

SOUTH TAMA COUNTY SCHOOLS SAFE ROUTES TO SCHOOL STUDY

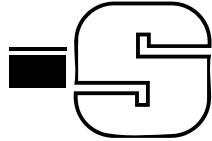


PREPARED FOR:
City of Tama
City of Toledo
South Tama County Community School District

IN COOPERATION WITH:
Iowa Department of Transportation
Region 6 Planning Commission



September 1, 2009



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South Tama Community Schools

Safe Routes to School Study

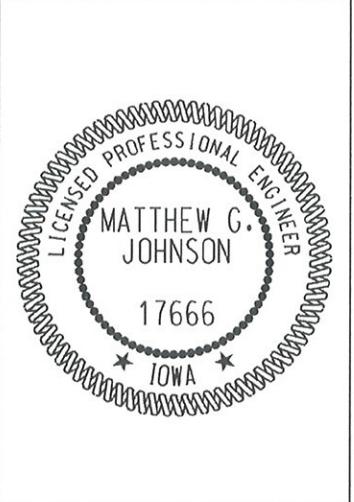
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Prepared for:

City of Tama
City of Toledo
South Tama County Community School District

September 1, 2009

 <p>LICENSED PROFESSIONAL ENGINEER MATTHEW G. JOHNSON 17666 IOWA</p>	<p>I hereby certify that this Engineering Document was prepared by me or under my direct personal supervision and that I am a duly Licensed Professional Engineer under the Laws of the State of Iowa.</p> <p> 9/1/09 Matthew G. Johnson, P.E. Date</p> <p>License Number 17666 My License Renewal Date is December 31, 2010</p> <p>Pages or sheets covered by this seal: <u>All</u> <hr/><hr/><hr/></p>
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South Tama County Community School District Safe Routes to School Study

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GENERAL

The City of Tama, Region 6 Planning Commission, and South Tama County Community School District are concerned with safety, accessibility and prevalence of walking and biking to schools in the community, and requested development of a Safe Routes to School (SRTS) Plan to guide future efforts to improve the attractiveness, safety, and accessibility of walking and biking to school. A Safe Routes to School Committee was formed to help develop this program. This committee consists of city officials, school officials, and parent volunteers.

Funding for the study was provided by the Iowa Department of Transportation Safe Routes to School (SRTS) Program. The 2005 SAFETEA-LU federal transportation bill established the SRTS Program to increase safety and encourage more children to walk and bike to and from school. Expected results include improved health for children, reductions in congestion near schools, and improved air quality. The program is based on the five E's: engineering, education, enforcement, encouragement, and evaluation. Further information regarding the Iowa SRTS Program can be found at the www.iowadot.gov/saferoutes website.

The scope of this study is to analyze existing conditions, develop pedestrian routes, recommend improvements to the pedestrian facilities for students en route and immediately around schools, and also discuss encouragement and education and enforcement strategies for the schools. As requested by the Safe Routes to School Committee, the primary focus of this study is on school routes to and in the vicinity of the elementary school. However, school routes to and from the middle school are also considered an important element of this study, in part due to the secondary purpose that this site serves of providing a bus stop location to which elementary school children can walk and then be transported a greater distance to the elementary school. Although not a primary objective of this study, it should be noted that many of the identified school routes for the elementary school also serve as safe routes for high school students due to the proximity of the two schools. This fact is especially important in consideration of young children with older siblings or neighbors that can walk with them to school.

DATA COLLECTION

Base mapping data was taken from the Iowa Department of Transportation city line maps, provided in Microstation format. This provided computer based mapping capabilities which served as a base for SRTS specific data collection.

The engineer collected data specific to the school pedestrian environment in the cities of Tama and Toledo, which included: signage, crosswalks, traffic control, and the presence or absence of sidewalks. The Engineer also performed field observations of parent pick-up/drop-off procedures at the elementary school, conducted a turning movement traffic volume count at the intersection of Harding St. and 13th St., conducted a gap study along US 63 near the elementary school, and met with the SRTS committee to discuss concerns with students walking/biking to school.

Region 6 Planning Commission assisted in dissemination and collection of parent surveys (provided by the National Center for Safe Routes to School) for the elementary school. These surveys were analyzed and provide general trends on the modes by which students arrive and depart school, as well as factors that influence parents' decisions regarding walking and biking to school.

EXISTING CONDITIONS

The South Tama County Community School District includes much of the southern half of Tama County. This large district boundary encompasses many areas that are more than two miles removed from any school site. Figure 1 shows the location of the existing schools with $\frac{1}{2}$ mile, $\frac{3}{4}$ mile, and 1 mile radial dimensions within the cities of Tama and Toledo.

South Tama County Elementary School

South Tama County Elementary School is located on the west side of US 63 in Tama, with a PK-5 enrolment of approximately 710 students. It serves nearly all elementary students in the district, outside of the Chelsea area. This building was opened in 2006, replacing the former elementary school building at the intersection of State St. and 9th St. in Tama.

Vehicular traffic to and from the building is served by a fairly long two-way access drive that extends north from the intersection of Country Club Dr. and W. 14th St. This long driveway serves as a queuing area for parent vehicle pick-ups and drop-offs. A sidewalk is provided along the east side of this driveway.

Bus loading occurs on the east side of the school building and is separated from the parent pick-up/drop-off zones. Diagonal parking areas are provided, which allow parents to walk students into the building. However, the location of this parking area requires parents and students to cross the vehicle circulation aisle and loading/unloading zones.

Field observations were made during the afternoon dismissal time. The process appeared to progress quickly and smoothly. One interesting note is that students who walk home from school are not released until most of the parent pick-up traffic has cleared out to reduce the number of pedestrian/vehicle conflicts in the immediate vicinity. Approximately 30-40 students were observed to walk home from school, most of whom did not go farther than the adjacent subdivision on the north side of 13th St., west of US 63.

Bicycle racks are provided at the front of the school but only one student was observed to have ridden a bike. No crossing guards are provided to assist students in crossing streets.

South Tama County Middle School

South Tama County Middle School is located on Green St. near the center of Toledo. It has approximately 370 6th, 7th, and 8th grade students and is the only middle school in the district. It is situated within a residential area with relatively low speed and low volume roads.

Field observations were made at this site during the afternoon dismissal period. Bus loading occurs at the front of the school on Green St. School faculty members assist with bus loading and monitor student activity in the front of the building until all buses have departed. Parent pick-up/drop-off occurs on the surrounding streets. Some moderate congestion was noted along these surrounding streets.

There are no bicycle racks on the school property, although there is a small bicycle rack available across East St. at the park.



Photo 1: Bicycle parked alongside school building because no bike racks are available.

ANALYSIS

Parent Surveys

Approximately 200 parent surveys were distributed to parents of South Tama County Elementary School students in the spring of 2008, using forms provided by the National Center for Safe Routes to School, and 142 (71%) responses were received. These surveys collected data and parent feedback regarding student elementary school transportation. Table 1 shows the results by percentage use of typical modes of transportation to and from school. A complete summary of these surveys is included in Appendix B.

**Table 1
Parent Survey Summary
School Travel Modes**

Mode of Transportation	Arrival	Dismissal	Total
Walk	4%	4%	4%
Bike	0%	0%	0%
School Bus	58%	78%	68%
Family Vehicle	36%	16%	26%
Carpool	2%	1%	2%

The survey showed that the vast majority of students are dropped off or ride the bus each day. Many of these students are dropped off in the morning and ride the bus home in the afternoon. Very few students typically walk to school and none bike. The results of this survey also indicated the primary factors that contribute to the parent's decision regarding their children's mode of school transportation are (in order of significance): distance, volume and speed of traffic, safety of intersections and crossings, weather, crime, and lack of sidewalks or pathways.

While some of these factors cannot be altered by a safe routes to school program (e.g. distance to school and weather), others can be improved. Sidewalks can be constructed along school routes and safety can be improved through use of sidewalks, established school routes, and traffic control improvements. In addition, as more students walk or bicycle to school, traffic near schools will decrease.

Within the comment portion of the survey, several parents voiced concern about their children crossing US 63. Recommendations for improving this situation ranged from adding a crosswalk and/or crossing guard to constructing a pedestrian overpass.

Traffic Controls

Locations of existing crosswalks, STOP signs, Yield signs and traffic signals near schools can be seen on the School Route Maps in Figures 2 and 3. In addition to those existing controls, it is noted that prior to relocation of the elementary school, the intersection of 9th St. and State St. (US 63) in Tama operated under traffic signal control. After the elementary school was relocated, this signal was turned off and has since been completely removed.

Traffic control at the intersections of 13th St with Harding St. and State St. is somewhat unique, with three of the four legs under STOP sign control. As indicated on Figure 1, these intersections are locations of bends in the US 63 alignment. The eastbound approach at Harding St. and the westbound approach at State St. are uncontrolled movements. The vast majority of vehicles on these approaches turn right, following the US 63 alignment. However, through and left turn movements on these approaches are also permitted without stop control.

Crash History

Crash Records available from the Iowa Department of Transportation were collected and reviewed. These showed a total of five pedestrian/bicyclist crashes in the Tama/Toledo area over the analysis period from 2003-2007. However, none of those in the database involved school-age children during school hours.

At the intersection of 13th St. & Harding St., there were at least 4 crashes involving a westbound vehicle with a vehicle from another approach failing to yield during that same 5-year analysis period. This is not an unusually high number of crashes, but it does suggest that some driver confusion exists with respect to the uncontrolled westbound movement.

Traffic Signal Warrant Analysis

From the parent surveys and other comments provided by the SRTS committee members, the primary concern that parents face with allowing children to walk or bike to school is crossing US 63. This concern stems from combinations of traffic volume, vehicle speeds, and insufficient traffic control devices to allow kids to safely cross the highway. In consideration of these concerns, Snyder & Associates conducted a gap study on US 63, near 15th St. between 3:00 PM and 4:00 PM on Wednesday, April 8, 2009, to determine if a traffic signal is warranted at this location based on MUTCD school crossing warrant criteria. This location was chosen as a logical crossing point because it is aligned with the rear-yard sidewalk access to the school.

Based on a crossing width of 49' and a walking speed of 3.5 ft/sec, the minimum safe crossing gap was determined to be 17 seconds. During the hour of this study, there were only 14 acceptable gaps in traffic, and 6 students observed crossing US 63. Because there were less than 20 students crossing the street, the MUTCD school crossing traffic signal warrant is not satisfied. However, the hazard of crossing US 63 prevents many parents from allowing their children to walk or bike to school and it is likely that more students would walk if they were provided a safe location to cross US 63. This is evidenced by the parent surveys where over 35% of the respondents indicated that a change in "Safety of Intersections & Crossings" would affect their decision to allow children to walk or bike to school. Based on this and an estimated 120 elementary school students living east of US 63, within one mile of the school, it is estimated

that approximately 40 students would cross US 63 to get to school if provided a safe crossing location. This estimate does not include parents walking with students, high school students, or other pedestrians that may use the crossing.

13th Street & Harding Street Intersection

Manual turning movement counts were conducted at the intersection of 13th St. and Harding St. from 3:00 - 4:00 pm in effort to analyze operations at that intersection. Average vehicle delays at the intersection were analyzed using *SimTraffic* traffic operation simulation. This intersection was also modeled as a 4-way STOP controlled intersection for comparison purposes. Table 2 shows the predicted average vehicle delay under both scenarios for this intersection. As indicated, this intersection currently operates with minimal delay and conversion to a traditional 4-way STOP controlled intersection would have a negligible impact on overall traffic operations.

Table 2*
Average Vehicle Delay
13th St. & Harding St. Intersection
3:00 pm to 4:00 pm (Typical Weekday)

Traffic Control	Average Vehicle Delay by Approach (sec)				
	EB	WB	NB	SB	Overall
3-Way STOP	6.8	0.9	6.4	4.7	4.0
4-Way STOP	6.8	4.2	6.3	4.6	5.0
4-Way STOP w/ Channelized WBR	6.6	2.2	6.2	4.6	4.3

*Note: A detailed capacity analysis for this intersection is outside the scope of this study. Results for average vehicle delay were obtained using default software parameters and are believed to underestimate actual vehicle delays but are provided as a reasonable comparison of the two traffic control scenarios.

Busing Policies

The parent surveys indicate that 58% of the elementary students currently ride a bus to school in the morning, with an additional 20% riding the bus home in the afternoon. The South Tama County Community School District bus policy currently gives all students the option of riding a bus to school, regardless of the distance they live from the school. The school bus routes were recently modified to add more bus stop locations, some of which are within ½ mile of the schools.

SCHOOL ROUTE MAPS

The Engineer established school routes for students walking/bicycling to and from school, as shown in Figures 2 and 3. The routes are designated as primary routes and secondary routes. The primary routes are indicated by green lines and arrows on the school route maps. Where practical to do so, students should attempt to find the safest route on to one of the established primary routes. The secondary routes are indicated by black arrows on the School Route Maps and are provided as additional guidance for getting on to a primary route and the best street crossing locations off the primary routes. Consideration of school routes was based on many factors including:

- Creating the most direct routes possible so that students will actually follow them.
- Utilizing existing sidewalks.

- Minimizing street crossings and utilizing existing STOP and YIELD signs for intersection crossing locations.
- Converging routes to promote groups of students walking together.
- Avoiding crossing US 30 and US 63, except where additional traffic control is recommended.

Areas south of 9th St. and east of State St. were excluded from the detailed portion of this study in effort to focus on areas closer to the school. It is noted, however, that students living in these areas are encouraged to walk and/or bike to school by traveling west to the east side of State St. and following that sidewalk north across 9th St., onto the primary school route. The State St. intersection is the best location to cross 9th St. due to the STOP sign control.

Resulting pedestrian crosswalk and signing needs on these routes are discussed below. These route maps should be used by the Cities of Tama and Toledo to prioritize sidewalk and curb ramp construction programs as well.

RECOMMENDATIONS

Figures 4 and 5 illustrate the recommended infrastructure improvements to provide safer school routes within the cities of Tama and Toledo, respectively. A cost opinion for these recommendations is provided in Table 6 at the end of this report.

US 63 Crossing

The most significant barrier to having more students walking to South Tama County Elementary School has been identified as crossing US 63. Three options were considered as possible alternatives for improving safety of this highway crossing. These options are discussed below and numbered in ascending order of preference. Since US 63 is under the jurisdiction of the Iowa Department of Transportation, their approval will be required for any improvements along this route, which is the reason that all three improvement alternatives are presented here. For each of these options, the preferred crossing location is a mid-block crossing between W. 14th St. and 15th St. Photo 2 is a view of US 63 looking north toward the proposed crosswalk location.



Photo 2: View of US 63 looking north at proposed crosswalk location between W. 14th St. and 15th St.

Construction of a pedestrian overpass or underpass was not considered in detail due to cost and spacing limitations.

1. Convert US 63 to 3-Lane Section and Install Raised Median at Crosswalk -

In 2001, Snyder & Associates prepared a study for the Iowa DOT and the City of Tama along the US 63 corridor in the vicinity of the High School entrance. One of the primary recommendations from that study was to convert US 63 to a three-lane pavement section with center turn lanes. In addition to the traffic safety benefits identified in that study, this conversion would allow for construction of a raised median between W. 14th St. and 15th St. A raised median provides much safer conditions for pedestrians to cross the highway for several reasons, including:

- They only have to be concerned with traffic from one direction at a time.
- The required vehicle gap for crossing each direction of traffic is only about 8 seconds, rather than the 17 second gap required to cross the entire four lane pavement section.
- They are more visible to drivers.
- Vehicles typically travel at lower speeds.

Figure 6 illustrates the recommended layout for this alternative.

2. Install a Traffic Signal with Pedestrian Actuation -

As noted in the Analysis section of this report, this location does not currently meet the MUTCD school crossing warrant for traffic signal installation due to a lack of students crossing US 63. However, it is expected that student crossings would increase significantly if they were provided a safe crossing location. The proposed traffic signal would rest in the green phase and vehicular traffic on US 63 would only be stopped when the walk signal is requested by a pedestrian actuation. The midblock location for this signal is preferred over either of the adjacent intersections for two reasons:

- Children crossing at the midblock location only have to watch for traffic from two directions, as opposed to also having to look for side street turning traffic at the intersection locations.
- If the signal were set at an intersection it would have to be actuated by side street traffic as well as pedestrians, which would significantly (and unnecessarily) increase the number of stops for through traffic on US 63.

Figure 7 illustrates the proposed layout for this alternative.

A pedestrian hybrid, or “HAWK”, signal was also considered as a possible alternative to a traditional traffic signal at this proposed crossing. The HAWK signal has less restrictive warrant criteria for installation and results in shorter vehicular delays. If signalization is approved for use by the City and Iowa DOT at this location, the engineer would encourage consideration of a HAWK signal. It is noted, however, that very few drivers are familiar with these signals and installation of a HAWK signal may not initially improve students’ and parents’ perception of safety at this crossing enough to significantly increase walking and biking to school.

3. Install Marked Crosswalk with Advanced Warning Flashers and Crossing Guard -

Installation of marked crosswalks tends to provide pedestrians with a higher comfort level when crossing streets. However, in 2005 the FHWA published a report¹ concluding that installation of marked crosswalks alone tends to reduce safety of the crossing rather than

¹ Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations: Final Report and Recommended Guidelines, University of North Carolina Highway Safety Research Center, FHWA Publication Number: HRT-04-100, September 2005

improve it at many locations, including ones like the proposed crossing, due to the speed of US 63. Therefore, installation of a marked crosswalk should only be considered in conjunction with other pedestrian facility improvements. Preferably, that would include improvements identified in alternatives 1 or 2, above, but at a minimum should include the following:

- Crosswalk should be constructed with high visibility markings that are well maintained.
- Yield lines should be installed on the pavement at least 20' in advance of the crosswalk in both directions.
- School crosswalk and advance warning signs with pedestrian actuated LED flashers or flashing beacons.
- Adult crossing guard during student arrival and dismissal periods.

Since the use of pushbuttons by pedestrians is typically quite low, and is expected to be lower in the absence of a traffic signal with pedestrian signal head indications, it is also recommended that passive pedestrian detection devices to activate the LED flashers or flashing beacons. These devices detect pedestrians waiting to cross the street without them having to press a button. Figure 8 illustrates the recommendations of this alternative.

13th St. & Harding St. Intersection

Many elementary school students live west of US 63 and south of 13th St. For these students, the greatest safety concern with walking or biking to school is crossing 13th St. The safest and most logical crossing location for these students is on the west leg of the 13th St. & Harding St. intersection because there is significantly less traffic on 13th St. west of Harding St. than east of it and traffic from the west is under STOP sign control. However, traffic from the east is uncontrolled at this intersection, which is something that is not easily recognized by pedestrians and could result in an unsafe crossing. This is of greatest concern during the school arrival period when many parents and buses proceed west through this intersection toward the school entrance. To improve safety at this location, three improvement alternatives are again proposed in order of preference.

1. Adult Crossing Guard -

This is an ideal location for an adult crossing guard to assist children in crossing the street. A crossing guard should be used in conjunction with the below recommendations for installing a marked crosswalk and school crossing signage. At a minimum, the adult crossing guard should be used during the morning arrival time, but preferably would also be used during the afternoon dismissal period. Additionally, this location should be a point of emphasis in the school's Safe Routes to School education programs.

2. Convert 13th St. & Harding St. Intersection to 4-Way STOP Sign Control -

This additional control is more consistent with pedestrian expectations of vehicle movements through the intersection. This would improve safety of this crossing at all times of the day (as opposed to adult crossing guards available only during school arrival and dismissal periods) and is the least expensive alternative to implement and operate. However, it would result in some increased delay for WB movements at this intersection and, therefore, may not be acceptable to the Iowa DOT.

3. Construct a Channelized Free Right Turn on WB Approach of 13th St. at Harding St. and Add STOP Sign Control for Through and Left Turn Movements -

As an alternative to stopping all WB traffic, consideration should be given to constructing a raised island to provide channelized free right turn for the WB movement. This would

require WB through and left turning traffic to stop, while still allowing WB right turning vehicles to proceed without stopping, and would have a negligible impact on the overall operational efficiency of the intersection. The high volume of right turning traffic and addition of a NB through lane at this location make it an ideal candidate for a channelized free right turn. However, there is limited space available for the necessary widening at the NE corner of this intersection, which would likely require property acquisition and removal of one access from the adjacent gas station. Also, the NB lane south of 13th St. aligns with the outer NB lane north of the intersection, which might require significant geometric improvements to safely shift this traffic to the inside lane south of the intersection. For these reasons, this alternative is not practical at this time, but should be considered if future operational or safety problems necessitate improvements at this location. Also, this will not be feasible if the previously recommended conversion to a three-lane pavement section is implemented along US 63.



Photo 3: View of 13th St. & Harding St. Intersection, looking North.

Sidewalk

Parent surveys indicated availability of sidewalks is an important factor in the decision to allow walking or biking to school. Moreover, discontinuous sidewalk networks create the impression that it isn't safe to walk and require more street crossings than would otherwise be necessary, further reducing the safety of the routes. Figures 4 and 5 illustrate locations that currently have sidewalks (denoted by black lines) and areas of recommended new sidewalks. The recommended sidewalk extensions are also indicated in Tables 3 and 4.

Due to the extent and cost associated with the recommended sidewalk improvements, these recommendations are divided into three priority levels. Priorities for sidewalk improvements were determined as follows:

Priority 1 - Generally includes missing sidewalks along the primary school routes identified within the ¾ mile radius, as well as sidewalks to fill in smaller gaps in the existing sidewalk network along secondary routes and within the ½ mile radius of either school.

Priority 2 - Includes sidewalk missing along proposed secondary routes with the ¾-mile radius of either school. Generally, priority 2 improvements are intended to provide sidewalk along one side of each residential street. This also includes a sidewalk along the east side of Broadway St./McClellan St., which will serve as the primary pedestrian connection between the two cities after completion of the US 30 project.

Priority 3 - Generally includes new sidewalk to complete the sidewalk network on both sides of residential streets within the ½ mile radius. Due to the cost of all recommended sidewalk

improvements, priority 3 improvements will likely fall onto a “wish list” that remains unfunded for many years. However, there is benefit to getting these sidewalks constructed so it is recommended that the cities include these improvements in their long-term planning and continue to look for outside funding opportunities for these sidewalks.

These priority levels are provided for planning purposes only and should be modified by the respective cities as appropriate. For instance, it may be beneficial to construct sidewalks along a particular street in conjunction with a maintenance or construction project on that street, even if higher priority sidewalks have not yet been constructed.

Both cities are encouraged to review their current practices and policies for requiring builders to construct sidewalk on newly developed property. There can be significant negative impacts to the cities when property is allowed to develop without constructing public sidewalks, especially within residential areas.

The Cities should pursue funding options for projects to “fill in sidewalk gaps” around town, particularly on school routes, as well as larger scale sidewalk projects in neighborhoods that were developed without sidewalks. In addition to improving safety of school routes, this can increase walkability to other destinations such as parks and commercial buildings.

TABLE 3
RECOMMENDED SIDEWALK IMPROVEMENTS
CITY OF TAMA, IOWA

Street	Segment	Estimated Quantity	Priority Level	Estimated Cost		
				P1	P2	P3
East-West Streets						
17th St.	Harding St. to State St.	604 SY	3			\$ 30,178
17th St.	Harding St. to State St.	592 SY	2		\$ 29,578	
16th St.	Grant St. to State St.	476 SY	3			\$ 23,822
15th St.	Harding St. to McClellan St.	333 SY	3			\$ 16,667
15th St.	Siegel St. to McClellan St.	24 SY	1	\$ 1,178		
15th St.	Harding St. to State St.	542 SY	2		\$ 27,111	
14th St.	Harding St. to McClellan St.	249 SY	1	\$ 12,444		
14th St.	McClellan St. to State St.	173 SY	3			\$ 8,644
14th St.	Harding St. to McClellan St.	434 SY	3			\$ 21,711
W. 14th St	Sesame Dr. to Harding St.	921 SY	2		\$ 46,044	
W. 14th St	Sesame Dr. to Harding St.	883 SY	1	\$ 44,133		
13th St.	Country Club Dr. to Harding St.	547 SY	2		\$ 27,333	
13th St.	Harding St. to Siegel St.	38 SY	1	\$ 1,889		
13th St.	McClellan St. to State St.	172 SY	2		\$ 8,622	
12th St.	Washington St. to Harding St.	240 SY	2		\$ 12,022	
11th St.	Washington St. to Harding St.	239 SY	2		\$ 11,956	
11th St.	Siegel St. to McClellan St.	232 SY	3			\$ 11,622
11th St.	State St. to Park St.	354 SY	2		\$ 17,711	
10th St.	Washington St. to Harding St.	270 SY	2		\$ 13,511	
10th St.	Siegel St. to Central St.	135 SY	2		\$ 6,733	
10th St.	State St. to Park St.	415 SY	2		\$ 20,756	
9th St.	Washington St. to Seymour St	78 SY	2		\$ 3,889	
9th St.	Harmon St. to Hall St.	50 SY	1	\$ 2,489		
8th St.	John St. to Harding St.	240 SY	2		\$ 12,000	
8th St.	Grant St. to Siegel St.	125 SY	3			\$ 6,267
8th St.	Grant St. to State St.	445 SY	3			\$ 22,244
8th St.	Siegel St. to State St.	337 SY	2		\$ 16,867	
7th St.	John St. to State St.	828 SY	3			\$ 41,378
6th St.	John St. to Seymour St	71 SY	3			\$ 3,556
5th St.	John St. to Grant St.	312 SY	3			\$ 15,600
5th St.	Siegel St. to McClellan St.	204 SY	3			\$ 10,222
North-South Streets						
Sesame Dr.	13th St. to W. 14th St.	300 SY	3			\$ 15,000
Sesame Dr.	13th St. to W. 14th St.	273 SY	2		\$ 13,667	
Iuka Dr.	13th St. to W. 14th St.	297 SY	3			\$ 14,867
Iuka Dr.	13th St. to W. 14th St.	297 SY	2		\$ 14,844	
Trojan Rd.	13th St. to W. 14th St.	295 SY	3			\$ 14,756
Trojan Rd.	13th St. to W. 14th St.	294 SY	2		\$ 14,711	
Country Club Dr.	13th St. to W. 14th St.	292 SY	3			\$ 14,622
Country Club Dr.	13th St. to W. 14th St.	330 SY	1	\$ 16,511		
Overlook Dr.	13th St. to W. 14th St.	290 SY	2		\$ 14,489	
Overlook Dr.	13th St. to W. 14th St.	289 SY	3			\$ 14,444
Washington St.	13th St. to W. 14th St.	287 SY	2		\$ 14,333	
Washington St.	13th St. to W. 14th St.	286 SY	3			\$ 14,311
Seymour St.	13th St. to W. 14th St.	283 SY	2		\$ 14,133	
Seymour St.	13th St. to W. 14th St.	283 SY	3			\$ 14,133
Harding St.	13th St. to 15th St.	255 SY	1	\$ 12,756		
Grant St.	14th St. to 15th St.	35 SY	1	\$ 1,756		
Siegel St.	13th St. to 14th St.	19 SY	2		\$ 956	
Siegel St.	13th St. to 14th St.	171 SY	3			\$ 8,533
Siegel St.	14th St. to 15th St.	85 SY	2		\$ 4,267	
Siegel St.	15th St. to 17th St.	309 SY	2		\$ 15,467	
McClellan St.	16th St. to 17th St.	98 SY	3			\$ 4,889
McClellan St.	14th St. to N. City Limits	627 SY	2		\$ 31,356	
State St.	16th St. to 17th St.	158 SY	2		\$ 7,911	
State St.	14th St. to 17th St.	628 SY	3			\$ 31,422
Washington St.	9th St. to 13th St.	591 SY	2		\$ 29,533	
Seymour St.	12th St. to 13th St.	108 SY	1	\$ 5,400		
Seymour St.	11th St. to 13th St.	268 SY	3			\$ 13,422
Harding St.	10th St. to 13th St.	423 SY	2		\$ 21,156	
Harding St.	9th St. to 10th St.	32 SY	1	\$ 1,600		
Central St.	10th St. to 11th St.	164 SY	2		\$ 8,200	
Harmon St.	9th St. to 10th St.	145 SY	2		\$ 7,267	
Harmon St.	9th St. to 10th St.	145 SY	1	\$ 7,267		
Hall St.	9th St. to 11th St.	290 SY	2		\$ 14,511	
Oswego St.	9th St. to 11th St.	365 SY	2		\$ 18,244	
Park St.	9th St. to 11th St.	362 SY	2		\$ 18,111	
John St.	5th St. to 7th St.	221 SY	3			\$ 11,067
John St.	7th St. to 8th St.	80 SY	2		\$ 4,000	
Seymour St.	7th St. to 8th St.	138 SY	2		\$ 6,889	
Harding St.	5th St. to 6th St.	182 SY	2		\$ 9,111	
Grant St.	5th St. to 7th St.	272 SY	3			\$ 13,600
Grant St.	7th St. to 9th St.	214 SY	2		\$ 10,711	
Grant St.	7th St. to 9th St.	274 SY	3			\$ 13,711
McClellan St.	8th St. to 9th St.	55 SY	2		\$ 2,733	
				\$ 107,422	\$ 550,733	\$ 410,689

TABLE 4
RECOMMENDED SIDEWALK IMPROVEMENTS
CITY OF TOLEDO, IOWA

Street	Segment	Estimated Quantity	Priority Level	Estimated Cost		
				P1	P2	P3
East-West Streets						
Mason St.	East St. to Elm St.	340 SY	1	\$ 17,022		
Madison St.	Center St. to Elm St.	97 SY	1	\$ 4,844		
Madison St.	Church St. to Green St.	225 SY	2		\$ 11,244	
Madison St.	Main St. to Green St.	518 SY	3			\$ 25,911
Madison St.	Park St. to Main St.	77 SY	2		\$ 3,844	
Washington St.	Main St. to Church St.	114 SY	1	\$ 5,689		
Washington St.	Park St. to Center St.	977 SY	3			\$ 48,867
Washington St.	Center St. to Harrison St.	445 SY	2		\$ 22,267	
Washington St.	Elm St. to Harrison St.	368 SY	3			\$ 18,378
State St.	Green St. to East St.	160 SY	2		\$ 7,978	
State St.	Center St. to Elm St.	75 SY	2		\$ 3,733	
State St.	Elm St. to Harrison St.	329 SY	2		\$ 16,467	
State St.	Center St. to Ann St.	559 SY	3			\$ 27,933
High St.	East St. to Ann St.	747 SY	3			\$ 37,356
High St.	Harrison St. to Ann St.	78 SY	2		\$ 3,889	
Carleton St.	Main St. to Broadway St.	89 SY	2		\$ 4,444	
Carleton St.	Main St. to Broadway St.	207 SY	3			\$ 10,356
Carleton St.	Elm St. to Harrison St.	260 SY	1	\$ 13,000		
South St.	East St. to Elm St.	152 SY	2		\$ 7,600	
Ohio St.	Park St. to Main St.	62 SY	1	\$ 3,089		
Ross St.	Main St. to Broadway St.	63 SY	1	\$ 3,133		
Ross St.	Church St. to Green St.	170 SY	2		\$ 8,511	
Ross St.	Green St. to East St.	213 SY	1	\$ 10,667		
Ross St.	Elm St. to K Ave.	546 SY	2		\$ 27,289	
Marshall St.	Main St. to Broadway St.	119 SY	1	\$ 5,933		
Marshall St.	Church St. to Elm St.	585 SY	3			\$ 29,267
Marshall St.	Church St. to Center St.	485 SY	2		\$ 24,244	
Marshall St.	Elm St. to Willow St.	280 SY	2		\$ 14,022	
Grace St.	Church St. to Green St.	28 SY	1	\$ 1,400		
Grace St.	East St. to Willow St.	576 SY	3			\$ 28,778
Grace St.	Main St. to Church St.	298 SY	3			\$ 14,889
Country View	Willow St. to K Ave.	453 SY	2		\$ 22,667	
College St.	Main St. to Church St.	364 SY	3			\$ 18,200
College St.	Main St. to Broadway St.	28 SY	1	\$ 1,400		
College St.	Broadway St. to Church St.	194 SY	2		\$ 9,711	
E. College St.	Elm St. to K Ave.	552 SY	2		\$ 27,622	
E. College St.	Elm St. to K Ave.	552 SY	3			\$ 27,622
E. Harrison St.	Elm St. to K Ave.	573 SY	2		\$ 28,667	
E. Harrison St.	Elm St. to K Ave.	573 SY	3			\$ 28,667
Mill St.	Main St. to Church St.	352 SY	2		\$ 17,578	
Vine St.	Church St. to Elm St.	644 SY	2		\$ 32,178	
Oak St.	Broadway St. to Church St.	169 SY	3			\$ 8,444
Grand St.	US 63 to Church St.	589 SY	3			\$ 29,444
Summit St.	US 63 to Church St.	589 SY	3			\$ 29,444
Myrtle St.	US 63 to Broadway St.	401 SY	2		\$ 20,067	
Columbian St.	W. Limit to Broadway St.	177 SY	3			\$ 8,867
North-South Streets						
Church St.	Washington St. to Madison St.	184 SY	3			\$ 9,178
Green St.	Washington St. to Mason St.	401 SY	3			\$ 20,044
Green St.	State St. to Mason St.	552 SY	2		\$ 27,622	
East St.	Madison St. to Mason St.	65 SY	1	\$ 3,267		
Center St.	Carleton St. to State St.	280 SY	2		\$ 14,022	
Center St.	Carleton St. to State St.	336 SY	3			\$ 16,800
Center St.	State St. to Washington St.	43 SY	1	\$ 2,156		
Elm St.	Carleton St. to Washington St.	458 SY	2		\$ 22,911	
Elm St.	Carleton St. to High St.	48 SY	3			\$ 2,378
Wilson St.	Carleton St. to State St.	242 SY	2		\$ 12,089	
Wilson St.	State St. to Washington St.	224 SY	2		\$ 11,178	
Harrison St.	Carleton St. to State St.	338 SY	2		\$ 16,889	
Harrison St.	State St. to Washington St.	196 SY	3			\$ 9,822
Main St.	Mill St. to Grace St.	300 SY	2		\$ 14,978	
East St.	Grace St. to Marshall St.	98 SY	3			\$ 4,889
Center St.	Grace St. to Marshall St.	127 SY	3			\$ 6,333
Elm St.	Grace St. to Ross St.	294 SY	3			\$ 14,711
Willow St.	E. Harrison St. to Ross St.	629 SY	2		\$ 31,444	
Willow St.	E. Harrison St. to Ross St.	629 SY	3			\$ 31,444
Broadway St.	S. City Limits to Mill St.	1533 SY	2		\$ 76,644	
Church St.	Oak St. to Mill St.	694 SY	2		\$ 34,689	
				\$ 71,600	\$ 576,489	\$ 508,022

School Crosswalks

A number of new marked crosswalk locations are recommended along the proposed school routes. In addition to alerting drivers of the pedestrian crossing, these crosswalk markings will help define the school routes for students.

The school routes were established, in large part, to promote street crossings at intersections with STOP or YIELD sign control on the crossing legs. In some locations this is not practical and students will have to cross at uncontrolled locations. At many of these uncontrolled crossings, it is also recommended that School Crosswalk Warning signs and School Advance Warning signs be installed to improve driver awareness of these crossings.

The locations of recommended marked crosswalks and school crosswalk warning signs are shown on Figures 4 and 5, and summarized in Table 5, below.

It is also noted that many of the existing crosswalk markings were observed to be significantly worn and should be maintained.

Busing Policy Changes

The current bus policy allows all students living within the school district the option of riding the bus to school. Most school districts require students to live outside of some defined barrier before being eligible for bus transportation, which could be as far as two miles from the school. It is recommended that the School District consider modifying their current busing policies to discourage students living closer to school from riding the bus. Without the option to ride the bus, more students will likely walk or bike to school.

It is also recommended that the school district review the current bus stop locations and attempt to reduce the total number of bus stops throughout each community. This will require many students to walk farther to get to bus stops, which is another way to accomplish part of the goal of this program. Figures 9 and 10 show the current bus stop locations in each city, and recommendations for bus stops that may be able to be eliminated. It is noted that these recommendations are based solely on location from school and other bus stops, and serviceability of the remaining bus stop locations. The School District should consider why the bus stop locations were established in the first place before eliminating them. For instance, if these bus stops service special needs students, it may be necessary to maintain them.

The School District should also consider using areas that have bike racks for bus stops and/or adding bike racks at existing bus stop locations, where feasible. This will enable children that live too far to bike to school to ride their bikes to bus stops and safely lock them up during the school day.

TABLE 5
Proposed Marked Crosswalk Locations

INTERSECTION	LEG	SIGNS?
Madison St. & East St.	W	
Washington St. & Broadway St.	E	
Washington St. & East St.	W	
State St. & Church St.	S	
State St. & Green St.	S, E	E
High St. & Green St.	E	E
High St. & East St.	N	
High St. & Center St.	N	
High St. & Elm St.	N	
High St. & Wilson	N	
High St. & Harrison	N	
Ross St. & Church St.	S	
Ross St. & Green St.	S, E	E
Ross St. & Elm St.	S	
Marshall St. & Church St.	W	
Marshall St. & Elm St.	E	
Grace St. & Church St.	W	
Grace St. & Elm St.	E	
College St. & Church St.	W	
E. College St. & Elm St.	E	
E. Harrison St. & Elm St.	E	
W. 14 th St. & Harding St.	W	
14 th St. & Grant St.	N	
14 th St. & Siegel St.	N	
14 th St. & McClellan St.	W, S	
13 th St. & Harding St.	W, S	W*
13 th St. & State St.	N, E	
11 th St. & Harding St.	E	
11 th St. & State St.	E	
10 th St. & State St.	E	
9 th St. & Harding St.	E	
9 th St. & Siegel St.	N, E	
9 th St. & McClellan St.	N	
9 th St. & Harmon St.	N	
9 th St. & Hall St.	N	
9 th St. & Oswego St.	N	
8 th St. & Siegel St.	E	
7 th St. & Harding St.	E	
7 th St. & Siegel St.	E	
6 th St. & Harding St.	E	
6 th St. & Siegel St.	E	

* School Crosswalk sign should only be installed for WB traffic and only if a WB STOP sign is not added as one of the above recommendations.

Encouragement Programs

The National Center for Safe Routes to School (SRTS), as well as the Iowa Department of Transportation SRTS Program has many resources that can be applied to encourage parents and students of different age levels. These lessons help to reinforce lessons learned at home regarding smart behavior on the sidewalks (crossing streets, wearing a helmet while biking, etc) as well as school encouragement programs, such as prizes for frequent walkers, etc. **Please see an annotated list and links to Encouragement and Education Programs in Appendix A.** Some of these programs that are well suited to the South Tama County Community Schools include the following:

1. Walking School Bus – This program will require adult volunteer support. It takes the principles of a schools bus (adult led, picks students up along a route) but applies it to walking. Students would wait at the corner or meet at a common location for the “bus” to come down the road. The “safety in numbers” improves visibility of students for motorists, and adult leadership helps students cross streets safely. Other benefits include opportunities for socialization and safe street usage education in a supervised environment.

Both Tama and Toledo have a street networks set up in a grid arrangement allowing different routes to converge at many locations. The primary school routes are designed to promote merging of routes and are ideally suited for the walking school bus program. Even in the absence of an organized program, many of the principles and benefits of the walking school bus idea will be realized by students following the established school routes and joining up with other students.

2. Bike Rodeo – Work with local police/fire personnel and volunteers to organize bicycle safety at school, during P.E. class, for example.
3. Walk to School Night – Beginning of school year orientation nights are great opportunities for families to walk to school together to help the student plan the safest route to walk to school, as well as discuss safe walking and biking.
4. “Win a Bike” or other similar contests – School works with local retailer to donate bikes, other prizes and individual students can compete with frequency of walking to school, etc to win a chance to win a new bike, scooter, skateboard, or other related prizes. Variations can be made for inter-class/inter-school competition to excite students about walking to school.

SUMMARY

US 63 is the biggest obstacle to elementary school students walking and biking to school. The City of Tama and South Tama County Community School District should work together with the Iowa DOT to implement one of the traffic control measures recommended in this report (or other mutually agreeable alternative) to improve the safety of students crossing US 63 near the elementary school. Both the City of Tama and the City of Toledo should pursue funding options to construct additional sidewalk throughout portions of the cities where sidewalk does not currently exist, particularly along the proposed school routes.

Implementation of the recommendations outlined in this report is expected to improve safety and provide additional walking and biking opportunities. Since much of the traffic near schools is school related, increasing the number of students walking to school is the most effective way to reduce traffic concerns in school areas.

Additional activities to improve Encouragement, Education, Enforcement, and Evaluation will complement these Engineering recommendations. A strong and ongoing partnership between the Cities of Tama and Toledo, the South Tama County Community School District, the Iowa Department of Transportation, students, and parents will be necessary to achieve the health, safety and traffic congestion goals of the Safe Routes to Schools program.

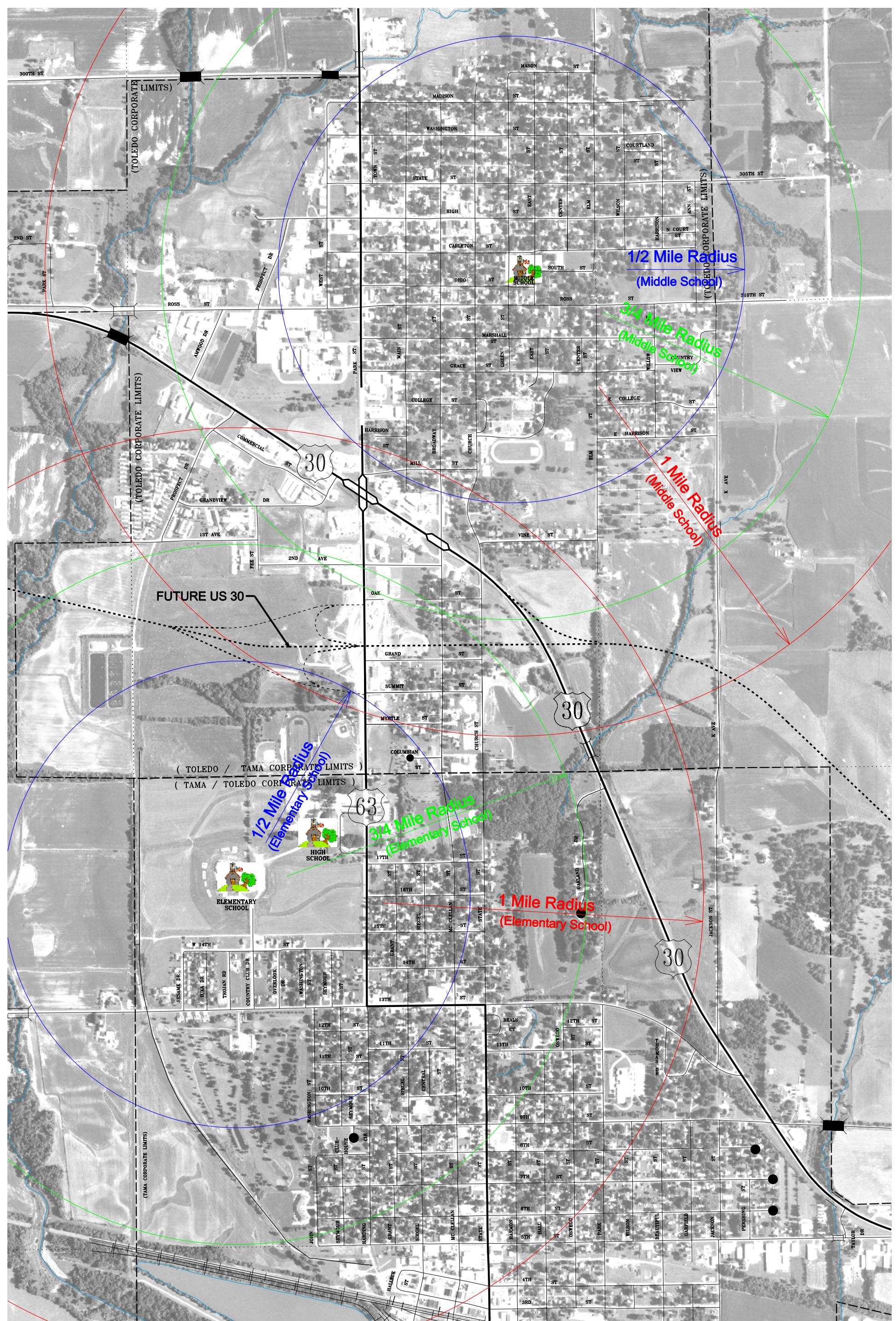
Table 6
Cost Opinion of Recommended Improvements

	Units	Unit Cost	Tama		Toledo	
			Estimated Quantity	Estimated Cost	Estimated Quantity	Estimated Cost
Sidewalk						
Priority 1	Square Yard	\$50	2,150	\$ 107,500	1,430	\$ 71,500
Priority 2	Square Yard	\$50	11,020	\$ 551,000	11,530	\$ 576,500
Priority 3	Square Yard	\$50	8,210	\$ 410,500	10,160	\$ 508,000
US 63 Crossing						
Option 1 - Raised Median*	Lump Sum	\$25,000	1	\$ 25,000	0	\$ -
Option 2 - Traffic Signal	Lump Sum	\$39,000	1	\$ 39,000	0	\$ -
Option 3 - Advanced Warning Flashers	Lump Sum	\$18,000	1	\$ 18,000	0	\$ -
13th St. & Harding St. Modifications						
Option 1 - Adult Crossing Guard**	Years	\$10,000	10	\$ 77,217	0	\$ -
Option 2 - Convert to 4-Way STOP	Lump Sum	\$1,000	1	\$ 1,000	0	\$ -
Option 3 - Construct Channelized Free WB Right Turn	Lump Sum	57500	1	\$ 57,500	0	\$ -
Crosswalk Markings	Each Leg	\$150	24	\$ 3,600	23	\$ 3,450
School Crossing Signs	Each Sign	\$400	2	\$ 800	6	\$ 2,400
TOTAL COST OF RECOMMENDED IMPROVEMENTS***				\$ 1,175,617		\$ 1,161,850

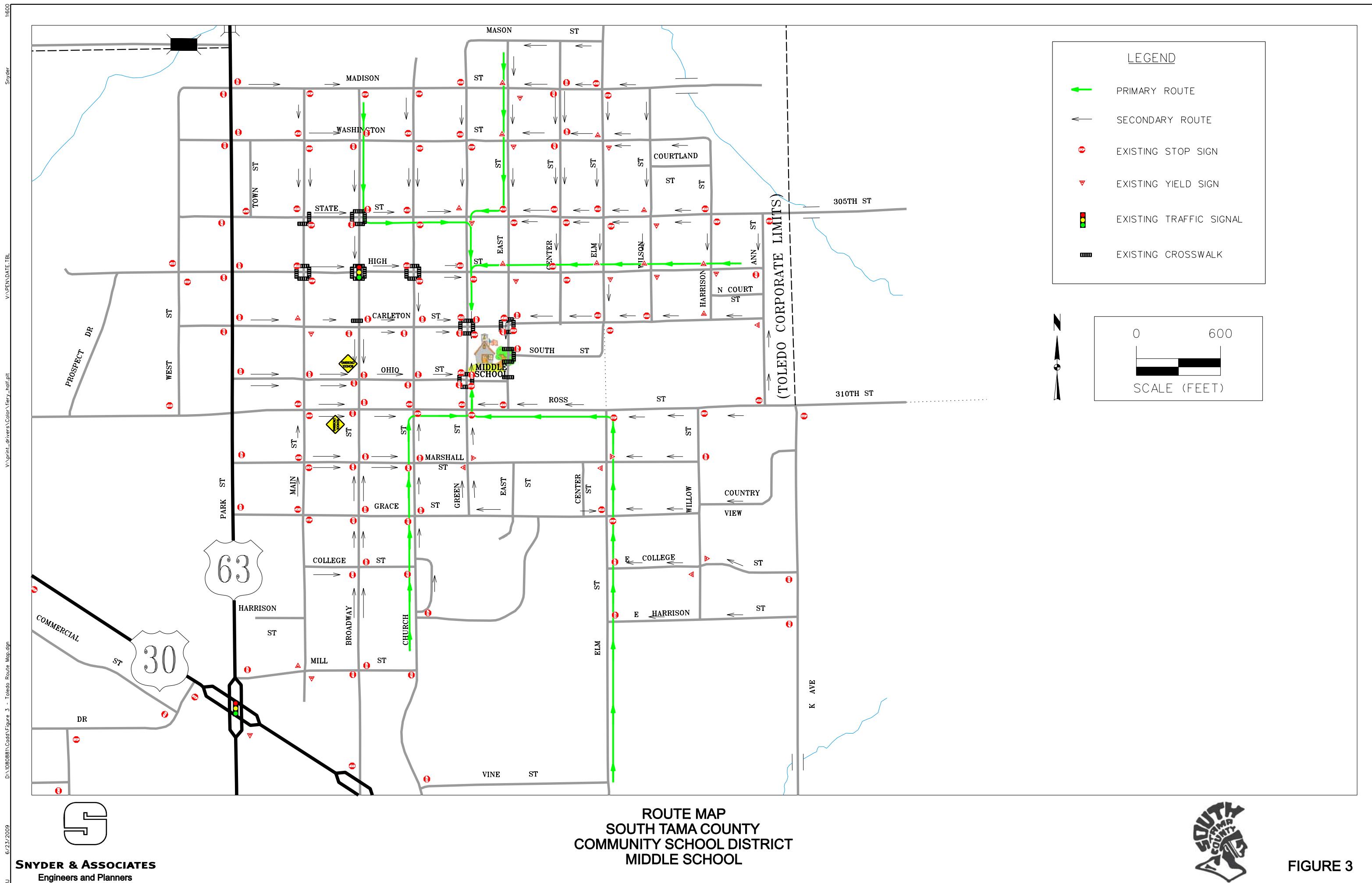
* Cost estimate only includes construction of the raised median, sidewalk, pavement markings and associated signage.

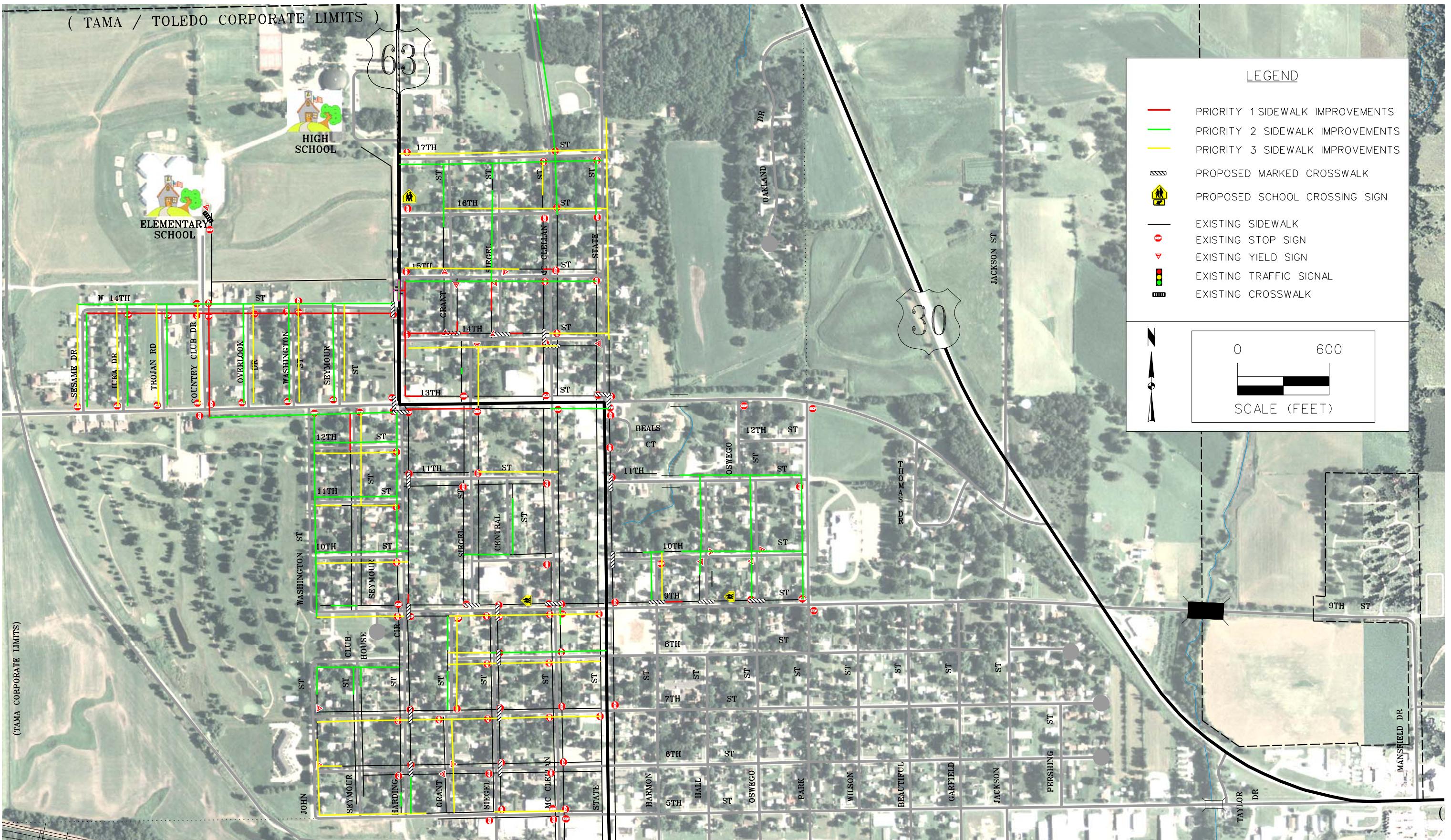
** Adult crossing guard cost represents the present value assuming an annual cost of \$10,000 and an interest rate of 5%.

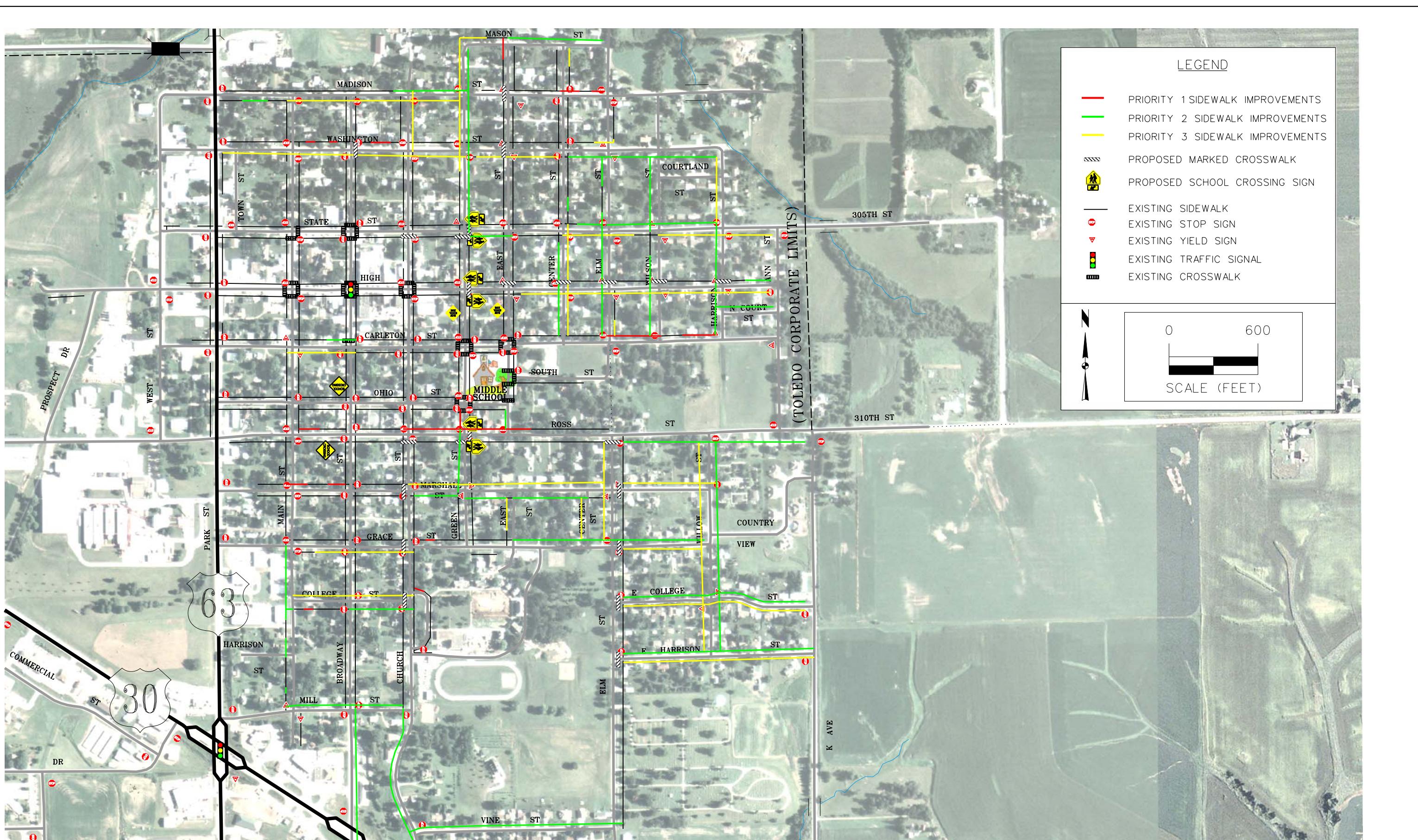
*** Where options are presented, Total Cost only includes the cost of Option 1.







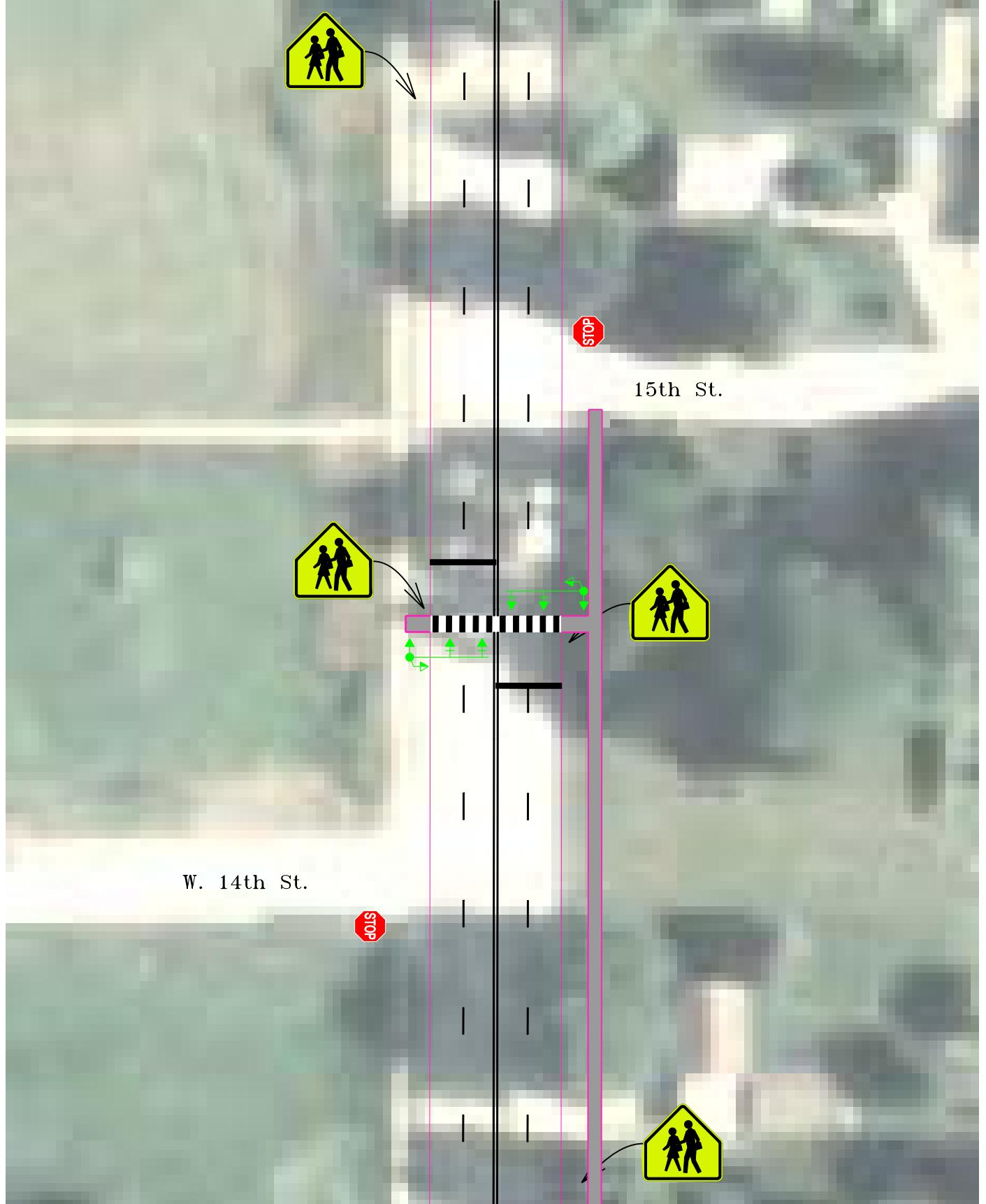




**RECOMMENDED IMPROVEMENTS
SOUTH TAMA COUNTY
COMMUNITY SCHOOL DISTRICT
TOLEDO**

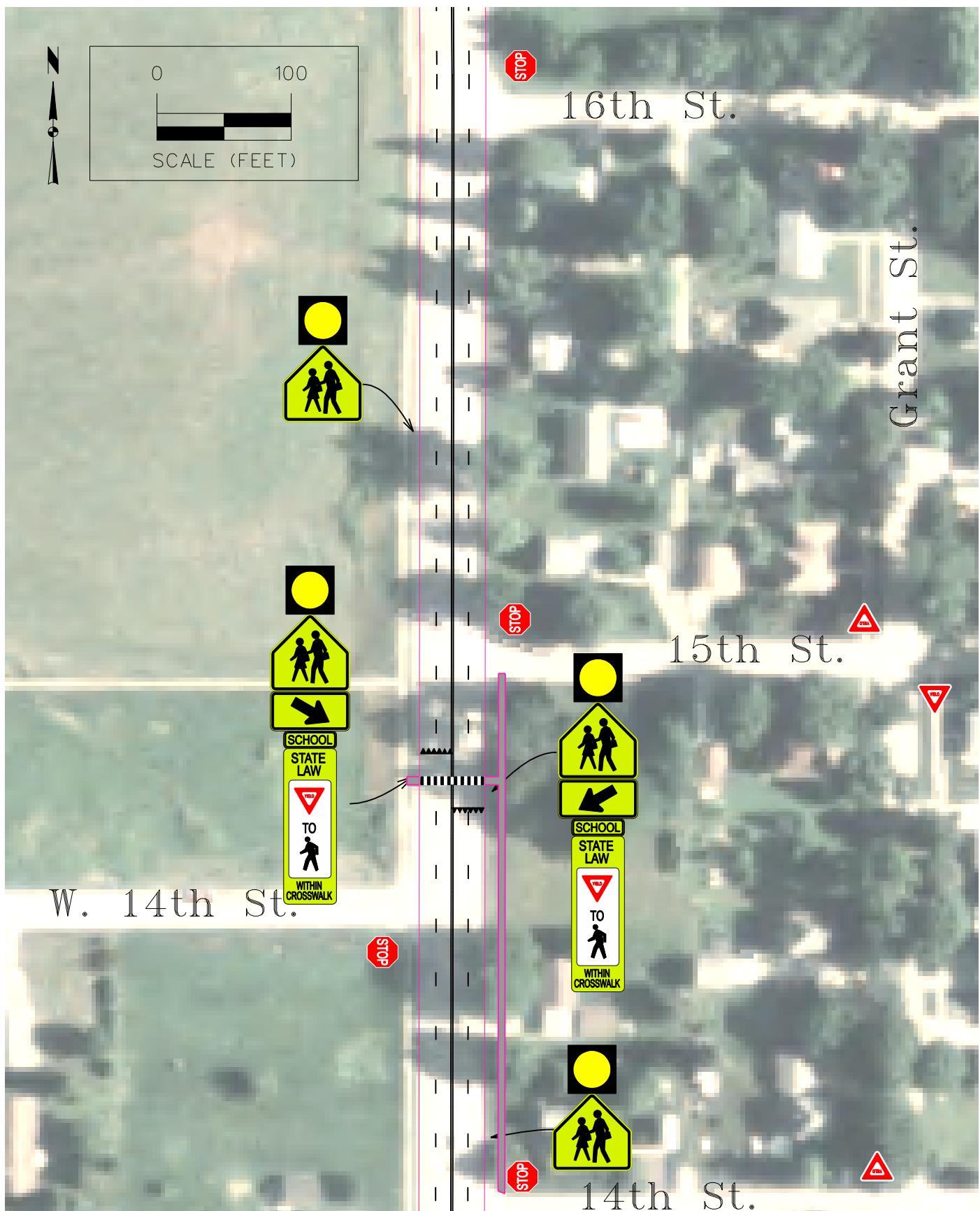


**US 63 PEDESTRIAN CROSSING
WITH RAISED MEDIAN AND
3-LANE SECTION ON US 63**



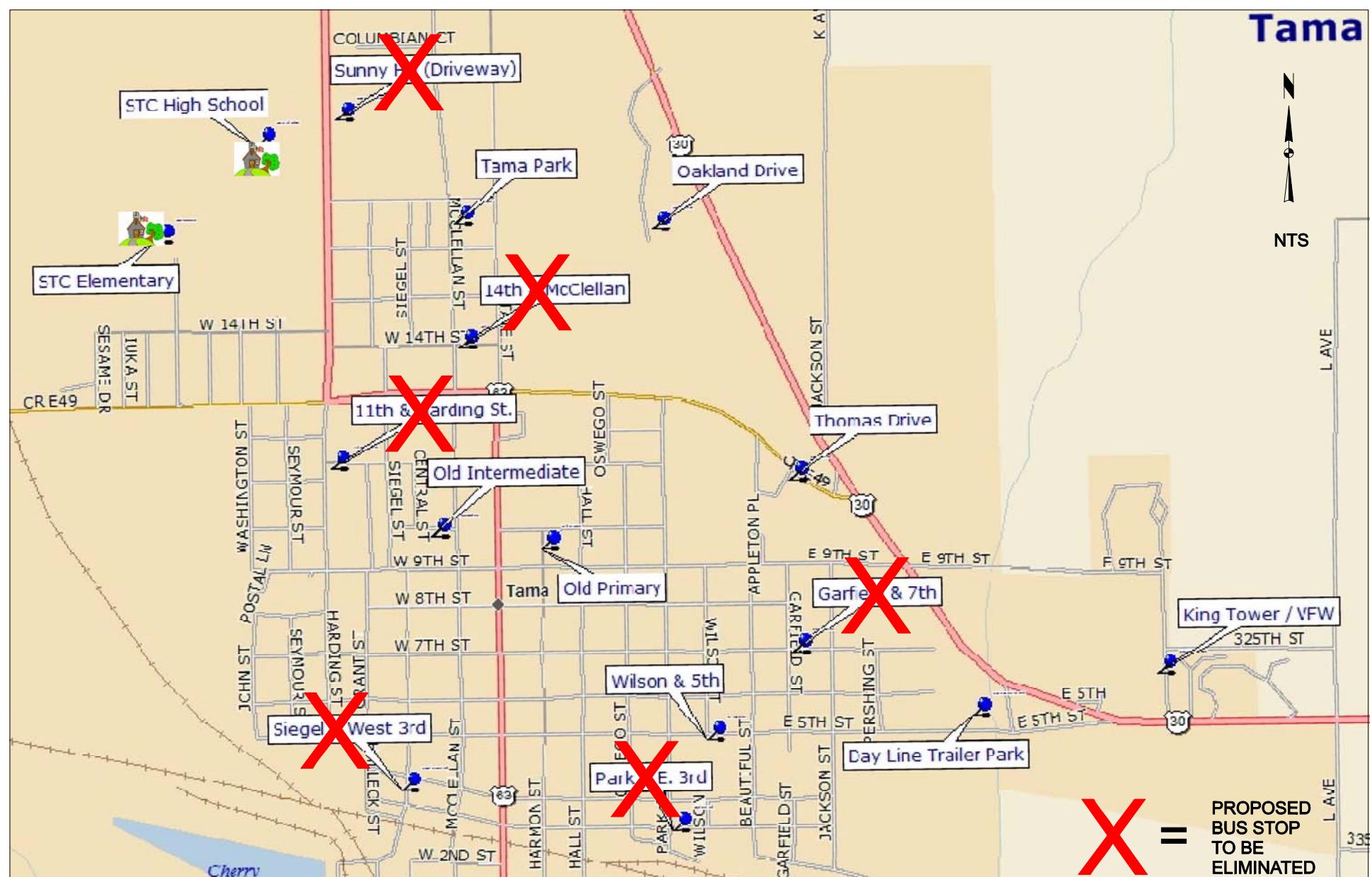
US 63 PEDESTRIAN CROSSING
WITH MID-BLOCK SIGNAL
BETWEEN W. 14th ST. AND 15th ST.





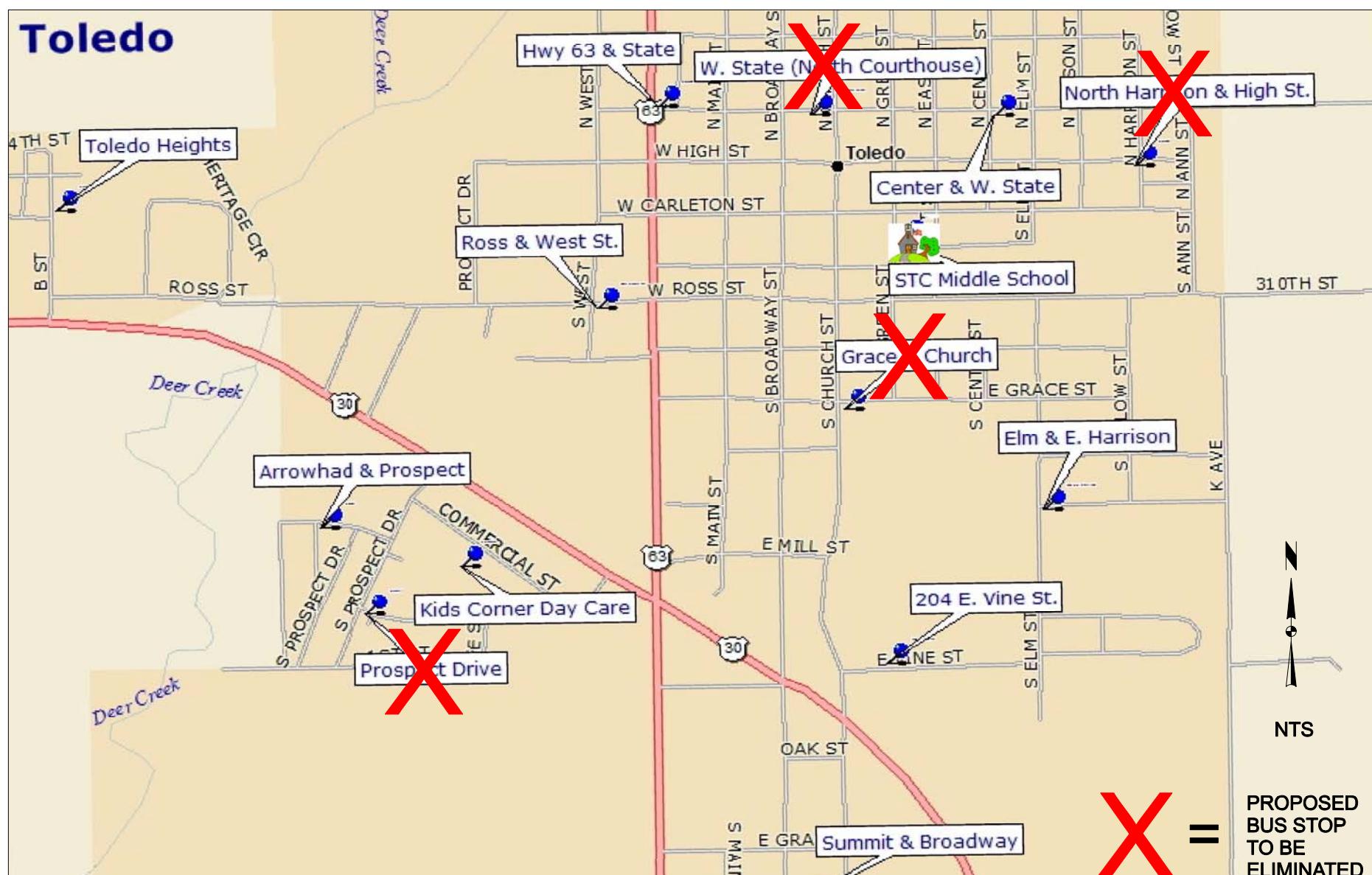
US 63 PEDESTRIAN CROSSING
WITH PEDESTRIAN ACTUATED
FLASHING BEACON WARNING SIGNS





X = PROPOSED
BUS STOP
TO BE
ELIMINATED

SOUTH TAMA COUNTY
COMMUNITY SCHOOL DISTRICT
BUS STOP LOCATIONS
CITY OF TAMA



X =
PROPOSED
BUS STOP
TO BE
ELIMINATED

SOUTH TAMA COUNTY
COMMUNITY SCHOOL DISTRICT
BUS STOP LOCATIONS
CITY OF TOLEDO

Appendix A

Encouragement and Education Programs

There are many resources available for a school or community members interested in creating programs to encourage a higher participation of students walking or biking to school. These “non-infrastructure” programs deal with the human side of Safe Routes to School and are necessary to make infrastructure projects successful.

While there are many resources regarding safe routes to school program, ranging from reports of individual schools’ experiences to private consulting walking to school advocates to larger programs, three quality resources to begin with are from the Iowa DOT, the National Center for Safe Routes to School (in association with the US Department of Transportation and Federal Highway Administration) and the American Automobile Association (i.e. Triple-A). Resources from these organizations most applicable to South Tama County Community Schools are highlighted and described below.

Iowa DOT

The Iowa DOT Safe Routes to School webpage has a number of links relating to all phases of the Iowa’s SRTS program.

< <http://www.iowadot.gov/saferoutes/> >

Encouragement Guide

The Iowa DOT’s new SRTS Encouragement Guide is very comprehensive and includes information about encouragement programs such as “kick-off events” as well as ongoing programs, and group activities like the walking school bus which is discussed more in the National SRTS section below. Also included in these sections are checklists for how to start these programs as well as sample forms a school may use for parental permission, etc.

< <http://www.iowasaferoutes.org/encouragement/index.htm> >

< Walking School Bus <http://www.iowasaferoutes.org/encouragement/ch1.pdf> >

Education Curriculum

The Iowa DOT with its partners has developed a Safe Routes to School educational curriculum component called “Iowa Kids on the Move”. This curriculum consists of 17 lessons, with suggestions for teachers as well as classroom materials that can be used. Lessons are arranged by subject and suggested classroom grade-levels are provided as well.

< <http://www.iowasaferoutes.org/kidsonthemove/> >

National Center for Safe Routes to School

SRTS Guide

The Safe Routes to School Guide is a comprehensive compilation of the experiences and lessons learned from SRTS programs nationwide with regard to all of “the 5 E’s” of safe routes to school projects: Engineering, Enforcement, Education, Encouragement and Evaluation. For this appendix, resources relating to Encouragement and Education are highlighted.

< <http://www.saferoutesinfo.org/guide/> >

Encouragement

Many schools find that part (or sometimes the whole) of a successful SRTS program is the “encouragement” aspect. These include programs to generate student excitement about walking to school and a form of “positive peer pressure”, as well as parental involvement to work with children about walking to school. Common encouragement strategies involve programs that create large group walk to school days as a way to “kickoff” the program, or ongoing programs where students walking/biking to school can be tabulated and perhaps rewarded with prizes, giveaways, etc.

< http://www.saferoutesinfo.org/guide/pdf/SRTS-Guide_Encouragement.pdf >

< http://www.saferoutesinfo.org/guide/encouragement/special_events.cfm >

< http://www.saferoutesinfo.org/guide/encouragement/mileage_clubs_and_contests.cfm >

Encouragement – Walking School Bus

A method that seems to have particular potential for South Tama would be the Walking School Bus program. The idea of a walking school bus is to replicate the main attributes of school bus routing but with students on foot. The level of organization can vary, but in general parent volunteers lead students down start at a designated point and proceed walking along a designated route, “picking up” more students at their homes/street corners along the way, until there is a train of students walking together.

The benefits of this are that it provides a group for students to walk in and in that way encourages participation, and also provides safety benefits. First, adult supervise the walk, especially crossing of streets. Second, the grouping of students makes them more visible to drivers. Third, this would help with parental worries about pedophiles and other dangers children might otherwise encounter walking alone. There are many resources online regarding the walking school bus, and the National SRTS center document is very thorough.

< http://www.saferoutesinfo.org/guide/encouragement/walking_school_bus_or_bicycle_train.cfm >

< http://www.saferoutesinfo.org/guide/walking_school_bus/pdf/wsb_guide.pdf >

American Automobile Association (AAA)

The American Automobile Association has a long history of working with specific school programs such as student crossing guards through the “school safety patrol”. Their websites below provide some information about education programs for students, parents and drivers, as well as Student Safety Patrol Guide.

< http://www.autoclubgroup.com/mnia/about_us/SchoolSafetyPrograms.asp >

< http://www.autoclubgroup.com/mnia/about_us/SchoolSafetyPatrol.asp >

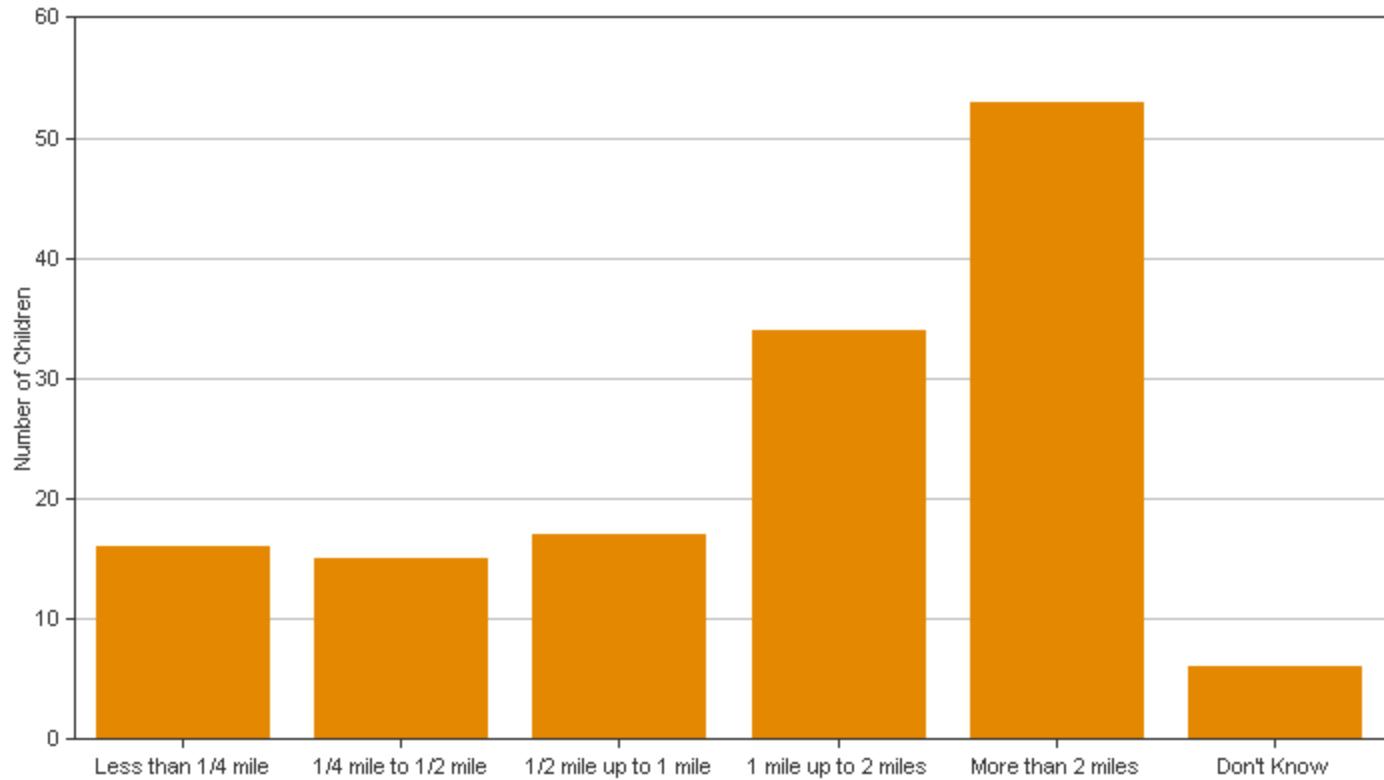
Appendix B

Parent Survey Summary Report:

Process Summary Information:

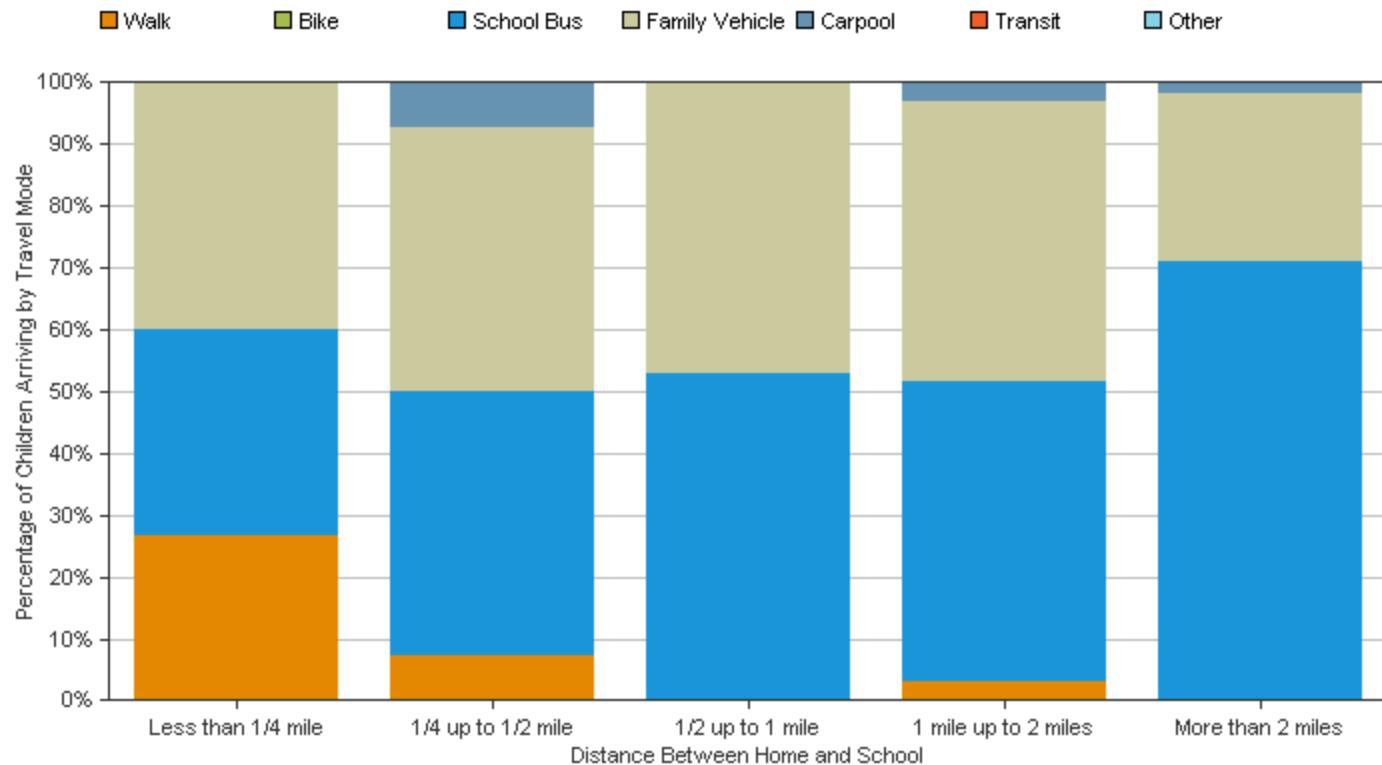
Program Name:	South Tama Schools	Survey Data Collected:	Spring2008
School Name:	South Tama Elementary	Data Collection Phase: (pre = Before program began mid = During program; post = After program ended)	other
Reported Enrollment:	709	Number of Surveys Distributed:	200
Date Report Generated:	04/09/2009	Number of Surveys in Report:	142

This report provides information from parents about their perceptions and attitudes on their child walking and bicycling to school. The data used in this report were collected using the Survey about Walking and Biking to School for Parents form from the National Center for Safe Routes to School.

Number of Children by Distance They Live From School:**Number of Children by Distance They Live From School:**

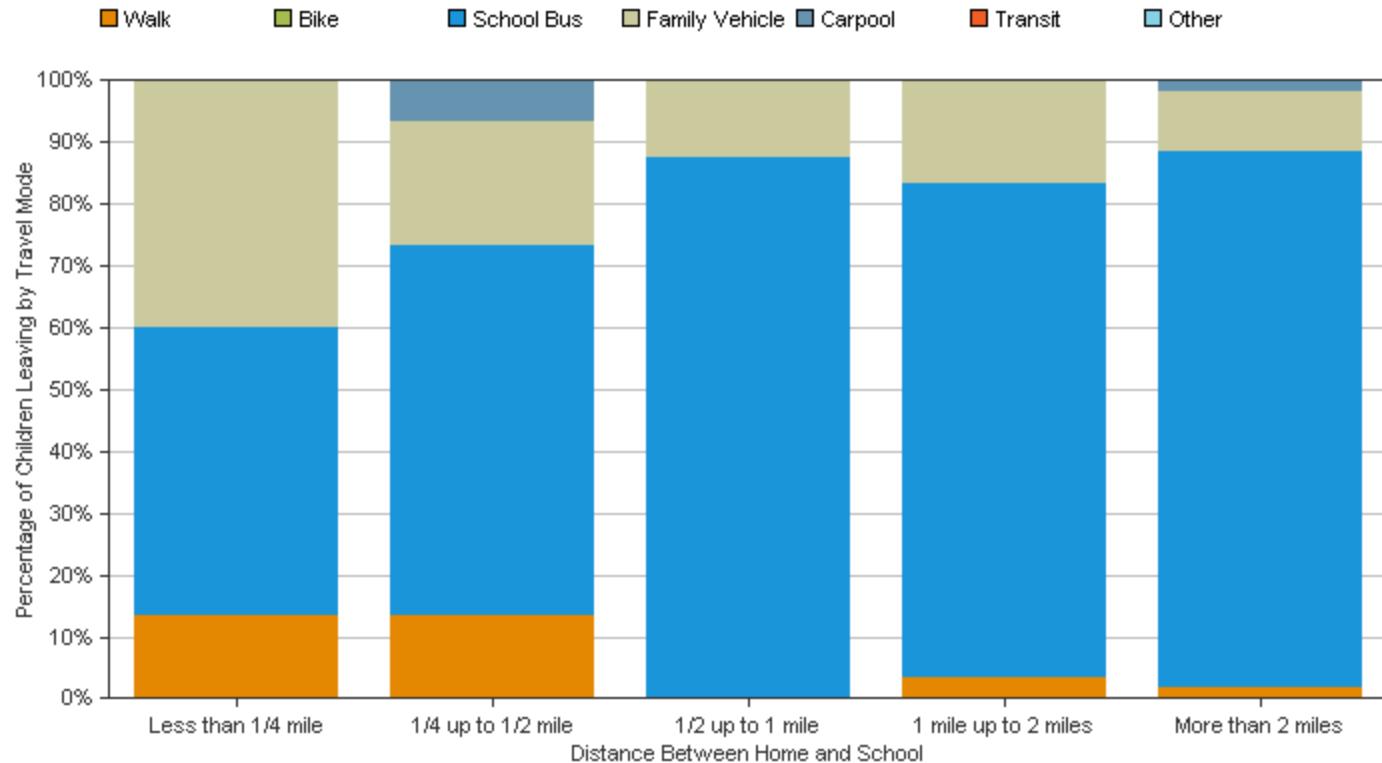
Distance from School	Number of Children
Less than 1/4 mile	16 (11.3%)
1/4 mile up to 1/2 mile	15 (10.6%)
1/2 mile up to 1 mile	17 (12.1%)
1 mile up to 2 miles	34 (24.1%)
More than 2 miles	53 (37.6%)
Don't know	6 (4.3%)
No response: 1	

(Percentages may not total 100% due to rounding.)

Percentage of Children by Travel Mode to School and Distance Between Home and School:**Number of Children by Travel Mode to School and Distance Between Home and School:**

Mode	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles	Row Totals by Mode
Walk	4 (2.9%)	1 (0.7%)	0 (0%)	1 (0.7%)	0 (0%)	6 (4.3%)
Bike	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
School Bus	5 (3.6%)	6 (4.4%)	9 (6.6%)	16 (11.7%)	37 (27.0%)	79 (57.7%)
Family Vehicle	6 (4.4%)	6 (4.4%)	8 (5.8%)	15 (10.9%)	14 (10.2%)	49 (35.7%)
Carpool	0 (0%)	1 (0.7%)	0 (0%)	1 (0.7%)	1 (0.7%)	3 (2.1%)
Transit	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Other	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Column Totals by Distance	15 (10.9%)	14 (10.2%)	17 (12.4%)	33 (24%)	52 (37.9%)	
No Response:	5					

(Percentages may not total 100% due to rounding.)

Percentage of Children by Travel Mode from School and Distance Between Home and School:**Number of Children by Travel Mode from School and Distance Between School and Home:**

Mode	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles	Row Totals by Mode
Walk	2 (1.5%)	2 (1.5%)	0 (0%)	1 (0.7%)	1 (0.7%)	6 (4.4%)
Bike	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
School Bus	7 (5.2%)	9 (6.7%)	14 (10.4%)	24 (17.9%)	45 (33.6%)	104 (77.5%)
Family Vehicle	6 (4.5%)	3 (2.2%)	2 (1.5%)	5 (3.7%)	5 (3.7%)	22 (16.3%)
Carpool	0 (0%)	1 (0.7%)	0 (0%)	0 (0%)	1 (0.7%)	2 (1.4%)
Transit	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Other	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Column Totals by Distance	15 (11.2%)	15 (11.1%)	16 (11.9%)	30 (22.3%)	52 (38.7%)	

No Response: 8

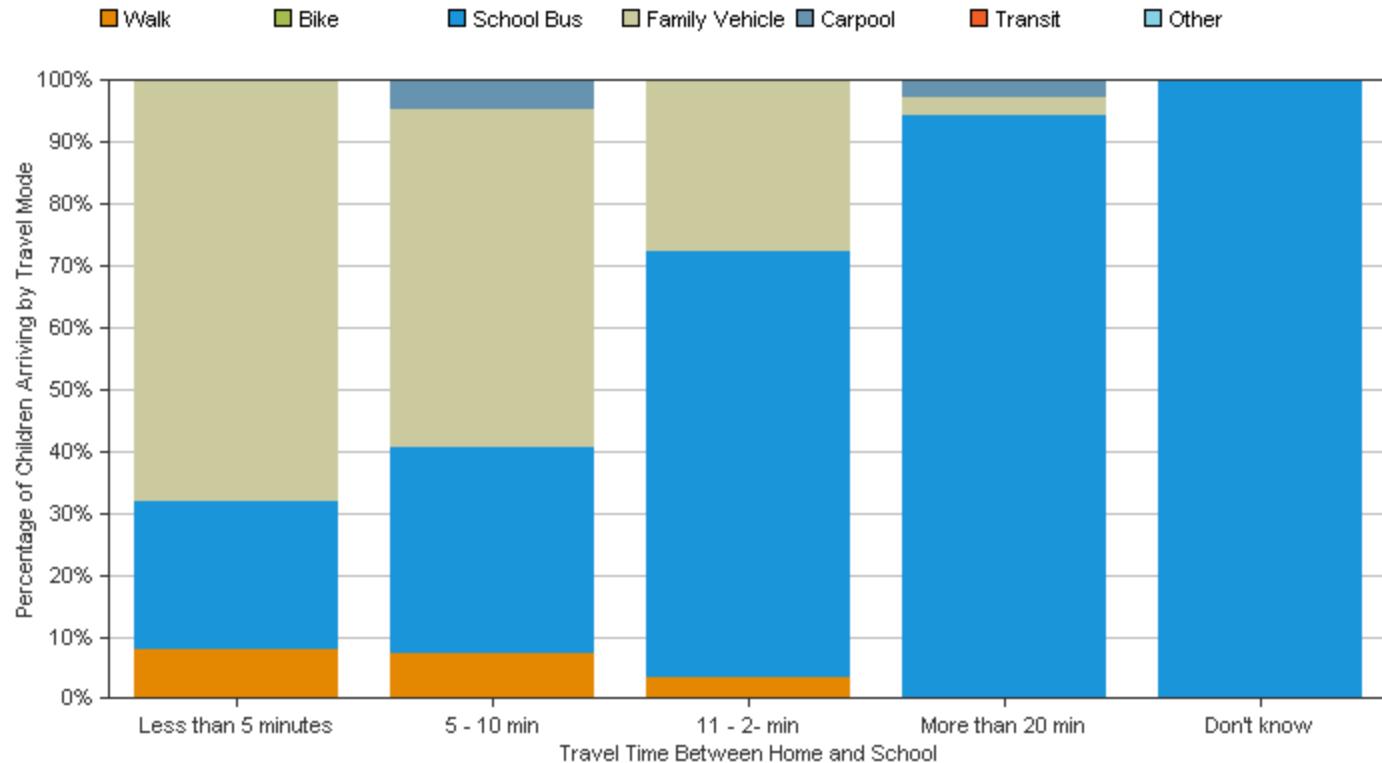
(Percentages may not total 100% due to rounding.)

Number of Children by School Arrival Travel Mode and Travel Time to School:

Travel Mode	Less than 5 min	5 - 10 min	11 - 20 min	More than 20 min	Don't know	Row Totals by Mode
Walk	2 (1.5%)	3 (2.2%)	1 (0.7%)	0 (0%)	0 (0%)	6 (4.4%)
Bike	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
School Bus	6 (4.4%)	14 (10.3%)	20 (14.7%)	34 (25.0%)	4 (2.9%)	78 (57.3%)
Family Vehicle	17 (12.5%)	23 (16.9%)	8 (5.9%)	1 (0.7%)	0 (0%)	49 (36%)
Carpool	0 (0%)	2 (1.5%)	0 (0%)	1 (0.7%)	0 (0%)	3 (2.2%)
Transit	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Other	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Column Totals by Time	25 (18.4%)	42 (30.9%)	29 (21.3%)	36 (26.4%)	4 (2.9%)	

No Response: 6

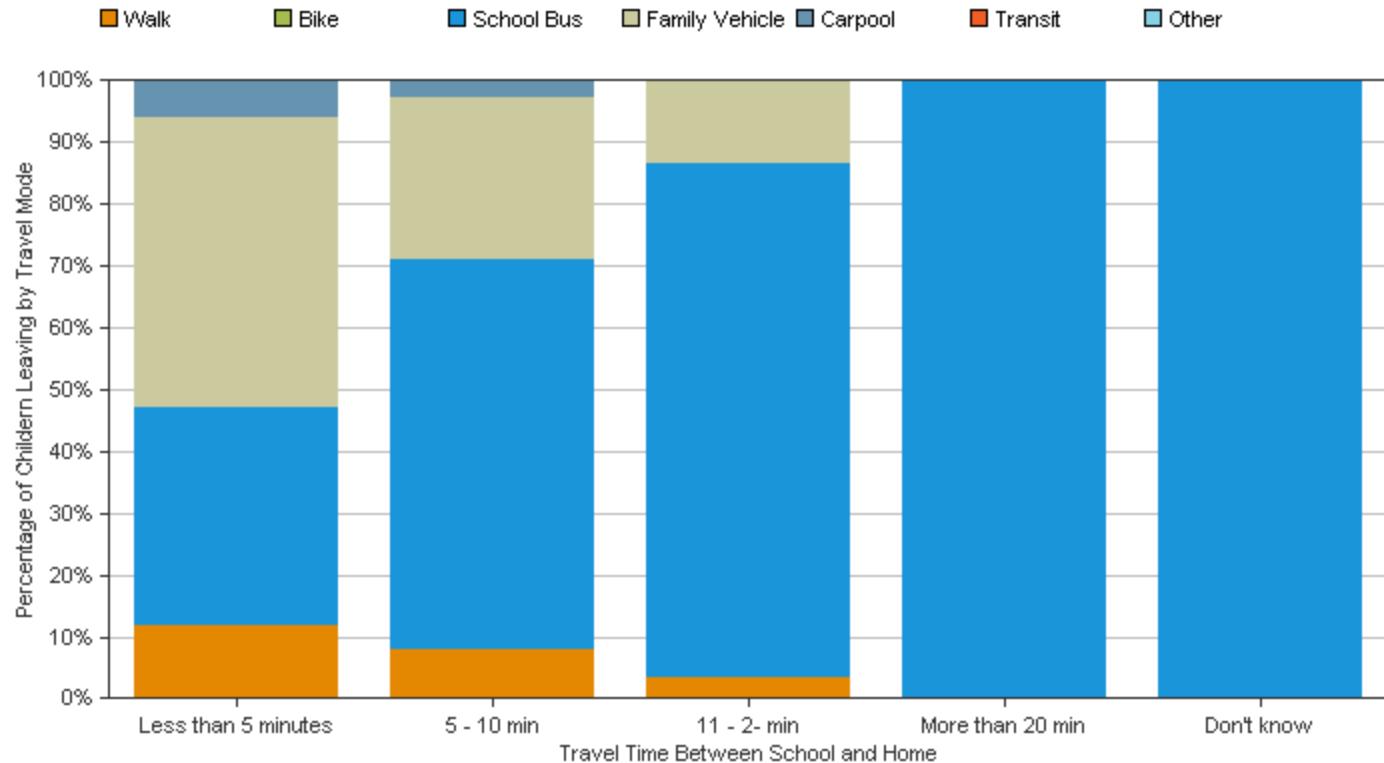
(Percentages may not total 100% due to rounding.)

Percentage of Children by Travel Time to School and School Arrival Travel Mode:**Number of Children by School Departure Mode and Travel Time from School:**

Travel Mode	Less than 5 min	5 - 10 min	11 - 20 min	More than 20 min	Don't know	Row Totals by Mode
Walk	2 (1.5%)	3 (2.2%)	1 (0.7%)	0 (0%)	0 (0%)	6 (4.4%)
Bike	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
School Bus	6 (4.5%)	24 (17.9%)	25 (18.7%)	44 (32.8%)	5 (3.7%)	104 (77.6%)
Family Vehicle	8 (6.0%)	10 (7.5%)	4 (3.0%)	0 (0%)	0 (0%)	22 (16.5%)
Carpool	1 (0.7%)	1 (0.7%)	0 (0%)	0 (0%)	0 (0%)	2 (1.4%)
Transit	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Other	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Column Totals by Time	17 (12.7%)	38 (28.3%)	30 (22.4%)	44 (32.8%)	5 (3.7%)	

No Response: 8

(Percentages may not total 100% due to rounding.)

Percentage of Children by Travel Time from School and School Departure Travel Mode:**Number of Children Who Have Asked Their Parent for Permission to Walk or Bike to/from School in the Last Year Separated by Distance They Live from School:**

Distance from School	Have Asked	Have Not Asked
Less than 1/4 mile	9 (6.5%)	7 (5.0%)
1/4 mile up to 1/2 mile	8 (5.8%)	6 (4.3%)
1/2 mile up to 1 mile	4 (2.9%)	13 (9.4%)
1 mile up to 2 miles	7 (5.0%)	27 (19.4%)
More than 2 miles	9 (6.5%)	43 (30.9%)
<i>No Response: 3</i>		

(Percentages may not total 100% due to rounding.)

Grade When Parent Would Allow Child Walk or Bike to/from School without an Adult Separated by Distance They Live from School:

Grade	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles
Kindergarten	1 (0.8%)	0 (0%)	0 (0%)	0 (0%)	1 (0.8%)
1st Grade	3 (2.4%)	1 (0.8%)	0 (0%)	0 (0%)	2 (1.6%)
2nd Grade	1 (0.8%)	2 (1.6%)	0 (0%)	0 (0%)	0 (0%)
3rd Grade	3 (2.4%)	1 (0.8%)	1 (0.8%)	0 (0%)	4 (3.2%)
4th Grade	2 (1.6%)	2 (1.6%)	1 (0.8%)	3 (2.4%)	2 (1.6%)
5th Grade	1 (0.8%)	4 (3.2%)	1 (0.8%)	9 (7.2%)	1 (0.8%)
6th Grade	1 (0.8%)	2 (1.6%)	0 (0%)	4 (3.2%)	7 (5.6%)
7th Grade	0 (0%)	0 (0%)	2 (1.6%)	5 (4.0%)	1 (0.8%)
8th Grade	2 (1.6%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Not at any Grade	2 (1.6%)	1 (0.8%)	12 (9.6%)	9 (7.2%)	27 (21.6%)
<i>No Response: 17</i>					

(Percentages may not total 100% due to rounding.)

Issues which Affect Parent's Decision to Allow or Not Allow Their Child to Walk or Bike to/from School Separated by Children who Do and Do Not Already Walk or Bike To/From School:

Issue	Child walks/bikes to school	Child does not walk/bike to school
Distance	8 (88.9%)	93 (69.9%)
Convenience of driving	0 (0.0%)	9 (6.8%)
Time	4 (44.4%)	26 (19.5%)
Before/after-school activities	2 (22.2%)	7 (5.3%)
Traffic speed along route to school	3 (33.3%)	82 (61.7%)
Traffic volume along route	4 (44.4%)	90 (67.7%)
Adults to walk/bike with	0 (0.0%)	21 (15.8%)
Sidewalks or pathways	6 (66.7%)	53 (39.8%)
Safety of intersections & crossings	2 (22.2%)	81 (60.9%)
Crossing guards	1 (11.1%)	36 (27.1%)
Violence or crime	0 (0.0%)	55 (41.4%)
Weather or climate	5 (55.6%)	56 (42.1%)
Number of Respondents Per Category	9	133
<i>No Response: 0</i>		

(Percentages may not total 100% due to rounding.)

For Parents Whose Children Do Not Walk or Bike to/from School, Number of Parents Responding to question: Would You Probably let Your Child Walk or Bike to/from School Issues Were Changed or Improved?

Issue	Number of parents reporting that:		
	Change Would affect decision	Change Would Not affect decision	Not Sure if change would affect decision
Distance	43 (32.3%)	50 (37.6%)	18 (13.5%)
Convenience of driving	13 (9.8%)	27 (20.3%)	10 (7.5%)
Time	14 (10.5%)	34 (25.6%)	12 (9.0%)
Before/after-school activities	13 (9.8%)	22 (16.5%)	6 (4.5%)
Traffic speed along route to school	37 (27.8%)	45 (33.8%)	20 (15.0%)
Traffic volume along route	44 (33.1%)	44 (33.1%)	21 (15.8%)
Adults to walk/bike with	23 (17.3%)	26 (19.5%)	10 (7.5%)
Sidewalks or pathways	40 (30.1%)	26 (19.5%)	8 (6.0%)
Safety of intersections & crossings	47 (35.3%)	34 (25.6%)	15 (11.3%)
Crossing guards	26 (19.5%)	27 (20.3%)	12 (9.0%)
Violence or crime	24 (18.0%)	35 (26.3%)	13 (9.8%)
Weather or climate	21 (15.8%)	38 (28.6%)	12 (9.0%)

Number of Respondents That Selected at Least 1 Issue: 133

No Response: 0

(Percentages may not total 100% due to rounding.)

Number of Parents Who Feel Their Child's School Encourages or Discourages Walking and Biking to/from School:

	Strongly Encourage	Encourage	Neutral	Discourage	Strongly Discourage
Number	4 (3.1%)	12 (9.2%)	102 (77.9%)	6 (4.6%)	7 (5.3%)
<i>No Response: 11</i>					

Number of Parents Reporting the Level of Fun Walking and Biking to/from School is for Their Child:

	Very Fun	Fun	Neutral	Boring	Very Boring
Number	18 (14.3%)	48 (38.1%)	57 (45.2%)	2 (1.6%)	1 (0.8%)
<i>No Response: 16</i>					

Number of Parents Reporting How Healthy Walking and Biking to/from School is for Their Child:

	Very Healthy	Healthy	Neutral	Unhealthy	Very Unhealthy
Number	76 (57.6%)	44 (33.3%)	12 (9.1%)	0 (0%)	0 (0%)
<i>No Response: 10</i>					

Parent Comments

This table displays the comments provided by parents as part of this Parent Survey. These comments have been entered in two ways — they may have been entered by the local program, or they may have been scanned and processed by the National Center for Safe Routes to School (NCSRTS). Comments scanned and processed by NCSRTS may have not been edited for content, spelling, and other typographical errors that may have as part of the scanning and handwriting recognition process.

Comments from: South Tama Elementary

SurveyID	Comment
48924	We would worry still, about strangers that would know walking patterns fo some kids if they are walking alone or that their bike would get stolen.
48928	walks with older sibling
48929	If we lived 2 miles out in the country it would be OK for him to ride bike
48931	bus route only-walking not an option
48937	The sidewalks are nice but they need to be cleared of snow with a path to the street.
48940	walks from daycare
48944	My daughter ride bus from old primary building side. It would be convient for a bicycle rack to be there? so she could still ride bus from there?
48947	We are headed to middle school and we need a shuttle from tama.
48951	Difficult to allow kids to bike/walk to school due to safety issues and for parents that are to be at work at 8AM or earlier they have to wonder if child made it safetly to school. Need places to store bikes at school.
48953	I just don't feel safe leaving this responsibility to my child - too much could happen.
48956	My children live 2 blocks from school then ride the bus to the elementary. I don't think I would ever be comfortable letting them ride their bikes taht far with the traffic
48957	I would let the kids walk if they were in groups with older kids so that they were all safe.
48959	Have not lived long in the area to truthfully answer these questions
48960	just want my child to come home safe so they ride the bus.
48963	My biggest concern is kids being picked on by others (no adults to help), abduction, hwy 63 going through many strangers, and distance
48966	Due to the distance that we live from the school, under NO circumstances will our children be walking or biking to or from school
48967	We live more than 2 miles away, our only route to school would be via a highway. So more than likely we will never be able to send our kids on their bikes or walking.
48969	I like how the school has the walkers wait to leave for home until after the bus and pick up traffic has thinned out.
48977	Biggest problem, personally, is that my sophmore also cannot safely walk/bike to school and has a schedule taht won't permit her to ride the bus. So, frequently I have to drive all 3 of my kids to school (3 different centers) because of timing.
48980	My children would walk now if there wasn't mud on the new sidewalk. I feel there needs to be a cross walk or crossing guard for kids crossing highway

63928	We live near the old primary site. I feel this bus stop is very dangerous. There are a large amount of students getting on here and no supervision. I wish there were more stops in our area so there would be less students at one site.
63934	We live in the country so our kids won't ever walk or ride bikes to school. But if there were more sidewalks and crossing guards, the town kids could walk/ride
63941	She walks with parents to/from school
63971	We live 25 miles out. We've never discussed this issue
63972	I feel taht children are taught stranger danger in very young grades, but should also be taught for a few days every year to remind the kids of what this really means! and to remind them of the rules
63986	I walked to school when I was in high school, but things are different now than they were 20 years ago, so I probably wouldn't let my kids walk to school.
63987	We live too far to have children walk or bike to school safely
63992	My child only walks if it's nice out
64155	We live outside city limits on a gravel road. If we live a resonable distance from school, I would allow my child to walk/bike to school
64164	There are no crossing guards on 63 or Crosswalk. this needs to change immediatly! There are alot of children crossing this street without and crosswalk where the new sidewalk is.
64167	My child rides to work with me
64168	Alot of these questions I have never thought about because we live out of town. Never had kids ride or walk to school
64170	I would love to see a bike/walk overpass bridge over hwy 63 to the Elementary.
66236	I was wondering about crossguards. The old primary had them so why don't they have them now? Also, the road into the new elementary school, will there be another road? It seems very crowded with just one and not safe.
66242	We live in Toledo. The elementary does not have a safe line of travel from Toledo - no sidewalk - and the highway divides. the only sidewalk to elementary is from south - now addition. parking at the Elementary, and the inlet/outlet is very congested with would make it unsafe for small children even if they live close.
66465	I strongly feel that the children should walk who live close the the school. Maybe if there was a crosswalk somewhere on the highway more parents would be willing to let their children walk.
66469	Lives in the country

End of Report