Existing

• No marked crosswalk

#### Proposed

- Add a raised yellow zebra-stripe crosswalk mid-block just east of the existing curb cut in front of the school (1)
- Connect this new crosswalk with paving through the parkway to the existing school sidewalk (approximately 6' of new sidewalk)
- Add advance yield lines to both approaches to the new crosswalk (2)
- Add a R1-6 sign to the new crosswalk (1)
- Add R1-5 signs to both approaches to the new crosswalk (2)
- Add Assembly D signs to both approaches to the new crosswalk (2)
- Add curb extensions to the new crosswalk (2)



# **Bicycle Parking**

• Add racks for 30 bicycles as described in the Design Guidance section. Add racks for 30 skateboards/scooters. Add more if needed.

# **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

# Education

- Promote education
- Educate motorists to follow the speed limit
- Distribute flyers
- Educate students to use crosswalks
- Educate students who drive to follow the laws and to follow speed limits

#### Encouragement

- Special parking privileges for student drivers who follow the laws
- Encourage students to take the bus at least once per week

#### Enforcement

- Bicycle-mounted police in front of the campus
- Speed feedback signs

# Imperial Unified School District



T.L. Wagoner Elementary School

# **T.L. Wagoner Elementary School**

Imperial Unified School District

# **SRTS Workshop**

A SRTS workshop was conducted on May 26, 2015 for the Imperial Unified School District schools. The following key stakeholders from T.L. Wagoner Elementary School attended:

- Parents
- Superintendent
- School resource officer
- Former school board member
- Representative from the Imperial County Transportation Commission
- Representative from the Imperial County Department of Public Health

# Safety Issues Raised at the Stakeholder Workshop

#### General

- Speeding
- Traffic
- Crosswalks not very visible
- People not obeying stop signs

#### **Location Specific**

- Joshua Tree St. & Morning Glory
  - o too much traffic
  - o bottleneck
- Aten Rd. & Sandalwood Glen Ave.
  - o no crossing guards
  - o no flashing signs
- Joshua Tree St. & Sandalwood Glen Ave.
  - o poor visibility at the stop sign
  - o needs more visible crosswalk



# Maps

There were no recorded bicyclist or pedestrian involved crashes for a five-year period between 2008 and 2012 near this school. (University of California Transportation Injury Mapping System)

The map below shows the proposed engineering projects along common routes used by students to get to school.



T.L. Waggoner Elementary School

# **Existing Conditions and Engineering Recommendations**

#### **Crossing Improvements**

# Joshua Tree St. & Morning Glory Tr.

#### Existing

- T-Intersection
- 3-way stop
- No marked crosswalk

#### Proposed

- Add a yellow zebra-stripe crosswalk on the north leg (1)
- Add a raised yellow zebra-stripe crosswalk on the east leg (1)
- Add curb extensions to the north and east legs (2)
- Add advance stop lines to all legs (3)
- Add flashing LED lights to the stops signs (3)



# **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

# Education

- Rodeos
- California Highway Patrol instructor

# Encouragement

- Classroom prize for the one with the most kids walking/bicycling in a month
- · Awards for kids with honor roll and citizenship
- Field trip for participating in safety patrol
- Prizes

# Enforcement

- "Caught being good" prizes or awards
- Plain clothes officers
- Add another drop-off zone
- More signs
- More crossing guards

# San Pasqual Valley Unified School District



San Pasqual Elementary School



San Pasqual Middle School



San Pasqual Valley High School

# San Pasqual Elementary School, San Pasqual Middle School, San Pasqual Valley High School

San Pasqual Valley Unified School District

# **Previous and Existing Efforts**

The San Pasqual Valley Unified School District produced a SRTS plan in 2011 called the "Fort Yuma Safe Routes to School Project". This plan proposed a combination of engineering, education, encouragement, enforcement and evaluation strategies. A SRTS Committee was formed to carry out the programs. The strategies are:

# Engineering

- A new sidewalk along the south side of Arnold Road
- A paved multi-purpose path along the Cocopah Canal to connect the Mesquite subdivision (approximately 1 mile to the southwest) to the school site
- A paved multi-purpose path to connect the Ironwood subdivision with a cover over the Cocopah Canal
- A speed table in front of the high school to slow traffic

# Education

Select one of three programs to used for safety education curriculum:

- "How to Start Your Own Walk to School/Bike to School Safety Program" from Walk Boston
- "Pedal Power Squad" from the Bicycle Transportation Alliance
- "Bicycle-Driver Training Course" from the International Bicycle Fund

# Encouragement

- Walk to school days
- Walking Wednesdays
- Walking school buses
- Bike rodeos
- Helmet giveways
- "Come Play on Our Land Day" with a bicycle obstacle course
- Annual "Ride With Your Child to School Day"
- Seek donations for walking shoes
- "Family Fit Day"
- Speed trailers
- Sherriff speed monitoring at school times
- Publicity of the program and urging for parents to drive safely
- School Resource Officer training
- Promote safety patrols and crossing guards

# Evaluation

- Parent surveys
- Regular counts of students walking or bicycling

# **SRTS Workshop**

A SRTS workshop was conducted on April 28, 2015. Since the elementary, middle and high school all share the same grounds the issues were discussed simultaneously. The following key stakeholders attended:

- School superintendent
- Parents
- Students
- A representative from the school SRTS Committee
- County Sherriff
- A representative of the Imperial County Food Bank

# Safety Issues Raised at the Stakeholder Workshop

#### General

- Distance many students live far away
- Walking along canals students do it, but are not permitted to because of the danger of falling in
- Crossing canals
- Speeding
- No sidewalks
- No bikeways
- Dogs
- Weather
- There are two primary subdivisions from which students could walk: Ironwood just east of the schools, and another about one mile southwest of the schools

# **Location Specific**

- In front of the school along Baseline Rd.
  - o no sidewalk
  - o speeding
- Along San Pasqual Rd. from Baseline Rd. to Picacho Rd. (Community Center)
  - o no sidewalk
  - o no bikeway
  - o speeding
  - Just east of the schools
    - o no way to cross the canal between the Ironwood subdivision and the schools
- Along Arnold Rd. from Baseline Rd. to Ironwood Rd.
  - o no sidewalks
  - o speeding



# Maps

There were no recorded bicyclist or pedestrian involved crashes for a five-year period between 2008 and 2012 near these schools. (University of California Transportation Injury Mapping System)

The map below shows the proposed engineering projects along common routes used by students to get to school.



SRTS Plan San Pasqual Valley Elementary/Middle/High Schools

# **Existing Conditions and Engineering Recommendations**

#### **Linear Treatments**

#### Connector Path from Ironwood Subdivision

• Cover the canal (50 feet @ \$12,500) just east of the school and pave a path to the Ironwood subdivision (approximately 750'.)

#### Multipurpose Path along the Cocopah Canal

- Add a new 12'-wide multipurpose path:
  - o along the south side of the Cocopah Canal from Bluestone Dr. to Baseline Rd. at the south end of the school (1 mi.)
  - along the east side of Baseline Rd. from the Cocopah Canal to the one-stop center on school grounds (approximately 750') (the school already has a grant to construct a sidewalk from the one-stop center to Arnold Rd.)

#### San Pasqual Rd. Widening with Bike Lanes

• Widen the asphalt from 25' to 38' to expand the paved shoulders along San Pasqual Rd. from Picacho Rd. to Base Line Rd. and stripe 6'- wide bike lanes, with 2' painted buffers (1 mi.)

#### **Bicycle Parking**

• The schools already have good bike racks. Add more if needed.

# **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out as funding becomes available. These include and build on the 2011 SRTS plan.

#### Education

- · Safety education taught by the County Sherriff
- Safety rodeos

#### Encouragement

- Walk to school days
- Walking Wednesdays
- Walking school buses/ Walking buddy program
- Bike rodeos
- Helmet giveways
- "Come Play on Our Land Day" with a bicycle obstacle course
- Annual "Ride With Your Child to School Day"
- Seek donations for walking shoes
- "Family Fit Day"
- Contests with prizes
- Gift certificate from Sherriff for wearing a bike helmet

# Enforcement

- The County Sherriff periodically patrols the area during pick up and drop off
- Speed trailers
- Publicity of the program and urging for parents to drive safely
- School Resource Officer training
- Promote safety patrols and crossing guards





Seeley Elementary School

# **Seeley Elementary School**

Seeley Union School District

# SRTS Workshop

A SRTS workshop was conducted on May 12, 2015 for the Seeley Union Elementary School District. The following key stakeholders attended:

- School principal
- Students
- Representative from the Imperial County Transportation Commission
- Representative from the Southern California
  Association of Governments
- Representatives from the Imperial County
  Department of Public Works
- Representative from the Imperial County Department of Public Health



# Safety Issues Raised at the Stakeholder Workshop

#### General

- Lack of sidewalks
- Dogs
- People not stopping for bicycles

# **Location Specific**

- Lack of sidewalks at the following locations
  - o Along both sides of Rio Vista St. from Laguna Ave. to Holt Ave.
  - o Along the south side of El Centro St. from Haskell Ave. to Holt Ave.
  - o Along the west side of Haskell Rd. from Rio Vista St. to Evan Hewes Hwy.
  - o Along the east side of Haskell Rd. from Park St. to Evan Hewes Hwy.
  - o Along both sides of Even Hewes Hwy. from Signal Ave. to Haskell Rd.
- Speeding along Rio Vista Ave.
- Speeding along El Centro St.
- Speeding along Haskell Rd.
- No stop signs along Rio Vista Ave. at Holt Ave. and Imperial Ave.

# Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2008 and 2012.



Source of Data: University of California Transportaion Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.



Seeley Elementary School

# **Existing Conditions and Engineering Recommendations**

#### Linear Improvement

### Rio Vista St. from Laguna Ave. to Holt Ave.

• Add sidewalks on both sides of Rio Vista St. from Laguna Ave. to Holt Ave. (approximately 6,000')

#### **Bicycle Parking**

• Add racks for 30 bicycles as described in the Design Guidance section. Add racks for 30 skateboards/scooters. Add more if needed.

# **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

#### Education

- State Highway Patrol has come to give bicycle safety education; the teacher moved but the school would like to keep this program going
- Rodeos

#### Encouragement

- International Walk-to-School Day
- Walking school bus
- Individual competitions with prizes

#### Enforcement

- Crossing guards
- Sherriff patrol

# Westmorland Union Elementary School District



Westmorland Elementary School

# **Westmorland Elementary School**

Westmorland Union Elementary School District

# **SRTS Workshop**

A SRTS workshop was conducted on April 30, 2015 for the Westmorland Union Elementary School District. The following key stakeholders attended:

- School principal
- Parents
- Grandparents
- Crossing guards
- City Councilmember
- Representative from State Assemblymember Garcia's office
- Representative from State Senator Hueso's office

# Safety Issues Raised at the Stakeholder Workshop

#### General

- Crossing a major street
- Speeding
- Motorists not stopping for pedestrians in the crosswalk
- People using mobile phones
- People not obeying crossing guards

# **Location Specific**

- The crossing of Main St. (SR-86) at C St. in front of the school is difficult because the cars are going fast
- There are no sidewalks along Isis Ave.
- The intersection of 3<sup>rd</sup> St. and Center St. is sometimes busy and is uncontrolled: there is a crossing guard there
- The crossing of Main St. (SR-86) at G St. has no marked crosswalk and the cars are going fast



# Maps

There were no recorded bicyclist or pedestrian involved crashes for a five-year period between 2008 and 2012 near this school. (University of California Transportation Injury Mapping System)

The map below shows the proposed engineering projects along common routes used by students to get to school.



Westmorland Union Elementary School

# **Existing Conditions and Engineering Recommendations**

### **Crossing Improvement**

# Main St. (SR-86) and C St.

Existing

• Uncontrolled yellow ladder crosswalk on south leg crossing SR-86

Proposed with Option 1 Main St. Reconfiguration

- Add rumble bars to both approaches to the crosswalk (3 sets on each side)
- Add advance yield lines to both approaches to the east leg crosswalk (2)
- Add R1-5 signs to both approaches to the east leg crosswalk (2)
- Add Assembly B and D signs to both approaches to the east leg crosswalk (2)
- Add rapid-flash beacons (1 set)
- Add curb extensions in the parking lane to the east leg (2)
- The new median will function like crossing islands
- The new protected bike lanes will have protection on both sides of the crosswalk to further protect pedestrians

Proposed with Option 2 Main St. Reconfiguration

- Add rumble bars to both approaches to the crosswalk (3 sets on each side)
- Add advance yield lines to both approaches to the east leg crosswalk (2)
- Add R1-5 signs to both approaches to the east leg crosswalk (2)
- Add Assembly B and D signs to both approaches to the east leg crosswalk (2)
- Add rectangular rapid-flash beacons (1 set)
- Optional: instead of rectangular rapid-flash beacons, add a hybrid beacon (1)
- The new median will function like crossing islands
- The new protected bike lanes will have protection on both sides of the crosswalk to further protect pedestrians



Option 1

Option 2

### Linear Improvement

#### Main St. (SR-86) from H St. to B St. (0.5 mi.)

#### Existing

- 77' curb-to-curb, 4 lanes, center-turn lane
- 20' #2 lane, 12' #1 lane, 13' center-turn lane, 12' #1 lane, 20' #2 lane

Proposed Option 1

- Reconfigure with road diet to: 6' protected bike lane, 3' protective buffer, 8' parking lane, 11' travel lane, 10' center-turn lane, 11' landscaped median, 11' travel lane, 8' parking lane, 3' protective buffer, 6' protected bike lane
- Gateways at B St. and H St. (2)
- Speed feedback signs (2)

Proposed Option 2

- Reconfigure to: 6' protected bike lane, 3' protective buffer, 11' #2 lane, 10' #1 lane, 10' center-turn lane, 7' landscaped median, 10' #1 lane, 11' #2 lane, 3' protective buffer, 6' protected bike lane
- Add gateways at B St. and H St. (2)
- Add speed feedback signs (2)



**Option Two** 



# **Bicycle Parking**

• Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

# **Program Plan**

At the SRTS workshop attendees discussed existing programs and what types of programs might be successful in the future. The details will need to be worked out with funding and through a SRTS Committee.

# Education

- Bicycle and pedestrian safety education; involve both students and parents
- Pedestrian safety education; involve both students and parents
- Bicycle and pedestrian rodeos
- Distribute printed materials

# Encouragement

- Monthly walking events
- International Walk-to-School Day
- Contests with prizes

# Enforcement

- Crossing guards (3)
- Speed feedback signs
- Dummy cop car at the edge of town
- Photo enforcement of speeding along Main St.

# 6. Funding & Implementation

# **6.1. Funding Sources**

A variety of potential funding sources, including local, state, regional, and federal funding programs, may be used to construct the proposed bicycle and pedestrian improvements. Most of the Federal and State programs are competitive, and involve the completion of extensive applications with clear documentation of the project need, costs, and benefits. Local funding for projects can come from sources within jurisdictions that compete only with other projects in each jurisdiction's budget. A detailed list of available funding programs along with the latest relevant information follows.

In order to plan an implementation schedule we assume that Imperial County will receive its fair share of predictable funding programs based on population. Imperial County is home to 0.6% of California's population so we assume that it will receive this amount of state funding.

# Federal Funding

# Fixing America's Surface Transportation (FAST) Act & Moving Ahead for Progress in the 21st Century (MAP-21) Act

Passed in December 2015, the Fixing America's Surface Transportation (FAST) Act is five-year legislation starting in the current Federal fiscal year, FY2016 to improve the Nation's surface transportation infrastructure, including our roads, bridges, transit systems, and rail transportation network. Over the five-year period, \$305 billion in spending has been set aside.

As of this writing the FAST Act was very recently passed and some details are not yet available. Preliminary information suggests that the Moving Ahead for Progress in the 21st Century Act (MAP-21) programs were folded into the FAST Act. This includes programs for walking and bicycling.

MAP-21 passed in June 2012 and set the framework for spending federal transportation revenue. MAP-21 put a majority of pedestrian and bicycle funds into one Transportation Alternatives Program (TAP).

Assuming MAP-21 projects were carried over under the FAST Act, bicycling and walking projects are also eligible for the following core programs: National Highway Performance Program (NHPP), Surface Transportation Program (STP), Highway Safety Improvement Program (HSIP), and Congestion Mitigation and Air Quality Improvement (CMAQ), and Metropolitan Planning. Biking, walking, and trails projects are also eligible for a handful of other programs such as Scenic Byways funds, Transportation, Community, and System Preservation Program (TCSP), and Tribal High Priority Projects.

The biggest change to these programs in the FAST Act is that the STP is renamed the Surface Transportation Block Grant (STBG) program and the TAP becomes the Surface Transportation Block Grant Set-aside Program (STBGSP). Walking and bicycling projects remain an eligible activity for the larger STBG as well as others such as CMAQ and HSIP.

The FAST Act also creates a priority safety fund to focus on education and enforcement programs that reduce pedestrian and bicycle fatalities. Only states in which 15% or more of overall fatalities are bicyclists or pedestrians will receive funds. California is one of these states and should be eligible.

Under the FAST Act, funding is administered by the California Department of Transportation (Caltrans) and the local metropolitan planning organizations (MPOs). Each state has its own
method for distributing federal funds. California folds its STBG funds and STBGSP into an Active Transportation Program (ATP).

More information can be found at: https://www.fhwa.dot.gov/fastact/ http://www.fhwa.dot.gov/map21/summaryinfo.cfm

#### Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) was adopted under the FAST Act, which replaced MAP-21. It aims to achieve a significant reduction in traffic fatalities and serious accidents through the implementation of infrastructure-related highway safety improvements. These improvements may be on any public road or publicly owned bicycle and pedestrian pathway or trail, and can include the use of devices such as traffic signals, curb extensions, and crosswalks. Assuming that the following was adopted under the FAST Act, MAP-21 requires states to focus funds on improvements for pedestrians and the elderly if crashes among these groups are not below a threshold level.

Applications are submitted electronically, and must demonstrate that the proposed engineering improvements will increase the safety of the proposed project area. These are calculated in the application program using Crash Reduction Factors with accompanying financial values. Project areas that have a prior history of injuries or fatalities are more likely to be funded.

In Cycle 7 (2015), HSIP assigned approximately \$158 million of funds for successful projects. We can reasonably expect the same amount of funding to be available for Cycle 8.

Caltrans releases HSIP funds approximately every two years. For the purposes of this Implementation Plan, we assume \$158 million dollars will be available every two years (\$79 million per year). If Imperial County gets its fair share based on population, we will plan on receiving \$474,000 per year.

More information can be found at: http://www.dot.ca.gov/hq/LocalPrograms/hsip.htm

#### Transportation, Community, and System Preservation Program (TCSP)

This program was authorized under MAP-21. Assuming it was adopted under the FAST Act, the Transportation, Community, and System Preservation Program (TCSP) provides federal funding for projects that improve the efficiency of the transportation system, reduce the impact on the environment, and generally investigate the relationships between transportation, community and system preservation. Eligible projects include improving conditions for bicycling and walking, better and safer operations of existing roads, new signals, and development of new programs. States, MPOs and local jurisdictions are eligible to apply for the discretionary grants. Grantees must annually report on the status of the project and the degree to which the project is attaining the stated goals. The report must include quantitative and qualitative assessments. The FHWA solicits a call for grant applications annually.

Given that this funding source is less predictable that the others, we will not include it in our calculation of annual funds for the implementation plan.

More information can be found at: *http://www.fhwa.dot.gov/tcsp/index.html* 

#### Community Development Block Grants (CDBG)

The CDBG entitlement program allocates annual grants to larger cities and urban counties to develop viable communities by providing decent housing, a suitable living environment, and

opportunities to expand economic opportunities, principally for low- and moderate-income persons. Every year the local governments receive federal money for a wide variety of community improvements in the form of CDBG funds. Bicycle and pedestrian facilities are eligible uses of these funds.

CDBG funds only pay for projects in areas of economic need. No match is required.

Given that this funding source is less predictable that the others, we will not include it in our calculation of annual funds for the implementation plan.

More information can be found at: www.hud.gov/cdbg

#### Land and Water Conservation Fund (LWCF)

States receive individual allocations of Land and Water Conservation Fund (LWCF) grant funds based upon a national formula, with state population being the most influential factor. States initiate a statewide competition for the amount available annually. The State then receives, scores, and ranks applications according to certain project selection criteria so that only the top-ranked projects (up to the total amount available that year) are chosen for funding. Chosen applications are then forwarded to the National Park Service for formal approval and obligation of federal grant monies. Bike paths and recreational trails are eligible uses of this money. Cities, counties, recreation and park districts, and any other entity that has the authority to develop or maintain a public park is eligible to apply. This program is a reimbursement program, and the applicant is expected to initially finance the entire project. A one for one match is required, and federal funds cannot be used as a match, except Community Development Block Grants. The California State Parks Department administers these state funds.

Given that this funding source is less predictable that the others, we will not include it in our calculation of annual funds for the implementation plan.

More information can be found at: *http://www.parks.ca.gov* 

#### Rivers, Trails, and Conservation Assistance Program (RTCA)

The Rivers, Trails, and Conservation Assistance Program is the community assistance arm of the National Park Service. RTCA provides technical assistance to communities in order to preserve open space and develop trails. The assistance that RTCA provides is not for infrastructure, but rather building plans, engaging public participation, and identifying other sources of funding for conservation and outdoor recreation projects.

Given that this funding source is less predictable that the others, we will not include it in our calculation of annual funds for the implementation plan.

More information can be found at: http://www.nps.gov/orgs/rtca/index.htm http://www.nps.gov/orgs/rtca/apply.htm

### **State Funding Programs**

#### Active Transportation Program (ATP)

The Active Transportation Program (ATP) results from Senate Bill 99, Chapter 359, and Assembly Bill 101, Chapter 354 that passed and was signed by Governor Brown. The purpose of ATP is to increase the use of active modes of transportation by funding projects that improve options.

ATP combines the federal TAP funds with former statewide bicycle, pedestrian, and Safe Route to School programs. ATP funds are available for design and construction of any bicycle or pedestrian project, including infrastructure projects, plans, and non-infrastructure projects. Capital improvements such as environmental design, right-of-way, and construction are eligible. ATP will fund the following plans, such as the development of a community wide bicycle, pedestrian, safe routes to school, or active transportation plan in a disadvantaged community. ATP will also fund non-infrastructure projects, including education, encouragement, and enforcement projects.

The ATP increased funding for bicycle and pedestrian projects. Caltrans has administered two cycles of ATP programs as of 2015. The funds are distributed through competitive grants with the following formula:

- 40% to Metropolitan Transportation Organizations in urban areas with populations greater than 200,000
- 10% will funnel to small urban and rural areas with 200,000 or fewer people
- 50% will be available statewide in competitive grants

Because of preference given to disadvantaged communities, and the fact that Imperial County has the Safe Routes to School Plan, it should be able to attract more funds than the statewide average. For purposes of this estimates, conservatively, Imperial County should be able to receive 0.6% of state funds. Caltrans has allocated \$120 million dollars per year, so Imperial County may receive \$720,000 per year.

More information can be found at: *http://www.dot.ca.gov/hq/LocalPrograms/atp/* 

### Office of Traffic Safety (OTS)

The California Office of Traffic Safety (OTS) seeks to reduce motor vehicle fatalities and injuries through a national high- way safety program. Priority areas include police traffic services, alcohol and other drugs, occupant protection, pedestrian and bicycle safety, emergency medical services, traffic records, roadway safety, and community-based organizations.

The OTS provides grants for one to two years. The California Vehicle Code (Sections 2908 and 2909) authorizes the apportionment of federal highway safety funds to the OTS program. Bicycle safety programs are eligible programs for OTS start-up funds. City and county agencies are eligible to apply, as are councils of governments. There is no set maximum for grants, and no match is required; however, contributions of other funds may make projects more competitive.

Caltrans has allocated \$120 million per year for ATP programs. We assume that Imperial County will receive 0.6% of this, which is \$720,000.

More information can be found at: *http://www.ots.ca.gov/Grants/* 

### Local Funding

### Measure D

Adopted in 1989, Measure D is a half-cent transportation sales tax that has generated more than \$140 million for county transportation improvement projects. 95% of the funds collected go directly to the cities and County to pay for critical road repair projects, and the remaining 5% is targeted for regional projects including transit services and state highway purposes. The half-cent sales tax is enacted for 40 years and funds the majority of road repairs possible for local cities and the County.

Given that most of the funding will be dedicated to resurfacing, we assume that very little will be spent on Safe Routes to School projects but the local jurisdictions will have that option. Cities could choose to install any device with paint or thermo plastic (bike lanes, crosswalks, advance stop lines, etc.) at the time of resurfacing with these funds. This would be the least expensive time to do this.

More information can be found at: http://www.imperialctc.org/about-lta/

#### Resurfacing and Repaving

Imperial County cities and the County are able to add bicycle lanes, sharrows, and striping upon resurfacing and repaying of streets. While other lanes are restriped, the bike facilities can be painted as well. This has potential to reduce the costs of these facilities that require paint (thermoplastic or other options).

#### New Construction

Future road widening and construction projects are one means of providing bike lanes and sidewalks. To ensure that roadway construction projects provide bike lanes where needed, it is important that an effective review process is in place to ensure that new roads meet the standards and guidelines presented in this master plan. Developers may also be required to dedicate land toward the widening of roadways in order to provide for enhanced bicycle mobility. This has the potential to reduce the costs of putting these facilities in, but this is not factored into the implementation schedule.

More information can be found in the Caltrans Complete Streets Implementation Action Plan 2.0: http://www.dot.ca.gov/hq/tpp/offices/ocp/docs/CSIAP2\_rpt.pdf

#### General Funds

Imperial County cities and the County may spend general funds as they see fit. Any bicycle, pedestrian, or trails project can be funded completely through general funds, or general funds can be used as a local match for grant funds.

Given that Imperial County jurisdictions are financially strapped, we assume that very little will be spent on Safe Routes to School projects but the local jurisdictions will have that option.

# 6.2. Implementation Schedule

### **Total Project Costs by Jurisdiction**

The following table describes the total project costs in each of the nine jurisdictions in Imperial County. The project costs include infrastructure costs for pedestrian and bicycle improvements, as well as bicycle and skateboard parking costs. The total cost of all the projects for all of Imperial County is \$20,938,250.

#### Table 6.2.1. Total Project Costs by Jurisdiction

Jurisdiction	School District	Total Project Cost	
Brawley	Brawley Elementary School District	\$1,546,000	
	Brawley Union High School District	\$1,540,000	
Calexico	Calexico Unified School District	\$3,368,000	
Calipatria	Calipatria Unified School District	\$943,250	
El Centro	Central Union High School District	\$4,846,000	
	El Centro Elementary School District	φ4,040,000	
Heber	Heber Elementary School District	\$3,720,500	
Holtville	Holtville Unified School District	\$715,500	
Imperial	Imperial Unified School District	\$551,500	
County	San Pasqual Valley Unified School District	\$3,407,500	
	Seeley Union School District		
Westmorland	Westmorland Union Elementary School District	\$1,985,250	
	\$20,938,250		

#### **Total Fair-Share Annual Funding**

Given the total cost of \$20,938,250 for all the projects, it would take 22 years to fund with reliable funding sources assuming Imperial County gets its fair share based on population. As shown in Table 6.2.2. below, we will assume that \$1,213,000 of federal and state funding is available for Imperial County each year. Programmatic costs amount to \$250,000 per year, which leaves \$963,000 per year for infrastructural improvements and bicycle/skateboard parking. In five-year increments, \$4,815,000 worth of projects can be funded.

These costs are calculated in 2016 dollars. Imperial County should be able to use additional funds listed under "Funding Sources" on page 286, but for implementation purposes we are only assuming funds that are more readily predictable.

Funding Source	Funds/Year (2016 \$)	5-year Funds (2016 \$)
ATP	\$720,000	\$3,600,000
OTS	\$19,000	\$95,000
HSIP	\$474,000	\$2,370,000
Subtotal	\$1,213,000	\$6,065,000
Programmatic Costs	(\$250,000)	(\$1,250,000)
Total Funding Available	\$963,000	\$4,815,000

#### Table 6.2.2. Total Fair-Share Annual Funding

# 6.3. Prioritizing Projects

Prioritizing projects requires weighing a number of factors and data sources. The method used for this Plan incorporates the following:

- **Crashes** indicate a safety need and factor directly in Highway Safety Improvement Program funds. Very few project locations have experienced pedestrian or bicycle crashes in the five-year period from 2009 through 2013. This is the last five-year period that the Transportation Injury Mapping System has full data.
- The **number of lanes** indicate the need of the project. If students have to cross more lanes, the need is greater. If we add bike lanes they are more needed on streets with more lanes, and likely more traffic.
- The **number of students** enrolled at each school indicates the potential number of people who might use the improvements.
- The **level of the adjacent school** indicates a need as elementary students are less capable of safely navigating streets than middle or high school students. The matrix assigns a higher score for the younger the students.

Table 6.3.1. and 6.3.2. below display the scoring factors. The result is the Table E in Appendix E that shows each of the planned projects in order of priority. Within each of these, local jurisdictions can select which they wish to apply for funds first. The priority system links to an implementation schedule. However, this is not set into stone. Whenever a street project arises, for example, it makes sense to incorporate the planned projects regardless of their priority level.

Street Types		
Table Name	Description	Score
2, 2	2 lane streets every direction	1
2, 3	2 lane street crossing 3-lane street	2
2, 4	2 lane street crossing 4-lane street	3
4, 4	4 lane streets in each direction	4
2	2 lane street (linear improvement)	1
4	4 lane street (linear improvement)	4
State Highway	Linear Improvement	6
State Highway Crossing	Crossing Improvement	6

#### Table 6.3.1. Street Types and Scoring

Number c	of Crashes	Number o	f Students		(Elementary – MS, High - HS
Number	Score	Number	Score	Level	Score
0	0	1-599	1	ES	3
1	1	600-1099	2	MS	2
2	2	1100-2005	3	HS	1

## Table 6.3.2. Scoring System of the Number of Crashes, Number of Students and School Level

# 7. Transportation Demand Management Benefits Summary

Active transportation can bring many benefits to children, residents, communities, and to society at large that provide attractive mobility options. The following text describes the primary benefits for each of those.

# 7.1. Benefits to Individuals

#### Health

By creating safe, convenient options to walk, bicycle and use other forms of active transportation, people can integrate physical activity into their daily lives without having to set aside a special time of the day for exercise. These aerobic activities all burn calories, enabling people to maintain a healthy weight and improve mental health. For example, a 160-pound adult, walking at 3.5 miles per hour for one hour burns 314 calories, and running at 8 miles per hour for one hour burns 861 calories (Mayo Clinic website). A 130-pound person bicycling at 14-16 miles per hour for one hour burns about 590 calories. (Bicycling Magazine Cycling Calories Burned Calculator). Burning 500 calories per day will translates into 1 pound lost per week (Mayo Clinic website).

In addition, children that walk or bicycle to school are often healthier than their peers that are driven. Because of this, they also miss fewer days of school, are more alert in class and perform better academically.

#### Safety

By providing bikeways, improved pedestrian crossings, and safer routes to school, children and residents will be able to walk and cycle in a safer environment. Improved pedestrian facilities reduce the number of pedestrians hit by cars. For example, adding a sidewalk to a street without one has a crash reduction factor of 88% (Federal Highway Administration Pedestrian Safety Design course). Crossing islands reduce pedestrian-involved crashes by 46% at marked uncontrolled (no signals or stop signs) crossings. (Zegeer, C., J. Stuart, and H. Huang, Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Crossing Locations, Federal Highway Administration, Washington, DC, 2001).

Speed is a key factor in crash reduction. Bike lanes, new sidewalks and new parkways also have the potential to reduce the speed of cars some by narrowing the travel lanes. Last, there is safety in numbers. The more people there are using local streets and bikeways, the more people will be aware and will look for them.

### Enjoyment

People who use pedestrian facilities and bikeway networks gain a significant opportunity to enjoy outdoor recreation. They are able to go out to enjoy the network on their own, and may find that the facilities offer a terrific chance to spend time together with family. Polls show that residents greatly value pedestrian facilities and bikeways in their communities. Best of all, these facilities can be enjoyed by people of nearly all ages.

#### Cost Savings

Children and local residents that walk or bicycle for daily trips to the school, work or other destinations can realize costs savings by not using their cars. The average cost to operate a car is 60.8 cents per mile ("Cost of Owning and Operating Vehicle in US Increases Nearly Two Percent According to AAA's 2013 'Your Driving Costs' Study", AAA Newsroom, April 16, 2013). Reducing driving by just five miles per day would save someone \$1,110 a year on average.

Cost savings also result from better health. For example, the yearly cost of being overweight is \$524 for women and \$432 for men. The annual cost of obesity is \$4,879 for women and \$2,646 for men. (Dor, Avi, Christine Ferguson, Casey Langwith, and Ellen Tan. A Heavy Burden: The Individual Costs of Being Overweight and Obese in the United States. Washington, DC: The George Washington University School of Public Health and Health Services Department of Health Policy; 2010).

#### Stress Relief

"Exercise in almost any form can act as a stress reliever. Being active can boost your feel-good endorphins and distract you from daily worries" (Mayo Clinic website). Having attractive bikeways and pedestrian facilities can entice more people to get outside and become more active. This will relieve stress and improve users' mood. This will simply make people happier and make the communities they live in more livable.

# 7.2. Benefits to Communities

#### Healthier Communities

Cities benefit by offering attractive active transportation options. Based on a 2014 general health poll, 167,000 Imperial County residents rated their general health status: 22.1% responded excellent, 21.4% very good, 34.3% good, 17.9% fair, and 4.2% fair (2014 California Health Interview Survey; http://ask.chis.ucla.edu/).

Bikeways and good sidewalk systems have potential to change the way of life. Complete networks encourage people to use a bicycle more often for transportation, or to walk for short trips. As more people do so, a cultural shift may take place. Although difficult to measure, schools may experience less absenteeism. If students perform better local schools may improve their test scores.

#### Safer Communities

Bikeways, trails and pedestrian improvements make communities safer places to bicycle and walk. In addition, local drivers will become more accustomed to seeing bicyclists and pedestrians, look for them and expect them more.

Where traffic calming measures are implemented the slower speeds can reduce the number of crashes as well as crash severity, as described in the *Benefits to Individuals* section above.

Added safety benefit comes from numbers. As more people are out and able to see street activity, criminals are less likely to partake in anti-social activity. As more people get out, others may feel safer and walk or bicycle more themselves.

#### Economic Development

Bikeways and pedestrian networks can give communities a reputation as livable communities. Local residents may choose to do more of their shopping and entertainment at home, rather than travelling to another city. Moreover, if they save money by driving less, they will have more disposable income that could be used locally.

Studies have concluded that places that are more pedestrian and bicycle-friendly perform better commercially and have higher housing values. For example, a recent study along York Boulevard in the SCAG region documented increased sales tax revenues after reducing the number of

driving lanes and adding bicycle lanes (McCormick & Affairs, 2012). In Ohio, sale prices for single-family residential homes increased by \$7.05 for every foot, or over \$41,000 for every mile closer that a property is located to the Little Miami Scenic Trail (Karadeniz, 2008; Alliance for Bicycling and Walking Benchmarking Report, 2014). Other studies have confirmed that pedestrians and bicyclists make more purchases than those travelling by car. A study in Portland, Oregon shows that although pedestrians and bicyclists may spend less per trip to a store, they make more frequent visits throughout a given month and result in spending more on average than their car-driving counterparts (Clifton, 2013; Alliance for Bicycling and Walking Benchmarking Report, 2014). These are just a few of many examples that have documented various types of economic development through active transportation.

#### Economically Viable Futures

Smaller US cities and towns are having difficulty keeping and attracting vibrant industries and a millennial workforce. This "brain drain" is negatively impacting smaller cities. Many millennials want a more "urban" lifestyle where they can live in compact, walkable, bikeable communities. (Beau Dure, "Millennials Continue Urbanization of America, Leaving Small Towns," National Public Radio, October 21, 2014.) If smaller cities expect to retain and attract the next generation of workers, and if they want to attract growth industries, planning for denser, walkable and bikeable communities seems like a smart formula.

# 7.3. Benefits to Society at Large

#### Potential

Many trips we take are short and could be done on foot or bicycle if attractive facilities were available. When we consider that in Southern California, about 38% of all trips in the region are 3 miles or less but more than 78% of these trips are made by driving, there is significant potential to convert these trips (SCAG RTP/SCS, 2016).

The weather in the Southern California region is conducive to walking and bicycling in most areas throughout the year. Currently, 37% of all trips less than one mile and 18% of all trips less than three miles are taken by walking and bicycling (SCAG RTP/SCS, 2016). Of all the trips taken in Imperial County, 1.43% of trips are done by bike, while 7.8% of trips are done by walking (SCAG RTP/SCS, 2016). Where better pedestrians and bikeway facilities are implemented, it would be convenient and safer for more children to walk and bike to school.

#### Fewer Greenhouse Gas Emissions

As children and residents decide to walk or bicycle to school, work or for other purposes instead of driving, greenhouse gas emissions will decrease. For every one-mile trip that is converted from a motorized trip to a non-motorized trip, an average of 0.79 pounds of CO2 is reduced. (Using US Environmental Protection Agency data). If done everyday, over the course of a year, this translates to about 31,400,000 tons reduced per year in the US.

#### Air Quality Improvement

As children and residents decide to walk or bicycle to school instead of driving, air quality will improve. It is important to note that since most bicycling and walking trips to school are short, walking or cycling eliminates "cold starts", the most polluting portion of the trip. Since the calculations above used averages, the actual reductions would likely be significantly higher.

#### Lower Societal Health Costs

Obesity-related ailments, such as chronic disease, disability and death are estimated to cost \$190.2 billion annually. (Institute of Medicine of the National Academies, Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation. Report brief, May 8, 2012.) To the degree that healthier communities reduce the number of children and residents with diabetes, cancer, heart problems, hypertension and others, significant costs will be saved.

#### **Energy Savings**

As children decide to walk or bicycle to school instead of driving, energy will be saved. For every one-mile trip that is converted from a motorized trip to a non-motorized trip, an average of 0.04 gallons of gasoline will be saved. If done everyday, over the course of a year, this translates to 15 gallons saved per driver.

# 8. Design Guidance

Many traffic control devices, signs, markings, and other street design features can be used to make walking and bicycling to school safer. This section highlights some of the most important and most commonly recommended.

# 8.1. California Manual on Uniform Traffic Control Devices (MUTCD) Signs and Markings

The California MUTCD has developed standards and guidance to be used for signs and markings. Some are mandatory, others are advisory, and some are optional. The following subsection shows the basic signs and markings used around schools.

## Signs

<b>XX</b>	<b>SR1-1</b> Many school signs begin with the basic School Advanced Warning sign labeled "S1-1". It is used to notify street users that they are entering a School Area that includes school buildings or grounds, a school crossing, or a related activity adjacent to the street. It can identify the location of the beginning of a School Zone. It also combines with other signs to designate the location of school crossings.
SCHOOL or	Assembly A The School Warning Assembly A includes the School (SP-4) plaque. This should be posted at the school boundary, and may be posted up to 500 feet in advance of the school boundary. It may also be accompanied with arrows pointing to the school if on another street.
XX -	Assembly B The School Crosswalk Warning Assembly B includes S1-1 with an arrow. It shall be posted at a crosswalk that is not controlled by a stop sign or traffic signal.

<b>^</b>	Assembly D
AHEAD or 200 FT or 200 FEET or or	The School Advanced Warning Assembly D includes the S1-1 sign along with either Ahead (W16-9P) or a distance sign e.g. "200 FT" (W16-2aP). It should be used on the approach of a crosswalk that is not controlled by a stop sign or traffic signal. It is optional where an S1-1 sign is posted. It may also be accompanied with arrows pointing to the school if on another street.
	Assembly C
SCHOOL SPEED LIMIT 25 WHEN CHILDREN ARE PRESENT	The School Speed Limit Sign (Assembly C) includes a Speed Limit (R2-1) sign, with a School (S4-3P) sign, and When Children Are Present (S4-2P). The Assembly C sign should be used where a reduced school speed limit zone has been established based on an engineering study or where a reduced school speed limit is specified by statute. The sign should be placed where the reduced school speed limit exists. It may be placed up to 500 feet in advance of the school boundary. The sign should be used on streets where speed limits contiguous to a school or school grounds are greater than 25 mph. The prima facie speed limit of 25 mph is in effect for Assembly C. With an engineering study (designated by the CA MUTCD) a city may reduce the school speed limit to 15 mph on a residential street where some other conditions are met.
	R1-6
SCHOOL STATE LAW TO TO TO TO TO TO TO TO TO TO TO TO TO	In-Street signs (R1-6) may include a School (S4-3P) and be placed in a crosswalk that is not controlled by a traffic signal. These are useful where speeding is a problem.

HERE	<b>R1-5</b> Yield Here to Pedestrians (R1-5) signs should be placed at the location of Advanced Yield Lines.
LOOK BOTH WAYS	<b>W82-1</b> Railroad warning signs (W82-1) can be used to alert pedestrians of railroad crossings.
LOOK	<b>R15-8</b> Alternatively R15-8 signs may be used.

#### **Markings**

**High-visibility crosswalks** generally have longitudinal lines that run in the same direction as the street. They are sometimes called "zebra-stripe" crosswalks, or "continental" crosswalks. If they have lateral (transverse) lines along with longitudinal lines they are called "ladder" crosswalks. Motorists can see these much better than typical transverse-line or "transverse" crosswalks.

Zebra-stripe CrosswalkLadder CrosswalkTransverse-line CrosswalkImage: Sebra-stripe CrosswalkImage: Seb

Crosswalks must be yellow where the street is contiguous to a school building or school grounds. It may be yellow if it is within 600 feet of the school grounds. If there are no other crosswalks between the intersection and school, the crosswalk may be yellow up to 2,800 feet from the school grounds. However, white crosswalks may be more visible than yellow crosswalks especially when the markings fade, so it may be advisable to color them white where away from school grounds.

**SLOW SCHOOL XING markings** may be used in advance of yellow school crosswalks where there are not stop signs, traffic signals or yield signs. They shall be yellow with the word XING at least 100 feet in advance of the crosswalk.

**SCHOOL markings** may be used with School Assemblies A or C and shall be yellow. It should be adjacent to the signs. It should not be used where SLOW SCHOOL XING markings exist.



SLOW SCHOOL XING Marking

Advance Yield Lines indicate where users of the streets are required to yield to pedestrians in an upcoming crosswalk. They may be used in advance of marked crosswalks at locations not controlled by a stop sign or traffic signal. They are white and are designed as "shark's teeth". They shall be placed between 20 and 50 feet in advance of the crosswalk and parking shall be prohibited between the markings and the crosswalk. They are marked along with posting of R1-5 signs.



Advance Yield Line

Advance Stop Lines indicate where users of streets are required to stop where there are marked crosswalks with stop signs or traffic signals. They should be placed at least four feet in advance of the marked crosswalk. They shall be white.



Advance Stop Line

# 8.2. Other Devices

#### **Curb Extensions**

**Curb extensions** are used to shorten the crossing distance for pedestrians, to improve visibility, and to slow turning motorists. They provide space and geometry for perpendicular curb ramps. They are also called "curb extensions" at intersections. Curb extensions may be irregular in shape to fit into the context. They may be solid and flush with the curb (shown in next photograph), or broken up into islands to compensate for drainage issues as shown in the diagram.



Flush Curb Extension



Curb Extension with Islands

### **Crossing Islands**

**Crossing islands** break up the distance pedestrians have to cross streets into two phases. This allows them to wait for a gap in traffic to cross in one direction only at a time. They are especially important to cross multilane streets at locations not controlled by stop signs or traffic signals.



Crossing Islands

#### **Raised Crosswalks**

**Raised crosswalks** slow traffic, improve visibility and make pedestrians more prominent. They are especially useful at crosswalks that are not controlled by traffic signals.



Raised Crosswalk

#### **Bike Racks**

**Bicycle racks** should support bicycles well and provide a convenient location to lock up. Generally, "inverted-U" racks are widely used because they incorporate these two attributes. Inverted-U racks, or something similar, are recommended.



Inverted-U Bike Rack