August 2014

Safe Routes to School Audit Report
Sealey Elementary School

Leon County Public Schools

Table of Contents

This page intentionally left blank.

Acknowledgements

Renaissance Planning Group and Wendy Grey Land Use Planning, LLC would like to thank the following organizations for their input, guidance, and resources in developing this Safe Routes to School Audit report for Sealey Elementary School.

Capital Region Transportation Planning Agency (CRTPA)

Safe Routes to School (SRTS) National Partnership

Leon County Public Schools (LCS)

Florida Department of Transportation (FDOT)

Leon County Sheriff's Office (LCSO)

Prepared By:

RENAISSANCE PLANNING GROUP

WENDY GREY LAND USE PLANNING LLC

Chapter 1: Introduction

Project Purpose

The purpose of this Safe Routes to School (SRTS) audit report is to provide recommendations to improve student walking and bicycling rates to and from school. In addition, this report addresses other enhancements to improve the overall travel safety and convenience for students, parents and the school. Improvement recommendations are provided in the following categories: infrastructure, programs, and polices. This SRTS audit includes an array of considerations formulated from a range of research and analytical tools employed to better understand and comprehend the issues and concerns affecting current walking and bicycling rates of student to and from school. This report highlights a summary of students' school travel patterns through parent self-reported surveys, on-site meetings with school officials, and field reviews.

School Overview

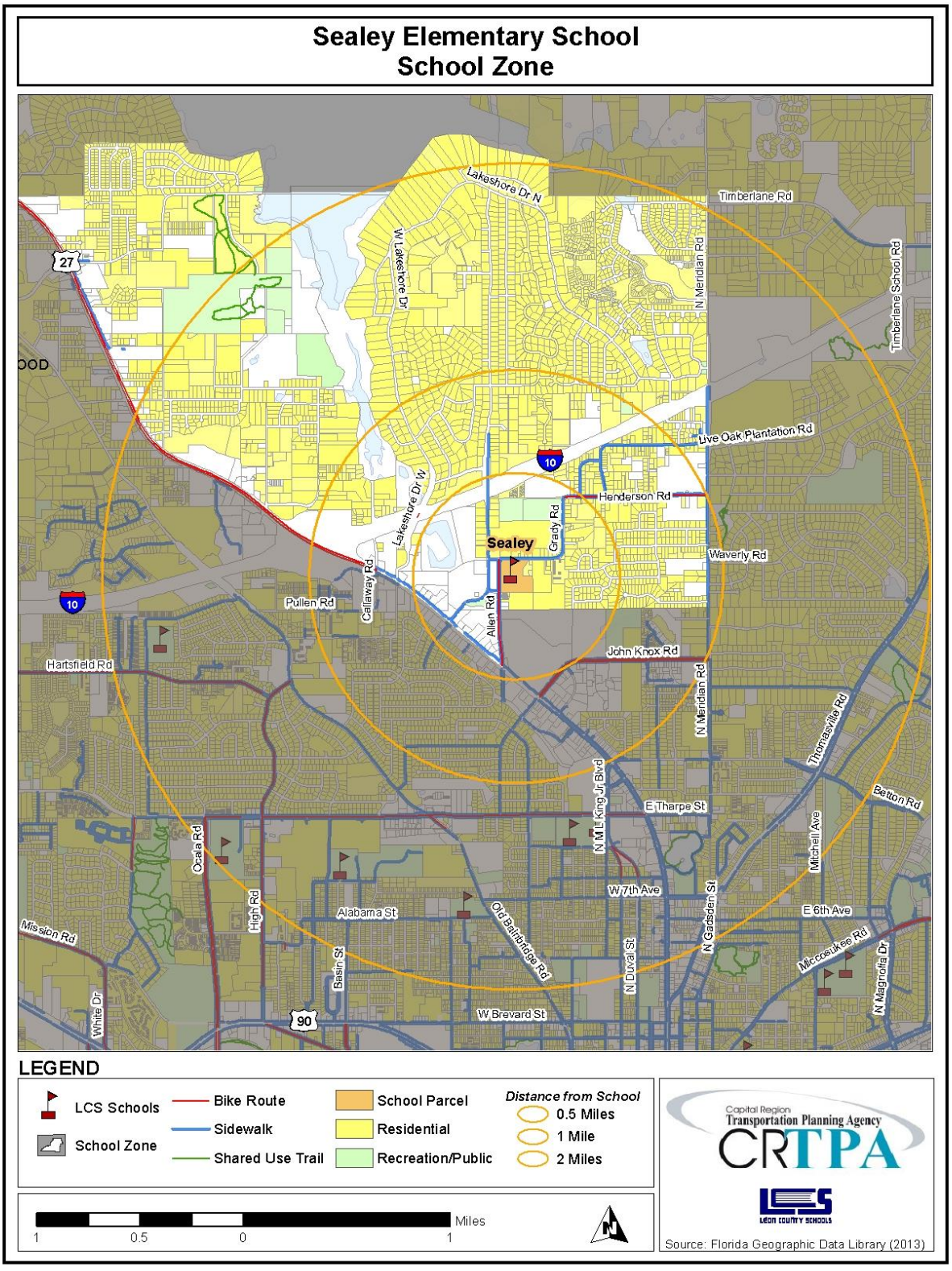
Sealey Elementary School is located at 2815 Allen Road, Tallahassee, 32312 in Leon County, Florida. It is part of the Leon County Public Schools system. The school traces its history back to 1930 when the present Tallahassee Police Department on 7th Street was the site of the original school. In 1969-70, the existing school was constructed. The school is named after Romero Mitchell Sealey who served as Superintendent of Fort Myers City Schools, State Supervisor of Secondary Education, and Secretary of the Florida Education Association. In 2000, the school was given the designation of magnet school status and is the only math and science magnet school in Leon County. Regular school hours are from 8:30am to 2:50pm. A before school program is available from 6:45am to 7:45am. Additionally, an after school program is available from the end of the school day until 6:00pm.

The number of students enrolled at the school, for the 2013 school year was 544. The school has a current capacity for 615 students. The school includes grade levels Pre-Kindergarten to 5th grade.

Students attending this school feed into Raa Middle School and Leon High School.

School Zone

The Sealey Elementary school zone, located in central Leon County, encompasses the neighborhoods of Macon Community, Wellswood-Surburban Hills, Starmount, Lakeshore, Linene Woods, and Lake Breeze. A portion of Lake Jackson is located within the school zone. In addition, to Lake Jackson, land uses within the school zone consist of mostly residential with a few areas of recreation. The Sealey school zone includes three major roadways. Interstate-10 runs mostly east to west and divides the zone into north and south. North Monroe Street runs northwest to southeast and borders the zone to the west. North Meridian Road runs north to south and borders the zone on the east. Recreation areas within the school zone include Lake Jackson Mounds Park and Macon Community Neighborhood Park.


Sealey Elementary School
School Zone
Lakeshore Dr N
Timberlane Rd
W Lakeshore Dr
N Meridian Rd
Timberlane School Rd
27
Live Oak Plantation Rd
10
Henderson Rd
Lakeshore Dr W
Grady Rd
Sealey
Waverly Rd
Callaway Rd
Pullen Rd
Allen Rd
John Knox Rd
Hartsfield Rd
N Meridian Rd
Thomasville Rd
N M L King Jr Blvd
E Tharpe St
Betton Rd
Mitchell Ave
Opala Rd
High Rd
W 7th Ave
Alabama St
Old Bainbridge Rd
N Gadsden St
E 6th Ave
Mission Rd
Basin St
N Duval St
Miccosukee Rd
N Magnolia Dr
White Dr
90
W Brevard St
LEGEND
LCS Schools
School Zone
Bike Route
Sidewalk
Shared Use Trail
School Parcel
Residential
Recreation/Public
Distance from School
0.5 Miles
1 Mile
2 Miles
Miles
1
0.5
0
1
Capital Region Transportation Planning Agency
CRTPA
LEON COUNTY SCHOOLS
Source: Florida Geographic Data Library (2013)

Chapter 2: On-Site Meeting and Inventory

Date and Weather Conditions

The on-site inventory meeting was conducted on March 8th, 2013 with temperatures in the 60 degrees Fahrenheit.

Highlights and Key Observations of On-Site Meeting

During this visit, Sealey Elementary School representatives provided insight about students' travel to and from school and discussed what was working, or not working well. The meeting began by discussing current policies, programs, and administration related to students' travel to and from school. Examples of safety education programs discussed include crossing guards, safety patrols, and traffic education. Additionally, before- and after-school programs provided for students were discussed.

It was noted that flashing lights (i.e. school zone warning lights are located along both Fulton Road and Allen Road. Additionally, there is a speed limit sign on Allen Road that states, "Speed Limit 20 When Children Are Present." However, the speed limit sign does not specify the hours of the school. Students arrive to school as early as 6:45am and there are after school programs on campus available until 6:00pm. School staff noted that bicycle and pedestrian safety instruction is incorporated into the curriculum for the Physical Education (P.E.) classes.

There is one designated crossing guard at the intersection of Fulton Road & Allen Road. School staff noted that children often cross Fulton Road/Grady Road, on the opposite side of school, where there is no crossing guard available. School staff and administrators serve as ushers for students at both the automobile drop-off/pick-up and school bus zones. It was also expressed by school staff that they desired more parking but noted the area currently being used for portable classrooms cannot be converted to a parking lot.

Circulation

During a tour of the school, school representatives provided explanations of school circulation patterns as to where and how children were entering and exiting school grounds via walking or bicycle and arriving and departing by automobile or school bus.

While the school is located in an area comprised primarily of multifamily housing, the surrounding area is heavily commercially oriented and further away there are two major roadways. As a result, there are a limited number of students that walk or bicycle to/from school, as many must rely heavily on automobile rides or school busing. Those who walk or bicycle can enter campus from along Allen Road, south of the parent pick-up/drop-off zone. Sidewalks are available along Allen Road and Fulton Road. No students are known to bicycle to school. As such, there is no bicycle parking rack available at the school.

The school bus drop-off and pick-up zone functions adequately. There are multiple lanes to queue buses and there is direct access to a walking facility. However, a portion of the bus loading/unloading area is not fully covered, causing additional stress during times of inclement weather. There are two regular size school buses and two smaller size buses that use the school bus zone. It was noted that Sealey

Elementary School is a magnet school for science and math. As a result, some students may live outside of the school zone. There is no transportation provided for those living outside the school zone.

While the loading/unloading of children at the parent pick-up and drop-off zone goes quickly, the zone functions inadequately to accommodate the volume of automobiles enter and existing the site. As such, cars queue down Allen Road towards Tallahassee Mall. Also, there are reports of drivers not obeying the rules for student drop-off, which further aggravate the situation. During the morning drop-off parents will pull into the faculty parking area, in front of the building, and let their children walk across the active drop-off driveway alone. As a result, the school has had to station a staff member there and now parents can pull into the faculty parking area but must accompany child to the school building. There is a covered holding area available for students waiting to be picked up and during this time students are dismissed by their assigned zone**s.**

Inventory Map

An aerial photograph showing Sealey Elementary School is located on the following page. As shown in the photo, the school fronts Allen Road. Students can access campus from Allen Road, just south of the automobile zone entrance. No bicycle parking racks are located at the school.

Standard width sidewalks are located along both sides of Allen Road. Additionally, standard width sidewalks are available on the non-school side of Fulton Road.

The automobile pick-up and drop-off zone is located directly in front of the school's main entrance. Automobiles both enter and exit the zone at separate driveways along Allen Road. Parking spaces are located in this area as well as just north of the area. The bus drop-off and pick-up zone is separately located on the back of the school along Fulton Road. Buses both enter and exit the zone at a shared driveway along Fulton Road. Additional parking spaces are located in this area as well.


Sealey Elementary School
Site Map
N
FULTON ROAD
School Bus Zone
Parking
Cafeteria
Auto Drop-Off/
Pick-Up Zone
Ped/Bike
Entrance
Parking
Parking
ALLEN ROAD

Issues and Opportunities

School-specific issues, opportunities, and impediments concerning the SRTS program were discussed.

Geography is the primary issue with students' ability to walk and bicycle to school. The surrounding neighborhood area includes large commercial parcels of land, which limit the amount of residential housing within a safe walking distance to school. Further out from campus there are wide, busy roadways that may not be appropriate for crossing by elementary school children, especially those at lower grade levels. These kind of external factors are often too difficult to overcome, at least in the short term.

With what opportunities that do exist to increase walking and bicycling, including student safety, consideration should be given to filling in the gaps of the sidewalk network near Allen Road and Fulton Road. Additionally, adding the school times to the speed limit sign on Allen Road should be considered to reduce automobile speeds and increase awareness of children in the area, especially during school commuting times. Also, school-related and –supportive committees such as the PTO can be used to help educate parents on the opportunities and benefits to having their children walk or bicycle to school, where such options are feasible.

These groups can also help get the word out to parents concerning on-campus issues, such as appropriate behavior and protocol within the parent drop-off/pick-up zone, such as accompanying children to the school building if parking. Furthermore, with specific regard to adding more parking to the school, the school could explore the possibility of reconfiguring the school zone bus to accommodate more parking spots and a parent walk-up.

Chapter 3: Parent Survey – Summary of Results

School administrators carried out a school-wide survey to better understand the neighborhood safety issues and concerns of parents and the factors influencing their decision to allow their children to walk or bicycle to school. (A copy of the parent survey can be found in **Appendix A**.)

Parent survey results were counted and analyzed by grade level groupings of Kindergarten through 2nd Grade and 3rd Grade through 5th Grade, respectively. (A detailed description of the parent surveys for the two grade level groupings can be found in **Appendix B**.)

The surveys of students living within two miles from the school indicate that a greater percentage of Sealey Elementary School students are dropped off by car to school in the morning, while fewer return home by the same mode in the afternoon. In the afternoon, there are greater percentages of students returning home by school bus or another mode not described specifically in the survey such as an after-school program van. Overall, a total of approximately 7% of students commutes to and from school by walking.

With regard to neighborhood safety, the concerns were generally agreed upon by parents from both Kindergarten through 2nd and 3rd through 5th. Survey respondents overall showed concern for the behavioral patterns of automobile drivers, generally, in terms of excessive driving speeds. As for speeding complaints, specific problem locations cited include Allen Road, Fulton Road, and North Monroe Street.

With regard to factors that might influence their decision to allow their child to walk or bike to school, survey responses indicate that factors such as enforcing speed limits in school zones, having separated bicycle/pedestrian pathways and the availability of crossing guards were mutually agreed upon by parents from both Kindergarten through 2nd and 3rd through 5th.

Chapter 4: Neighborhood Field Review

A neighborhood field review was conducted on April 25th, 2013. The review consisted of an assessment of accessibility, connectivity and safety along neighborhood roadways within proximity to Sealey Elementary School. On the day of the field review, the weather was overcast with some light rain and temperatures in the 70's Fahrenheit. Following the field review, a walk/bike shed area was delineated on a map within the school zone, surrounding the school. This chapter includes a Walk/Bike Shed section describing the approach to defining the area and an associated map for Sealey Elementary School.

Character of Neighborhood Area

Sealey Elementary is located behind a large, big-box style commercial area that runs along Monroe Street. The neighborhood surrounding the school is comprised primarily of multifamily housing with some areas of established single family homes. The neighborhood north of Interstate-10 is comprised of mostly large, single family residences and is not densely populated. Streets throughout the neighborhoods are not well-connected to the school, especially those northwest of Interstate-10 and in the neighborhood east of the school. However, bicycle and pedestrian infrastructure is good around the multifamily lots north of the school. There are traffic calming measures, in the form of speed bumps, along several roads near the school including Sharer Road, Robinhood Road, and Waverly Road. However, overall bicycle and pedestrian infrastructure could be improved in the area by providing new facilities along key routes to school and filling in the gaps of bike-ped infrastructure to provide better overall connectivity. Interstate-10 serves as a major transportation barrier for younger children who live north of the roadway; however, there is a connection between the school and those neighborhoods on the opposite side of Interstate-10.

Major roadways in the neighborhood include:

- Interstate 10, a mostly east-west, six roadway with a posted speed limit of 70mph.
- Monroe Street, a mostly north-south, 4-5 lane roadway with a posted speed limit of 35mph or less.
- North Meridian Road, a north-south, 2-3 lane roadway with a posted speed limit of 35mph or less.

Crash Data

Crash data were collected from the Florida Department of Transportation's (FDOT) State Safety Office for years 2009-2011. Crashes reported include any crashes within Leon County and on any local and major roadways. The data were collected for a typical school year, August 15th to May 30th. Additionally, only bicycle and pedestrian crashes that occurred during typical school commute hours, 7:00am to 9:30am and 1:50pm to 4:20pm, and school days, Monday to Friday, were examined.

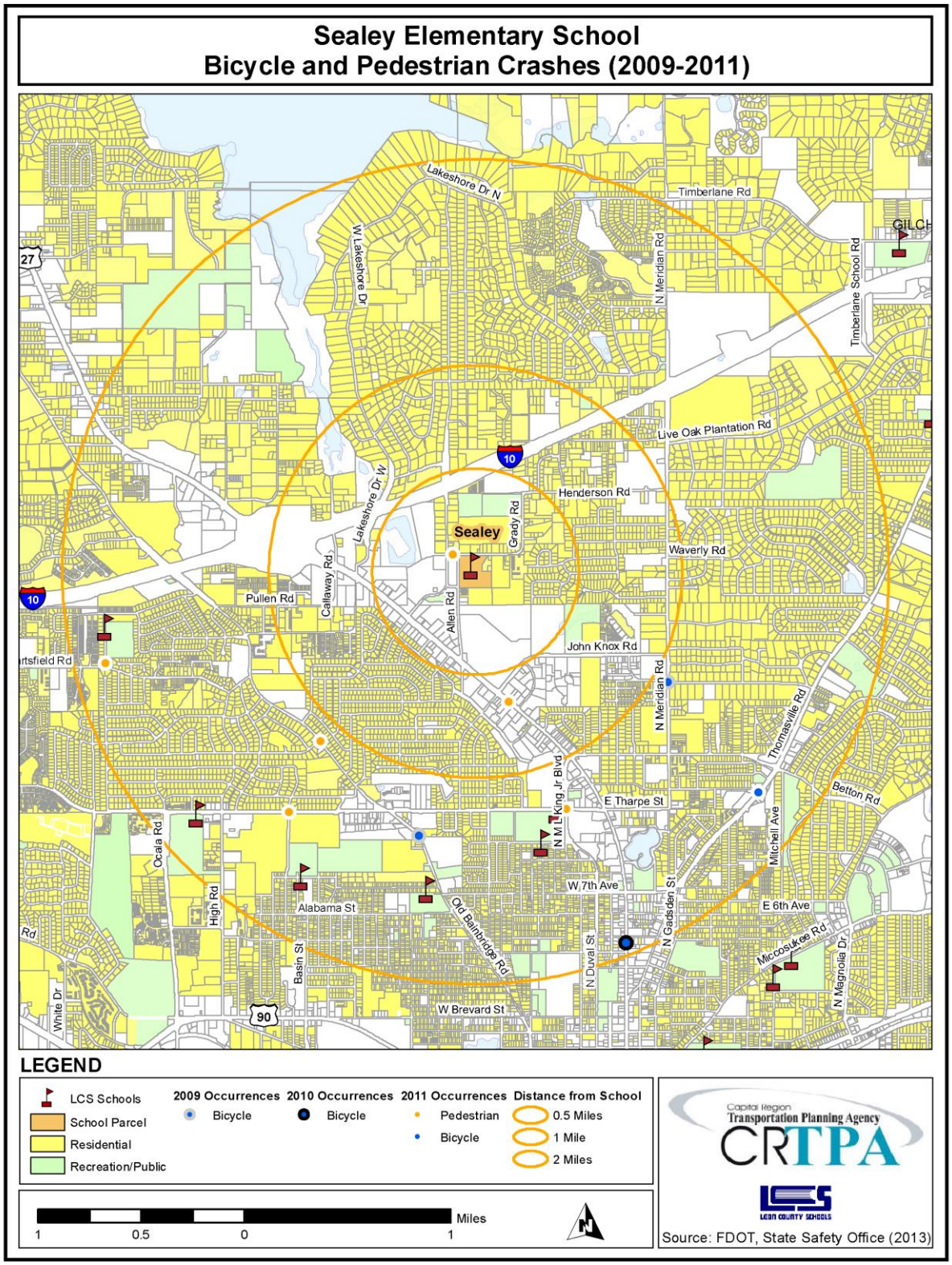
There were a total of 10 bicycle and pedestrian crashes that occurred within the theoretical two-mile walk/bike radius of Sealey Elementary School. Of those total crashes, only one (10%) occurred during the morning hours and nine (90%) occurred during the afternoon hours. A majority of the crashes

involved adult pedestrians and bicyclists. However, there were three incidents of crashes involving child pedestrians and bicyclists. Injuries were reported in all but one crash.

Most of the crashes occurred approximately one to two miles south of Sealey Elementary School in an area mainly comprised of residential neighborhoods and public parks. Streets in this area that tend to have problems with crashes are Monroe Street North, West Tharpe Street, and Old Bainbridge Road. Other roadways with reported crashes include Sharer Road, near Sealey Elementary school, and Hartsfield Road.

SUMMARY OF CRASH REPORTS (2009-2011)

Date	Time	Day	On Road	Nearest Intersection	Injury or Fatality?	Type of Crash	Person(s) Involved
05/05/09	4:07pm	Tuesday	Old Bainbridge Rd.	Knots Ln.	Injury	Bicyclist	Adult
09/23/09	3:13pm	Wednesday	S Ride	Meridian Rd.	Injury	Bicyclist	Adult
09/09/10	3:54pm	Thursday	Monroe St. N	4th Ave.	Injury	Bicyclist	Child
01/07/11	2:15pm	Friday	Monroe St. N	Silver Slipper Ln.	Injury	Pedestrian	Adult
03/01/11	3:40pm	Tuesday	Thomasville Rd.	Glenview Rd.	Injury	Bicyclist	Adult
03/01/11	3:45pm	Tuesday	Old Bainbridge Rd.	Raa Ave.	Injury	Pedestrian	Child
03/30/11	4:13pm	Wednesday	W Tharpe St. Rd	Colorado St.	No Injury	Pedestrian	Child
08/22/11	8:35am	Monday	W Tharpe St. Rd.	MLK Blvd.	Injury	Pedestrian	Adult
11/16/11	4:10pm	Wednesday	Atlas Rd.	Hartsfield Rd.	Injury	Pedestrian	Child
11/30/11	4:20pm	Wednesday	Fulton Rd.	Sharer Rd.	Injury	Pedestrian	Adult


Sealey Elementary School
Bicycle and Pedestrian Crashes (2009-2011)
Lakeshore Dr N
W Lakeshore Dr
Timberlane Rd
N Meridian Rd
Timberlane School Rd
Live Oak Plantation Rd
Henderson Rd
Sealey
Grady Rd
Waverly Rd
Lakeshore Dr W
Callaway Rd
Pullen Rd
Allen Rd
John Knox Rd
N Meridian Rd
Thomasville Rd
Betton Rd
E Tharpe St
N M L King Jr Blvd
Mitchell Ave
W 7th Ave
E 6th Ave
N Gadsden St
Ocala Rd
High Rd
Alabama St
Old Bainbridge Rd
Basin St
N Duval St
Miccosukee Rd
N Magnolia Dr
White Dr
W Brevard St
27
10
90
LEGEND
LCS Schools
School Parcel
Residential
Recreation/Public
2009 Occurrences
Bicycle
2010 Occurrences
Bicycle
2011 Occurrences
Pedestrian
Bicycle
Distance from School
0.5 Miles
1 Mile
2 Miles
Miles
1
0.5
0
1
Capital Region Transportation Planning Agency
CRTPA
LEON COUNTY SCHOOLS
Source: FDOT, State Safety Office (2013)

Neighborhood Assessment

The overall neighborhood layout surrounding Sealey Elementary School does not lend itself particularly well to walkability. Streets near the school are not very-well connected and bicycle/pedestrian infrastructure is limited to the area immediately near the school. Neighborhoods north of Interstate-10 are completely without bicycle/pedestrian infrastructure.

Project-specific recommendations can be found in the Findings and Recommendations chapter of this report.

Walk/Bike Shed

As mentioned previously, a walk/bike shed area was delineated on a map within the school zone, surrounding the school. The Sealey Elementary School walk/bike shed map is included at the end of this chapter.

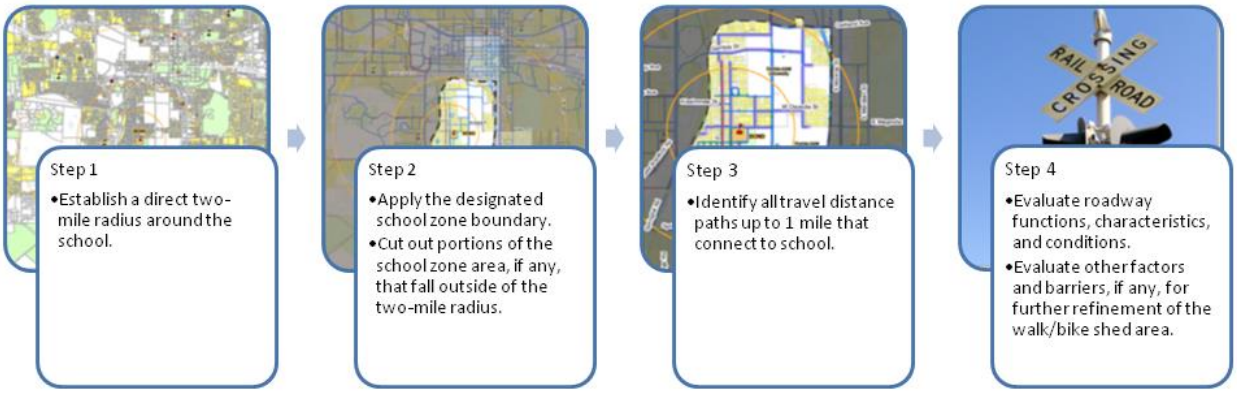
The walk/bike shed area and associated map are not meant to suggest that elementary school students of all ages, maturity level, and experience should commute to and/or from school within the area delineated. Certainly, younger children such as kindergarten students are not expected to walk or bike to school from practically any distance without the accompaniment of either a parent or much older sibling. Also, older children such as 5th graders without the appropriate experience or maturity level will likewise be more limited in their accessibility to school. Therefore, the walk/bike shed map functions more as a guide for parents, school administrators and students to evaluate and identify areas potentially commutable and conducive to walking and bicycling to school. The final decision to walk or bicycle to school is still at the discretion of the parents.

The walk/bike shed for Sealey Elementary School mostly extends north and east of the school. The Lake Jackson water body, north of the Lakeshore neighborhood, forms the northern limits of the walk/bike shed. North Meridian Road with its lack of separation from traffic and limited pedestrian infrastructure combine to form the eastern limits of the walk/bike shed. The area west of Sharer Road and south of Intertate-10 is excluded from the walk/bike shed due to the few residential land uses in this area and lack of pedestrian and bicycle accommodations. Similarly, the area south of the school is excluded from the walk/bike shed due to the presence of Tallahassee Mall and other nonresidential uses to the south.

It should be noted that certain improvement recommendations could potentially expand the potential walk/bike shed area, due to improved conditions for walking and bicycling.

Methodology

Many factors were evaluated to ultimately determine the limits of the walk/bike shed area. The general methodology for identifying the shed included the following steps:



Evaluating Roadways

Four types of safety hazards were evaluated pertaining to roadways. They include:

- Sidewalks along roadways
- Roadways without sidewalks
- Roadway crossing points
- Railroad crossing points (along roadways)

Primary hazard conditions include, but are not necessarily limited to factors such as:

- Sidewalk width (where present)
- Separation between the walking/bicycling space and the vehicular travel space
- Intersection control measures for crossing
- Number of rail tracks (for railroad crossings)
- Traffic volume
- Traffic speed
- Roadway geometry
- Length of a hazardous condition present

Multiple factors are no doubt present for each hazard. And no two factors or situations are the same. This makes evaluation as much of an art as a science. Nonetheless, there are certain conditions in and of themselves that are considered decisive limitations to elementary school children walking and/or bicycling to school. Such conditions where walking and/or bicycling are deemed hazardous include the following. It should be noted that only one condition from either table needs to be met for a situation to be deemed hazardous.

Travel Along Roadways				
Sidewalk Type	**Hazardous Conditions**			
	Type of Road	**Posted Speed Limit**	**Peak Hour Traffic**	**Length**
< 2' wide sidewalk OR without sidewalk	All roadways other than local, neighborhood streets	N/A	N/A	Exceeding 0.5 miles in length
</= 3' wide sidewalk OR </= 4' separation from traffic	More than 2 travel lanes	Greater than 35 mph	Greater than 2,000	Exceeding 1 mile in length
> 4' wide sidewalk AND >/= 4' separation from traffic	More than 4 travel lanes	Greater than 45 mph	Greater than 3,500	Exceeding 2 miles in length

Roadway Crossing Points				
Crosswalk Type	**Hazardous Conditions**			
	Type of Road	**Posted Speed Limit**	**Peak Hour Traffic**	**Length**
Unmarked Crosswalk Unsignalized Crosswalk	More than 2 travel lanes	Greater than 25 mph	Greater than 1,500	N/A
Marked Crosswalk Signalized Crosswalk	Greater than 4 travel lanes	Greater than 40 mph	Greater than 2,000	N/A

Hazardous Walking Conditions, as defined per Florida Statute

Section 1006.23 of the Florida Statutes defines hazardous walking conditions for elementary school-aged students commuting to and from school. While these guidelines are useful, the scope and intent of the State's language are fairly general and broad. The standards are mostly liberally applied to extreme situations. For example, a four-foot wide 'surface sufficient for walking' that is only three feet in distance from the edge of a curb-less roadway with a 55 mph posted speed limit would likely not meet the required criteria, per State Statute, for hazardous walking conditions for elementary-aged students walking to or from school. Most experts would agree that such conditions as described are likely too challenging for elementary students to handle.

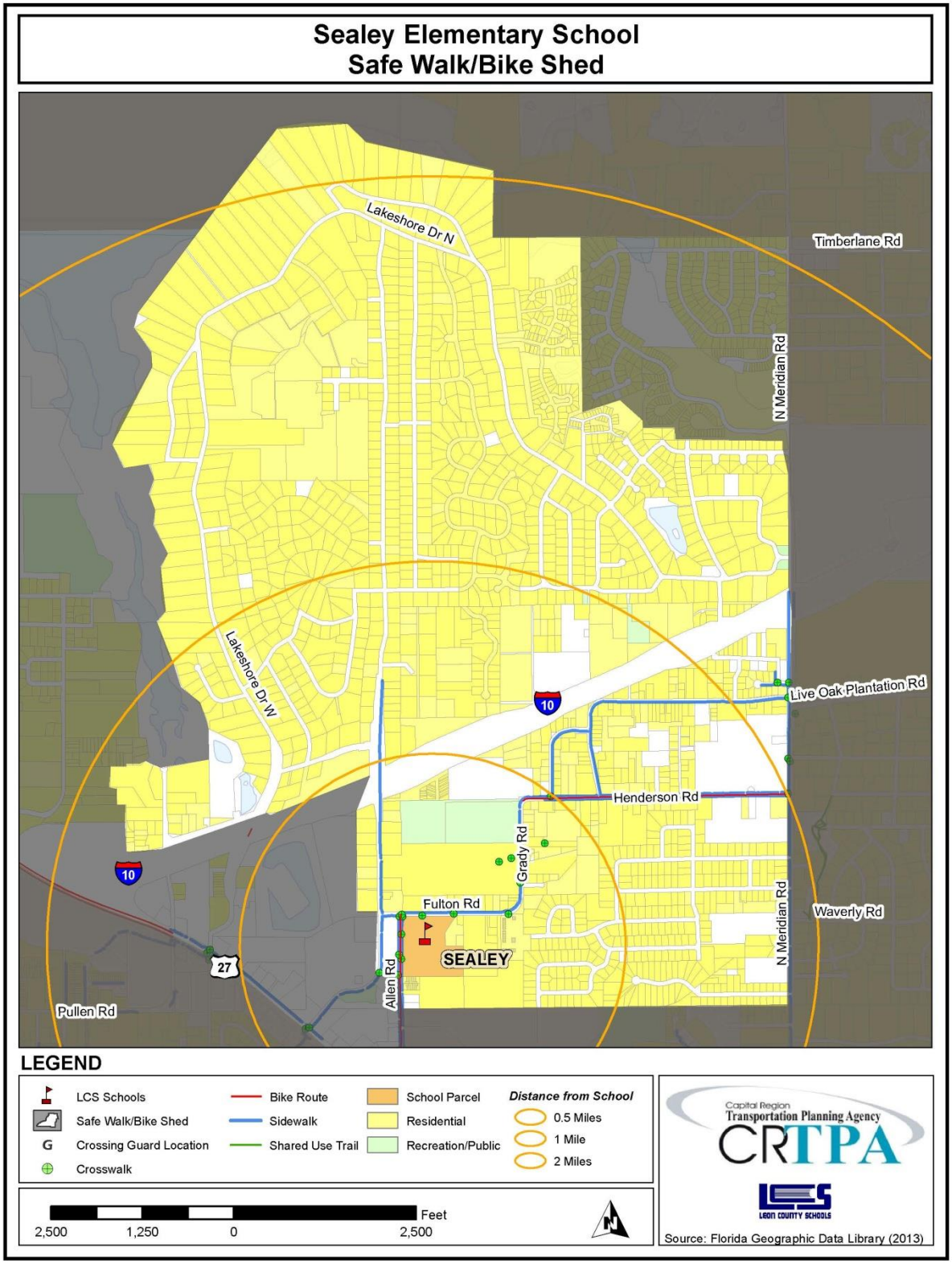
In determining a safe walking and bicycling area, this report applies a methodology and criterion that is more stringent than State standards and more in line with existing studies, research and opinions collected from numerous experts in the fields of pedestrian and bicycle transportation and safe routes to school planning. In addition, this report goes much further than simply identifying sidewalk/pathway

deficiencies; it also considers intersection conditions, pavement markings, signage, and a number of other attributes that can impact safe routes to school.

Evaluating Other Factors and Barriers

In addition to that identified above, information collected from the field review, anecdotal comments from parent surveys, discussions with school administrators and staff, and general research findings were applied to determine the ultimate walk/bike shed area commuting limits for the school. Such additional information evaluated included the following:

- Barriers such as water bodies and high-speed, restricted access highways
- Historic travel accident patterns
- Poor quality pedestrian infrastructure along routes
- Pathways of excessive length through nonresidential areas as well as excessive intersecting vehicular access drives


Sealey Elementary School
Safe Walk/Bike Shed
Lakeshore Dr N
Timberlane Rd
N Meridian Rd
Lakeshore Dr W
Live Oak Plantation Rd
10
Henderson Rd
Grady Rd
Fulton Rd
SEALEY
Waverly Rd
N Meridian Rd
27
Allen Rd
Pullen Rd
LEGEND
LCS Schools
Safe Walk/Bike Shed
Crossing Guard Location
Crosswalk
Bike Route
Sidewalk
Shared Use Trail
School Parcel
Residential
Recreation/Public
Distance from School
0.5 Miles
1 Mile
2 Miles
Feet
2,500
1,250
0
2,500
Capital Region
Transportation Planning Agency
CRTPA
LEON COUNTY SCHOOLS
Source: Florida Geographic Data Library (2013)

Chapter 5: Findings and Recommendations

Walking and bicycling to Sealey Elementary School can be difficult due to the lack of bicycle/pedestrian infrastructure to neighborhoods north of Interstate-10 as well as the lack of direct connection to neighborhoods east of the school. However, there are a number of infrastructure recommendations that would provide much benefit toward improving the existing conditions. Additional policy and programmatic recommendations that might help to increase safe walking and bicycling to and from school, and likewise provide some relief to both the car line, are also included for the school's consideration.

Infrastructure Improvements

The following recommendations supplement the current walk/bike shed area as delineated on the map, addressing infrastructure needs and improvements that would enhance walking and bicycling safety and convenience to and from Sealey Elementary School. They include both on- and off-site improvements as follows:

Sealey Elementary School On- and Off-Site Recommendations

	Improvement: On-Site	Location	From	To	Geography	Direction	Length	Comments
A1	Install a Bicycle Rack	East of the Automobile Zone	N/A		N/A	N/A	N/A	
A2	Reconfigure the School Bus Zone and Parking Lot	School Bus Zone	N/A		N/A	N/A	N/A	Feasibility Study – See Description.

	Improvement: Off-Site	Location	From	To	Geography	Direction	Length	Comments
B1	Stripe Existing Crosswalks (2)	Allen Road	At Parent Pick-Up/Drop-Off Zone Driveways		East side of Allen Road	N-S	N/A	Both the entrance and exit driveways
B2	Stripe Existing Crosswalks (3)	Allen Road	At Fulton Road		N/A	N/A	N/A	
B3	Stripe existing crosswalk	Fulton Road	School Bus Entrance/Exit Driveway		South side of Fulton Road	E-W	N/A	
B4	Add School Commute Times to Existing School Zone Sign	Fulton Road	Sign just south of Parent Pick-Up/Drop-Off Exit Driveway		West side of Fulton Road	N/A	N/A	
B5	New Trail Connection	Existing Undeveloped Area	Fulton Road	Hoffman Drive	East of Waterbrook Way	NW-SE	Approx. 440’	Feasibility Study – See Description.
B6	New Sidewalk	Sharer Road	Approx. 234’ south of Sandy Drive	Locksley Lane	East side of Sharer Road	N-S	Approx. 1,241’	Potential ROW constraints
B7	New Sidewalk	Mays Road	Lakeshore Drive	Sharer Road	North side of Mays Road	E-W	Approx. 1,425 feet	
B8	New Striped Crosswalk with signage	Sharer Road	100’ south of Mays Road	--	E-W	N/A	Requires a break in the guardrail	
B9	New Striped Crosswalk	Mays Road	At Sharer Road	West side of Sharer Road	N-S	N/A		
B10	New Sidewalk	Lakeshore Drive	Mays Road	Derbyshire Road	East side of Lakeshore Drive	N-S	Approx. 3, 490 feet	

The table, above, corresponds to an infrastructure recommendations map on the following page.

On-Site Recommendations

A1) Install a new bicycle parking rack near the main school entrance, just east of the parent pick-up/drop-off zone. Currently, there is no bicycle parking rack available at the school.

A2) Reconfigure the existing school bus zone and parking lot in order to accommodate more parking spots for parents who wish to park and walk their children to class.

Off-Site Recommendations

B1) Stripe the existing two crosswalks along Allen Road at both the parent pick-up/drop-off driveways.

B2) Stripe the existing three crosswalks at the intersection of Allen Road & Fulton Road.

B3) Stripe the existing crosswalk at the school bus zone entrance/exit driveway.

B4) Add the school commute times for Sealey Elementary School to the existing 'School Zone' sign on Allen Road, near the parent pick-up/drop-off exit driveway. Currently, the sign only enforces the 20mph speed limit 'When Children Are Present." This may be confusing for drivers who do not know the school's morning and afternoon commute times.

B5) Create a new trail connection between Fulton Road and Hoffman Drive. Currently there is no direct connection between Sealey Elementary School and the neighborhoods to the east of the school. Students who may live in Wellswood-Suburban Hills neighborhood must travel out of the neighborhood and collect onto North Meridian Road in order to access a road that connects to the school. A child walking from the Wellswood-Suburban Hills to/from Sealey would be making an almost two mile journey each way due to the lack of direct connections.

B6) Construct a new sidewalk along the east side of Sharer Road from approximately 234' south of Sandy Drive to Locksley Lane. This project will help facilitate student non-motorized commutes to and from school and neighborhoods north of I-10.

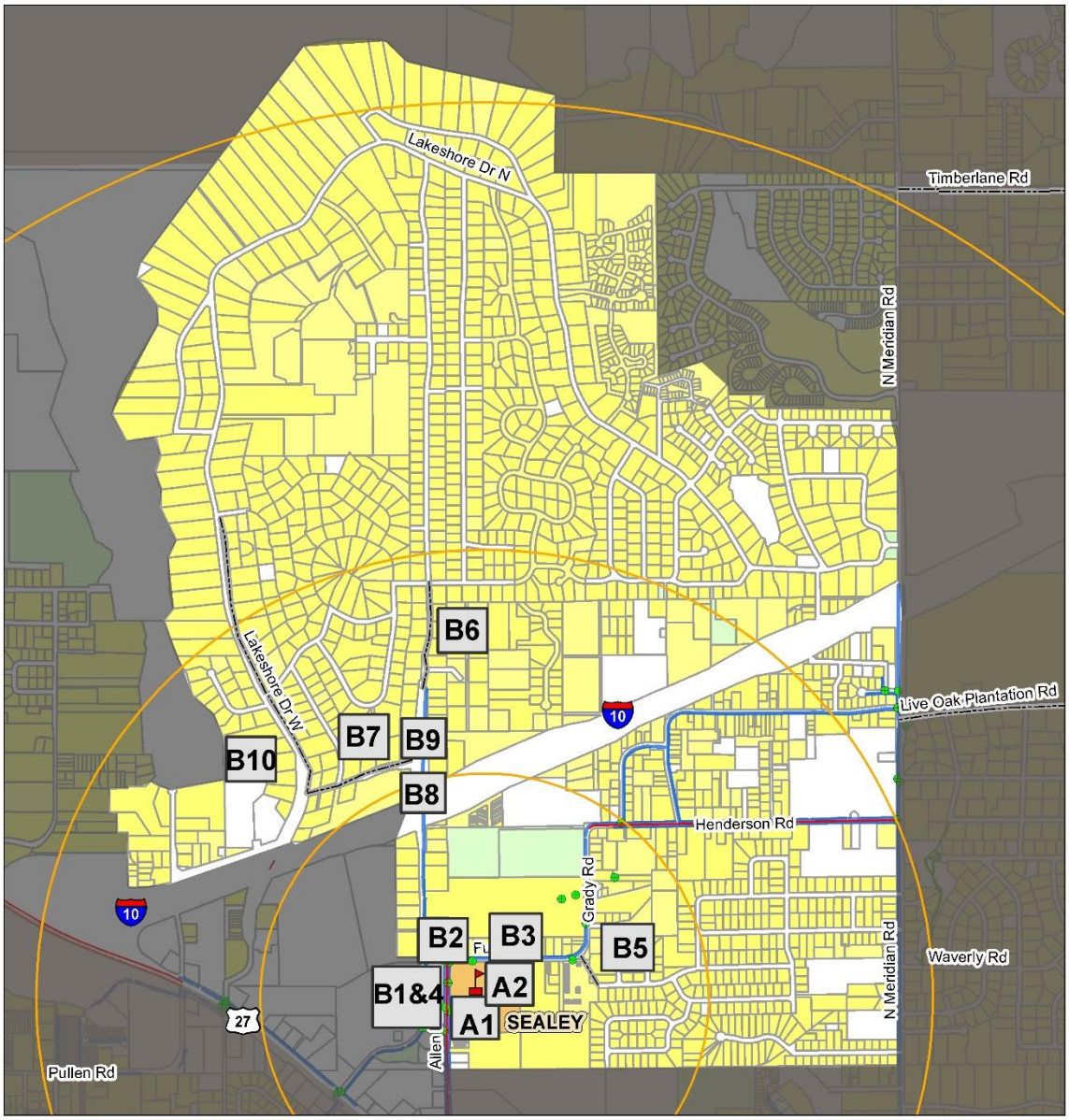
B7) Construct a new sidewalk along Mays Road from Lakeshore Drive to Sharer Road.

B8) **(In conjunction with B7)** Mark a new striped crosswalk with appropriate signage and pedestrian warning lights on Sharer Road approximately 100 feet south of Mays Road. This recommendation will require a break in the existing guardrail.

B9) **(In conjunction with B7)** Mark a new striped crosswalk on the west side of the Mays Road and Sharer Road intersection.

B10) Construct a new sidewalk along Lakeshore Drive from Mays Road to Derbyshire Road.

Sealey Elementary School
Infrastructure Recommendations



LEGEND

LCS Schools
Bike Route
Sidewalk
Shared Use Trail
Safe Walk/Bike Shed
School Parcel
Residential
Recreation/Public
Distance from School
0.5 Miles
1 Mile
2 Miles
Crossing Guard Location
Crosswalk
Infrastructure Recommendation

2,500 1,250 0 2,500 Feet

Capital Region Transportation Planning Agency CRTPA

LEON COUNTY SCHOOLS

Source: Florida Geographic Data Library (2013)

Programs

C1) Walk and bicycle encouragement literature – Send home literature to parents, as well as make it available on the school website, about the benefits of children walking and bicycling to school. Information and statistics from the National Safe Routes to School organization can be used to highlight health and safety benefits. The literature provided to parents should highlight some specific examples of how parents and the community can make walking and bicycling to school safe and fun. Examples of programs to promote walking and bicycling include encouraging parents to coordinate with other parents to establish walking and bicycling groups (i.e. buddy programs and walking school buses) to help ease safety concerns; participating in Walk/Bike to School Days; and/or creating a mileage club where students or entire classrooms keep track of how much they walk or bike to school to compete for prizes or certificates.

C2) Bicycle safety and accessibility workshop – While bicycle education is taught through the school's Physical Education curriculum, it would also be beneficial to organize and hold a workshop or a bike rodeo that demonstrates bicycle safety topics, catered to younger children, such as bicycle hand signals, how to properly wear a bicycle helmet, and properly obeying traffic signs/signals. Parents and students should be reminded that under Florida Law, anyone under the age of 16 must wear a bicycle helmet. An on-campus bicycle obstacle course that covers skills such as avoiding obstacles, balancing at slow speeds, turning, and making emergency stops can be very helpful for young riders. Additionally, a group bicycle ride, through the neighborhood surrounding the school, can be a safe and fun way to get children more comfortable with their built environment and any obstacles they may encounter en route to school. Local community groups, as well as, university clubs/organizations, Leon County Sheriff's Office, and Leon County Public Schools may be willing to donate time and/ or supplies such as bikes, helmets, and locks for workshops and rodeos if contacted.

C3) Parent drop-off/pick-up zone protocol encouragement– Send home literature to parents, as well as make it available on the school website, about the proper drop-off and pick-up process for the school, particularly at the start of a new school year or after an extended school break. Maps of the drop-off/pick-up zone, as well as, the traffic flow pattern can be very helpful to parents. The literature available to parents should remind them to be patient and courteous to other parent drivers and clearly discourage parents from letting children out in the parking lot before the drop zone, releasing them on the side of the road, or parking on the side of the road (to wait for their child). Providing small rewards, such as stickers or pencils, to students whose parents follow the proper drop-off/pick-up process is typically more beneficial than punishing improper behavior.

C4) Grady Road/Fulton Road Supervision – While there is a crossing guard available at the intersection of Allen Road & Fulton Road, it is recommended that an additional crossing guard be located near where Grady Road turns into Fulton Road. School officials noted that many students cross the street at this location instead of crossing at the designated crossing guard location.

Policies

D1) Bike check and security – **(IN CONJUNCTION WITH ON-SITE RECOMMENDATION A1)** School policies to encourage bicycle riding could include having a school official or parent volunteer at the bike rack in the morning and afternoon to check-in and check-out students parking their bikes. The adult assigned to handle check-in and check-out will assist with locking the bike in the morning and will unlock the bike for the students in the afternoon. The school should consider investing in basic, school-owned bike locks that can be applied when students check-in. By having locks available at school, students do not need to remember to bring one each day. Basic locks can be purchased fairly cheap.

D2) Parent drop-off/pick-up zone protocol – Setting protocol for the parent drop-off/pick-up process improves the traffic conditions and creates a safer environment for automobiles, as well as, pedestrians and bicyclists.

Drop-Off Procedures

- Please stay in vehicle and pull forward to the front of the parent drop-off/pick-up zone.
- Please continue to queue the line for parent drop-off along Allen Road, but please do not block driveways.
- Please be prepared to promptly help your child(ren) exit the vehicle with their belongings upon arriving at the drop-off point. Someone will be outside to assist and direct children into school each morning.
- If you must enter the school, please park your vehicle in one of the available parking lots. Do not park in the parent drop-off/pick-up zone as this will delay others trying to drop-off their children.

Pick-Up Procedures

- Please stay in vehicle and pull forward to the front of the parent drop-off/pick-up zone.
- Please continue to queue the line for parent pick-off along Allen Road, but please do not block driveways.
- It is suggested that parents clearly and boldly write their child's name, classroom teacher, and grade level on a letter-sized sheet of paper and place it on the dash of their vehicle to assist staff and others in the parent pick-up zone. Please be prepared to promptly assist your child(ren) entering your vehicle at the pick-up point.
- As soon as your child(ren) are securely in the car with their belongings, pull forward and exit the drop-off/pick-up zone so that other cars may pull forward and pick up their children.
- If you must enter the school, please park your vehicle in the parking lot out front. Do not park in the parent drop-off/pick-up zone as this will delay others trying to pick-up their children.

Planning-Level Cost Estimates

Planning-level cost estimates are included in the table, below. They are intended to be used as a guide. Specific, detailed cost estimates for individual projects will require closer assessment of project conditions and constructability at the time of improvement.

General Unit Cost Estimates[1]

Item	Assumptions	Unit	Average Unit Cost ($)
sidewalk	concrete sidewalk (5' wide)	linear foot	32
sidewalk	concrete sidewalk + curb (5' wide)	linear foot	150
shared-use path	multi-use trail – paved (at least 8' wide)	mile	481,140
shared-use path	multi-use trail – unpaved (at least 8' wide)	mile	121,390
pavement symbol	pedestrian crossing	Each	360
pavement symbol	shared lane/bicycle marking	each	180
pavement symbol	school crossing	each	470
paved shoulder	asphalt material	square foot	5.56
crosswalk	high visibility crosswalk (ladder or zebra striping)	each	2,540
crosswalk	standard parallel lines crosswalk	each	770
signage	bike route sign	each	160
signage	stop/yield sign	each	300
signage	no turn on red (standard metal sign)	each	220
signage	no turn on red (electronic sign)	each	3,200
signage	trail regulation sign	each	160
flashing beacon	standard beacon (system + labor/materials)	each	10,010
flashing beacon	rectangular rapid flashing beacon (system + labor/materials)	each	22,250
ped hybrid beacon	high intensity activated crosswalk (HAWK) signal	each	57,680
ped/bike detection	push button	each	350
signal	audible pedestrian signal	each	800
signal	countdown timer module	each	740

[1] Bushell, M. A., Poole, B. W., Zegeer, C. V., & Rodriuez, D. A. (2013). *Costs for Pedestrian and Bicyclist Infrastructure Improvements: A Resource for Researchers, Engineers, Planners, and the General Public.* Federal Highway Administration.

Chapter 6: Conclusion

Currently, Sealey Elementary School does not have high walking and bicycling commuting rates for students. Overall, the parent surveys suggest that the walk-to-school average for a typical week is seven percent in the morning and three percent in the afternoon while no students are known to commute by bicycle to and from school. There appears to be two primary reasons. First, many of the land uses near the school are commercial-oriented and so there is limited housing in the area. Additionally, Sealey is a magnet school so many students that elect to attend the school live further away from the school, outside of a safe, reasonable walking and bicycling distance. This is more of a system-wide transportation and geography issue outside the purview of this analysis. However, the issue could be further explored during any future school district boundary change considerations.

The second reason for low walking and bicycling rates to school was revealed from information garnered from the parent survey results as well as meetings with school representatives. Overall, when it comes to allowing their children to walk or bicycle to school, parents primarily expressed concerns for speeding vehicle. However, parents indicated that enforcing speed limits in school zones, having separated bicycle/pedestrian pathways and the availability of crossing guards were factors that might influence their decision to allow their children to walk or bicycle to school.

For those students within a relatively safe walking and bicycling distance to school, opportunities to improve student walking and bicycling rates are rooted primarily in infrastructure improvements including but not limited to sidewalk projects and crosswalk improvements. Additionally, informational and educational programmatic solutions as well as policies that encourage walking and bicycle commuting have been provided. For students who will continue to commute by automobile as well as those outside of a safe walking and bicycling distance, policy suggestions are included in this audit report to address better management and enforcement within the parent drop-off/pick-up area as well as the opportunity to create more parking at the school.

While Sealey Elementary School has a sizeable student population outside of a safe, reasonable walking and bicycling distance, there are measures for which the school can take that will help to improve walking and bicycling safety and increase non-motorized commuting rates.

Appendices

Appendix A: Parent Survey

Leon County Schools

PARENT SURVEY

Dear Parents: In an effort to improve traffic safety in and around our schools, we are looking for ways to reduce the amount and speed of cars, improve walking and bicycling conditions and encourage enforcement and safety education programs. Please help us by providing your opinions to the following questions. **The name of my child's school is**: _____.

1. Please provide the sex, age and grade of your child:

Sex: Male Female
Age: _____
Grade: _____

2. Approximately how far do you live from your child's school? *(circle closest answer):*

1. 1/2 mile or less
2. 1/2 mile to 1 mile
3. between 1 and 2 miles
4. over 2 miles

If you live over two miles from the school, please stop here and turn in your survey. Thank you for participating. If you live within two miles of the school, please help us by completing the questions on the following pages.

3. How does your child usually go to and from school: (*place a check on the appropriate line*)

	In the morning?	In the afternoon?
a. School bus	_____	_____
b. Car	_____	_____
c. Walk	_____	_____
d. Bicycle	_____	_____
e. City bus	_____	_____
f. Other (please explain)	_____	_____

4. Please identify specific safety problems of concern to you in your neighborhood or around your child's school *(i.e. broken sidewalks, crime areas, high-speed vehicles, etc.)* and indicate the street locations:

_____
_____
_____

Capital Region Transportation Planning Agency

Leon County Schools

5. Which of the following factors would influence your decision to allow your child to walk or bicycle to school. On a scale of 1 to 5 (1= not important to 5= very important), please rate each statement's importance as it applies to your child. If the statement does not apply, circle "NA".

I would allow my child to walk or bicycle to school more often if:	Not Important				Very Important	Not Applicable
a) Accompanied by other children	**1**	**2**	**3**	**4**	**5**	**NA**
b) Accompanied by myself or other parents	**1**	**2**	**3**	**4**	**5**	**NA**
c) Schools provided more walking and bicycling safety training for students	**1**	**2**	**3**	**4**	**5**	**NA**
d) Additional crossing guards were provided at busy intersections	**1**	**2**	**3**	**4**	**5**	**NA**
e) Crossing guards were more effective	**1**	**2**	**3**	**4**	**5**	**NA**
f) There were continuous sidewalks or bike paths from my neighborhood to school	**1**	**2**	**3**	**4**	**5**	**NA**
g) There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school	**1**	**2**	**3**	**4**	**5**	**NA**
h) We lived closer to school	**1**	**2**	**3**	**4**	**5**	**NA**
i) Speed limits were strictly enforced in school speed zones	**1**	**2**	**3**	**4**	**5**	**NA**
j) School speed zones were marked with flashing signs	**1**	**2**	**3**	**4**	**5**	**NA**
k) School speed zones were a greater distance surrounding school	**1**	**2**	**3**	**4**	**5**	**NA**
l) The school provided a secure place for storing bicycles	**1**	**2**	**3**	**4**	**5**	**NA**
m) There was a greater adult presence of parent volunteers or police officers along walk routes to school	**1**	**2**	**3**	**4**	**5**	**NA**
n) There was better street lighting along walk routes to school	**1**	**2**	**3**	**4**	**5**	**NA**
o) Please write below any additional factors that might influence you to let your child walk or bicycle to school more often:						

_____

_____

_____

_____

Capital Region Transportation Planning Agency

Appendix B: Parent Survey – Detailed Analysis

The survey consisted of a one-page double-sided sheet of paper with five questions for parents to answer. Survey copies were sent home with students early in the week. They were instructed to deliver the survey to their parents (or guardians), asking them to complete the survey and send it back with their children by the end of the week.

Parents were first asked general demographic questions pertaining to the sex and age of their child, as well as grade level. Then, parents were asked approximately how far they lived from their child's school. Families living over two miles from school were instructed to return the survey without completing the remainder of questions pertaining to walking and bicycling to school. Those claiming to reside within two miles were asked, next, how their child typically gets to and from school (for morning and afternoon, respectively). Then, they were asked to identify any safety problems of concern in their neighborhood. Finally, parents were asked to consider a range of safety and convenience factors, and how each factor might influence their decision to allow their child to walk or bike to school.

The parent surveys were conducted during the winter/spring semester of 2013. There were 149 parent surveys returned. Of those, 58 (39%) claimed to reside within the theoretical two-mile walk/bike radius of the school. Surveys from families residing within the theoretical two-mile walk/bike radius were split nearly 50/50 by grade level grouping, with 28 students representing Kindergarten through 2nd Grade, and 30 students representing 3rd Grade through 5th Grade.

SUMMARY OF PARENT SURVEY PARTICIPATION

Total Enrollment	544
Total Number of Parent Surveys	149
Total Number within 2 Miles (K-2nd Grade)	28
Total Number within 2 Miles (3rd-5th Grades)	30
Percentage of Surveys within 2 Miles	39 %

Commuting to/from School

Parents were asked how their child usually traveled to and from school, in the morning and afternoon. Choices of travel modes included: school bus, car, walk, bicycle, public bus, and other (where they were asked to explain).

SUMMARY OF SCHOOL-WIDE COMMUTING RESULTS

Morning	Average Overall
Car	71 %
School Bus	21 %
Walk	7 %
Bicycle	0 %
Public Bus	0 %
Other	0 %
Afternoon	
Car	60 %
School Bus	24 %
Walk	7 %
Other	7 %
Bicycle	0 %
Public Bus	0 %

Commuting Patterns of Younger-Aged Children (K – 2nd Grade)

The surveys of parents of younger-aged (K-2nd grade) indicate that the car-to-school average for a typical week is 75% in the morning and decreases to 61% in the afternoon. The school bus-to-school average for a typical week is 14% in both the morning and afternoon. The walk-to-school school average for a typical week is 7% in the morning and increases to 11% in the afternoon. None of the students use an alternative commute mode in the morning, while 11% use an alternative commute mode in the afternoon. None of the students rode a bicycle or public bus in the morning or afternoon.

COMMUTING PATTERNS OF YOUNGER-AGED CHILDREN (K-2nd)

Morning	Average Overall
Car	75 %
School Bus	14 %
Walk	7 %
Bicycle	0 %
Public Bus	0 %
Other	0 %
Afternoon	
Car	61 %
School Bus	14 %
Walk	11 %
Other	11 %
Bicycle	0 %
Public Bus	0 %

Commuting Patterns of Older-Aged Children (3rd – 5th Grade)

The surveys of parents of older-aged (3rd-5th grade) indicate that the car-to-school average for a typical week is 67% in the morning and decreases to 60% in the afternoon. The school bus-to-school average for a typical week is 27% in the morning and increases to 33% in the afternoon. The walk-to-school average for a typical week is 7% in the morning and 3% in the afternoon. None of the students use an alternative commute mode in the morning. However, 3% use an alternative commute mode in the afternoon. Also, none of the students rode a bicycle or public bus in the morning or afternoon.

COMMUTING PATTERNS OF OLDER-AGED CHILDREN (3rd-5th)

Morning	**Average Overall**
Car	67 %
School Bus	27 %
Walk	7 %
Bicycle	0 %
Public Bus	0 %
Other	0 %
Afternoon	
Car	60 %
School Bus	33 %
Walk	3 %
Other	3 %
Bicycle	0 %
Public Bus	0 %

Neighborhood Safety Concerns

Parents were asked to identify specific safety problems of concern in their neighborhood or around their child's school including problems such as broken sidewalks, crime areas, high speed vehicles, etc.). They were also asked to indicate specific street locations, where possible. Parents provided answers anecdotally. Summaries of the top neighborhood safety concerns are provided. The table below includes the top neighborhood safety concern expressed by survey respondents.

SUMMARY OF TOP RANKING NEIGHBORHOOD SAFETY CONCERN

Neighborhood Safety Concern	**Number of Comments**
Speeding Vehicles	9

Neighborhood Safety Concerns For Younger-Aged Children (K – 2nd Grade)

Neighborhood safety concerns for parents of younger-aged (K-2nd) children include two main concerns including issues with speeding vehicles and sidewalks/walking. There were approximately four comments of concern regarding speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Allen Road, Fulton Road, and North Monroe Street. Additionally, there were approximately two comments of concern regarding issues with sidewalks and walking. General concerns include the need for more sidewalks in neighborhoods and the narrowness of sidewalks.

SUMMARY OF TOP NEIGHBORHOOD SAFETY CONCERNS (K-2nd Grade)

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	4
Issues with Sidewalks/Walking	2

Neighborhood Safety Concerns For Older-Aged Children (3rd – 5th Grade)

Neighborhood safety concerns for parents of older-aged (3rd-5th) children include issues with crime, speeding vehicles, and transportation outside of the school zone. There were approximately six comments of concern regarding issues with crime. General concerns include loose dogs, strangers yelling at children, and known crime areas. Additionally, there were five comments of concern regarding issues with speeding vehicles. A specific location where high-speed vehicles tend to be a problem is Allen Road. Lastly, there were two comments of concern regarding issues with transportation outside of the school zone. General concerns include high volumes of traffic and drivers texting.

SUMMARY OF TOP NEIGHBORHOOD SAFETY CONCERNS (3rd-5th Grade)

Neighborhood Safety Concern	Number of Comments
Issues with Crime	6
Speeding Vehicles	5
Issues with Transportation Outside of School Zone	2

Factors Influencing Decisions to Allow Students to Walk or Bicycle to School

Parents were asked about 15 different factors related to their children walking or biking to school. Parents rated each statement's importance on a scale of 1 to 5 (1=Not Important to 5=Very Important), as it applied to their child, to determine what influenced their decision to allow their child to walk or bike to school. If statements did not apply, parents marked N/A (Not Applicable).

SUMMARY OF TOP RANKING SCHOOL-WIDE INFLUENTIAL FACTORS RESULTS

	SCALE	1	2	3	4	5	N/A
I would allow my child to walk or bicycle to school more often if:							
#1 Speed limits were strictly enforced in school speed zones		*2*	*0*	*2*	*4*	*35*	5
#2 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school		*2*	*1*	*2*	*5*	*29*	9
#2 Additional crossing guards were provided at busy intersections		*3*	*3*	*2*	*5*	*29*	7

Influential Factors for Younger-Aged Children (K – 2nd Grade)

Parents of children in Kindergarten through 2nd grade agreed that the top five influential factors to allow their child to walk or bicycle to school more often included factors related to enforcing speed limits in school zones, having a greater adult presence along routes to school, accompanying children (by themselves/other parents), having separate bicycle/pedestrian pathways from traffic, and the availability of crossing guards.

TOP RANKING INFLUENTIAL FACTORS FOR YOUNGER-AGED CHILDREN (K-2nd)

	SCALE	1	2	3	4	5	N/A
I would allow my child to walk or bicycle to school more often if:							
#1 Speed limits were strictly enforced in school speed zones		*2*	*0*	*1*	*1*	*14*	3
#2 There was a greater adult presence of parent volunteers or police officers along walk routes to school		*1*	*0*	*1*	*3*	*12*	4
#2 Accompanied by myself or other parents		*0*	*1*	*1*	*3*	*12*	5
#2 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school		*1*	*0*	*1*	*2*	*12*	5
#2 Additional crossing guards were provided at busy intersections		*1*	*2*	*1*	*1*	*12*	5

Influential Factors for Older-Aged Children (3rd – 5th Grade)

Parents of children in 3rd through 5th grade agreed that the top five influential factors to allow their child to walk or bicycle to school more often included factors related to enforcing speed limits in school zones

and marking zones with flashing signs, availability of crossing guards, and having separated and continuous bicycle/pedestrian pathways.

TOP RANKING INFLUENTIAL FACTORS FOR OLDER-AGED CHILDREN (3rd-5th)

	SCALE	1	2	3	4	5	N/A
I would allow my child to walk or bicycle to school more often if:							
#1 Speed limits were strictly enforced in school speed zones		*0*	*0*	*1*	*3*	*21*	2
#2 School speed zones were marked with flashing signs		*0*	*0*	*1*	*3*	*19*	4
#3 Additional crossing guards were provided at busy intersections		*2*	*1*	*1*	*4*	*17*	2
#3 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school		*1*	*1*	*1*	*3*	*17*	4
#3 There were continuous sidewalks or bike paths from my neighborhood to school		*2*	*0*	*1*	*2*	*17*	5