August 2014

Safe Routes to School Audit Report
Ruediger Elementary School

Leon County Public Schools

Table of Contents

Acknowledgements iii
Chapter 1: Introduction 1
Project Purpose 1
School Overview 1
School Zone 1
Chapter 2: On-Site Meeting and Inventory 3
Date and Weather Conditions 3
Highlights and Key Observations of On-Site Meeting 3
Circulation 4
Inventory Map 4
Issues and Opportunities 7
Chapter 3: Student Travel Survey – Summary of Results 8
Chapter 4: Parent Survey – Summary of Results 9
Chapter 5: Neighborhood Field Review 10
Character of Neighborhood Area 10
Crash Data 10
Neighborhood Assessment 15
Walk/Bike Shed 15
Methodology 15
Evaluating Roadways 16
Hazardous Walking Conditions, as defined per Florida Statute 17
Evaluating Other Factors and Barriers 18
Chapter 6: Findings and Recommendations 20
Infrastructure Improvements 20
Off-Site Recommendations 22
Programs 24
Policies 25
Planning-Level Cost Estimates 27
Chapter 7: Conclusion 28
Appendix A: Student Travel Survey 30

Appendix B: Student Travel Survey – Detailed Analysis 31
Appendix C: Parent Survey..... 35
Appendix D: Parent Survey – Detailed Analysis..... 37

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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 in-class student travel surveys, parent self-reported surveys, on-site meetings with school officials, and field reviews.

School Overview

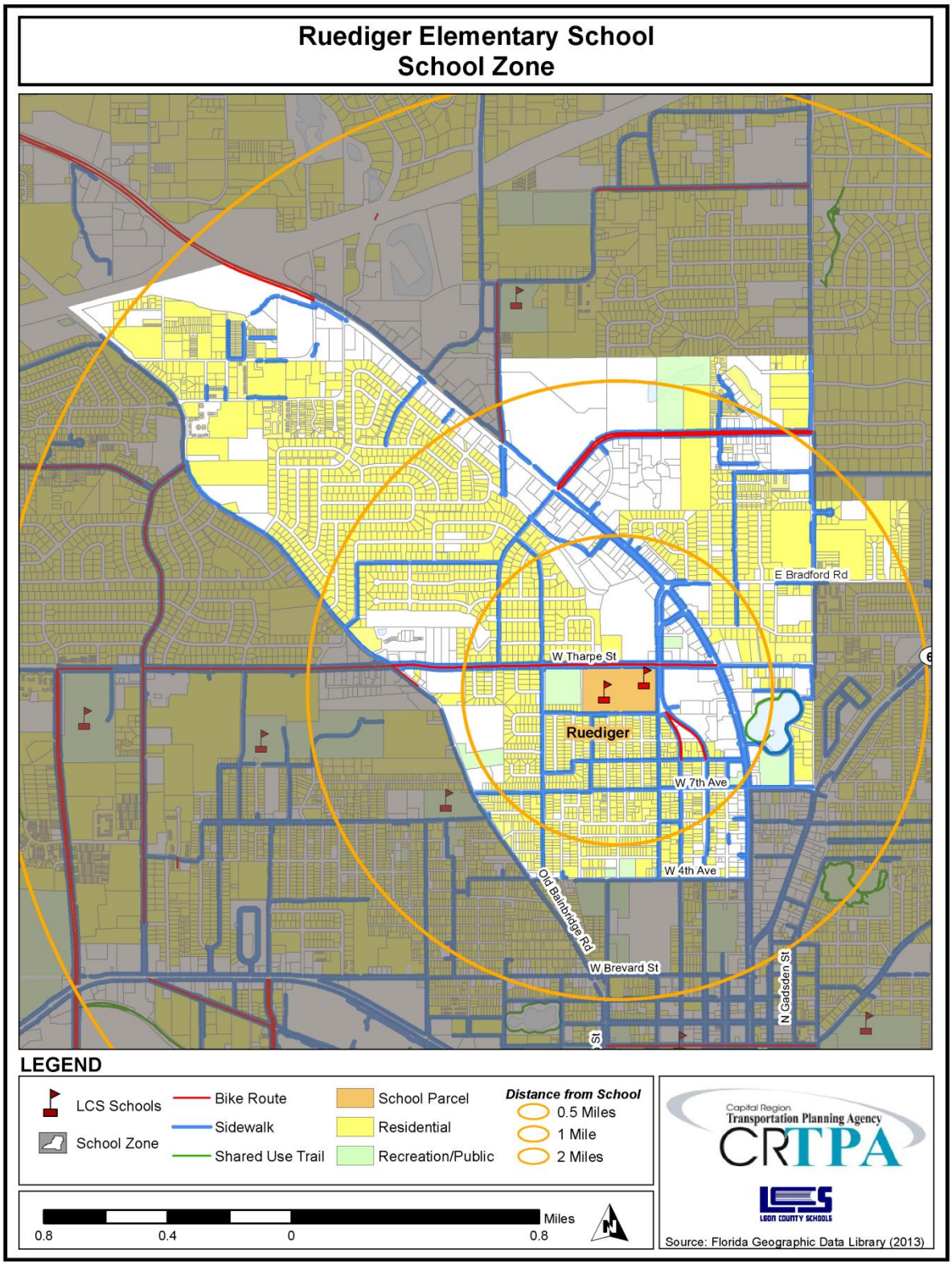
Ruediger Elementary School is located at 526 West 10th Avenue, Tallahassee, 32303 in Leon County, Florida. It is part of the Leon County Public Schools system. The school traces its history back to 1955 when it opened its doors as a community school. The school is named after Lillian Ruediger. Regular school hours are from 8:30am to 2:50pm. 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 589. The school has a current capacity for 673 students. The school includes grade levels Pre-Kindergarten to 5th grade.

Students attending this school feed into either Griffin or Raa Middle Schools and into Leon High School.

School Zone

The Ruediger Elementary school zone, located near downtown Tallahassee, encompasses the neighborhoods of Lakeview, Levy Park, Midtown West, Park Terrace, Town and Country, Golden Park, and Glendale. Land uses in the school zone are predominantly residential with some recreation uses, as well as, commercial uses center on North Monroe Street including Tallahassee Mall. The Ruediger school zone includes four major roadways. Interstate-10 runs mostly east to west and borders the zone to the north. West Tharpe Street runs east to west and bisects the zone into north and south. Old Bainbridge Road runs northwest to southeast and borders the zone to the west. North Monroe Street also runs northwest to southeast and bisects the zone into east and west. There is one other Leon County school within the zone including Raa Middle School on West Tharpe Street. Recreational facilities within the school zone include Levy Park, Lake Ella Park, and the Trousdell Gymnastics Center and Aquatic Center.


Ruediger Elementary School
School Zone
E Bradford Rd
W Tharpe St
Ruediger
W 7th Ave
W 4th Ave
Old Bainbridge Rd
W Brevard St
N Gadsden 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
0.8
0.4
0
0.8
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 Thursday, February 21, 2013. The weather was mostly overcast with temperatures in the low 70 degrees Fahrenheit.

Highlights and Key Observations of On-Site Meeting

During this visit, Ruediger 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, after-school programs provided for students were discussed.

It was noted that overhead school zone signs and flashing lights are located along West Tharpe Street and there are flashing lights (i.e. school zone warning lights) located along West 10th Avenue. Also, there are school speed limit signs on residential streets leading to West 10th Avenue. It was noted that the school has a perimeter fence as well as a restrictive access gate at the front of the school that is used after 8:30am. Students are permitted to arrive to school as early as 7:45am and there are after school programs on campus available until 6:00pm. It was noted that the school has developed a transportation handout for new students (i.e. transfers and kindergarteners) to advise them, and their parents, of the different transportation protocols and procedures during the mornings and afternoons. Additionally, it was noted that Raa Middle School is located immediately east of the school.

There is one designated crossing guard on West Tharpe Street at the crosswalk directly north of school near the Star Metro bus stop. School staff and administrators serve as ushers for students at both the automobile drop-off/pick-up and school bus zones. Student safety patrols, from 4th and 5th grades, assist with these functions in the automobile zone as well. School representatives expressed concern with the lack of use of car seat restraints (e.g., seat belts, booster seats, etc.) among students arriving to school in the mornings and afternoons. The school has developed a seatbelt action-plan to educate students and parents on the problem. The action-plan includes showing seatbelt safety videos on the morning news, creating a seatbelt public service announcement (PSA) with students from the school, reinforcement of seatbelts by teachers at the automobile zone during loading/unloading, increased communication to parents and possibly seatbelt demonstrations by Tallahassee Police Department.

School representatives also noted that there are several programs occurring at the school to promote health. Bike safety is taught through physical education (P.E.) curriculum. Additionally, there are fitness/anti-obesity programs as well as gardening initiatives occurring at the school. Some students also participate in "Walking School Buses" while others have parents that park at Levy Park, next to the school, and walk them over to the school campus.

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 established neighborhood primarily comprised of higher density single family homes and multifamily homes, there are a limited number of students that walk or bicycle to/from school, as many rely heavily on busing and automobile rides. School representatives stated that there are many students who are unable to afford bicycles and the distances between home and school are too great for them to walk. Additionally, congestion along West 10th Avenue can discourage walkers. Walkers and bicyclists may enter campus from West 10th Avenue as well as West Tharpe Street; however, school transportation procedures want all students to come to the front of the school and wait for the gate to be unlocked at 7:45am. There is one outdoor bicycle rack at the school with space for approximately 24 bicycles; however, there were no bicycles parked during the site visit.

The single lane, school bus drop-off and pick-up zone is shared with Raa Middle School, next door, but functions with no problems due to the different school start and end times. There are ushers to help guide students arriving and departing school with minimal difficulty and conflict. The zone for arrival and departure is covered, which reduces stress for students and staff during times of inclement weather. In the afternoons, students waiting to depart are lined up at designated areas specific to their school bus or daycare van. A teacher supervises the zone is responsible for checking the names of students as they board the buses/daycare vans.

The covered parent drop-off and pick-up zone functions adequately to accommodate the volume of automobiles entering and exiting the site; however, there are reports of drivers not obeying the rules and directions for student drop-off/pick-up. The designated automobile zone is off of West Tharpe Street but some students are dropped off along the front entrance of school, along West 10th Avenue instead. The car line is supervised and ushered by both teachers and student safety patrols. It was noted that the parent pick-up/drop-off has numbered signs. Before school students congregate in the cafeteria until they are dismissed for class. However, after school students sit by grade level, until their name is called out and a teacher has told them what numbered area they should report to for departure. It was also noted that there are signs prohibiting idling in the automobile zone.

Inventory Map

An aerial photograph showing Ruediger Elementary School is located on the following page. As shown in the photo, the school fronts West 10th Avenue. Students can access campus from this street as well as West Tharpe Street, in the back of the school. Bicycle parking racks are located near the front entrance of the school.

Standard width sidewalks are located along both sides of West Tharpe Street and there is a midblock crosswalk with a small pedestrian refuge in the median. In the rear of the school, along West 10th Avenue, a standard width sidewalk is available on both sides of the street along the school property.

Elsewhere, there is only a standard width sidewalk on the school-side of the street. There are no sidewalks available along Branch Street.

The automobile pick-up and drop-off zone is located along the rear of the school. Automobiles both enter and exit the zone at separate driveways along West 10th Avenue. Parking spaces are located in this area as well. The bus drop-off and pick-up zone, co-shared with Raa Middle School, is located between the two schools on a school access drive. Buses enter the zone from West Tharpe Street and exit onto West 10th Avenue.


Ruediger Elementary School
Site Map
WEST THARPE STREET
Raa Middle School
School Bus and Daycare Van Zone
WEST 10TH AVENUE
Parking
Parking
Ped/Bike Entrance
Auto Drop-Off/
Pick-Up Zone
Bike Racks
BRANCH STREET
N

Issues and Opportunities

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

Geography appears to be the primary issue with students' ability to walk and bicycle to school. Students who would likely bicycle to school do not do so because they cannot afford to purchase a bicycle and bicycle lock. Additionally, distances to/from school may be too great for elementary school children, especially those at lower grade levels. Also, much of the surrounding housing is occupied by graduate students, who tend not to have school-aged children. 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 West 10th Avenue and West Tharpe Street. Traffic calming measures should be explored 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 Parent/Teacher Organization (PTO) and WATCH D.O.G.S (Dads of Great Students) 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, as well as the importance of car seat restraints for school-aged children. Continued education and enforcement of seatbelts during the morning and afternoon commuting hours are critical. Furthermore, the school should find a way to better utilize the front entrance of the school during school commuting hours since it is currently blocked off.

Chapter 3: Student Travel Survey – Summary of Results

School administrators carried out a school-wide travel survey to evaluate the ways in which students from Kindergarten through 5th Grade traveled to their school from home during a one week period. (A copy of the student travel survey can be found in **Appendix A**.)

Student travel survey results were counted and grouped by grade level. They were analyzed for the school as a whole as well as by grade level groupings of Kindergarten through 2nd Grade, and 3rd Grade through 5th Grade, respectively. (A detailed description of the analysis by mode for the two grade level groupings can be found in **Appendix B**.)

The survey indicates that the vast majority of students at Ruediger Elementary School – approximately seven out of ten students – are dropped-off at school by car. The percentage rises slightly for younger-aged children, which is not uncommon. Riding a school bus and walking to school ranked a distance second and third place at approximately 19 percent and nine percent of students, respectively. Of those commuting by school bus, the percentage rises slightly for older-aged children. Not surprisingly, the percentage of older students walking was slightly higher than that of younger students. While this number could potentially be increased with the right combination of programs, policies, and infrastructure upgrades, the current rate of students walking to school establishes a solid foundation for improvement. A low percentage of students surveyed, only one percent, arrived to school by public bus and less than one percent reported biking to school. Of those commuting by public bus, two times as many were older students from 3rd, 4th, and 5th grades.

SUMMARY OF SCHOOL-WIDE RESULTS

	Walk	Bicycle	Automobile	School Bus	Public Bus
Average Overall	9 %	<1 %	70 %	19 %	1 %

Chapter 4: 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 C**.)

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 D**.)

The surveys of students living within two miles from the school indicate that a greater percentage of Ruediger Elementary School students are dropped off by car 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 walking or another mode not described specifically in the survey such as an after-school program van. Overall, a total of approximately one-fifth 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 concerns for the condition and/or lack of sidewalks, transportation outside of the school zone, as well as, the behavioral patterns of automobile drivers, generally, in terms of excessive driving speeds. As for speeding complaints, specific problem locations cited include West Tharpe Road, MLK Jr. Boulevard, North Monroe Street, West 7th Avenue, Gibbs Drive, and Monticello Drive.

With regard to factors that might influence their child to walk or bike to school, survey responses indicate that factors such as enforcing speed limits in school zones, accompanying children (by themselves/ other parents), and having a greater adult presence along routes to school were mutually agreed upon by parents from both Kindergarten through 2nd and 3rd through 5th.

Chapter 5: Neighborhood Field Review

A neighborhood field review was conducted on April 11th, 2013. The review consisted of an assessment of accessibility, connectivity and safety along neighborhood roadways within proximity to Ruediger Elementary School. On the day of the field review, there was some light rain and temperatures were 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 Ruediger Elementary School.

Character of Neighborhood Area

Ruediger Elementary School is located in an established neighborhood primarily comprised of higher density single family homes and multifamily homes. For the most part, the neighborhood has a well-connected pattern of mostly gridded streets which contributes to the school's overall accessibility. A few streets south and west of the school have good sidewalk infrastructure in place but streets could use some bicycle-pedestrian improvements. The school is located near the corner of a busy intersection. Additionally, North Monroe Street, just east of the school, could act as a barrier for younger children due to its width and high traffic volumes. There is another school, Raa Middle School, just west of Ruediger Elementary School.

Major roadways in the neighborhood include:

- North Monroe Street, a heavily traveled north-south, 4 lane roadway with a posted speed limit of 35mph or less.
- West Tharpe Street, an east-west, a 4 lane roadway with a posted speed limit of 35mph or less.
- Old Bainbridge Road, a northwest-southeast, two lane roadway with a posted speed limit of 35mph or less.
- West Tennessee Street, a heavily traveled east-west, 4-7 lane roadway with a posted speed limit between 30-45mph.
- Thomasville Road, a southwest-northeast roadway that fluctuates between 2-7 lanes with a posted speed limit between 30-45mph.

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.

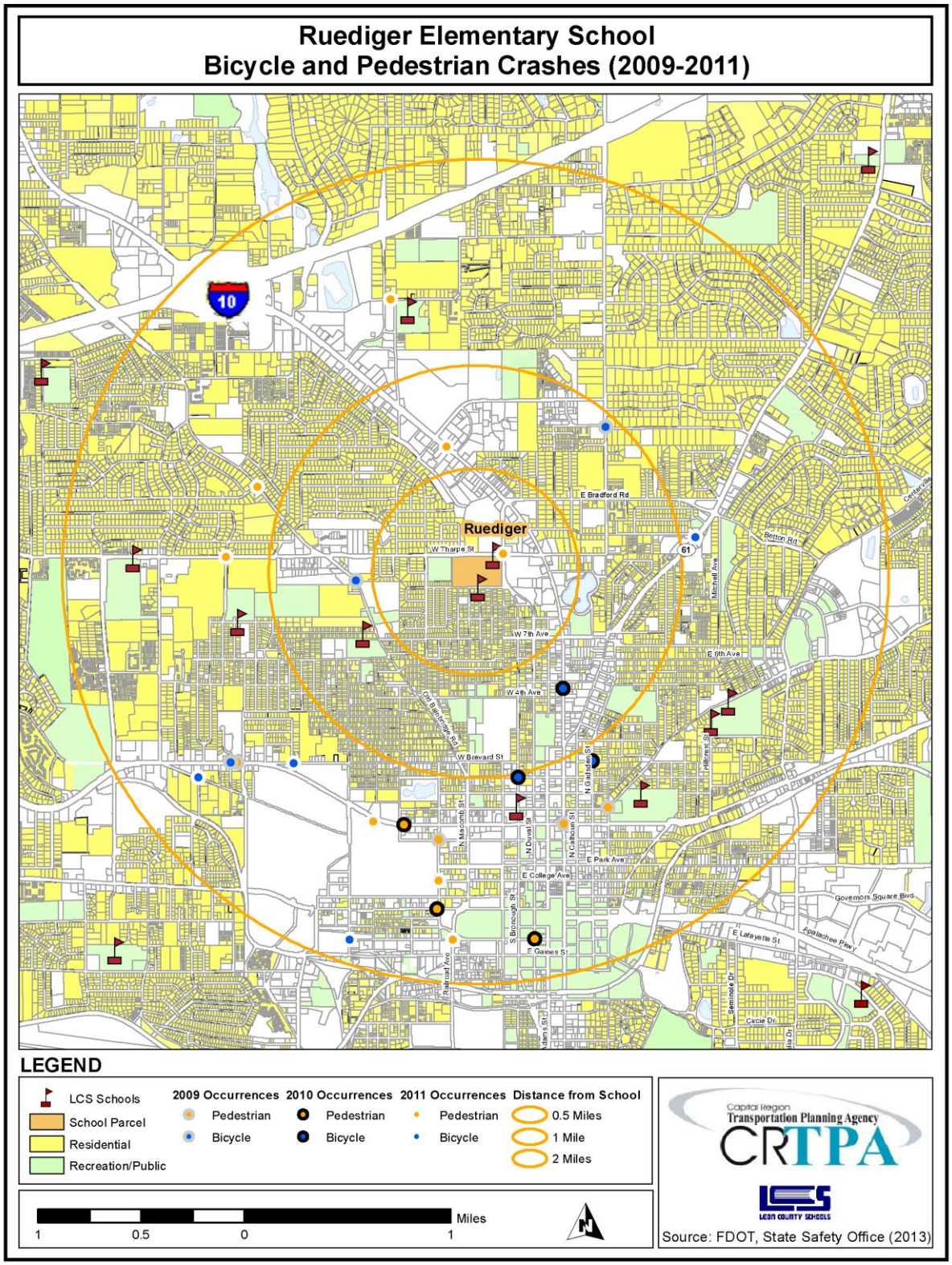
There were a total of 26 bicycle and pedestrian crashes that occurred within the theoretical two-mile walk/bike radius of Ruediger Elementary School. Of those total crashes, 6 (23%) occurred during the morning hours and 20 (77%) occurred during the afternoon hours. A vast majority of the crashes involved adult pedestrians. However, there were incidents of crashes involving bicyclists and children. Injuries were reported in all but three crashes.

Most of the crashes occurred approximately one to two miles south of Ruediger Elementary School, in an area mainly comprised of downtown Tallahassee and the Florida State University campus. Streets where crashes tend to be a problem are Madison Street, Monroe Street North, Tennessee Street, Duval Street, and Pensacola Street. Other streets that tend to be a problem in the area closer to school include West Tharpe Street, Old Bainbridge Road, and Thomasville Road.

SUMMARY OF CRASH REPORTS (2009-2011)

Date	Time	Day	On Road	Nearest Intersection	Injury or Fatality?	Type of Crash	Person(s) Involved
01/09/09	3:02pm	Friday	Tennessee St.	Monroe St.	Injury	Pedestrian	Adult
02/10/09	3:20pm	Tuesday	Meridian Rd.	Virginia St.	Injury	Pedestrian	Child
04/22/09	8:15am	Wednesday	Call St. W	Copeland St.	Injury	Pedestrian	Adult
04/29/09	8:27am	Wednesday	Tennessee St.	Bryan St.	Injury	Pedestrian	Adult
05/05/09	4:07pm	Tuesday	Old Bainbridge Rd.	Knots Ln.	Injury	Bicyclist	Adult
09/16/09	4:11pm	Wednesday	Tennessee St.	Campus Cir.	Injury	Bicyclist	Adult
09/23/09	3:13pm	Wednesday	S Ride	Meridian Rd.	Injury	Bicyclist	Adult
03/01/10	2:51pm	Monday	Gadsden St. N	Brevard St. E	Injury	Bicyclist	Adult
05/27/10	8:06am	Thursday	Madison St.	Duval St.	Injury	Pedestrian	Adult
09/06/10	2:09pm	Monday	Tennessee St.	Dewey St. N	Injury	Pedestrian	Adult
09/09/10	3:54pm	Thursday	N Monroe St.	4th Ave.	Injury	Bicyclist	Child
10/26/10	3:46pm	Tuesday	Pensacola St.	Copeland St. S	No Injury	Pedestrian	Adult
11/17/10	3:35pm	Wednesday	Bronough St. N	Georgia St. W	Injury	Bicyclist	Adult
01/07/11	2:15pm	Friday	N Monroe St.	Silver Slipper Ln.	Injury	Pedestrian	Adult
01/11/11	2:35pm	Tuesday	Academic Way	Territory Way	Injury	Pedestrian	Adult
01/19/11	3:43pm	Wednesday	Copeland St.	College Ave.	Injury	Pedestrian	Adult
02/08/11	3:32pm	Tuesday	Madison St.	Railroad Ave.	Injury	Pedestrian	Adult
02/14/11	2:15pm	Monday	Brevard St.	Richmond St.	No Injury	Bicyclist	Adult
02/16/11	4:05pm	Wednesday	Madison St.	Woodward Ave. S	Injury	Bicyclist	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 Street Rd.	Colorado St.	No Injury	Pedestrian	Child
04/29/11	8:10am	Friday	Duval St.	Madison St.	Injury	Pedestrian	Adult

Date	Time	Day	On Road	Nearest Intersection	Injury or Fatality?	Type of Crash	Person(s) Involved
08/22/11	8:35am	Monday	W Tharpe Street Rd.	MLK Blvd.	Injury	Pedestrian	Adult
10/04/11	7:53am	Tuesday	Call St. W	Chapel Dr.	Injury	Bicyclist	Adult
11/30/11	4:20pm	Wednesday	Fulton Rd.	Sharer Rd.	Injury	Pedestrian	Adult


Ruediger Elementary School
Bicycle and Pedestrian Crashes (2009-2011)
Ruediger
10
61
E Bradford Rd
W Tharpe St
W 7th Ave
E 6th Ave
W 4th Ave
W Brevard St
E Park Ave
E College Ave
E Gaines St
E Lafayette St
Betton Rd
Mitchell Ave
Old Bainbridge Rd
N Gadsden St
N Macomb St
N Duval St
N Calhoun St
S Bronough St
Monroe St
Adams St
Meridian Rd
Seminole Dr
Circle Dr
Governors Square Blvd
Apalachee Pkwy
LEGEND
LCS Schools
School Parcel
Residential
Recreation/Public
2009 Occurrences
Pedestrian
Bicycle
2010 Occurrences
Pedestrian
Bicycle
2011 Occurrences
Pedestrian
Bicycle
Distance from School
0.5 Miles
1 Mile
2 Miles
Miles
1
0.5
0
1
N
Capital Region
Transportation Planning Agency
CRTPA
LCS
LEON COUNTY SCHOOLS
Source: FDOT, State Safety Office (2013)

Neighborhood Assessment

The overall neighborhood layout surrounding Ruediger Elementary School lends itself fairly well to walkability. The well connected gridded street network allows for multiple route choices to access the school especially in the neighborhoods located south of the school; however, in the area north of West Tharpe Street block sizes tend to be larger which creates less connectivity and route choices. Further away from Ruediger, outside of the half-mile radius of the school, crosswalks and sidewalks tend to be less abundant and bicycle infrastructure in the area is limited to major roadways.

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 Ruediger Elementary School walk/bike shed map is included at the end of this chapter.

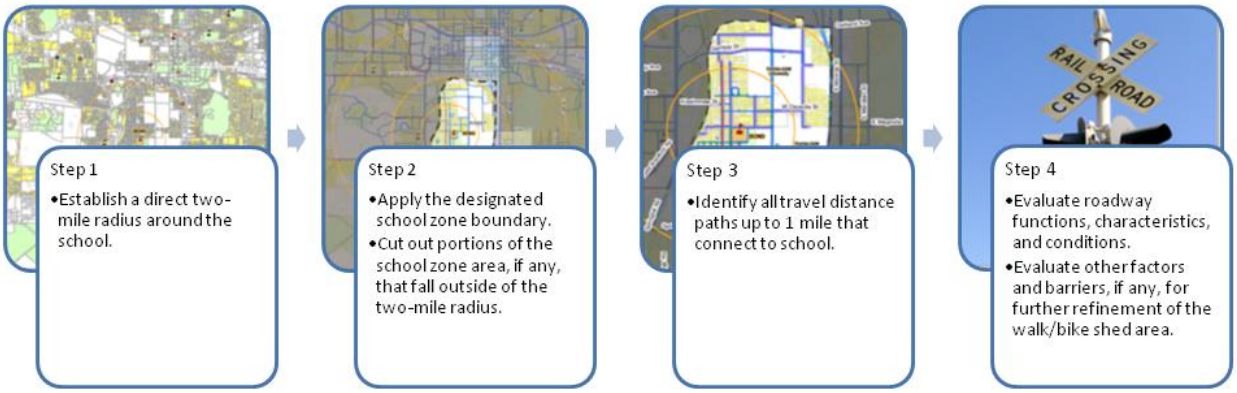
The walk/bike shed area and associated map are not meant to suggest that elementary school students of all ages, maturity level, and experience should commute to and/or from school within the area delineated. Certainly, younger children such as kindergarten students are not expected to walk or bike to 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 Ruediger Elementary School mostly extends northwest and south of the school. Old Bainbridge Road with its hazardous walking and biking accommodations, including minimal widths and gaps in the infrastructure, forms the western limits of the walk/bike shed. North Monroe Street forms the eastern limits of the walk/bike shed due to the high number of nonresidential land uses along the roadway. Considering the typical distance elementary-school-aged children can travel on foot or bike combined with the limited number of residential land uses south of West 4th Avenue, the roadway forms the southern limits of the walk/bike shed. The northern limits of the walk/bike shed extend just over one mile northwest of the school into a residential area where there are local, neighborhood streets available for bicycle and pedestrian travel.

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.

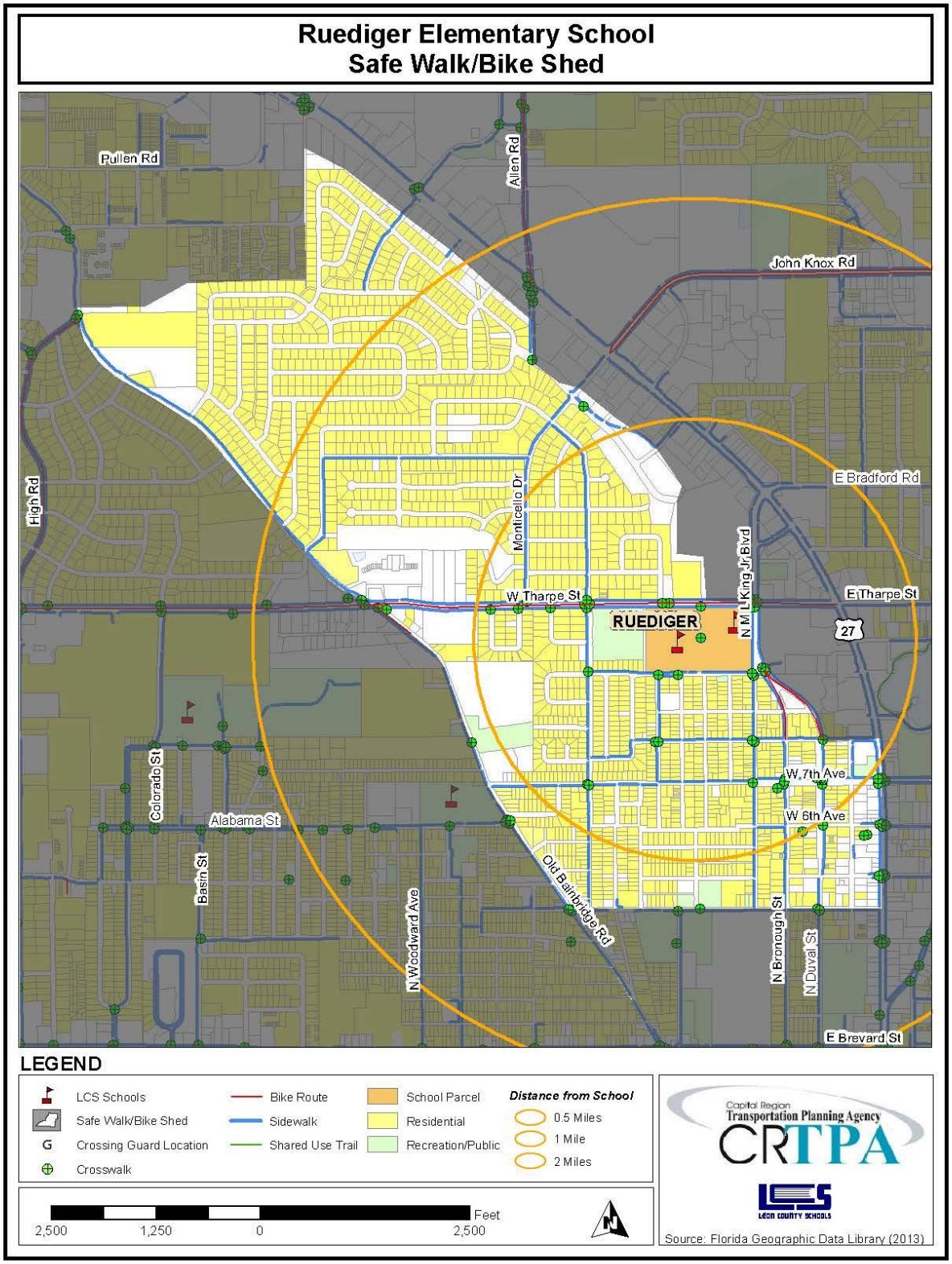
In determining a safe walking and bicycling area, this report applies a methodology and criterion that is more stringent than State standards and more in line with existing studies, research and opinions collected from numerous experts in the fields of pedestrian and bicycle transportation and safe routes 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


Ruediger Elementary School
Safe Walk/Bike Shed
Pullen Rd
Allen Rd
John Knox Rd
High Rd
Monticello Dr
E Bradford Rd
W Tharpe St
E Tharpe St
N M L King Jr Blvd
RUEDIGER
27
Colorado St
Alabama St
Basin St
N Woodward Ave
Old Bainbridge Rd
W 7th Ave
W 6th Ave
N Bronough St
N Duval St
E Brevard St
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 6: Findings and Recommendations

There are an adequate number of access points for walkers and bicyclists onto the Ruediger Elementary School campus; and there are few issues to note concerning automobile and school bus access and circulation. As such there are no on-campus infrastructure-related recommendations for improvement. There are, however, some opportunities to improve walking and bicycling opportunities as well as safety throughout the surrounding neighborhoods. In addition, there are some limited policy and programmatic recommendations for the school's consideration.

While there are some fairly busy roadways a way out from Ruediger Elementary School, the surrounding neighborhoods are fairly well-connected to the school. And while there are many streets without sidewalks, most of these streets are internal residential streets with low-volume traffic. Most can be navigated by walkers and bicyclists with a fair amount of ease.

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 Ruediger Elementary School. They include off-site improvements as follows:

Ruediger Elementary School Off-Site Recommendations

	Improvement: Off-Site	Location	From	To	Geography	Direction	Length	Comments
B1	Stripe Existing Crosswalks (2)	West Tharpe Street	East and West of Parent Pick-Up/Drop-Off Entrance		N/A	N-S	N/A	
B2	New Sidewalk	Branch Street	West 10th Avenue	West Tharpe Street	East side of Branch Street	N-S	Approx. 808 feet	
B3	New Crosswalks (2)	Gibbs Drive	At Monticello Drive		Northwest and Southwest sides	N/A	N/A	Include sidewalk ramps as needed
B4	New Crosswalk	Monticello Drive	At Barrie Avenue		West side of Monticello Drive	N-s	N/A	Include sidewalk ramps as needed
B5	New Crosswalk	Old Bainbridge Road	At Joyner Drive/Sharon Road		East side of Old Bainbridge Road	NW-SE	N/A	Include sidewalk ramps as needed
B6	New Crosswalk	Gibbs Drive	At Gladiola Terrace		West side of Gibbs Drive	N-S	N/A	Include sidewalk ramps as needed

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

Off-Site Recommendations

B1) Stripe the two existing crosswalks on West Tharpe Street located just east and west of the parent pick-up/drop-off entrance. West Tharpe Street is a fairly well-traveled road and striped crosswalks will help make motorists more aware of pedestrians crossing mid-block.

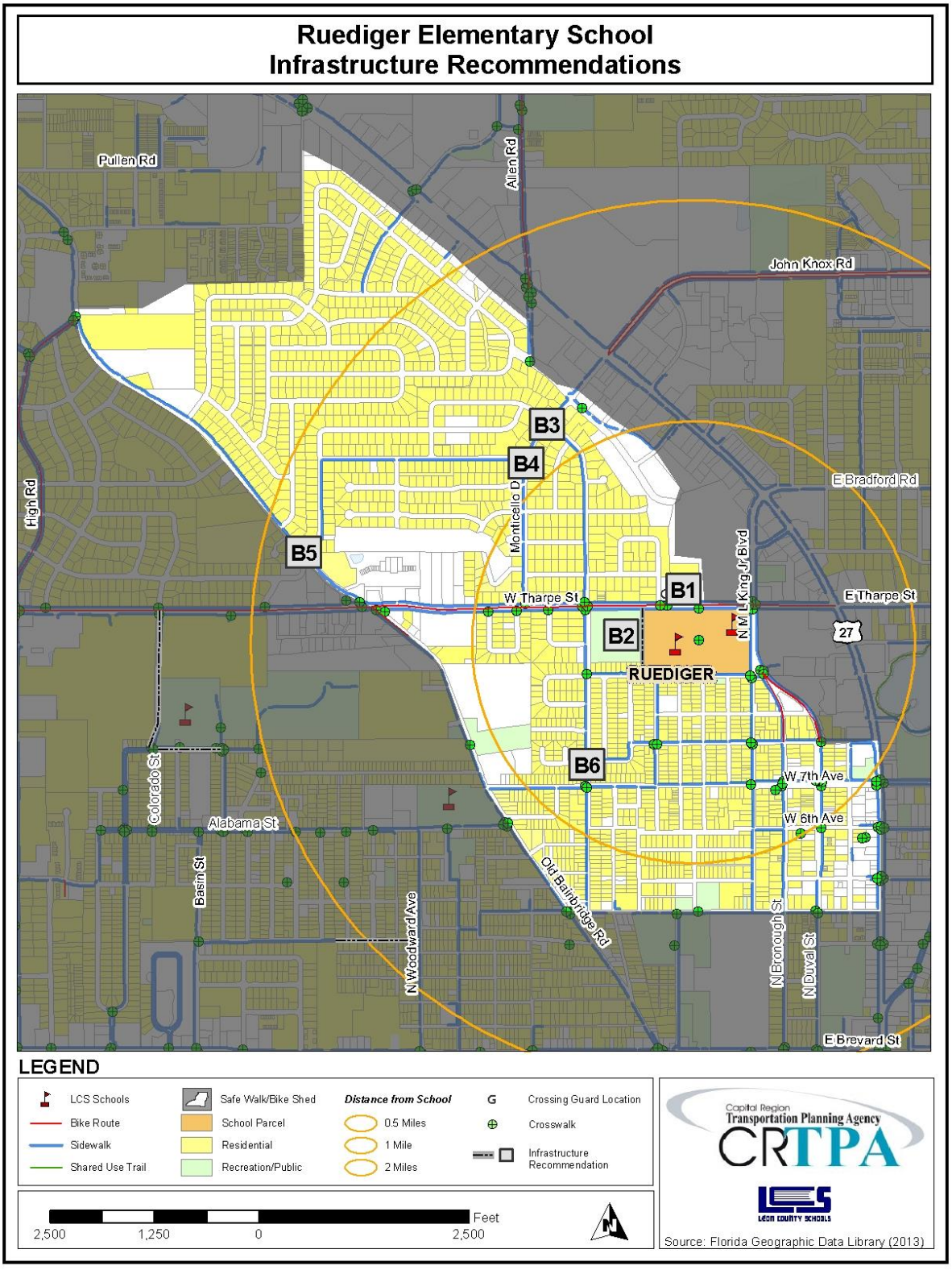
B2) Construct a new sidewalk along the east side of Branch Street from West 10th Avenue to West Tharpe Street. During the on-site visit, school representatives stated that there are many parents who park and walk students to/from Levy Park. A new sidewalk will help facilitate parking and walking during school commute hours.

B3) Add two new crosswalks at the intersection of Gibbs Drive & Monticello Drive, along the northwest and southwest sides of the intersection.

B4) Add a new crosswalk at the intersection of Monticello Drive & Barrie Avenue, along the west side of Monticello.

B5) Add a new crosswalk on the east side of the intersection of Old Bainbridge Road & Joyner Drive/Sharon Road.

B6) Add a new crosswalk at the intersection of Gibbs Drive & Gladiola Terrace, along the west side of Gibbs Drive.


Ruediger Elementary School
Infrastructure Recommendations
Pullen Rd
Allen Rd
John Knox Rd
B3
B4
B5
B1
B2
B6
High Rd
Monticello Dr
E Bradford Rd
W Tharpe St
E Tharpe St
N M L King Jr Blvd
27
RUEDIGER
Colorado St
Alabama St
Basin St
N Woodward Ave
Old Bainbridge Rd
W 7th Ave
W 6th Ave
N Bronough St
N Duval St
E Brevard St
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 and students to take part in the existing walking school buses at the school to help ease safety concerns, participating in Walk/Bike to School Days; 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; and encouraging families who normally drive to school to look for ways to safely and legally park in a parking lot away from school (I.e. Levy Park), but within walking distance, and then walk to school from the lot.

C2) Bicycle safety and accessibility workshop – Organize and hold a workshop or a bike rodeo that demonstrates bicycle safety topics taught current in the physical education classes, 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 groups, 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) School bicycle rentals - During the on-site visit at the school, school representatives stated that many of the students who attend Ruediger Elementary School are unable to own/purchase bicycles which may be contributing to the low bicycle commute rates to/from school. With help from parents and community organizations, there may be an opportunity to fundraise for some bicycles, helmets, and locks for the school that could be rented out to students on a daily or weekly basis to encourage bicycling opportunities to/from school.

C4) Parent drop-off/pick-up zone protocol encouragement – Extend the school created transportation handout literature to all parents and not just those of new students at the school such as transfers and kindergarteners, 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). Additionally, parents should be

reminded that West 10th Avenue in front of the school is not a designated parent pick-up/drop-off zone. 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. If necessary, educational flyers could be placed on the windshields of any vehicles illegally parked to remind parents of the proper rules and procedures.

C5) Car seat restraints (e.g. seat belts, booster seats, etc.) – During the on-site visit, school representative expressed concern for the lack of car seat restraint use by students at Ruediger Elementary. While the school currently has several programs in the works to remind both parents and students to use safety belts, other ways to promote seat belt use include sending home literature to parents, as well as make it available on the school website, about the proper use and type of car seat restraints needed by children of different ages and weights. Remind parents that car crashes are the leading cause of death for children 1 to 13 years old in the United States.[1] Ideally, children should remain in the back seat at least until age 12. Periodically, send out reminders on this important issue and possibly get the Parent-Teacher Organization (PTO) involved to further spread the message to parents.

Policies

D1) Bike check and security – 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 existing bike rack is in a relatively secure, visible spot; however, theft is still a concern. 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 West Tharpe Street, 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.

[1] http://www.nhtsa.gov/Safety/CPS

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 West Tharpe Street, 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 one of the available parking lots. 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[2]

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

[2] 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 7: Conclusion

Ruediger Elementary School is an in-town school near the edge of downtown Tallahassee. While the zone is not extensive, there are certain, physical barriers that limit the ability to realistically and/or safely walk or bicycle to school within a reasonable distance, Old Bainbridge Road and Monroe Street being the obvious examples. It is also certainly worth mentioning the immediate area demographics also at play; with near proximity to Florida State University and Florida Agricultural & Mechanical University, the neighborhoods surrounding Ruediger Elementary School tend to include a sizable college student population that lacks in elementary school-aged children. These issues are more system-wide transportation and geography issues outside the purview of this analysis. However, they could be further explored during any future school district boundary change considerations.

Ruediger Elementary School enjoys a well-connected roadway network consisting of both major corridors and low-volume residential streets. The major corridors are mostly equipped with at least the minimum of pedestrian and bicycle infrastructure, including crossings; however, there are some needs and associated opportunities for improvement as highlighted in the previous chapter. The low-volume residential streets are mostly adequate and safe for pedestrians, and the school campus itself is accessible to walkers and bicyclists from most directions. That being said, the approximate number of students that commute to/from school by walking is nine percent; however, less than one percent of students are known to bicycle to/from school.

As noted above, there are certain constraints at play that keep the numbers of walkers and bicyclists down; however, with the vast amount of housing within reasonable distance to school, these numbers could be improved. This audit report includes infrastructure-type enhancements to improve conditions as well as safety for students to walk and bicycle to school; however, with an already fairly manageable network of streets suitable to accommodate pedestrians, it is likely that programmatic- and policy-type recommendations will be just as important. By and large, 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: Student Travel Survey

Leon County Schools

STUDENT TRAVEL SURVEY

NAME OF SCHOOL: _____

Dear Teacher:
Your help is needed to assist with a school-wide survey of how students travel to and from school each day. Beginning Monday, for each day of that week, please record the number of children in your class that came to school by school bus, city bus, car, bicycle, or by walking. Please send the results back to the office on this form, along with your name and class grade, and number of students present each day.

Please follow the script below to gather the information from your students. (The students should only be raising their hands for one mode of travel):

1) If you walked to school today, raise your hand.
2a) If you rode a bicycle to school today, raise your hand.
b) If you used a bicycle helmet today, raise your hand.
3a) If you came in a car, with either your parents or with someone else, raise your hand.
b) If you used your seat belt in a car today, raise your hand.
4) If you came by school bus, raise your hand.
5) If you came by city bus, raise your hand.

Day of Week	Number of Students						
	Question 1	Question 2a/b		Question 3a/b		Question 4	Question 5
Day 1							
Day 2							
Day 3							
Day 4							
Day 5							

TEACHER'S NAME: _____ GRADE: _____

DATE: _____ NUMBER OF STUDENTS IN CLASS TODAY:_____

Please complete and return this form to the principal's office FRIDAY. This information will allow us to better plan ways for our children to get to and from school each day.

Note to Principals:
Please reproduce and distribute this form to all homeroom or 1st period teachers at your school. It is important that **all classes are surveyed on the same day**. Project consultants will collect all survey forms the following week. THANK YOU.

Capital Region Transportation Planning Agency

Appendix B: Student Travel Survey – Detailed Analysis

The survey consisted of a one-page sheet with a script of questions for homeroom teachers to read to students as they took morning attendance. Surveys were conducted each morning during a typical week of the school year for a total of five straight days, Monday to Friday. The script prompted teachers to ask and record the number of children in their class that came to school by walking, bicycling, car, school bus, or city bus. The student travel survey was conducted in February, 2013. Twenty-three classrooms participated in the survey for a total of 396 student responses recorded. In a few instances, surveys were conducted within overlapping multiple grade level classrooms. Those instances are noted where relevant to the data results.

SUMMARY OF STUDENT TRAVEL SURVEY POPULATION

Total Number of Participating Classrooms	23
Total Students Surveyed (K-5th)	396
Total K-2nd Students Surveyed	210
Total 3rd-5th Students Surveyed	186

Walking and Bicycling

Students were first asked if they walked to school. Then students were asked if they rode a bicycle to school. Students that rode their bike to school were further asked if they wore a bicycle helmet.

Walking and Bicycling School-Wide Travel Patterns

The school-wide student travel surveys indicate that the walk-to-school average for the week ranged from 8% to 10%, with an overall average of 9%. Overall, the bike-to-school average for the week ranged from 0% to <1%, with an overall average of less than one percent. Of the students that bike to school, an overall average of 100% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 9% to 10%, with an overall average of 9%.

SUMMARY OF WALKING AND BICYCLE SCHOOL-WIDE TRAVEL PATTERNS

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	9 %	<1 %	100 %	9 %
Highest Day	10 %	<1 %	100 %	10 %
Lowest Day	8 %	0 %	100 %	9 %

Walking and Bicycling Travel Patterns of Younger-Aged Children (K – 2nd Grade)

The younger-aged (K-2nd) children student travel surveys indicate that the walk-to-school average for the week ranged from 7% to 8%, with an overall average of 7%. Overall, the bike-to-school average for the week ranged from 0% to 1%, with an overall average of less than one percent. Of the students that bike to school, an overall average of 100% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 7% to 8%, with an overall average of 8%.

SUMMARY OF YOUNGER-AGED CHILDREN WALKING AND BICYCLE TRAVEL PATTERNS (K-2nd)

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	7 %	<1 %	100 %	8 %
Highest Day	8 %	1 %	100 %	8 %
Lowest Day	7 %	0 %	100 %	7 %

Walking and Bicycling Travel Patterns of Older-Aged Children (3rd – 5th Grade)

The older-aged (3rd-5th) children student travel surveys indicate that the walk-to-school average for the week ranged from 10% to 13%, with an overall average of 11%. Overall, the bike-to-school average for the week ranged from 0% to 1%, with an overall average of less than one percent. Of the student that bike to school, an overall average of 100% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 10% to 13%, with an overall average of 11%.

SUMMARY OF OLDER-AGED CHILDREN WALKING AND BICYCLE TRAVEL PATTERNS (3rd-5th)[3]

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	11 %	<1 %	100 %	11 %
Highest Day	13 %	1 %	100 %	13 %
Lowest Day	10 %	0 %	100 %	10 %

Bus and Automobile Drop-Off

Students were asked if they arrived to school by automobile, with either their parents or someone else. Students that arrived by automobile to school were further asked if they had wore their seat belt. Additionally, students were asked if they arrived to school by bus, including either Leon County School buses or Star Metro public transit buses.

[3] Includes one K-5th grade class and one 1st-5th grade class

Bus and Automobile School-Wide Travel Patterns

The school-wide travel surveys indicate that the automobile-to-school average for the week ranged from 69% to 73%, with an overall average of 70%. Of the students that ride to school in an automobile, an overall average of 83% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 18% to 20%, with an overall average of 19%. The public bus-to-school average for the week ranged from 1% to 2%, with an overall average of 1%.

SUMMARY OF BUS AND AUTOMOBILE DROP-OFF SCHOOL-WIDE TRAVEL PATTERNS

	Automobile	Seat Belt	School Bus	Public Bus
Average Overall	70 %	83 %	19 %	1 %
Highest Day	73 %	84 %	20 %	2 %
Lowest Day	69 %	81 %	18 %	1 %

Bus and Automobile Travel Patterns of Younger-Aged Children (K – 2nd Grade)

The younger-aged (K-2nd) children student travel surveys indicate that the automobile-to-school average for the week ranged from 72% to 76%, with an overall average of 74%. Of the students that ride to school in an automobile, an overall average of 88% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 17% to 20%, with an overall average of 18%. The public bus-to-school average for the week ranged from <1% to 1%, with an overall average of 1%.

SUMMARY OF YOUNGER-AGED CHILDREN BUS & AUTOMOBILE DROP-OFF TRAVEL PATTERNS (K-2nd)

	Automobile	Seat Belt	School Bus	Public Bus
Average Overall	74 %	88 %	18 %	1 %
Highest Day	76 %	90 %	20 %	1 %
Lowest Day	72 %	86 %	17 %	<1 %

Bus and Automobile Travel Patterns of Older Children (3rd – 5th Grade)

The older-aged (3rd-5th) children student travel surveys indicate that the automobile-to-school average for the week ranged from 65% to 69%, with an overall average of 67%. Of the students that ride to school in an automobile, an overall average of 76% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 18% to 21%, with an overall average of 20%. The public bus-to-school average for the week ranged from 2% to 2%, with an overall average of 2%.

SUMMARY OF OLDER-AGED CHILDREN BUSES & AUTOMOBILE DROP-OFF TRAVEL PATTERNS (3rd-5th)[4]

	Automobile	Seat Belt	School Bus	Public Bus
Average Overall	67 %	76 %	20 %	2 %
Highest Day	69 %	80 %	21 %	2 %
Lowest Day	65 %	74 %	18 %	2 %

[4] Includes one K-5th grade class and one 1st-5th grade class

Appendix C: 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 D: 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 169 parent surveys returned. Of those, 169 (58%) 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 51 students representing Kindergarten through 2nd Grade, and 47 students representing 3rd Grade through 5th Grade.

SUMMARY OF PARENT SURVEY PARTICIPATION

Total Enrollment	589
Total Number of Parent Surveys	169
Total Number within 2 Miles (K-2nd Grade)	51
Total Number within 2 Miles (3rd-5th Grades)	47
Percentage of Surveys within 2 Miles	58 %

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	59 %
School Bus	18 %
Walk	14 %
Bicycle	0 %
Public Bus	0 %
Other	0 %
Afternoon	
Car	42 %
Walk	17 %
School Bus	12 %
Other	3 %
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 61% in the morning and decreases to 35% in the afternoon. The school bus-to-school average for a typical week is 24% in the morning and decreases to 10% in the afternoon. The walk-to-school average for a typical week is 10% in the morning and increases to 12% in the afternoon. None of the students use an alternative commute mode in the morning, while 4% 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	61 %
School Bus	24 %
Walk	10 %
Bicycle	0 %
Public Bus	0 %
Other	0 %
Afternoon	
Car	35 %
Walk	12 %
School Bus	10 %
Other	4 %
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 57% in the morning and decreases to 49% in the afternoon. The walk-to-school average for a typical week is 19% in the morning and increases to 23% in the afternoon. The school bus-to-school average for a typical week is 13% in the morning and increases to 15% in the afternoon. None of the students use an alternative commute mode in the morning. However, 2% 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 OLDER-AGED CHILDREN (3rd-5th)

Morning	Average Overall
Car	57 %
Walk	19 %
School Bus	13 %
Bicycle	0 %
Public Bus	0 %
Other	0 %
Afternoon	
Car	49 %
Walk	23 %
School Bus	15 %
Other	2 %
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 concerns expressed by survey respondents.

SUMMARY OF TOP RANKING NEIGHBORHOOD SAFETY CONCERNS

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	24
Issues with Transportation Outside of School Zone	16
Issues with Sidewalks/Walking	11

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

Neighborhood safety concerns for parents of younger-aged (K-2nd) children include three main concerns including issues with speeding vehicles, transportation outside of the school zone, and sidewalks/walking. There were approximately 11 comments of concern regarding issues with speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are West Tharpe Street, Jackson Street, West 7th Avenue, Gibbs Drive, and Monticello Drive. Additionally, there were eight comments of concern regarding issues with transportation outside of the school zone. General concerns include the lack of crossing guards at some intersections, roads in disrepair, and high volumes of traffic. Lastly, there were approximately five comments of concern regarding issues with sidewalks and walking. General concerns include the lack of sidewalks, broken sidewalks, and poor lighting. One parent also mentioned obstacles such as trash cans that can make walking difficult.

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

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	11
Issues with Transportation Outside of School Zone	8
Issues with Sidewalks/Walking	5

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

Neighborhood safety concerns for parents of older-aged (3rd-5th) children include issues with speeding vehicles, transportation outside of the school zone, and sidewalks/walking. There were approximately 13 comments of concern regarding issues with speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are West Tharpe Street, MLK Jr. Boulevard, North Monroe Street, and Old Bainbridge Road. Additionally, there were eight comments of concern regarding issues with transportation outside of the school zone. General concerns include the times crossing guards are available in the afternoon and drivers who disregard crossing guards, run red lights, and drive inattentively. Lastly, there were six comments of concern regarding issues with sidewalks and walking. General concerns include the lack of sidewalks, broken sidewalks, and obstacles such as overgrown shrubbery and trash cans that make walking on sidewalks difficult. Specific locations where sidewalks and walking tend to be a problem are Tupelo Terrace, West 7th Avenue, and MLK Jr. Boulevard.

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

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	13
Issues with Transportation Outside of School Zone	8
Issues with Sidewalks/Walking	6

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		*3*	*3*	*5*	*9*	*53*	11
#2 Accompanied by myself or other parents		*4*	*3*	*5*	*8*	*50*	14
#3 There was a greater adult presence of parent volunteers or police officers along walk routes to school		*0*	*0*	*10*	*11*	*47*	16

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

Parents of children in Kindergarten through 2nd grade agreed that the top four 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, accompanying children (by themselves/other parents), and having a greater adult presence along routes to school.

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		*1*	*1*	*3*	*4*	*26*	5
#2 Accompanied by myself or other parents		*0*	*1*	*3*	*4*	*24*	8
#3 There was a greater adult presence of parent volunteers or police officers along walk routes to school		*0*	*0*	*5*	*7*	*20*	7
#3 School speed zones were marked with flashing signs		*1*	*0*	*5*	*5*	*20*	6

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

Parents of children in 3rd through 5th grade agreed that the top four influential factors to allow their child to walk or bicycle to school more often included factors related to having separated bicycle/pedestrian pathways, enforcing speed limits in school zones, having a greater adult presence along routes to school, and accompanying children (by themselves/other parents).

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 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school		*1*	*2*	*5*	*6*	*27*	4
#1 Speed limits were strictly enforced in school speed zones		*2*	*2*	*2*	*5*	*27*	6
#1 There was a greater adult presence of parent volunteers or police officers along walk routes to school		*0*	*0*	*5*	*4*	*27*	9
#2Accompanied by myself or other parents		*4*	*2*	*2*	*4*	*26*	6