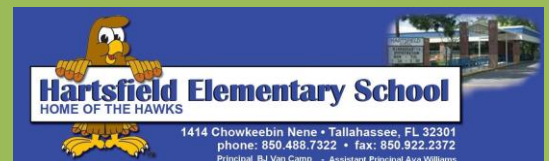


August 2014

# Safe Routes to School Audit Report Hartsfield Elementary School



Leon County  
Public Schools



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## 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 Hartsfield 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 policies. 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

Hartsfield Elementary School is located at 1414 Chowkeebin Nene, Tallahassee, 32301 in Leon County, Florida. It is part of the Leon County Public Schools system. The school was established in 1956 and named after Frank S. Hartsfield, Sr. who served for many years as Superintendent of Public Instruction of 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 6:30pm.

The number of students enrolled at the school, for the 2013 school year was 565. The school has a current capacity for 633 students. The school includes grade levels Pre-Kindergarten to 5<sup>th</sup> grade.

Students attending this school feed into either Cobb or Fairview Middle Schools and into either Leon or Rickards High Schools.

### School Zone

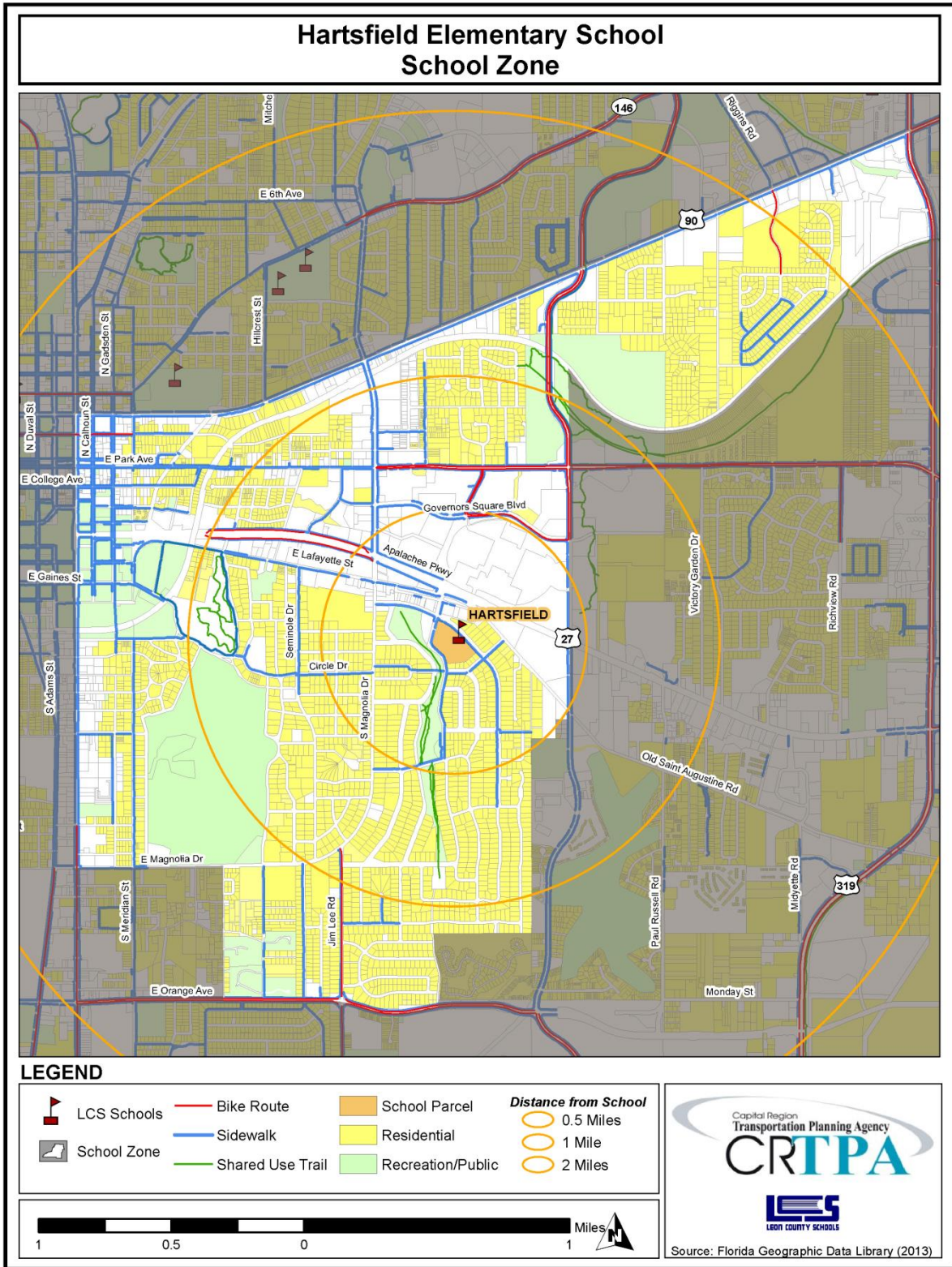
The Hartsfield Elementary school zone, located near downtown Tallahassee, encompasses the neighborhoods of Indian Head- Leigh, Magnolia Heights, Inglewood, Woodland Drives, Blairstone, Towne East, Park Brook Circle, and Meadowbrook. Just west of the school zone are Florida State University and Florida Agricultural & Mechanical University. The presence of the universities near the school influences the demographic makeup of the area, with a significant amount of housing occupied by college students. The land uses in the school zone are predominantly residential with some areas of recreation and commercial uses. The Governor's Square Mall commercial area encompasses a significant portion of the school zone just north of the Hartsfield Elementary along Apalachee Parkway.

The Hartsfield school zone includes five major roadways. Monroe Street runs north to south and borders the school zone on the west. East Tennessee Street runs east to west and borders the school zone on the north. East Park Avenue runs east to west through the northern portion of the school zone. Apalachee Parkway runs east to west and bisects the zone into north and south. Magnolia Drive runs north to south and bisects the zone into east and west. Additionally, a CSX railroad line runs through the

## Safe Routes to School Audit Report

northern portion of the school zone. Important recreational facilities within the school zone include Governor's Park, Indianhead Acres Park, Myers Park, Jack L. Mclean Jr. Park, and Capital Park. Additionally, the Capital City Country Club takes up a significant portion of the recreational uses within the zone.





## Chapter 2: On-Site Meeting and Inventory

### Date and Weather Conditions

The on-site inventory meeting was conducted on February 14<sup>th</sup>, 2013 with temperatures in the mid 40 degrees Fahrenheit.

### Highlights and Key Observations of On-Site Meeting

During this visit, Hartsfield 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 Chowkeebin Nene. There are several perimeter fences and restrictive access gates around campus due to concerns with safety and security at the school. Students are permitted to arrive to school as early as 6:45am and there are after school programs available on campus until 6:30pm. It was noted that few students participate in the before school program. It was also noted that a large portion of the student population lives in Section 8 residential housing near the school.

There are two designated crossing guards available at the intersection of Magnolia Drive & Lafayette Street as well as at the south crosswalk of Chowkeebin Nene & Indianhead Drive. The east crosswalk at the intersection of Chowkeebin Nene & Indianhead Drive is quite dangerous for students to cross. There are two Chowkeebin Nene one-way pair lanes as well as an additional one-way lane for Winchester Lane that students must cross. School staff and administrators serve as ushers for students at both the automobile drop-off/pick-up and school bus zones. School representatives noted that bicycle and pedestrian safety training is taught as part of the school curriculum.

### 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 older neighborhood with somewhat well-connected streets, there is very limited bicycle and pedestrian infrastructure in the surrounding area. Additionally, not many students live close to campus. As a result, there are a limited number of students that walk or bicycle to/from school, as many must rely heavily on school busing and automobile rides; however, it was noted that there is a "Walking School Bus" that is parent led and escorts 10-15 children to/from school. Walkers and bicyclists can enter campus from Chowkeebin Nene as well as Indianhead Drive. School representatives stated that many walkers/bicyclists come from the southeast side of campus; however, they are prohibited from entering campus near the school bus zone on that side of campus. As such, they must walk slightly further to enter campus at the main entrance. There is one small, outdoor



bicycle parking rack located at the school with space for approximately ten bicycles. During the site visit there were four bicycles parked at the rack.

The school bus drop-off and pick-up zone mostly functions adequately. The zone for arrival and departure is covered and there are benches for students to sit on while waiting for their bus to arrive. The zone has two lanes for school buses to circulate; however, the curve of the school bus zone has a fairly small turning radius, which can make it difficult for the school buses in the inner school bus lane. There are five school buses in the mornings and afternoons. Also, there is an after school Boys & Girls Club van that uses the school bus zone in the afternoons. It was noted that there are no students that ride Star Metro buses.

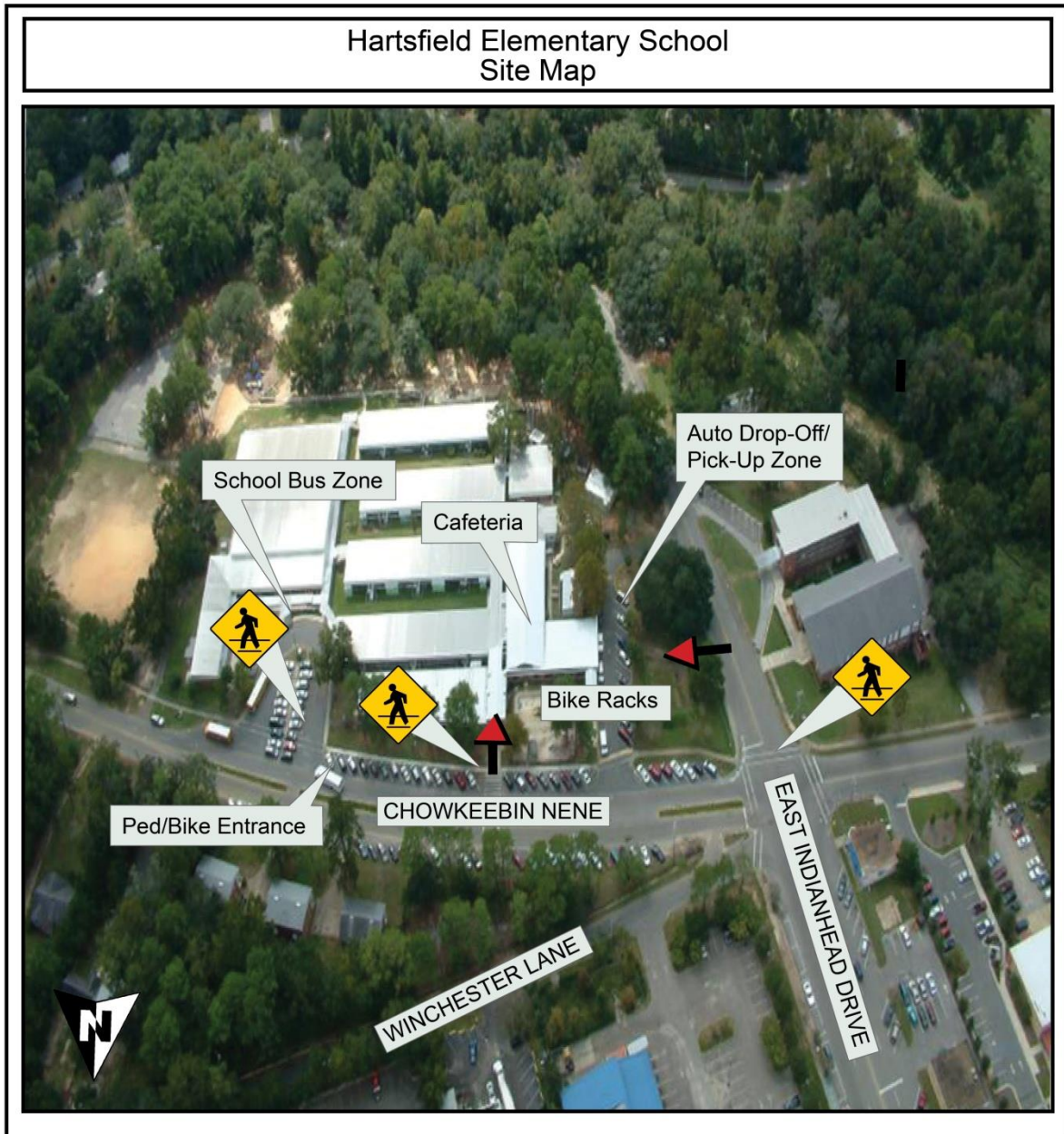
The parent drop-off and pick-up zone functions inadequately to accommodate the volume of automobiles entering and exiting the site. The automobile queuing capacity is very limited due to the small size of the zone. School staff and administrators assist with students arriving and departing. Additionally, the area is covered, which helps during times of inclement weather, and there is a holding area with benches for students that are waiting to be picked-up in the afternoons. Also, temporary traffic control devices (i.e. cones and signs) are used during school commuting hours. School representatives stated that the parent pick-up/drop-off zone feels dysfunctional and lacks a good system.

### **Inventory Map**

An aerial photograph showing Hartsfield Elementary School is located on the following page. As shown in the photo, the school fronts Chowkeebbin Nene. Students can access campus from one point along this street as well as from East Indianhead Drive. Bicycle parking racks are located near the front entrance of the school.

Standard width sidewalks are located along the school-side of Chowkeebbin Nene and there is a midblock crosswalk directly in front of the school's main entrance. Additionally, there are standard width sidewalks on the school-side of East Indianhead Drive until the intersection at Chowkeebbin Nene where it briefly transitions to sidewalks on both sides of the street and then back down to only one side. Winchester Lane functions more like a long alleyway and does not have any sidewalks along either side of the street.

The automobile pick-up and drop-off zone is located on the side of the school along East Indianhead Drive. Automobiles enter from East Indianhead Drive and exit onto Chowkeebbin Nene. Parking spaces are located in this area as well. The bus drop-off and pick-up zone is separately located along Chowkeebbin Nene. Buses both enter and exit the zone from separate driveways along Chowkeebbin Nene. Additional parking spaces are located in this area as well.



### 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 neighborhood includes several major commercial land uses, which limit the amount of housing and potential children near the 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 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 Chowkeebin Nene as well as Indianhead Drive. 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 (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. Furthermore, with specific regard to the parent drop-off/pick-up zone, the school should explore the possibility of reconfiguring the on-street parking on Chowkeebin Nene in front of the school to create a second parent drop-off/pick-up zone.

### 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 5<sup>th</sup> 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 2<sup>nd</sup> Grade, and 3<sup>rd</sup> Grade through 5<sup>th</sup> 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 majority of students at Hartsfield Elementary School – three out of five students – are dropped off at school by car. The percentage rises very slightly for older-aged children. Riding a school bus ranked second place at approximately 42 percent. Of those commuting by school bus, there was an almost equal percentage from each age cohort. Walking and biking to school tied for third place at approximately one percent each. There were an equal percentage of students walking from each age group. However, there were a slightly higher percentage of older-aged students biking to school than younger-aged students. None of the students surveyed reported arriving to school by public bus.

#### SUMMARY OF SCHOOL-WIDE RESULTS

	Walk	Bicycle	Automobile	School Bus	Public Bus
<b>Average Overall</b>	1 %	1 %	56 %	42 %	0 %

## 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 2<sup>nd</sup> Grade and 3<sup>rd</sup> Grade through 5<sup>th</sup> 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 Hartsfield Elementary School students arrive by school bus or are dropped off by car to school in the morning, while fewer return home by the same modes 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 combined total of approximately three out of twenty students commute to and from school by either walking or bicycling.

With regard to neighborhood safety, the concerns were generally agreed upon by parents from both Kindergarten through 2<sup>nd</sup> and 3<sup>rd</sup> through 5<sup>th</sup>. Survey respondents overall showed concerns for the lack of sidewalks, crime, 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 Magnolia Drive, Chowkeebins Nene, Mahan Drive, and Country Club Drive.

With regard to factors that might influence their decision to allow their child to walk or bike to school, survey response indicate that factors such as living closer to school, having continuous sidewalks/bike paths, having a greater adult presence along routes to school, and marking school speed zones with flashing signs were mutually agreed upon by parents from both Kindergarten through 2<sup>nd</sup> and 3<sup>rd</sup> through 5<sup>th</sup>.

## Chapter 5: Neighborhood Field Review

A neighborhood field review was conducted on April 11<sup>th</sup>, 2013. The review consisted of an assessment of accessibility, connectivity and safety along neighborhood roadways within proximity to Hartsfield Elementary School. On the day of the field review, temperatures were in the 60's degrees 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 Hartsfield Elementary School.

### Character of Neighborhood Area

Hartsfield Elementary School is located in an established neighborhood primarily comprised of large-lot, single family homes. For the most part, the neighborhood has a well-connected pattern of grid-like streets which contributes to the school's accessibility. However, bike-ped infrastructure surrounding the school is sparse and not well-connected. Neighborhoods south of the school have sidewalks available but most do not. Roads within these neighborhoods, though, are fairly narrow and not very busy. And while Chowkeebin Nene has a sidewalk that goes directly to the school, the intersection of Magnolia Drive and Chowkeebin Nene could use some improvements to the lack of sidewalks along Magnolia Drive. Apalachee Parkway and Magnolia Drive may be major barriers to pedestrians and bicyclists due to its width and high volumes of traffic. The shared-used Indian Head Trail is located just west of the school and traverses north to south through the Indian Head-Leigh neighborhood.

Major roadways in the school zone include:

- Apalachee Parkway, a heavily traveled four lane roadway with a posted speed limit of 45mph.
- Monroe Street, a heavily traveled 4-5 lane roadway with a posted speed limit of 35mph or less.
- Magnolia Drive, a heavily traveled roadway that transitions between 2-6 lanes near the school, with a posted speed limit of 45 mph.
- East Tennessee Street, a four lane roadway with a posted speed limit of 35mph or less, west of Magnolia Drive and 45mph east of Magnolia Drive.
- East Park Avenue, a two lane roadway that transitions to four lanes east of Magnolia Drive 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 15<sup>th</sup> to May 30<sup>th</sup>. 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.

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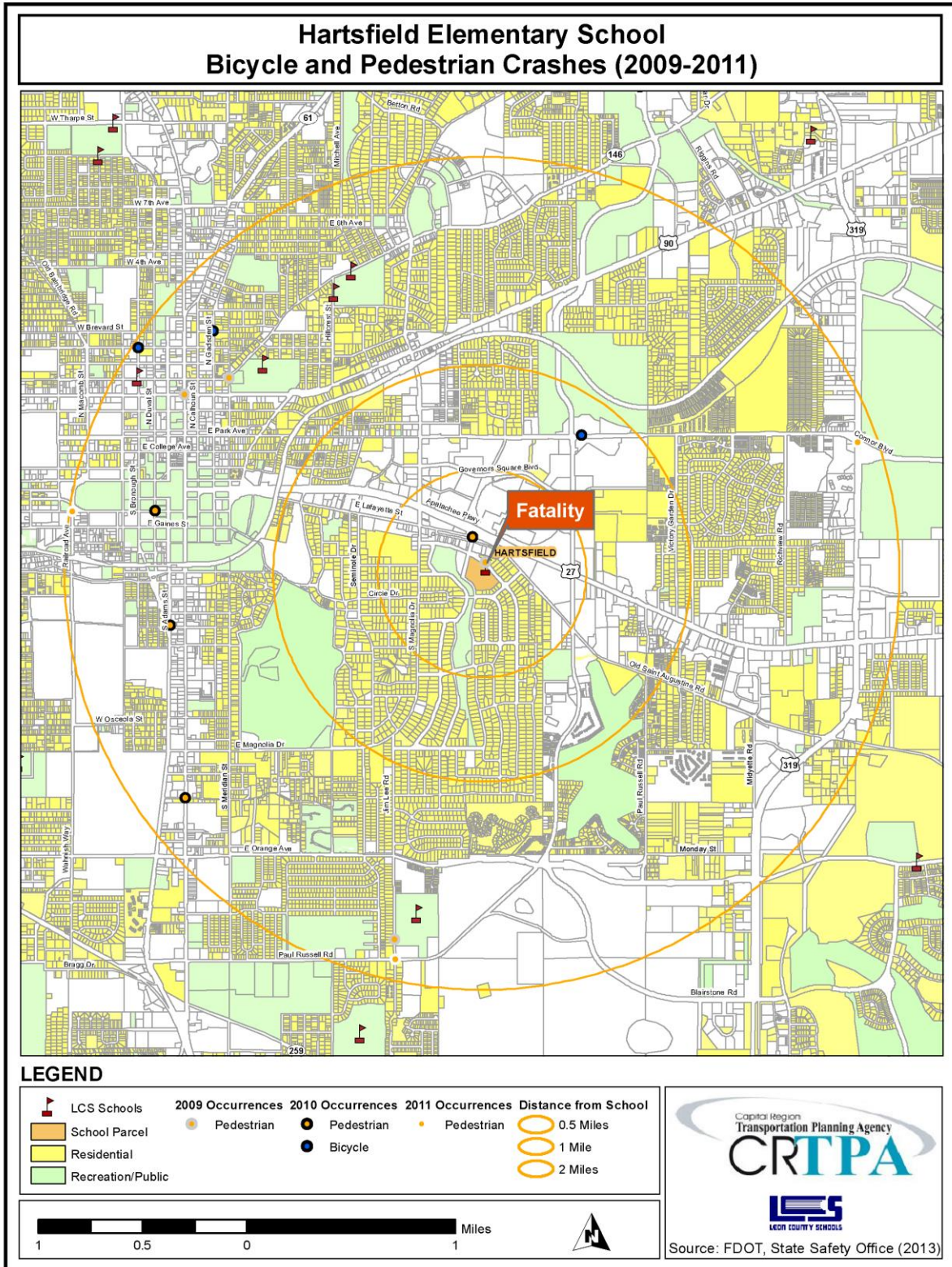


There were a total 15 bicycle and pedestrian crashes that occurred within the theoretical two-mile walk/bike radius of Hartsfield Elementary School. Of those total crashes, 8(53%) occurred during the morning hours and 7 (47%) occurred during the afternoon hours. A vast majority of the crashes involved adult pedestrians. However, there were a few incidents of crashes involving bicyclists and children. Injuries were reported in all crashes. Additionally, one crash resulted in a child fatality.

Most of the crashes occurred approximately one to two miles west of Hartsfield Elementary School, in an area mainly comprised of the Florida State University and Florida Agricultural and Mechanical University campuses. Streets where crashes tend to be a problem are Monroe Street North, Meridian Road, Duval Street, Georgia Street, and Brevard Street. Other streets that tend to be a problem in the north and west directions from the school include Capital Circle Southeast, East Park Avenue, and Lafayette Street. The child fatality occurred on Chowkeebin Nene, immediately in front of Hartsfield Elementary School.

**SUMMARY OF CRASH REPORTS (2009-2011)**

<b>Date</b>	<b>Time</b>	<b>Day</b>	<b>On Road</b>	<b>Nearest Intersection</b>	<b>Injury or Fatality?</b>	<b>Type of Crash</b>	<b>Person(s) Involved</b>
01/09/09	7:06am	Friday	1414 Chowkeebbin Nene	N/A	Fatality	Pedestrian	Child
01/09/09	3:02pm	Friday	Tennessee St.	N Monroe St.	Injury	Pedestrian	Adult
02/10/09	3:20pm	Tuesday	Meridian Rd.	Virginia St.	Injury	Pedestrian	Child
04/27/09	7:48am	Monday	Jim Lee Rd.	Paul Russell Rd.	Injury	Pedestrian	Adult
01/06/10	8:09am	Wednesday	Lafayette St.	Indianhead Dr.	Injury	Pedestrian	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
11/17/10	3:35pm	Wednesday	Bronough St. N	Georgia St. W	Injury	Bicyclist	Adult
11/19/10	8:27am	Friday	E Park Ave.	Blair Stone Rd. S	Serious Injury	Bicyclist	Adult
12/03/10	3:32pm	Friday	Putnam Dr.	Monroe St.	Injury	Pedestrian	Adult
12/29/10	3:12pm	Wednesday	Adams St.	Jennings St.	Serious Injury	Pedestrian	Adult
02/08/11	3:32pm	Tuesday	Madison St.	Railroad Ave.	Injury	Pedestrian	Adult
03/17/11	7:24am	Thursday	Jim Lee Rd.	Paul Russell Rd.	Injury	Pedestrian	Child
04/29/11	8:10am	Friday	Duval St.	Madison St.	Injury	Pedestrian	Adult
10/10/11	7:50am	Monday	Capital Cir. SE	Conner Blvd.	Injury	Pedestrian	Adult



## Neighborhood Assessment

The overall neighborhood layout surrounding Hartsfield Elementary School lends itself somewhat well to walkability. The grid-like street network, immediately south and west of the school, allows for multiple route choices to access the school. Bicycle and pedestrian infrastructure is very minimal in the area. However, streets without sidewalks and bicycle lanes tend to be low-volume, residential streets that do not pose as a major hazard to students. Project-specific recommendations can be found in the Findings and Recommendations chapter of this report.

## Walk/Bike Shed

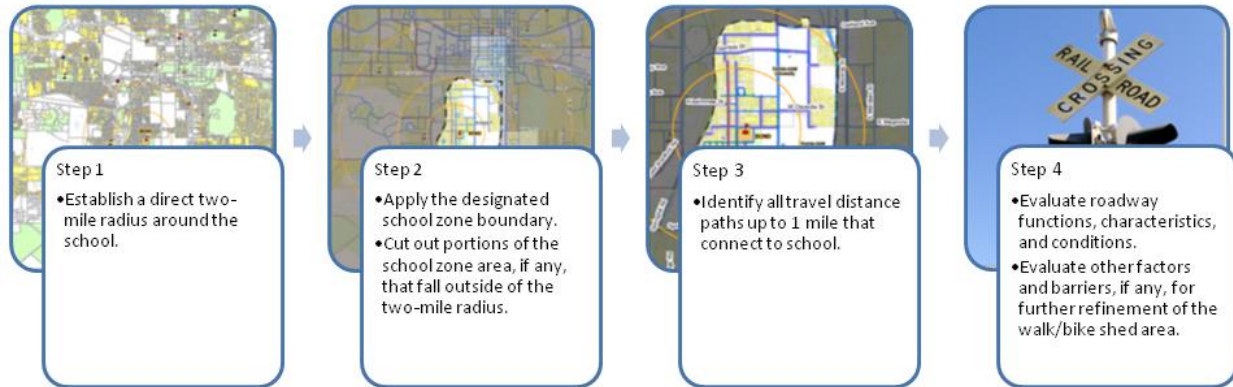
As mentioned previously, a walk/bike shed area was delineated on a map within the school zone, surrounding the school. The Hartsfield Elementary School walk/bike shed map is included at the end of this chapter.

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 5<sup>th</sup> 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 Hartsfield Elementary School extends north to Apalachee Parkway. South Monroe Streets with its fairly high volume of traffic and commercial-oriented land uses forms the western limits of the walk/bike shed. Similarly, East Orange Avenue forms the southern boundary of the walk/bike shed due to its traffic volumes. The eastern limits of the walk/bike shed fall just west of Blairstone Road due to the number of non-residential land uses in the area. 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	More than 2 travel lanes	Greater than 25 mph	Greater than 1,500	N/A
Unsignalized Crosswalk				
Marked Crosswalk	Greater than 4 travel lanes	Greater than 40 mph	Greater than 2,000	N/A
Signalized Crosswalk				

### 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

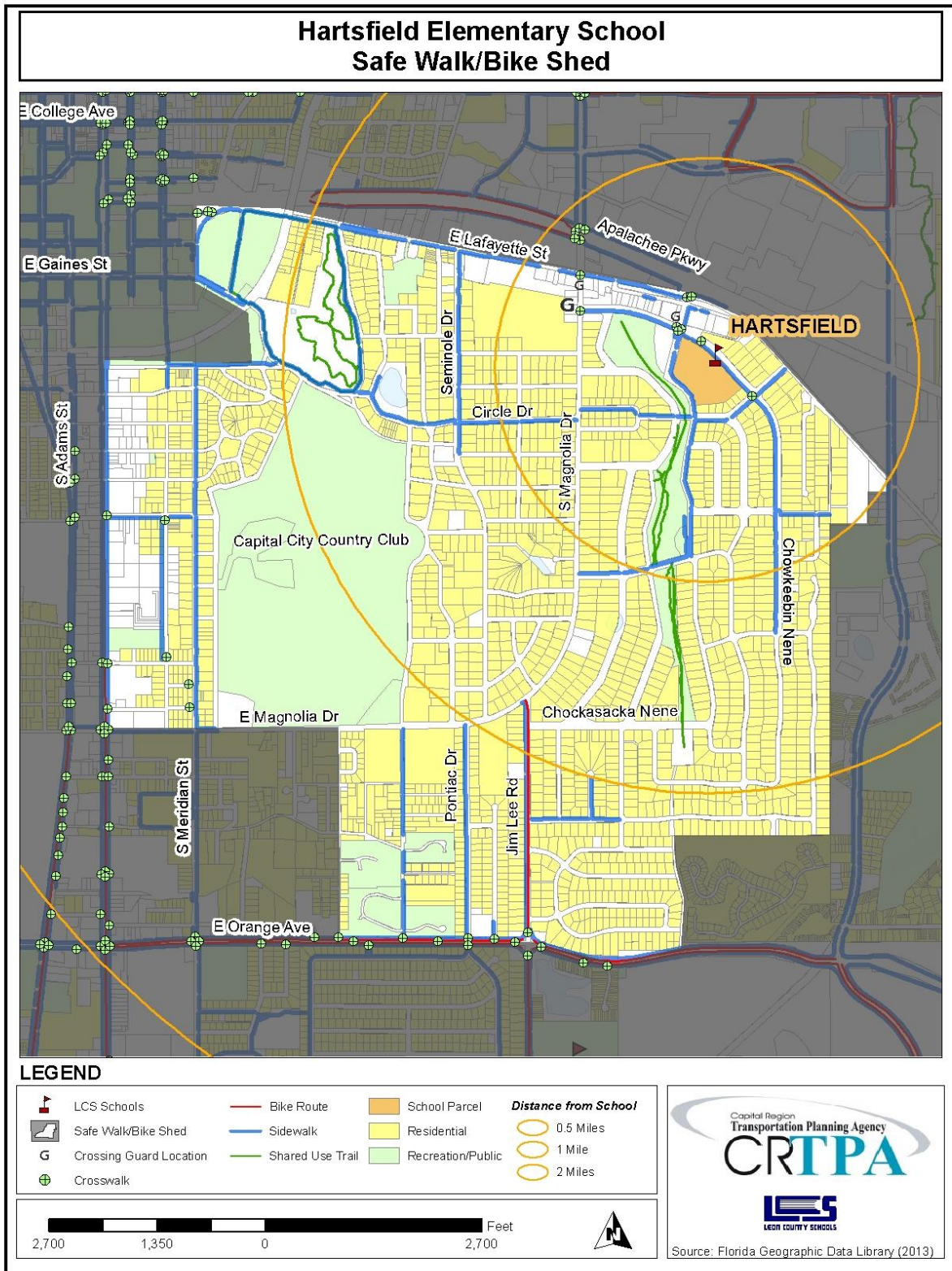


deficiencies; it also considers intersection conditions, pavement markings, signage, and a number of other attributes that can impact safe routes to school.

### **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



## **Chapter 6: Findings and Recommendations**

The existing points of access for walkers and bicyclists to Hartsfield Elementary School provide efficient access onto campus. For those requiring automobile or school bus access on a daily basis, the current situation for both zones could use some improvements. Some policy and programmatic recommendations that might help to increase safe walking and bicycling to and from school are also included for the school's consideration.

The neighborhood surrounding Hartsfield High School has a somewhat well-connected street network. Many of the streets without sidewalks and bicycle lanes are low-volume traffic resident streets that can be navigated by walkers and bicyclists with a fair amount of ease, depending in part on maturity. Still, there are some infrastructure recommendations that would provide much benefit toward improving existing conditions for students walking or bicycling to school.

### **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 Hartsfield Elementary School. They include both on- and off-site improvements as follows:

### Hartsfield Elementary School On- and Off-Site Recommendations

Improvement: On-Site		Location	From	To	Geography	Direction	Length	Comments
A1	Decrease Number of Lanes	School Bus School	N/A		N/A	N/A	N/A	Decrease from two lanes to one lane
A2	Second Parent Pick-Up/Drop-Off Zone	Chowkeebin Nene	N/A		South side of Chowkeebin Nene	E-W	N/A	

Improvement: Off-Site		Location	From	To	Geography	Direction	Length	Comments
B1	Stripe the Existing Crosswalk	Chowkeebin Nene	At Main School Entrance		Front of School	N/A	N/A	
B2	Stripe the Existing Crosswalks (4)	Chowkeebin Nene	At East Indianhead Drive		All four sides of intersection	N/A	N/A	
B3	Traffic Calming - Intersection Mural	Chowkeebin Nene	At East Indianhead Drive		Center of Intersection	N/A	N/A	
B4	Bike Sharrow Markings	See Description	See Description		N/A	N-S	N/A	
B5	New Sidewalk	Chowkeebin Nene	Chinnapakin Nene	Hasosaw Nene	West side of Chowkeebin Nene	N-S	Approx. 1,781 ft	
B6	Pedestrian Flashing Lights	Chowkeebin Nene	At Magnolia Drive		South side of intersection	E-W	N/A	
B7	New Striped Crosswalks	Indianhead Drive	At Apakin Nene		See Notes		N/A	
B8	Crosswalk Pavement Treatments	Jim Lee Road	At Orange Avenue roundabout		N/A	N/A	N/A	Pavement treatments are faded.
B9	New Sidewalk	S. Magnolia Drive	Chowkeebin Nene	Circle Drive	East side of S. Magnolia Drive	N-S	Approx. 1,254 ft	Crosswalks at every intersecting street
B10	New Sidewalk	S. Magnolia Drive	Diamond Street	Country Club Drive	East side of S. Magnolia Drive	N-S	Approx. 5,173 ft	Crosswalks at every intersecting street

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

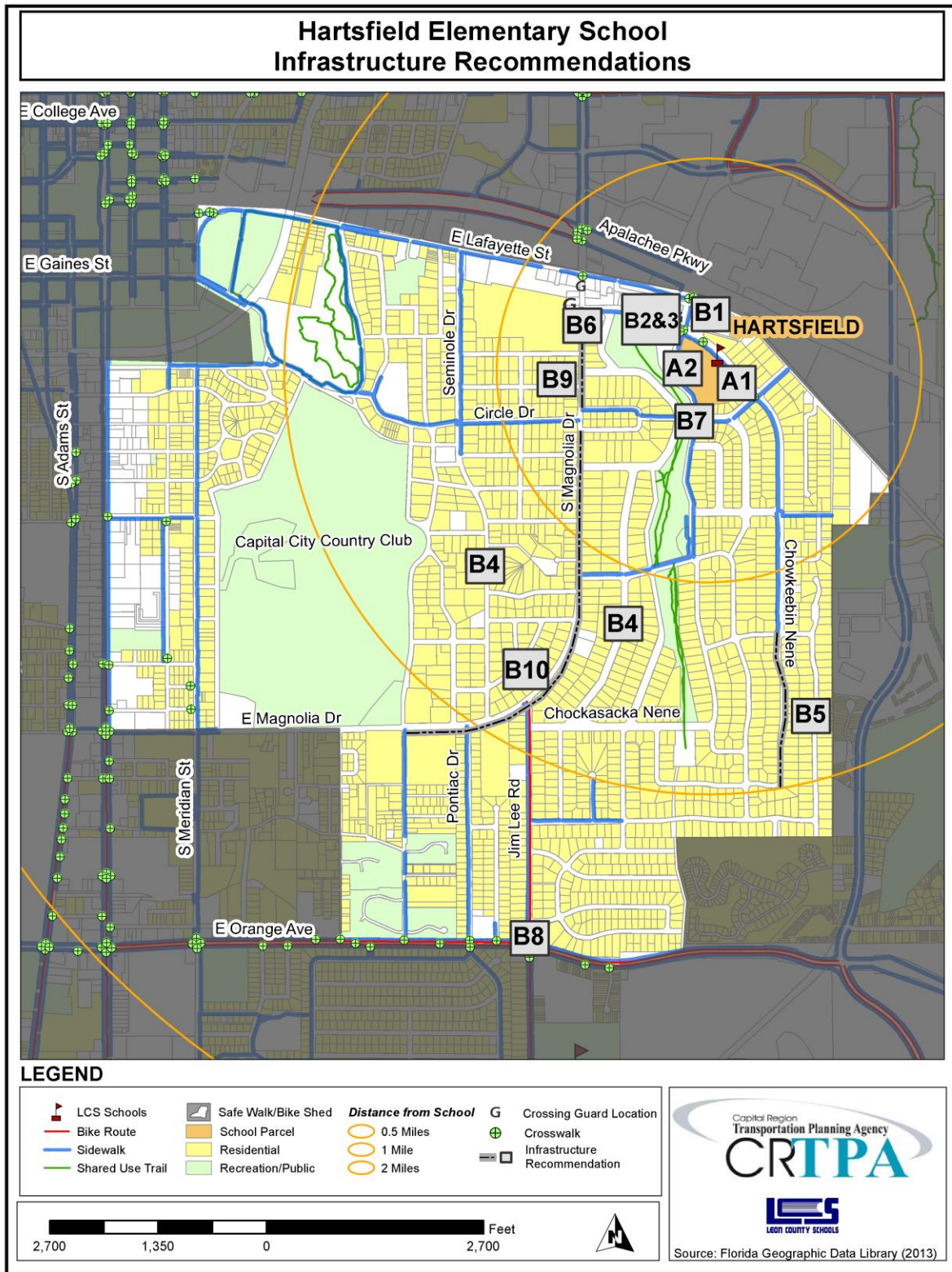
### **On-Site Recommendations**

- A1) Decrease the number of lanes in the school bus zone from two to one to better accommodate school buses and the existing small turn radii. Currently, there are two lanes for buses; however, there are only about five school buses that use the school on a daily basis. As such, there is not a demand for two lanes.
- A2) Create a second parent pick-up/drop-off location along Chowkeebin Nene, directly in front of the main school entrance. Currently, parents are prohibited from dropping off students along Chowkeebin Nene; however, school representatives expressed concerns with the functionality of the existing pick-up/drop-off zone. Due to the property constraints of the school, Chowkeebin Nene is the only viable option for creating an additional pick-up/drop-off zone.

### **Off-Site Recommendations**

- B1) Stripe the existing crosswalk in front of the school along Chowkeebin Nene.
- B2) Stripe the four existing crosswalks at the intersection of Chowkeebin Nene & East Indianhead Drive.
- B3) Create a traffic calming mural at the intersection of Chowkeebin Nene & East Indianhead Drive. This can be a difficult intersection for students to navigate. A traffic calming mural will help slow down motorists at the intersection. Additionally, there is the potential to get students from Hartsfield Elementary School involved in the creation of the mural.
- B4) Consider marking Atapha Nene from Jim Lee Road to Toochni Nene as well as Seminole Drive from East Magnolia Drive to Santa Rosa Drive, both as bike sharrows to provide additional north-south routes for bicyclists.
- B5) Construct a new sidewalk along Chowkeebin Nene from Chinnapakin Nene to Hasosaw Nene.
- B6) Place pedestrian flashing lights on both sides of the existing intersection crosswalk, located at Chowkeebin Nene & Magnolia Drive to help bring more attention to students who may be trying to cross the road. A safety review and warrant needs analysis would be required.
- B7) Mark two new striped crosswalks at the intersection of Indianhead Drive & Apakin Nene. The first should run East-West along the north side of the intersection and the second should run North-South along the east side of the intersection.
- B8) The pavement treatments at the Jim Lee Road & East Orange roundabout crosswalks need to be redone because they are beginning to fade due to wear and tear from vehicles driving over them.
- B9) Construct a new sidewalk along S. Magnolia Drive from Chowkeebin Nene to Circle Drive.
- B10) Construct a new sidewalk along S. Magnolia Drive from Diamond Street to Country Club Drive.







## 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) to help ease safety concerns; participating in Walk/Bike to School Days; 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. Additionally, the literature should highlight the existing “walking school bus” available at the school and encourage others to join.
- C2) Bicycle safety and accessibility workshop – While bicycle and pedestrian safety training are taught as part of the school 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, or releasing them on the side of the road. 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.

## 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 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.

## 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<sup>1</sup>**

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

<sup>1</sup> 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

While the neighborhood immediately surrounding Hartsfield Elementary School enjoys a fairly well-connected roadway network consisting mostly of low-volume residential streets, it doesn't correlate to high walking and bicycling commuting rates for students. Overall, approximately one percent of students commute to and from school by walking and similarly about one percent of students commute to and from school by bicycle. There appear to be two primary reasons. First, amount half of the students attending Hartsfield Elementary live in the northern half of the school zone, where Apalachee Parkway and the abundance of non-residential uses presents itself as a major barrier for safe walking and bicycling to/from school. 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 with the lack of sidewalks, crime, as well as, speeding vehicles. However, parents indicated that living closer to school, having continuous sidewalks/bike paths, having a greater adult presence along routes to school, and marking school speed zones with flashing signs 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 recommendation improvements including but not limited to new sidewalks and crosswalks. Additionally, informational and educational programmatic solutions as well as policies that encourage bicycle commuting have been provided.

While Hartsfield 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

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## 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
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-four classrooms participated in the survey for a total of 357 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

<b>Total Number of Participating Classrooms</b>	24
<b>Total Students Surveyed (K-5<sup>th</sup>)</b>	357
<b>Total K-2<sup>nd</sup> Students Surveyed</b>	185
<b>Total 3<sup>rd</sup>-5<sup>th</sup> Students Surveyed</b>	172

### 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 1% to 2%, with an overall average of 1%. Overall, the bike-to-school average for the week ranged from <1% to 1%, with an overall average of 1%. Of the students that bike to school, an overall average of 60% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 1% to 3%, with an overall average of 2%.

### SUMMARY OF WALKING AND BICYCLE SCHOOL-WIDE TRAVEL PATTERNS

	<b>Walk</b>	<b>Bicycle</b>	<b>Helmet Use</b>	<b>Total Walk + Bike</b>
<b>Average Overall</b>	1 %	1 %	60 %	2 %
<b>Highest Day</b>	2 %	1 %	100 %	3 %
<b>Lowest Day</b>	1 %	<1 %	0 %	1 %

### Walking and Bicycling Travel Patterns of Younger-Aged Children (K – 2<sup>nd</sup> Grade)

The younger-aged (K-2<sup>nd</sup>) children student travel surveys indicate that the walk-to-school average for the week ranged from 1% to 2%, with an overall average of 1%. 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 1% to 2%, with an overall average of 2%.

#### SUMMARY OF YOUNGER-AGED CHILDREN WALKING AND BICYCLE TRAVEL PATTERNS (K-2<sup>nd</sup>)<sup>2</sup>

	Walk	Bicycle	Helmet Use	Total Walk + Bike
<b>Average Overall</b>	1 %	<1 %	100 %	2 %
<b>Highest Day</b>	2 %	1 %	100 %	2 %
<b>Lowest Day</b>	1 %	0 %	100 %	1 %

### Walking and Bicycling Travel Patterns of Older-Aged Children (3<sup>rd</sup> – 5<sup>th</sup> Grade)

The older-aged (3<sup>rd</sup>-5<sup>th</sup>) children student travel surveys indicate that the walk-to-school average for the week ranged from 0% to 2%, with an overall average of 1%. Overall, the bike-to-school average for the week ranged from 0% to 1%, with an overall average of 1%. Of the students that bike to school, an overall average of 43% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 1% to 4%, with an overall average of 2%.

#### SUMMARY OF OLDER-AGED CHILDREN WALKING AND BICYCLE TRAVEL PATTERNS (3<sup>rd</sup>-5<sup>th</sup>)<sup>3</sup>

	Walk	Bicycle	Helmet Use	Total Walk + Bike
<b>Average Overall</b>	1 %	1 %	43 %	2 %
<b>Highest Day</b>	2 %	1 %	50 %	4 %
<b>Lowest Day</b>	0 %	0 %	0 %	1 %

### 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.

<sup>2</sup> Includes one 2<sup>nd</sup>-3<sup>rd</sup> grade class

<sup>3</sup> Includes one 1<sup>st</sup>-5<sup>th</sup> 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 54% to 58%, with an overall average of 56%. 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 40% to 44%, with an overall average of 42%. None of the students surveyed reported riding a public bus to school.

#### SUMMARY OF BUS & AUTOMOBILE DROP-OFF SCHOOL-WIDE TRAVEL PATTERNS

	Automobile	Seat Belt	School Bus	Public Bus
<b>Average Overall</b>	56 %	88 %	42 %	0 %
<b>Highest Day</b>	58 %	92 %	44 %	0 %
<b>Lowest Day</b>	54 %	84 %	40 %	0 %

### Bus and Automobile Travel Patterns of Younger-Aged Children (K – 2<sup>nd</sup> Grade)

The younger-aged (K-2<sup>nd</sup>) children student travel surveys indicate that the automobile-to-school average for the week ranged from 53% to 59%, with an overall average of 55%. Of the students that ride to school in an automobile, an overall average of 95% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 40% to 45%, with an overall average of 43%. None of the students surveyed reported riding a public bus to school.

#### SUMMARY OF YOUNGER-AGED CHILDREN BUS & AUTOMOBILE DROP-OFF TRAVEL PATTERNS (K-2<sup>nd</sup>)<sup>4</sup>

	Automobile	Seat Belt	School Bus	Public Bus
<b>Average Overall</b>	55 %	95 %	43 %	0 %
<b>Highest Day</b>	59 %	97 %	45 %	0 %
<b>Lowest Day</b>	53 %	92 %	40 %	0 %

### Bus and Automobile Travel Patterns of Older Children (3<sup>rd</sup> – 5<sup>th</sup> Grade)

The older-aged (3<sup>rd</sup>-5<sup>th</sup>) children student travel surveys indicate that the automobile-to-school average for the week ranged from 54% to 58%, with an overall average of 57%. Of the students that ride to school in an automobile, an overall average of 80% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 38% to 44%, with an overall average of 41%. None of the students surveyed reported riding a public bus to school.

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<sup>4</sup> Includes one 2<sup>nd</sup>-3<sup>rd</sup> grade class

**SUMMARY OF OLDER-AGED CHILDREN BUS & AUTOMOBILE DROP-OFF TRAVEL PATTERNS (3<sup>rd</sup>-5<sup>th</sup>)<sup>5</sup>**

	<b>Automobile</b>	<b>Seat Belt</b>	<b>School Bus</b>	<b>Public Bus</b>
<b>Average Overall</b>	57 %	80 %	41 %	0 %
<b>Highest Day</b>	58 %	89 %	44 %	0 %
<b>Lowest Day</b>	54 %	71 %	38 %	0 %

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<sup>5</sup> Includes one 1<sup>st</sup>- 5<sup>th</sup> 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:

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***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:						

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## 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 122 parent surveys returned. Of those, 73 (60%) 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 38 students representing Kindergarten through 2<sup>nd</sup> Grade, and 35 students representing 3<sup>rd</sup> Grade through 5<sup>th</sup> Grade.

### SUMMARY OF PARENT SURVEY PARTICIPATION

<b>Total Enrollment</b>	565
<b>Total Number of Parent Surveys</b>	122
<b>Total Number within 2 Miles (K-2<sup>nd</sup> Grade)</b>	38
<b>Total Number within 2 Miles (3<sup>rd</sup>-5<sup>th</sup> Grades)</b>	35
<b>Percentage of Surveys within 2 Miles</b>	60 %

### 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**

<b>Morning</b>	<b>Average Overall</b>
School Bus	44 %
Car	42 %
Walk	8 %
Bicycle	4 %
Public Bus	1 %
Other	0 %
<b>Afternoon</b>	
School Bus	40 %
Car	38 %
Walk	11 %
Other	5 %
Bicycle	4 %
Public Bus	1 %

**Commuting Patterns of Younger-Aged Children (K – 2<sup>nd</sup> Grade)**

The surveys of parents of younger-aged (K-2<sup>nd</sup> grade) indicate that the car-to-school average for a typical week is 45% in the morning and decreases to 37% in the afternoon. The school bus-to-school average for a typical week is 34% in both the morning and afternoon. The walk-to-school average for a typical week is 16% in the morning and increases to 18% in the afternoon. The public bus-to-school average for a typical week is 3% in both the morning and afternoon. None of the students rode a bicycle or used an alternative commute mode in the morning. However, 5% use an alternative commute mode in the afternoon.

**COMMUTING PATTERNS OF YOUNGER-AGED CHILDREN (K-2<sup>nd</sup>)**

<b>Morning</b>	<b>Average Overall</b>
Car	45 %
School Bus	34 %
Walk	16 %
Public Bus	3 %
Bicycle	0 %
Other	0 %
<b>Afternoon</b>	
Car	37 %
School Bus	34 %
Walk	18 %
Other	5 %
Public Bus	3 %
Bicycle	0 %

### Commuting Patterns of Older-Aged Children (3<sup>rd</sup> – 5<sup>th</sup> Grade)

The surveys of parents of older-aged (3<sup>rd</sup>-5<sup>th</sup> grade) indicate that the school bus-to-school average for a typical week is 54% in the morning and decreases to 46% in the afternoon. The car-to-school average for a typical week is 40% in both the morning and afternoon. The bike-to-school average for a typical week is 9% in both the morning and afternoon. None of the students walk, rode a public bus, or used an alternative commute mode in the morning. However, 6% used an alternative commute mode and 3% walked in the afternoon.

#### COMMUTING PATTERNS OF OLDER-AGED CHILDREN (3<sup>rd</sup>-5<sup>th</sup>)

<b>Morning</b>	<b>Average Overall</b>
School Bus	54 %
Car	40 %
Bicycle	9 %
Walk	0 %
Public Bus	0 %
Other	0 %
<b>Afternoon</b>	
School Bus	46 %
Car	40 %
Bicycle	9 %
Other	6 %
Walk	3 %
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

<b>Neighborhood Safety Concern</b>	<b>Number of Comments</b>
Speeding Vehicles	12
Issues with Sidewalks/Walking	8
Issues with Crime	6

### Neighborhood Safety Concerns For Younger-Aged Children (K – 2<sup>nd</sup> Grade)

Neighborhood safety concerns for parents of younger-aged (K-2<sup>nd</sup>) children include four main concerns including issues with speeding vehicles, transportation outside of the school zone, sidewalks/walking, and crime. There were approximately eight comments of concern regarding issues with speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Magnolia Drive, Chowkeebin Nene, and Country Club Drive. Parents also mention vehicles speeding in school zones. Additionally, there were six comments of concern regarding issues with transportation outside of the school zone. General concerns include crossing guards not always on duty, vehicles driving around crossing guards, cars not obeying stop signs, and high volumes of traffic. A specific location where there is an issue is Magnolia Drive. Also, there were five comments of concern regarding issues with sidewalks and walking. General concerns include the lack of sidewalks and obstacles that interfere with sidewalks such as rocks and vines. A specific location where sidewalks tend to be a problem is Magnolia Drive. Lastly, there were four comments of concerns regarding issues with crime. General concerns included transients hanging out around stores and woods, gangs hanging around bus stops, and known high crime areas such as Meridian Street.

#### SUMMARY OF TOP NEIGHBORHOOD SAFETY CONCERNS (K-2<sup>nd</sup> Grade)

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	8
Issues with Transportation Outside of School Zone	6
Issues with Sidewalks/Walking	5
Issues with Crime	4

### Neighborhood Safety Concerns For Older-Aged Children (3<sup>rd</sup> – 5<sup>th</sup> Grade)

Neighborhood safety concerns for parents of older-aged (3<sup>rd</sup>-5<sup>th</sup>) children also include issues with speeding vehicles, sidewalks/walking, crime, and issues with the parent pick-up/drop off area of the school. There were approximately three comments of concern regarding issues with speeding vehicles. A specific location mentioned where speeding tends to be a problem is Mahan Drive. One parent also noted speeding in school zones where drivers do not pay attention to crossing guards. Additionally, there were three comments of concern regarding sidewalks/walking. General concerns include the lack of sidewalks on Lewis Street and Magnolia Drive. Also, there were two comments of concern regarding issues with crime. General concerns include transients hanging out in the woods and not being able to trust people in the area to let children walk alone. Lastly, there were two comments of concern regarding the parent pick-up/drop-off area of the school. General concerns include parents picking up students across the street from the designated pick-up area and an incident where a student was hit by a vehicle.

**SUMMARY OF TOP NEIGHBORHOOD SAFETY CONCERNS (3<sup>rd</sup>-5<sup>th</sup> Grade)**

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	3
Issues with Sidewalks/Walking	3
Issues with Crime	2
Issues with Parent Pick-Up/Drop-Off Areas	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). The table below includes the top ranking responses to the influential factors question from the survey.

**SUMMARY OF TOP RANKING SCHOOL-WIDE INFLUENTIAL FACTORS RESULTS**

	SCALE	1	2	3	4	5	N/A
<b>I would allow my child to walk or bicycle to school more often if:</b>							
<i>#1 We lived closer to school</i>		4	3	2	6	35	12
<i>#2 There were continuous sidewalks or bike paths from my neighborhood to school</i>		2	1	5	4	32	15
<i>#3 There was a greater adult presence of parent volunteers or police officers along walk routes to school</i>		1	2	5	8	30	16
<i>#3 School speed zones were marked with flashing signs</i>		0	1	7	6	30	18

**Influential Factors for Younger-Aged Children (K – 2<sup>nd</sup> Grade)**

Parents of children in Kindergarten through 2<sup>nd</sup> grade agreed that the top six influential factors to allow their child to walk or bicycle to school more often included factors related to accompanying children (by themselves/other parents), living closer to school, having continuous and separate bicycle/pedestrian pathways from traffic, having a greater adult presence along routes to school, and marking speed zones with flashing signs.

**TOP RANKING INFLUENTIAL FACTORS FOR YOUNGER-AGED CHILDREN (K-2<sup>nd</sup>)**

	SCALE	1	2	3	4	5	N/A
<b>I would allow my child to walk or bicycle to school more often if:</b>							
<i>#1 Accompanied by myself or other parents</i>		1	0	0	2	21	8
<i>#2 We lived closer to school</i>		2	3	1	2	17	7
<i>#3 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school</i>		0	2	6	1	15	8
<i>#3 There were continuous sidewalks or bike paths from my neighborhood to school</i>		0	0	5	1	15	9
<i>#4 There was a greater adult presence of parent volunteers or police officers along walk routes to school</i>		1	2	3	3	14	9
<i>#4 School speed zones were marked with flashing signs</i>		0	1	4	2	14	11

**Influential Factors for Older-Aged Children (3<sup>rd</sup> – 5<sup>th</sup> Grade)**

Parents of children in 3<sup>rd</sup> through 5<sup>th</sup> grade agreed that the top six influential factors to allow their child to walk or bicycle to school more often included factors related to living closer to school, enforcing speed limits in school zones and marking zones with flashing signs, having continuous bicycle/pedestrian pathways, having a greater adult presence along routes to school, and having more effective crossing guards.



**TOP RANKING INFLUENTIAL FACTORS FOR OLDER-AGED CHILDREN (3<sup>rd</sup>-5<sup>th</sup>)**

	SCALE	1	2	3	4	5	N/A
<b>I would allow my child to walk or bicycle to school more often if:</b>							
<i>#1 We lived closer to school</i>		2	0	1	4	18	5
<i>#2 Speed limits were strictly enforced in school speed zones</i>		1	0	1	5	17	5
<i>#2 There were continuous sidewalks or bike paths from my neighborhood to school</i>		2	1	0	3	17	6
<i>#3 There was a greater adult presence of parent volunteers or police officers along walk routes to school</i>		0	0	2	5	16	7
<i>#3 Crossing guards were more effective</i>		0	2	1	5	16	5
<i>#3 School speed zones were marked with flashing signs</i>		0	0	3	4	16	7