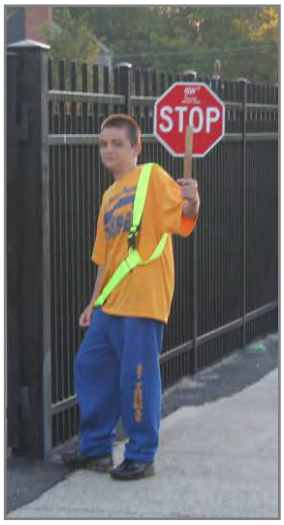
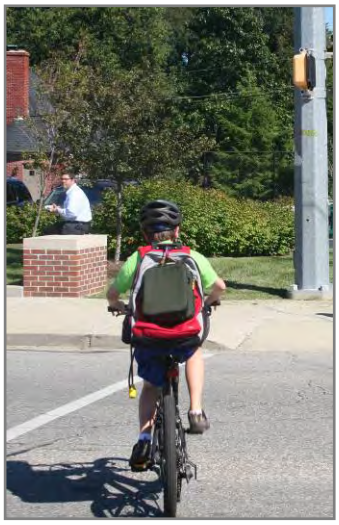
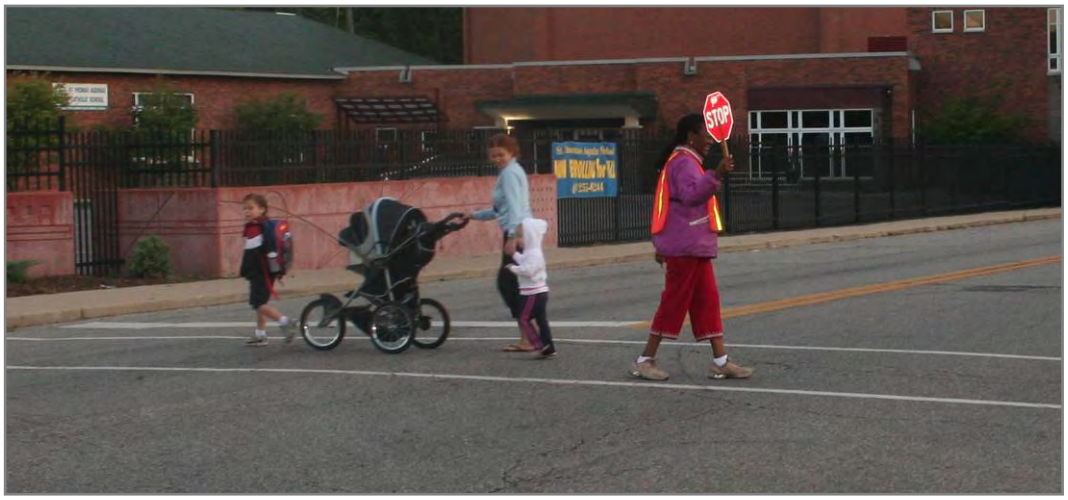
St. Thomas Aquinas Safe Routes to School Plan

February 10, 2009







PB 100 YEARS

LSL Planning, Inc.
Community Planning Consultants

Table of Contents

Appendices

A. Spring 2007 Parent and Student Survey Results
B. Existing Infrastructure Analysis and Proposed Signal Timings
C. Public Input
D. Safety Education Resources
E. American Automobile Association (AAA) School Crossing Guard Guide
F. Adult Crossing Guard Guide
G. Sample Pedestrian and Bicycle Safety Tips
H. 2009-2010 STA Bike/Walk Routes (for planning)
I. 2009-2010 STA Bike/Walk Route Map (for distribution)
J. Walk to School Day Resources
K. Walking School Bus Guide
L. Frequent Walker / Biker Program Tips
M. McGruff House Program Information
N. Infrastructure Assessment Worksheets
O. Proposed Improvements to Illinois Street
P. School Zone Signage / Pavement Marking
Q. Signage Plan
R. Bicycle Parking Guide
S. Proposed Pick-Up / Drop-Off Procedures
T. Liability Tip Sheet

1.0. Introduction

St. Thomas Aquinas Catholic School (STA) has recently completed a planning effort to identify ways to increase the numbers of students who choose to walk and bike to school. The following document is a plan for how STA can achieve this goal and provides details on the process, findings and recommendations of the final plan. The plan has been produced in accordance with the National Center for Safe Routes to School's Guide and with input from the public, the school community, and various public agencies.

1.1. PROJECT BACKGROUND

The National Safe Routes to School program is a component of the SAFETEA-LU transportation bill which was signed into law in August 2005. It provides $612 Million in funds for projects to be completed throughout the United States between 2005 and 2009. The funds are distributed to the states in proportion to the number of primary and secondary students in the state, with no state receiving less than $1 Million per year. The Indiana Department of Transportation is responsible for administering these funds in Indiana.

Indiana has apportioned approximately 70 to 90 percent of their funds for infrastructure projects, including for installation of sidewalks, traffic calming measures, traffic signals, crosswalks, or other constructible elements. The remaining 10 to 30 percent of funds available each year are being directed to non-infrastructure projects which may include development of plans, implementation of programs, or educational training or activities.

Over the last 30 years, the number of students who choose to walk or bike to school has been diminishing. In 1969, 87 percent of children age 5 to 18 who lived within a mile of school chose to walk or bike. In 2001, that number had dropped to 63 percent[1]. The reasons for this decline include:

- parental perception of safety,
- a trend for locating schools in rural or ex-urban locations where bicycle and pedestrian infrastructure

[1] Safe Routes to School Guide,; www.saferoutesinfo.org; Pedestrian and Bicycle Information Center, Federal Highway Administration, National Highway Transportation Safety Administration, Centers for Disease Control. Institute of Transportation Engineers, and the National Center for Safe Routes to School

is not as developed, land uses are less mixed, and students live further away,

- traffic congestion around school sites contributes to unsafe walking / bicycling conditions, and
- individual school policies have been put in place oppose walking or biking to school.

Studies have linked decreased walking and biking to a variety of community ills, including increased health risks such as childhood obesity and diabetes, environmental air quality and noise concerns, and even the developmental health of our children.

The Safe Routes to School program is a result of a growing awareness that a decrease in the number of children walking and biking to school has had some unintended consequences and it attempts to provide one means for combating those issues. Safe Routes programs are intended to increase walking and biking to school through the analysis and assessment of five basic elements:

- Education
- Encouragement
- Engineering
- Enforcement
- Evaluation

1.2. ST. THOMAS AQUINAS INITIATIVE

STA received funding in 2008 from the Federal Safe Routes to School (SRTS) Program in order to develop this plan. Funding is restricted to non-infrastructure uses and as, such, can be used for planning and/or implementation of non-infrastructure recommendations only.

STA is located at the corner of 46th Street and Illinois Street, in an urban neighborhood on the north side of Indianapolis, Indiana. The school currently experiences multiple barriers to walking and bicycling, such as gaps in the presence of sidewalks, high volume / high speed roadways in close proximity to the school, and crime - both real and perceived. A survey of students and parents was conducted in 2007 which found that approximately 20% of STA students walk or bike to school. Compared with the more than 85% of their students living within a two-mile radius,

the school administration believes that the potential for increased bicycling and walking exists.

The STA Safe Routes to School Planning process was facilitated by engineering and planning consultants for the school. Principal Jerry Flynn led the initiative, with involvement from the School Commission members.

Source: www.ncsrts.org

2.0. Program Goals

The goal of the STA Safe Routes to School Plan is to identify ways in which to increase the numbers of students choosing to walk and bike to STA. Currently about 20% of STA students walk or bike to school, although the school has more than 85% of their students living within a two-mile radius. The plan elements have been developed to maximize the number of students who choose to walk and bike to school. Where conditions are safe, the program strives to gets kids walking and biking to school through encouragement and special activities. Where conditions are not safe or could be safer, the program recommends ways to correct the shortcomings. The four program elements which are used to achieve this goal are:

Education. Education initiatives are utilized by the Safe Routes to School plan to create safety awareness, impart safety skills, and foster life-long safety habits. These initiatives are often focused on the students who will be walking and biking, but can also incorporate parents, neighbors, and other drivers.

Encouragement. Encouragement activities help increase children's interest in walking and biking by providing programs that emphasize the fun and healthful aspects of biking and walking to school. Encouragement activities may be comprised of contests, special activities, giveaways, or prizes, among other things.

Engineering. Engineering measures are physical improvements that create safer conditions for bicyclists and walkers. Traffic signals, traffic calming measures, sidewalks, multi-use paths, and curb ramps are just a few of the many improvements that fit within this category.

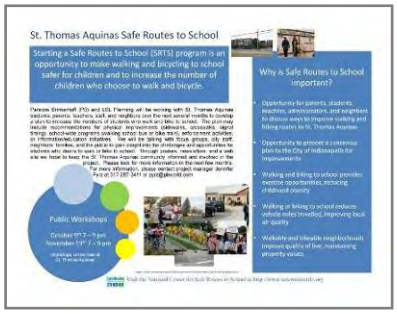
Enforcement. Enforcement activities often require cooperation from police or other law enforcement officials. Enforcement activities can be used to increase awareness of pedestrian and bicyclists, improve driver behavior, or help children and their parents follow traffic rules.

The Safe Routes to School plan provides a list of recommended strategies that are specific to the unique needs of STA. Not all of the recommended strategies will be implemented exactly as originally conceived, but the spirit and intent of the plan should be maintained as much as possible The plan should be used as a guide for future decisions, but should also be evaluated periodically to identify whether the program goals are being met and what might be done to improve the plan's impact. STA school administrators and STA and church leaders should be encouraged to be creative in the implementation of the recommendations from the perspective of funding, timing, and also detail.

3.0. Public Involvement

A Safe Routes to School plan and the resulting recommendations affects not only the students, but parents, teachers, school officials, and neighbors. In the case of St. Thomas Aquinas, the outcome will also affect the church. To establish a solid understanding of what the issues are, where there is consensus, and how the plan recommendations will affect the various stakeholders, public involvement was a significant portion of this planning process. The involvement opportunities included information sharing, focus groups, Public Workshop-in-a-Box™, KidSpeak, and a community workshop.

3.1. INFORMATION SHARING



A SRTS Poster was displayed at Sausagefest and outside the main office of the school.

The planning process was kicked-off in August 2008 with the school's annual Sausagefest. A poster introducing Safe Routes to School and the STA project was displayed at the ticket booth along with brochures about the project for participants to take home. The dates of the two public workshops were provided in both formats. After the event, the poster was moved to a location just inside the front entrance to the school and beside the main office, where it remained for the duration of that semester.

The project was further publicized to parents at STA's Back to School Night. Consultants made a brief presentation about the project. At the open house that followed, brochures were made available and parents were encouraged to ask questions and sign-up to participate in the focus groups.

Providing information on the school's intranet was also part orf the information sharing effort. The intranet site included meeting information, contact information, preliminary assessments, and

The St. Thomas Aquinas website was updated with current information about the planning process.

preliminary recommendations. The information was updated periodically as the project evolved. The final plan will be posted to the site.

Finally, articles for the weekly school newsletter were provided before each of the public involvement opportunities and after the recommendations had been finalized in an effort to keep parents (and students) informed about and involved in the plan's progress.

Safe Routes to School – Get involved!

St. Thomas Aquinas recently received a grant and is in the process of developing a Safe Routes to School plan using this funding. The process was kicked off at the beginning of the school year with a poster and brochures about the program at Sausagefest, a brief introduction to the project on Back to School Night, a walking tour of the site with leaders from the school and the community, and four focus group meetings. The four focus groups that were conducted included participation by teachers, school and church officials, parents, and neighbors. A public workshop was held on October 9th to introduce the project to the public and provide an opportunity for parents and neighbors to voice their opinion.

The opportunities to provide input into the project will continue on Wednesday, November 19th at 7:00 pm with a public workshop. The workshop is designed to share the recommendations of the project team related to walking and biking to St. Thomas and provide an opportunity for comments. Everyone is welcome, including parents, neighbors, church members, and all interested citizens. We hope you will join us!

Join us for the public workshop November 19th at 7:00 pm at St. Thomas Aquinas!

Recommendation Areas:
- *Education*
- *Encouragement*
- *Enforcement*
- *Engineering*

The project involves data collection, analysis, and development of recommendations in the areas of education, encouragement, enforcement, and engineering. The project consultants, Parsons Brinckerhoff and LSL Planning, will refine the recommendations and train key people on the proposed programs.

We anticipate having a draft plan before the end of the year with the final plan and training sessions released early in 2009. The goal is to test implementation of some recommendations in the spring, and be ready to roll out a number of programs next fall.

Through the 2005 passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Congress designated a total of $612 million toward developing the National Safe Routes to School Program. Monies are distributed to the states and provided to schools and government agencies through a competitive application process. The program is intended to help schools and communities plan and provide safer routes for children to walk or bike to school. There are two types of projects that can be awarded grants, non-infrastructure (including plans) and infrastructure (sidewalks, paths, bike lanes, traffic diverters, signals, etc.).

If you have questions about the program or would like more information, please contact project manager Jennifer Pyrz, PE at (317) 287-3411 or pyrz@pbworld.com. We look forward to receiving your input on October 9th!

Project summaries were sent out to parents via the weekly school newsletter.

3.2. KICK-OFF MEETING AND TOUR

At the beginning of the 2008-2009 school year the consulting team held a kick-off meeting with parents, neighbors, School Commission members, and city representatives to introduce the project planning process and schedule. Following the meeting the group took a walking tour of the school grounds and immediate vicinity to identify key issues. Some of the issues identified were:

- Timing of traffic signal at 46th and Illinois
- Timing of signal at 46th and Meridian
- Garbage cans on the sidewalks, blocking a safe walking plan
- Incomplete sidewalks on Illinois
- Lack of sidewalk on north side of 46th Street

3.3. FOCUS GROUPS

First hand information from those who are key stakeholders is the best way to understand the issues when developing a plan for a small area, like the St. Thomas Aquinas neighborhood. Stakeholders for this project were identified as the teachers, parents, school and church officials, and neighbors.

Teachers participating in the focus groups were primarily from the lower grades, especially kindergarten. Their concerns were focused on safety. Dress code, backpacks, and similar issues are not significant barriers to walking and biking to school according to the teachers. The teachers feel that there is a great group of parent volunteers and that they have a lot of support from the parents. Physical activity is incorporated into the curriculum on a regular basis through recess, sports, and programs like the mileage club.

The project kick-off meeting included a walking tour of the site and its surroundings.

Specific safety concerns cited by the teachers included:

- Students and parents not crossing at the light, but instead crossing mid-block (Illinois in the afternoon, 46th Street in the morning), often entering street from between parked cars.
- Turning vehicles conflicting with pedestrians/bicyclists - both at the signals and at the parking lot entrances.
- Playground monitors not looking for cars before chasing balls into the street.
- Cars backing out of driveways and not seeing passing pedestrians and bicyclists.
- Speeding traffic during school hours, with the problem being worse in the afternoons.
- Blocked trafficon Illinois during the morning drop-off and people turning left when exiting the parking lot instead of going around the block.

Most of the parents who participated in the focus group have children who are currently biking or walking to school. Some families have rules about when the students can get a ride to school, such as in case of very cold or inclement weather in the winter. They indicated that there is some stigma associated with not biking or walking to school for most students and said the primary factor for people not biking or walking was distance. Some felt that having to cross Meridian Street from the Meridian-Kessler neighborhood was a problem due to the traffic volume and speed, especially for the youngest students.

School and church leadership has expressed concerns about the pick-up and drop-off procedures from the beginning of the project and this continued to be a main topic of discussion in that focus group. Concerns are primarily related to children crossing the path of traffic to get from the Governor's parking lot to the school and general circulation for both cars and students on-site. The school has a good relationship with the Indianapolis police and fire departments and has hosted safety programs in the past, though all agreed that this practice needs to be more frequent. Sharing parking between the school and church can be problematic at specific times such as Morning Prayer when the school gate is closed and during funerals.

Neighbors, particularly those in the Butler-Tarkington and Meridian-Kessler neighborhoods, were included as a focus group

because changes, particularly in the engineering category, could affect neighboring properties in both positive and negative ways. Both neighborhoods have active, organized neighborhood associations. Another group, focused specifically on Meridian Street, has also recently been organized as HARMONI. These groups were invited to participate during all stages of the public involvement process. There was a consistent feeling among the different groups that the students are not destructive to property and are generally respectful when they are walking to school. Concerns for biking and walking that this group identified were:

- Traffic speeds on adjacent roadways.
- Personal safety of the children. Parents are uneasy about kids becoming prey to sex offenders or kidnappers.
- Protection afforded by the existing sidewalks. There are no tree lawns on most streets to protect kids and garbage cans on sidewalks sometimes force children to walk in the streets.
- Traffic volumes, including truck traffic on Meridian Street.
- Express buses using Illinois Street.
- Lack of crossing guard or pedestrian-activated signal at the intersection of 46th and Meridian Streets.
- No eastbound left turn signal at the intersection of 46th and Meridian Streets.
- Narrow sidewalk on 46th Street .


SRTS Safe Routes to School

Public Workshop

October 9, 2008, 7:00 pm—9:00 pm | 4000 N. Illinois St.

Neighbors | Parents | School and Church Leaders

Neighbors — Butler-Tarkington, Meridian Kessler, HARMONI

Parents — All ages and grades

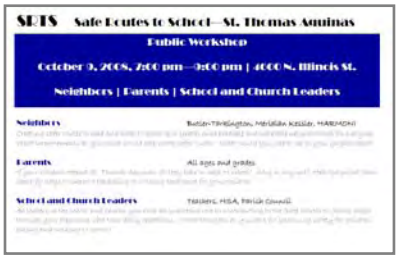
School and Church Leaders — Teachers, HSA, Parish Council

St. Thomas Aquinas School | 4000 N. Illinois St. | Indianapolis, IN 46208

Flyers announcing the first public workshop were posted at several local businesses.

3.4. PUBLIC WORKSHOP-IN-A-BOX™

Public Workshop-in-a-Box™ is a method for small groups to meet and discuss issues in a planning process. A modified version was used for the Safe Routes planning process with the consulting team facilitating the small groups during a larger workshop. Marketing for the workshop began a month prior to the October 9, 2008 workshop. The marketing included posters at neighborhood locations, targeted e-mails to parents, neighbors, media, and community leaders. The media invited included TV, radio, and newspapers and newsletters. Community leaders invited included representatives from the Mayor's Liaison program under the Department of Metropolitan Development, Department of Public Works, Indianapolis Metropolitan Police Department, Indiana Department of



Targeted emails were sent out to announce the first workshop to invite media, city representatives, and community leaders.

Transportation, Indianapolis City Council, Indiana House and Senate, and US Congress. Invitations were also extended to the principals of nearby elementary and middle schools, both public and private. Since the Governor's mansion is in the neighborhood and the church and school use the mansion parking lot at the intersection of Illinois and 46th Streets, the Governor and First Lady were also invited to participate.

The workshop began in the church with a presentation by the consultant team about the Safe Routes to School program and the information to date on the St. Thomas project. Following the presentation, participants moved into the church narthex to participate in the Workshop-in-a-Box™ discussions. Each table was facilitated by a member of the consulting team.

Responses to the questions asked in the process are included in Appendix C. Participants echoed many of the same concerns that were voiced in the earlier focus groups and kickoff meeting. Traffic volume and speed, inadequate infrastructure, and dangerous intersections were top concerns of the parents, neighbors, and city officials who attended.

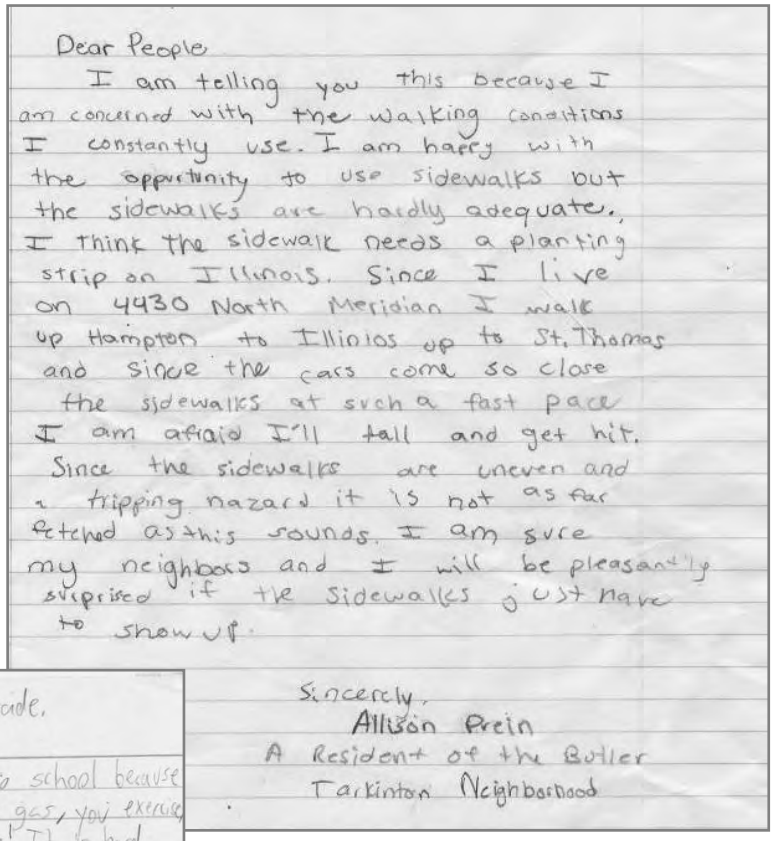
15 students participated in Kidspeak.

3.5. KIDSPEAK

Safety for the students is the primary goal of a Safe Routes to School plan, so the students had an opportunity to share their opinions. Approximately 15 students in grades one through eight were invited to participate in a two-hour session on an early-release day, October 7, 2008. The students participated in a number of activities including a "quiz" on biking and walking safety, group mapping of concerns and ideas, and developing a Top 10 Reasons to Bike or Walk to School.

Generally the students identified many of the same issues as the parents did regarding the sidewalk gaps, desire for planting strips between the sidewalk and the street, and crossings. The students did have some bold solutions including pedestrian bridges over Meridian at key locations. They also confirmed that a gap does exist in providing education on safe walking and bicycling. At the end of the session, each student was asked to write a paragraph about walking and biking to school. A sample of the students' work is presented below:

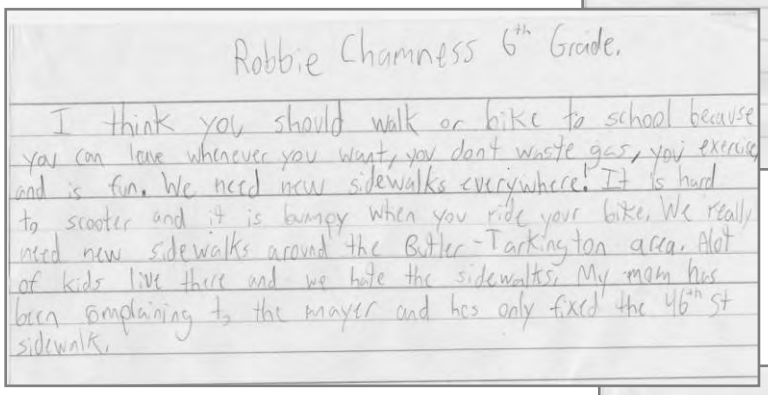
At the end of the KidSpeak session, students were asked to write a paragraph about walking and biking to school.



Dear People

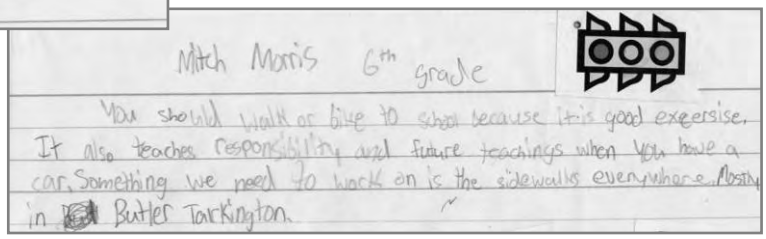
I am telling you this because I am concerned with the walking conditions I constantly use. I am happy with the opportunity to use sidewalks but the sidewalks are hardly adequate. I think the sidewalk needs a planting strip on Illinois. Since I live on 4430 North Meridian I walk up Hampton to Illinois up to St. Thomas and since the cars come so close the sidewalks at such a fast pace I am afraid I'll fall and get hit. Since the sidewalks are uneven and a tripping hazard it is not as far fetched as this sounds. I am sure my neighbors and I will be pleasantly surprised if the sidewalks just have to show up.

Sincerely,
Allison Prein
A Resident of the Butler Tarkinton Neighborhood



Robbie Chamness 6th Grade.

I think you should walk or bike to school because you can leave whenever you want, you don't waste gas, you exercise and is fun. We need new sidewalks everywhere. It is hard to scooter and it is bumpy when you ride your bike. We really need new sidewalks around the Butler-Tarkington area. Alot of kids live there and we hate the sidewalks. My mom has been complaining to the mayer and has only fixed the 46th st sidewalk.



Mitch Morris 6th grade

You should walk or bike to school because it is good exeersise. It also teaches responsibility and future teachings when you have a car. Something we need to work on is the sidewalks everywhere. Mostly in Butler Tarkington.

3.6. COMMUNITY WORKSHOP

Following development of the preliminary recommendations, a community workshop was held at the church to present the recommendations and solicit comment on them. The workshop was held on November 19, 2008. Marketing for this workshop included a targeted e-mail campaign to parents, neighbors, agency and elected officials, and the media. Invitations were also extended to the principals of nearby elementary and middle schools, both public and private. The meeting information was

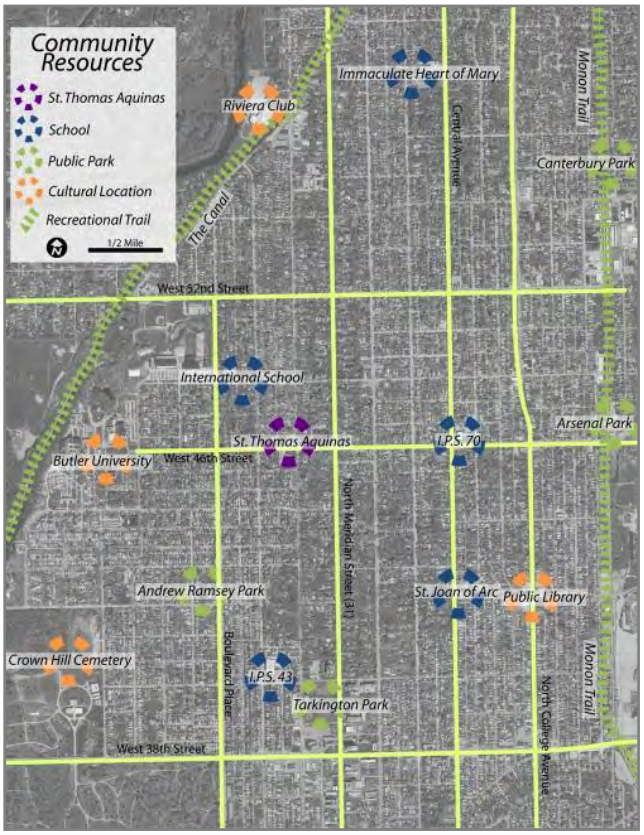
also included in a school newsletter column and on the school's intranet.

The consulting team presented the recommendations while participants recorded whether or not they supported each. The participants were able to ask questions of the consulting team throughout the presentation. The members of the School Commission were asked to review the recommendations and comment following the meeting.

The public involvement process as a whole provided input from a wide variety of stakeholders including students, parents, neighbors, government agency representatives, and representatives from neighboring schools. The input that was provided was used to target locations for detailed analyses and to build a plan of recommendations to meet identified needs.

4.0. Analysis of Existing Conditions

St. Thomas Aquinas enrolls students from throughout Indianapolis and, in some cases, neighboring counties. The majority of students do, however, live within walking and biking distance of the school. Approximately 70% of students live within two miles of STA and 48% live within ½ mile. The school is located in an urban neighborhood with many outstanding community resources within walking / bicycling distance, including Butler University, libraries, parks, community centers, and trails. The urban infrastructure facilitates walking and bicycling in most cases, but improvements can still be made.

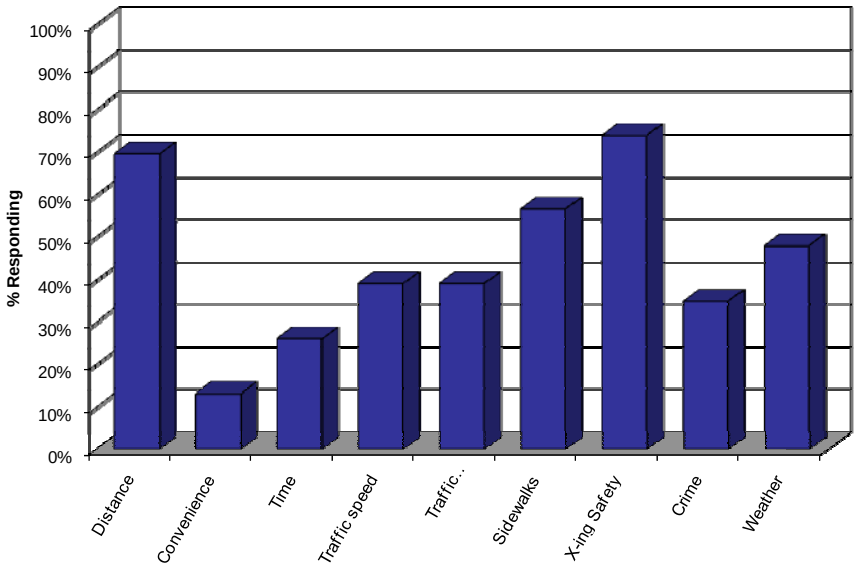


4.1. Current Walking and Biking Levels

According to a survey of parents and students conducted in spring 2007, approximately 17% of students currently walk to STA and another 5% bike. Of those parents responding to the take-home survey, approximately 65% indicated that their children had asked for permission to walk or bike to school in the last year. This result indicates that a significant potential for increased walking and biking exists at STA. A summary of the survey results is provided in Appendix A.

For those parents who do not allow their children to walk or bike to school, crossing safety was identified as the major reason for this decision. More than 70% of surveyed parents indicated that the safety of their children crossing roadways was a critical concern. Other concerns that ranked high for these parents included distance, sidewalks (condition or presence), and weather.

2007 Parent Survey Results - Existing Barriers to Biking and Walking



The existing bike racks are located in a grass area on the west side of the school.

There are no existing plans or programs in place specifically to encourage bicycling and walking to STA. An adult crossing guard is employed at the intersection of 46th and Illinois Streets to assist children in crossing during arrival and dismissal periods and student safety patrols are currently being used to assist with the morning drop-off routine inside the school property. Walking and bicycling safety education is not currently part of the STA curriculum.

Bike racks are available on the west side of the school along Kenwood Avenue and sidewalks lead up to and surround the school site.

4.2. Existing Traffic Conditions

Current traffic-related concerns in the area are focused on speed and volume, especially on Illinois Street, 46th Street, and Meridian Street. Traffic congestion is an issue on Meridian Street during the traditional peak hours. Likewise, heavy volumes on Illinois Street are a concern for parents and students.

Heavy trucks are prohibited on Meridian Street at all times. Bus routes run along both Illinois Street and Pennsylvania Street (two blocks east of the school). IndyGo bus stops are located on the northwest and northeast corners of the 46th and Illinois Street intersection.

Traffic counts were conducted in the fall of 2008 at the two major intersections adjacent to the school during arrival and dismissal hours. The counts were used to analyze traffic operations at each signal.

Traffic operations are evaluated using a rating system called Level of Service (LOS). These LOS ratings are measured in terms of average delay, where delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. LOS A is the best operating condition, and LOS F has the longest delays, therefore being the worst operating condition. LOS D or better is considered acceptable in most urban settings. LOS E is tolerated at high-volume locations.

The level of service criteria for signalized intersections is provided in the 2000 Highway Capacity Manual and summarized in the following table.

Level of Service (LOS)	Description	Average Stopped Delay Per Vehicle (seconds)
		Signalized Intersection
A	Little or no delay.	≤ 10.0
B	Short traffic delays.	> 10.0 and ≤ 20.0
C	Average traffic delays.	> 20.0 and ≤ 35.0
D	Long traffic delays.	> 35.0 and ≤ 55.0
E	Very long traffic delays.	> 55.0 and ≤ 80.0
F	Demand exceeds capacity resulting in extreme delays and queuing.	> 80.0

Meridian Street and 46th Street

At the intersection of Meridian and 46th Streets, traffic is operating at poor LOS on multiple approaches. The table that follows summarizes the morning and afternoon conditions by approach. Intersection LOS, average vehicle delay, and pedestrian crossing times are provided. The clearance interval for the crossing indications refers to the time when the flashing “Don’t Walk” signal is activated.

In the morning peak hour, from 7 to 8 AM, only the southbound movement is operating at acceptable LOS. All other approaches are currently operating at LOS F. In the afternoon, the eastbound and southbound approaches operate at acceptable levels. The westbound and northbound approaches operate at unacceptable levels. The east-west walk signal is currently displayed for only 9 seconds in each of the peak crossing hours, with 15 seconds combined for "Walk" and flashing "Don't Walk."

Location: Meridian St. and 46th St.

Existing					Proposed (Extend E/W Phase)			
Approach	LOS	Delay (sec)	E/W Crossing (sec)		LOS	Delay (sec)	E/W Crossing (sec)	
			Walk	Clearance			Walk	Clearance
AM Peak (7 to 8 AM)								
EB	F	83.0	9	6	D	54.0	9	12
WB	F	118.1	9	6	E	62.5	9	12
NB	F	120.0	7	7	F	111.5	7	7
SB	C	28.0	7	22	D	39.6	7	22
Afternoon Peak (3 to 4 PM)								
EB	D	58.4	9	6	D	50.1	9	12
WB	E	48.4	9	6	D	43.8	9	12
NB	F	29.9	7	7	C	29.9	7	7
SB	C	46.6	7	22	D	53.3	7	22

Twenty-five crashes were recorded at this intersection during the four-year period from 2004 to 2007. Disregard for traffic control was frequently cited as a cause for these incidents.

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Crashes: Intersection of 46th and Meridian Streets

Year	Number of Reported Crashes
2004	11
2005	9
2006	3
2007	2
4-Year Total	25

Narrow right-of-way has eliminated the possibility of adding left-turn lanes on any of the approaches. The result is a split-phase signal operation at this intersection, with northbound traffic having a signal phase separate from southbound traffic. On the east and west approaches, the single phase that is currently operating can sometimes result in long queues behind left-turning vehicles. In order to maintain a reasonable level of delay, the signal operates at a 120-second cycle length. This means that vehicles arriving at the intersection at the start of a yellow light will wait a

full two minutes before receiving the next green. As a result of the long cycle length and the constricted intersection configuration, red-light running has become a serious concern in all directions. Eastbound and westbound vehicles were frequently observed entering the intersection at the start of a red signal.

With the existing signal timing, the east-west pedestrian phase is also very short. Along with the impact that this signal has on vehicular traffic, students were observed racing into the street at the start of the "Walk" phase in order to get across before the flashing "Don't Walk" phase started. This is a concern especially because of the red light running problem and the potential for serious vehicular-pedestrian conflict.

In order to provide safer operations for pedestrians at this location, traffic operations were analyzed under different signal timing and phasing combinations. A longer east-west phase would have the dual benefit of providing additional crossing time for pedestrians and providing more time to clear queues of east-west traffic, thereby reducing the occurrences of red-light running.

It is recommended that the east-west phase and corresponding pedestrian phase be increased from 15 seconds to 21 seconds, with a 6-second reduction taken from either the northbound or southbound movement in order to maintain the same cycle length. The previous table provides resulting LOS impacts from making these modifications.

In combination with the proposed signal timing changes, student education about safe crossing, pedestrian countdown indicators, and staggered stop bars can improve safety for pedestrians and bicyclists at this intersection.

Illinois Street and 46th Street

At the intersection of Illinois and 46th Streets, traffic analysis shows acceptable LOS during both the morning and afternoon hours. The following table shows that all approaches currently operate at LOS C or better.

Location: Illinois St. and 46th St.

Approach	LOS	Delay (sec)
AM Peak		
EB	B	19.0
WB	C	20.5
NB	B	10.7
SB	B	10.4
PM Peak		
EB	B	18.0
WB	B	17.8
NB	B	12.0
SB	B	11.3

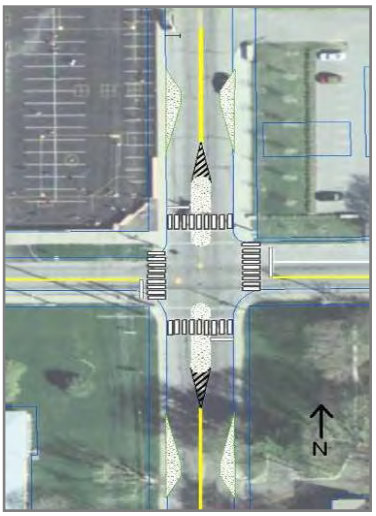
Historical crash data shows that 13 crashes have occurred either at or immediately adjacent to the intersection of 46th and Illinois Streets in the period between 2004 and 2007.

Crashes: Intersection of 46th and Illinois Streets

Year	Number of Reported Crashes
2004	4
2005	6
2006	2
2007	1
4-Year Total	13

Field observation indicates that red-light running is also a problem at this intersection. Especially in the afternoon and evening peak hours, when northbound volumes are high with very few adequate gaps, southbound left-turning vehicles were observed turning during the end of the yellow phase or early into the red phase of the signal. At this location, enforcement is recommended to reduce red-light running. The cycle length is reasonable at this intersection and left-turning vehicles are not blocking through vehicles, as is the case at Meridian Street. Although the addition of northbound and southbound left-turn lanes and left-turn signal phases would help improve the red light running problem, this modification is not considered to be the best method for improving overall intersection operation when taking into consideration the high volumes of pedestrians and bicyclists.

It is recommended, instead, that center medians be constructed on the northbound and southbound approaches to the intersection. The medians will provide refuge for students



Raised center medians are recommended for the north and south approaches to 46th Street on Illinois Street.

crossing and will provide a visual clue to drivers that they are travelling through an intersection with high pedestrian volumes. Together with student education, pedestrian countdown indicators, and the adult crossing guard, this intersection treatment will provide a measure of improved safety for all travelers.

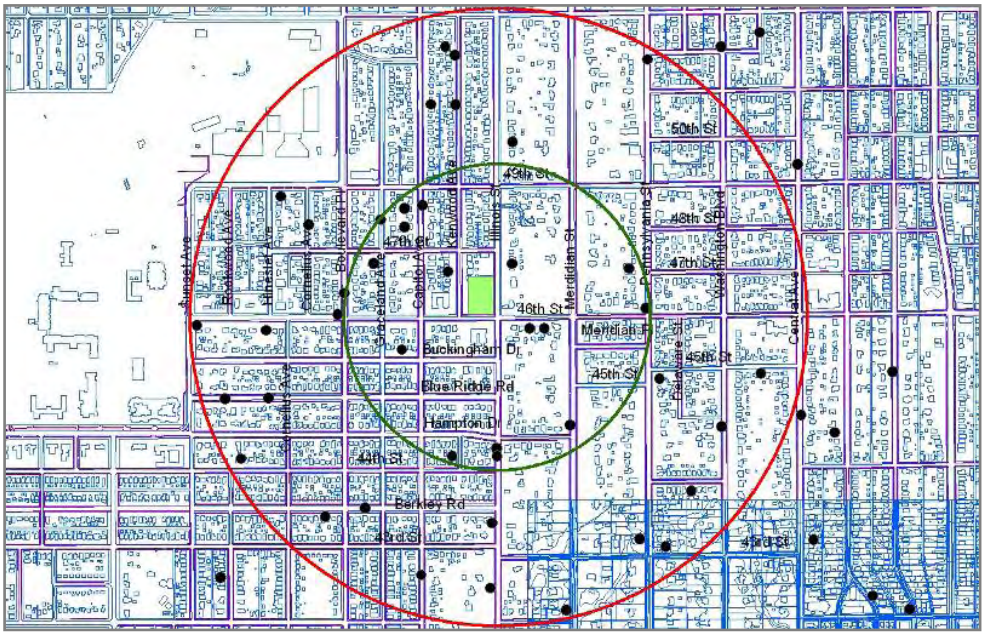
Appendix B provides the software output for these analyses and additional existing infrastructure information. Appendix O provides a drawing of the proposed improvement to the Illinois and 46th Street intersection.

4.3. Existing Routes

The focus area for this project was determined through the Geographic Information System (GIS) coding of student address within this two-mile radius. Student addresses were provided by the school. Base mapping information, including sidewalks, right-of-way, roadway width, utility poles was provided by the City of Indianapolis.

Maps were produced from this data at different scales in order to aid in the evaluation of existing conditions. The figure below shows one example of a map that was produced. The locations of STA families are shown by black dots on this map. The dark green circle marks a ¼ mile radius. The larger red circle marks a ½ mile radius.

This map was used in the evaluation of walking and biking routes within a half-mile radius of the school.



The existing infrastructure was assessed through review of GIS information and a series of field visits. Potential walking and biking routes were thoroughly reviewed via windshield survey and via biking and walking reviews in order to determine their suitability for inclusion in the final plan. Appendix B provides a sample of some of the existing infrastructure analysis that was conducted.

5.0 Recommended Strategies

Recommended strategies were developed based on public input, planning practices, and engineering assessment. The Plan is specific to St. Thomas Aquinas' identified, existing needs.

The following strategies are intended to increase the numbers of students walking and biking to St. Thomas Aquinas by improving safety and providing support. In order to manage the recommended program, it is suggested that a Safe Routes to School Committee be formed. The committee should be made up of parents, faculty, school administration, and church leaders and will be responsible for implementing the plan recommendations and evaluating their effectiveness. The committee should also be responsible for re-evaluating the recommendations on an annual basis to identify achievements, make adjustments, and communicate back to the school administration. The ideal committee size will be six to ten people. The chair of the committee can be provided with the responsibility of communicating with the Indianapolis Metropolitan Police Department, the Indianapolis Department of Public Works, the Butler-Tarkington Neighborhood Association, and other relevant organizations and agencies in order to facilitate implementation.

The recommended strategies are presented below along with a priority rank, timeline for implementation and an initial assignment of responsibility. The SRTS Committee will have the authority to modify priorities, timelines, and responsibilities in response to actual needs and identified resources. Priorities were determined based on the urgency of the corresponding need. Also, initiatives that are considered to be "building blocks" for the larger program have been assigned higher priority. For instance, providing preferred walking and biking route maps to families is considered to be an initiative that others will build upon and was therefore given an "A" priority. Having preferred routes will allow for the assignment of funds to roadway segments with the greatest use and will guide students towards the routes that are currently the safest. The map will further allow neighbors to lend

a watchful eye to the routes where most children will be walking, and will facilitate the implementation of walking school buses and bike trains. Another "A" priority recommendation is to participate in October's National Walk to School Day. This recommendation is considered key to building excitement for the program and will provide an excellent forum for kicking off other initiatives.

Timelines are identified as either short-, mid-, or long-term. It is expected that short-term strategies could be implemented immediately and would take minimal planning or support time. mid-term strategies will require some additional effort, but could be implemented by the start of the 2009-2010 school-year or soon thereafter. Long-Term recommendations often require considerable coordination time and effort and oftentimes a significant capital investment. These strategies would likely require a year or more to implement.

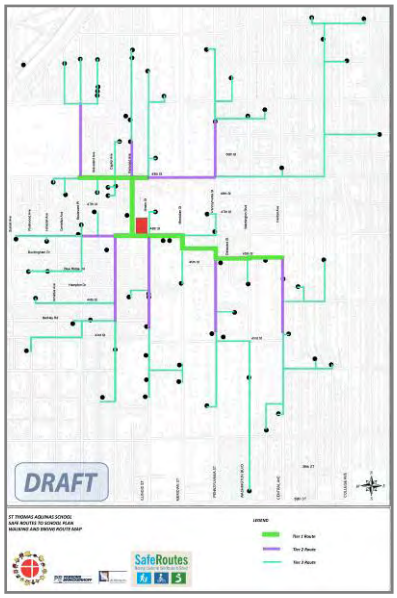
Costs are provided in 2009 dollars and are estimated at a planning level, meaning that extensive survey, utility identification, environmental analysis, or right-of-way review has not been conducted to arrive at these values. The cost estimates provide a range of likely values based on experience on similar projects. More detailed estimates will likely be desired for the purposes of annual budgeting or grant writing.

5.1. EDUCATION STRATEGY

Strategies that fall into the education category will provide opportunities for students, parents, or other stakeholders to learn about ways to safely walk and bike to school. The Plan recommends the following eight strategies for providing educational programs and materials in support of walking and biking to school. Additional information about some of the strategies is provided following the table.

Priority	Activity	Objective	Timeline for Implementation	Responsible Party	Probable Cost
A	Provide bike/walk route maps to all STA families	To inform students of routes to school that have been identified as having safer crossings, adequate sidewalks, and other infrastructure.	Short-Term	SRTS Committee (See Appendix I)	Annual color printing costs, less than $100
A	Provide crossing guard training	To provide adult crossing guards with written expectations and safety rules and to provide students with training that will make them an active part of providing safe routes to school.	Mid-Term	SRTS Committee using AAA guidebook (see Appendices E and F)	None
B	Incorporate biking and walking rules into core curriculum	To bring both safety and physical activity into the daily lives of the students. Rules can be incorporated periodically into math, science, physical education, and other courses.	Mid-Term	STA faculty (See Appendix G)	None
B	Create an annual safety training program	To create a program that will provide children with basic safety skills related to walking and biking.	Mid-Term	SRTS Committee with STA Faculty. Solicit help from Marion County Police Department, Indiana Bicycle Coalition, or other organizations.	Low-Cost
B	Provide bicycle maintenance training	To help students maintain their own bicycles, providing for safe operation and a sense of pride in learning a new skill.	Mid-Term	Organization: SRTS Committee Training: Solicit a local bicycle shop or biking organization	Low-Cost

Priority	Activity	Objective	Timeline for Implementation	Responsible Party	Probable Cost
B	Implement annual bicycle rodeo	To teach children safe biking skills in a fun atmosphere.	Mid-Term	Organization: SRTS Committee Training: Solicit IMPD, local biking organization or other partner	Low to Medium-Cost, depending on incentives
B	Include safety tips in weekly newsletters	To enforce and inform safety rules.	Short-Term	STA Administration (See Appendix G)	None
C	Implement or support a neighborhood education series on bicycle / walking safety	To collaborate with neighborhood organizations to stress the importance of walking and biking, and to solicit neighbors' support.	Mid-Term	SRTS Committee with BTNA or MKNA	None to Low-Cost

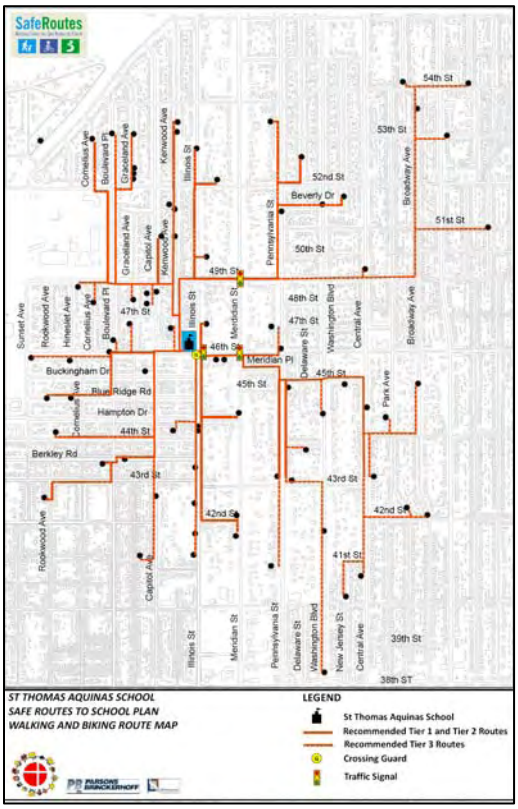


Tier 1, Tier 2, and Tier 3 routes have been identified to aid implementation.

Preferred walking and biking routes have been identified based on a number of factors including the current locations of student residences, current walking and biking routes, existing infrastructure condition, and existing intersection control. Routes have been divided into three tiers depending on the number of potential walkers and/or bikers on each segment. Tier 1 routes have the greatest potential for high volumes of walkers and bikers. The routes will be targeted for initial investment and will be designed to accommodate a higher volume of biking and walking traffic. Tier 2 routes still have great potential, but will have somewhat fewer walkers and bikers than Tier 1 routes. As such, investment on these routes will follow Tier 1 investment and design will accommodate a lower volume. Tier 3 routes often connect just one or two residences into the Tier 1 or 2 routes. These routes have not been targeted for investment at this time because the projected level of use does not warrant significant capital investment.

The three-tier system will assist the SRTS committee in identifying how and where to invest funds. The map should be re-evaluated every two years as new students enroll at STA and others graduate. If necessary, the map should be revised to reflect changing demands; however, it has been designed to minimize

the needs for alterations to Tier 1 and Tier 2 routes. The current preferred routing map is provided in Appendix H. The Walking and Biking Route Map, which will be distributed to students and parents, is provided in Appendix I.



A preferred walking and biking route map will be provided to all students.

Student safety patrols are currently being used within the school parking lot during the morning drop-off period. The guards are equipped with safety belts and use cones to mark areas where children are expected to walk. It is recommended that the students be provided with formal training to allow for more effective use of this resource. The American Automobile Association (AAA) provides a training guide for student safety patrols. It is recommended that STA facilitate training for any students who volunteer to serve in this role. The training guide is provided for reference in Appendix E. Additionally, it is recommended that students be equipped with full vests instead of belts for added visibility. Guidelines for adult crossing guards are provided in Appendix F.

An annual safety program is recommended for implementation. Its final structure could take a variety of forms. The SRTS Committee should work with the Home and School Association (HSA), STA faculty, and school administration to determine the format that would fit best into the current curriculum and provide the greatest benefit to students. The safety program should stress that the school expects children to walk or bike to school only when conditions are safe and the children are mature enough to be able to understand and follow the rules of the road. Parents should be encouraged to teach safety skills at home and then to assess their own child's skills before making the decision to allow them to walk or bike to school. Whenever possible, parents should be encouraged to walk or bike with younger children to help build excitement and reinforce safety rules.

The eventual STA safety program should teach students pedestrian and bicycle safety skills, personal safety, and the benefits that walking and biking have on health and environment. The program should include components of both parent and student education. The parent component may be simply a handout, explaining the program, its objectives, and some discussion points to cover at home. Alternatively, a more active parent safety program may be provided through presentations at HSA meetings or workshops. The student portion of the

education could be provided through a series of lessons, one-time instruction in an assembly, special one-time events or other methods. There are many resources online for developing curriculum and special activities for children of all ages. Samples of two of the more comprehensive safety education guides are included in Appendix D. The SRTS committee is also encouraged to explore www.saferoutesinfo.org for an extensive library of additional resources.

The final recommendation in the education category is to implement or support a neighborhood education series about walking and biking. The Butler Tarkington and Meridian Kessler neighborhood associations would be ideal partners for such an initiative. Other organizations which may be willing to co-sponsor or provide resources would include the Department of Health, Department of Education, IUPUI, Butler University, or Health by Design. Topics might cover the various benefits of walking and bicycling, how to get involved in community projects that facilitate walking and biking, and how to facilitate walking and biking through personal action (e.g. reducing traffic speeds, keeping sidewalks clear).

5.2. ENCOURAGEMENT STRATEGY

Encouragement strategies seek to build excitement around walking and biking to school. STA is fortunate to have a strong population of children who already walk and bike to school and a culture that values the independence that comes with that responsibility. Strategies that will help nurture this attitude and expand the base of student who walk and bike are provided in the following table, with additional detail on some strategies following.

Priority	Activity	Objectives: What Will be Done	Timeline for Implementation	Responsible Party	Probable Cost
A	Expand Mileage Club credit	To allow children who walk or bike to school to accumulate mileage club credit for doing so.	Short-Term	STA faculty (physical education)	none
A	Participate in National Walk to School Day	To build excitement about walking and biking to school while teaching participants about its benefits	Short-Term	SRTS Committee (See Appendix J)	Depending on chosen level of effort. No cost would be involved for coordinating a walk, however giveaways or special prizes should be considered.
A	Develop "back door reading" fact sheets	To reinforce the school's commitment to healthy lifestyles and personal safety.	Mid-Term	SRTS Committee	Minimal cost for color printing and document holders (optional).
B	Start Mileage Club competition	To foster relationship with neighboring schools and build excitement about walking and biking.	Mid-Term	Various: HSA, Faculty, or SRTS Committee could oversee.	Depending on chosen level of effort. No cost would be involved for coordinating, however giveaways or special prizes should be considered.

Priority	Activity	Objectives: What Will be Done	Timeline for Implementation	Responsible Party	Probable Cost
B	Provide giveaways or prizes	When special events allow the opportunity for prizes or special giveaways, use the opportunity to promote biking and walking.	Short-Term	SRTS Committee	Depends on type of giveaway and level of partnership obtained.
B	Coordinate Walking School Buses	To provide parental supervision while walking to school, thereby enabling more students to participate.	Mid-Term	SRTS Committee (See Appendix K)	None. Volunteer time is assumed for coordination of the program.
B	Coordinate Bike Trains	To provide parental supervision while biking to school, thereby enabling more students to participate.	Mid-Term	SRTS Committee (See Appendix K)	None. Volunteer time is assumed for coordination of the program.
C	Implement frequent walker / biker program	To provide encouragement for students to walk or bike to school, this program would give awards or incentives to children who achieve specific milestones.	Short-Term	SRTS Committee (See Appendix L)	Cost would be limited to awards and incentives (which could also be donated)
C	Develop “McGruff House” program	To train neighbors in the proper ways to provide assistance to children as they travel the designated routes and to provide peace of mind to students and parents that assistance is available in case of an emergency.	Long-Term	SRTS Committee (See Appendix M)	Low to medium cost, depending on level of involvement from outside STA.

Additional information about some of the strategies is provided below and in the Appendices as noted.

National Walk to School Day takes place annually in October and can involve numerous events to encourage and build excitement about walking and biking to school. It is recommended that STA plan their inaugural participation with significant fanfare. Suggestions include inviting local media, providing giveaways to all participants (donations could be solicited from local businesses), holding a student rally to congratulate participants, holding a raffle for items such as bike helmets or a bike (again, donations should be sought), and involving parents and faculty in the walk. Walk to School events are held all over the country and significant information exists to provide ideas and resources for planning a great event. A summary of that information is provided in Appendix J.

Back door reading materials are intended to be provided on the backs of bathroom doors to inform a "captive audience" about relevant topics. The back door reading materials implemented at STA may be expanded to topics beyond safe walking and biking, but should include safety tips and reminders frequently.

STA is encouraged to provide prizes and incentives that encourage and enable safe walking and biking for all types of special events. Examples of appropriate gifts would include pedometers, reflectors, bicycle helmets, bicycles, bicycle locks, bicycle-mounted water bottles, or other appropriate items. It is recommended that partners be solicited to provide funding or donations. Possible partners include: private corporations, health departments, health agencies, bicycling groups, etc. Biking and walking giveaways need not be restricted to being provided only at events specific to walking or biking. Including these types of prizes at events of all types will help establish a culture of healthy activity and reinforce the school's commitment to the same.

An example of a bike train in Chicago, Illinois. Source: National SRTS

Walking School Buses and Bicycle Trains are methods for involving more children in the practice of walking and biking to school by providing adult supervision on preferred routes. Both programs are operated similarly – one on foot and the other on bicycle. In each case, "bus stops" are identified along preferred routes. A parent or older student will start at the far end of a pre-identified route, walking or biking along that route and picking up students at stops along the way. Some coordination will be necessary to ensure that parent volunteers are available to "drive" the walking bus or bike train and that a reliable schedule

is maintained. Appendix K provides information from the National Center for Safe Routes to School on how to successfully implement these programs.

Frequent walker and biker programs can be used to encourage walking and biking to school and to promote physical activity. Students participating in the program are given a card that is punched by parent volunteers or faculty each time a student walks or bikes to school. Often, small prizes are given out as cards are filled and sometimes special events will recognize high achievers. Appendix L provides detailed information on how frequent walker and biker programs are being implemented across the country in other schools.

McGruff Houses provide temporary shelter in private homes for children who are in dangerous situations. The program was developed by the National Crime Prevention Council and relies on the cooperation of neighborhood volunteers, schools, and law enforcement. Implementation in the Butler Tarkington and/or Meridian Kessler neighborhoods can provide students who walk and bike to school with assistance any time they sense danger. Appendix M provides additional information about McGruff Houses and resources for starting a network.

5.3. ENGINEERING STRATEGY

Engineering strategies tackle the built environment surrounding the school. These issues were the ones most often brought up by stakeholders – whether in formal or informal settings – and are the most visible program components for the surrounding community. The costs to implement engineering strategies are often higher than for the other categories of strategies and frequently require the cooperation of a city agency or department. With the exception of only a few of the recommendations listed below, these improvements can not be made by the school. Instead, because the recommendations seek to make improvements within the public right-of-way, the City of Indianapolis not only must approve the strategy, but in many cases must lead the design and construction of each improvement. The project consultants have met with the City of Indianapolis Department of Public Works (DPW) to discuss the final recommendations. Although funding for DPW is very limited, the representatives that reviewed the recommendations agreed to provide assistance in implementing the Plan and support for Plan elements that will be funded through other sources. Following are the priority A

recommended strategies in the engineering category, with additional details provided following the table:

Priority	Activity	Objectives: What Will be Done	Timeline for Implementation	Responsible Party	Probable Cost
A	Widen or add sidewalks on all Tier 1 and Tier 2 routes	To provide sufficient sidewalk width and connectivity to make walking and biking safe and enjoyable.	Long-Term	DPW	$160,000 or more per mile
A	Add pedestrian indicators with countdowns at Meridian and 49th	To provide students with additional information and assistance in crossing busy intersections.	Short-Term	Department of Public Works (DPW)	Low-cost: $500 to $800 per pedestrian signal head
A	Add pedestrian countdown indicators at Meridian and 46th	To provide students with additional information and assistance in crossing busy intersections.	Short-Term	DPW	Low-cost: $500 to $800 per pedestrian signal head
A	Add pedestrian countdown indicators at Illinois and 46th	To provide students with additional information and assistance in crossing busy intersections.	Short-Term	DPW	Low-cost: $500 to $800 per pedestrian signal head
A	Adjust signal timing at 46th and Meridian for longer East/west phase	To provide students with additional time to cross Meridian Street.	Short-Term	DPW (See Appendix B for proposed signal timings)	Low-cost: negligible $200 estimated for time to make adjustments

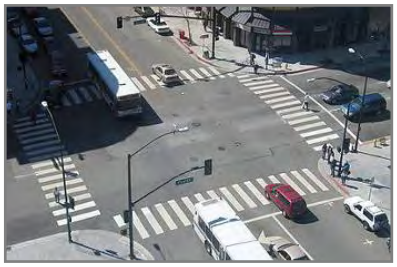
Priority	Activity	Objectives: What Will be Done	Timeline for Implementation	Responsible Party	Probable Cost
A	Paint continental-striped crosswalks at all Tier 1 crossings (prioritize 46th/Meridian and 46th / Illinois)	To emphasize the crossing for motorists, pedestrians, and bicyclists.	Short-Term	DPW (See Appendix H for Tier 1 and 2 designations)	Approx. $300 per approach for painted x-walk
A	Utilize in-street crosswalk sign at 46th / Illinois	To emphasize the crossing for motorists, pedestrians, and bicyclists.	Short-Term	SRTS Committee	Approx.$400 per sign. Consider purchasing 2 signs.
A	Convert intersections from 2-way to 4-way stop control (See list of locations following table)	To provide added safety for students crossing at intersections on Tier 1 and Tier 2 routes.	Short-Term	DPW	Approx. $800 for 2 signs and paint for stop bars
A	Add sidewalk on north side of 46th east of Illinois	To discourage mid-block crossings by providing a safe and convenient pathway to the traffic signal.	Mid-Term	DPW and/or Governor's office (See Appendix S for location)	Approx. $2,000 to $4,000
A	Close north entrance gate during pick-up	To discourage parents and students from crossing mid-block on Illinois Street.	Short-Term	SRTS Committee with STA	No cost

Priority	Activity	Objectives: What Will be Done	Timeline for Implementation	Responsible Party	Probable Cost
A	Paint internal crosswalk in parking lot	To provide a clear indication of where students are expected to walk during drop-off	Mid-Term	SRTS Committee with STA (See Appendix S)	Approx. $200 to $300
A	Continue / expand, and train safety patrol	To provide added safety for pedestrians and bicyclists	Mid-Term	SRTS Committee (See Appendix E)	
A	Close row of parking closest to building during drop-off (pick-up)	To provide additional separation between vehicles and pedestrians	Short-Term	SRTS Committee with STA (See Appendix S)	Negligible – use orange cones to mark no-parking zone.

Countdown indicators provide additional information to pedestrians at signalized intersections.

The following intersections have been identified as locations where pedestrians would benefit from 4-way stop control:

- 47th Street and Kenwood Avenue
- 49th and Kenwood Avenue
- 52nd and Kenwood Avenue
- Boulevard and Berkley
- Delaware Street and 45th Street
- Central Avenue and 44th Street



Continental crosswalk markings will provide added visibility on Tier 1 routes.

Conventional crosswalk markings will improve visibility on Tier 2 routes.

An in-street crosswalk sign at 46th and Illinois will warn drivers of the presence of school children.

Some of the above recommendations are meant to improve the safety of pedestrians in the immediate vicinity of the school where pick-up and drop-off activity is most congested. Students arriving at school by bicycling or walking are affected by the pick-up and drop-off routine as they cross the paths of this traffic both inside the school parking lot and on the streets adjacent to it. Specific concerns related to the current situation are pedestrians crossing mid-block to access the northern parking lot gate and pedestrians mixing with vehicles within the parking lot itself. Appendix S provides a drawing of a proposal for improving the safety of this procedure. It is recommended that a crosswalk be painted within the lot to emphasize the locations where crossings between parked vehicles and the school entrance should occur. Also, the row of parking that is closest to the school building should be coned off during the drop-off period to allow for better separation between vehicles and pedestrians. To complement this, the student safety patrols working within the parking lot should be equipped with full vests and wand-type stop flags (as shown in Appendix S), trained, and expected to perform their duties as directed.

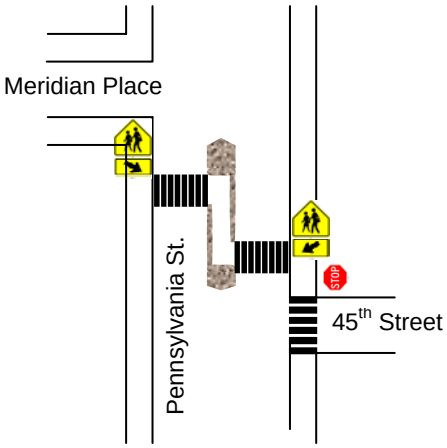
During afternoon drop-off, the north pedestrian gate into the parking lot can be closed to discourage mid-block crossing on Illinois Street. The gate just to the south of the school entrance can be used exclusively or the administration may consider adding another gate closer to the traffic signal at 46th and Illinois Streets. A sidewalk between the south entrance to the governor's lot and the intersection of 46th and Illinois Streets should be a top priority for improving pedestrian walkability.

Additional engineering strategies, identified as B priority, are provided in the following tables:

Priority	Activity	Objectives: What Will be Done	Timeline for Implementation	Responsible Party	Probable Cost
B	Paint conventional crosswalks on all Tier 2 crossings	To emphasize the crossing for motorists, pedestrians, and bicyclists.	Short-Tem	DPW (See Appendix H for Tier 2 designations)	Approximately $100 per approach for painted x-walk
B	Paint or pave stand back lines at signalized intersections on Tier 1 and Tier 2 routes	To provide a marked waiting area for children at busy corners.	Mid-Term	DPW (See Appendix H for Tier 1 and Tier 2 designations)	Approx. $50 for painted line. Additional paving to expand waiting around would range from $1,000 to $1,500 per area
B	Install mid-block crossing treatment on Pennsylvania at 45th	To calm traffic, provide refuge for students crossing, and draw attention to the presence of pedestrians.	Long-Term	DPW	Approx. $6,000 to $7,000 per mid-block crossing. Landscaping costs not included.
B	Install mid-block crossing treatment on Washington Blvd at 45th	To calm traffic, provide refuge for students crossing, and draw attention to the presence of pedestrians.	Long-Term	DPW	Approx. $6,000 to $7,000 per mid-block crossing. Landscaping costs not included
B	Install school zone signage and pavement markings according to plan	To alert drivers to the school zone and reinforce reduced speed limit.	Mid-Term	DPW (See Appendix P)	Approx. $4,000 to 6,000 per plan.

Priority	Activity	Objectives: What Will be Done	Timeline for Implementation	Responsible Party	Probable Cost
B	Improve sidewalk condition along Kenwood Avenue	To improve walkability and bikability for all users	Long-Term	DPW	Minimum $6 / square foot for a total of approx. $30,000 to $80,000
B	Add / upgrade curb ramps along all walking / biking routes	To provide all users with safe access between the sidewalks and the street.	Long-Term	DPW	Approx. $700 to $1,000 per curb ramp
B	Trim bushes / trees for signal / sign visibility along all Tier 1 and Tier 2 routes	To improve visibility of signals/signs.	Short-Term	DPW (See Appendix H for Tier 1 and Tier 2 designations)	Negligible
B	Add stop bars to all signalized and stop-controlled intersections along Tier 1 and Tier 2 routes	To reinforce safe stopping distances from crosswalks.	Mid-Term	DPW (See Appendix H for Tier 1 and Tier 2 designations)	Approx. $100 to $200 per stop bar for thermoplastic stop lines
B	Install school speed limit signs with flashers on Illinois and 46th Streets	To reinforce the school speed zone.	Short-Term	DPW	Approx. $2,000 per school speed limit sign assembly (includes sign, flashers, pole and time clock)
B	Add new bike racks to increase bike parking spaces and construct concrete pad.	To provide kids with a safe and dry place to park their bikes.	Mid-Term	SRTS Committee with STA administration (See Appendix R)	Approx. $3,000.00 - $4,000.00 includes 2-4 bike racks and a 20' by 10' area to park bikes.

Priority	Activity	Objectives: What Will be Done	Timeline for Implementation	Responsible Party	Probable Cost
B	Consider moving pick-up to parking lot	To reduce congestion on Illinois street, thereby improving safety for children crossing at 46th Street.	Mid-Term	SRTS Committee with STA	No cost
B	Pave sidewalk around the border of the parking lot	To provide better separation (and thus, safety) for pedestrians and vehicles within the STA parking lot.	Long-Term	SRTS Committee with STA (See Appendix S)	Approx. $6,000 to $7,000



A median island at 45th and Pennsylvania St. would improve pedestrian safety

Stand back lines assist young children in locating a safe place to stand at busy corners.

Two unsignalized intersections have been identified in the preferred walking and biking plan as locations where students are currently, or will be, crossing. 45th Street was chosen as a preferred walking and biking route despite it having no existing sidewalks because of low traffic volumes and low speeds. The alternative east-west route, 46th Street, is both high volume and high speed. Although there are sidewalks on 46th Street, they are narrow and have no separation between them and the travel lanes (no parked vehicles, no utility strip) besides a curb and narrow gutter.

Overgrown trees and shrubs can be a hazard for vehicles, pedestrians, and bicyclists.

45th Street is frequently used by both students and neighbors today and is considered to be a reasonably safe place for walking and biking with children. At its T-intersection with Pennsylvania Street, a stop sign is currently in place for westbound traffic on 45th Street. Traffic on Pennsylvania Street does not stop at this location. Likewise, at the intersection of 45th Street with Washington Boulevard, north-south traffic does not stop.

A center island should be constructed at each of these two 45th Street intersections to provide students with safe refuge while crossing the street and to provide a visual cue to drivers that this is a location where pedestrian and bicycle traffic can be expected. The crossing can be marked with pedestrian crossing signs and flashers. If used, motion-activated or timed flashers should be considered so that drivers are alerted only when pedestrians or bicyclists are present.

Grass utility strips provide a buffer between pedestrians and vehicles. On-street parking can provide the same benefit.

Priority C improvements are provided in the following table and include installing street lighting, adding a grass utility strip buffer on Illinois Street, and installing staggered stop bars on Meridian Street. Additionally, infrastructure assessments have been recommended as a priority C strategy. These evaluations of the condition of existing infrastructure could be conducted by student or parents volunteers. The results would then be provided to the Mayor's office and/or the Indianapolis DPW for action.

Speed limit signs with flashers provide additional notification to motorists

Priority	Activity	Objectives: What Will be Done	Timeline for Implementation	Responsible Party	Probable Cost
C	Conduct semi-annual infrastructure assessments	To maintain awareness of problem areas and the necessity for well-maintained infrastructure.	Mid-Term	SRTS Committee with student volunteers	No cost: Use volunteers
C	Add grass utility strip to Illinois Street	To improve safety for sidewalk users by providing a buffer from high-volume traffic.	Long-Term	DPW	$6.00 per linear foot – assume 10' wide curb bump-outs
C	Improve radius at NE corner of 46th / Illinois	To improve safety by reducing the number of vehicles who run over the curb and onto the sidewalk at this location.	Mid-Term	DPW	$20,000 to $35,000 depending on drainage, utilities, and other site features
C	Install intersection treatment at 46th and Illinois	To calm traffic, reduce exposure time for pedestrians, and increase motorist awareness.	Long-Term	DPW (See Appendix O)	$35,000.00-$45,000.00 range depending on utilities, site features
C	Add entrance gate at south end of parking lot	To discourage jay-walking on Illinois Street during afternoon pick-up.	Long-Term	SRTS Committee with STA	Approx. $900 to $1,200
C	Install street lighting on all Tier 1 and 2 Routes	To improve visibility and perception of safety during early morning hours.	Long-Term	DPW (See Appendix H for Tier 1 and Tier 2 designations)	Approx. $4,000 to $5,000 per streetlight. Cost may be higher for decorative lighting.
C	Install staggered stop bars on Meridian Street at 46th and 49th Streets	To provide added visibility of pedestrians and bicyclists.	Mid-Term	DPW	$100 to $200 per stop bar

5.4. ENFORCEMENT STRATEGY

The enforcement strategies listed here will require cooperation from the Indianapolis Metropolitan Police Department (IMPD). STA has developed a positive working relationship in the past with the IMPD and their collaboration has resulted in some improvements. The strategies listed here are, for the most part, already being done. Continued and increasing support from IMPD will strengthen the SRTS program.

Priority	Activity	Objectives: What Will be Done	Timeline for Implementation	Responsible Party
A	Ticket red-light running vehicles at 46th / Illinois and 46th / Meridian	To reduce the number of red-light running vehicles.	Short-Term	IMPD
B	Use speed trailer at random intervals	To reduce speeding on adjacent streets through driver awareness.	Mid-Term	IMPD and STA
A	Continue to enforce speed limits	To reduce speeds in the vicinity of the school.	Short-Term	IMPD
B	Utilize bicycle enforcement office during arrival / dismissal times	To reduce crime and enforce traffic laws. To provide peace of mind to students and parents.	Mid-Term	IMPD

5.5. EVALUATION

The Safe Routes to School Program should be evaluated periodically to assess how well the goals of the program are being met. The National Center for Safe Routes to School

provides evaluation forms online (www.saferoutesinfo.org) that can be used to survey students and parents. The SRTS Committee should be empowered to modify the plan and its priorities based upon the results of the evaluation.

What Will be Done	What will be measured	When it will be measured
Parent Survey	Attitudes towards walking and biking, changes in biking and walking levels, views on priority needs	Every two years
Student Survey	Attitudes toward walking and biking, changes in walking and biking levels, knowledge of safety rules	Annually
Infrastructure Assessment	Maintenance of existing infrastructure, identification of infrastructure needs	Partial assessments done twice a year
Faculty Roundtable	Progress and results of incorporating safety education and special events	Annually

6.0 Implementation Plan

After the plan has been accepted by the school and the Indiana Department of Transportation, the consulting team will be meeting with the Home and School Association (HSA), the neighborhood associations, and other groups to present the final recommendations and information on implementation. The information will include a brochure and information sheets explaining specific recommendations.

6.1 FUNDING

Funding for the recommended programs and improvements can come from a variety of sources, depending upon the type and cost of each measure.

- Federal funding is available through the Safe Routes to School program. Applications for funding will be accepted in the spring of 2009 and are competitively awarded. At the publishing of this document, funding beyond 2009 had not yet been secured for the SRTS program. Funding for future years

of the program may or may not be included in the reauthorization of the transportation bill. If an application is submitted in 2009 for STA, a total of $250,000 may be requested to implement engineering strategies. Applications for non-infrastructure funding may not exceed $75,000.

- Local funding may be available through the City of Indianapolis Department of Public Works Capital Improvement program for engineering improvements within the public right-of-way. Costs and responsibilities for maintenance and repairs of any improvements should be considered when discussing project costs. The City of Indianapolis may be able to pull from a variety of funding programs for the benefit of this plan, including Congestion Mitigation Air Quality (CMAQ).

- Police or public safety budgets may be able to contribute to safety programs, law enforcement, or crossing guards.

- Private sector funding might be sought also, especially for programs, education initiatives, or improvements that will be implemented within the school boundaries. Corporations and businesses, foundations, individuals, or fund-raisers are sources that might be solicited for implementation funds.

The SRTS Committee will be expected to work with the HSA and church and school leadership to apply for appropriate grants and develop partnerships to advance the Plan.

7.0 Conclusion

The St. Thomas Aquinas Safe Routes to School Plan has been developed to meet the specific needs of St. Thomas, while taking into consideration the desires of students and parents, and potential impacts to the neighborhood. The plan will be implemented most successfully by building support among not only the school administration, but also the parents and neighbors. Community partners such as the Mayor's office, the Department of Public Works, and the Indianapolis Metropolitan Police Department will also provide critical components of the plan.

It is fully expected that successful implementation of the SRTS plan will result in an increase in the numbers of children who walk and bike to STA. The goal of the program should be to double the current walking / biking rate of 20% and to achieve Walk to School Day participation of 65% or greater.

Finally, STA is encouraged to use the media to bring attention to their successes. Such coverage can provide added encouragement for students and parents and instill a sense of pride in their accomplishments.