August 2014

Safe Routes to School Audit Report
Astoria Park Elementary School

Leon County
Public Schools

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Acknowledgements

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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)

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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

Astoria Park Elementary School is located at 2465 Atlas Road, Tallahassee, 32303 in Leon County, Florida. It is part of the Leon County Public Schools system. The school was established in 1969. Regular school hours are from 8:30am to 2:50pm. A before school program is also offered at the school from 7:00am to 8:00am.

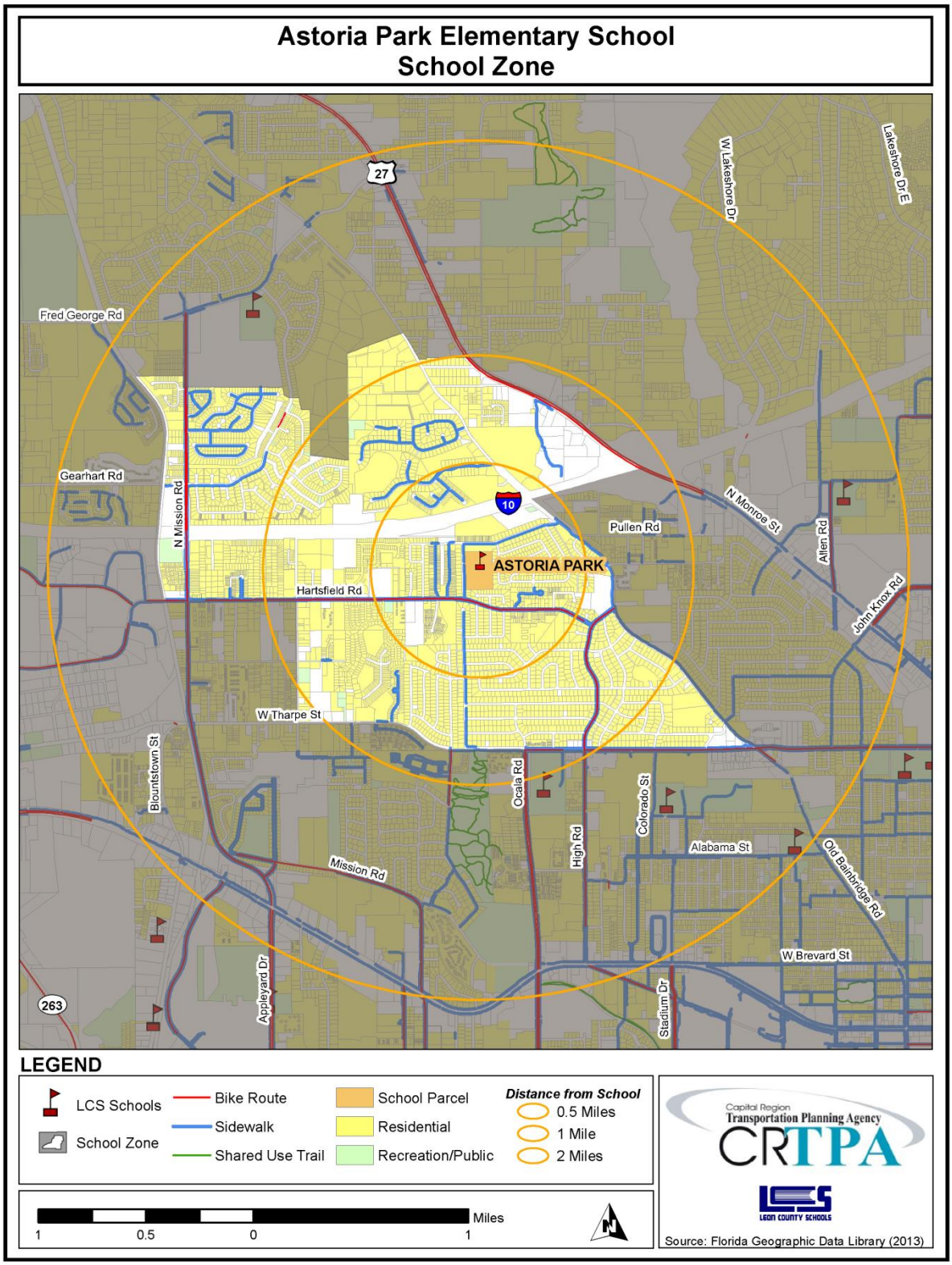
The number of students enrolled at the school, for the 2013 school year, was 626. The school has a current capacity for 687 students. The school includes grade levels Pre-Kindergarten through 5th Grade.

Additionally, Astoria Park Elementary School offers an after-school Program, M.A.K.E., which provides tutoring and enrichment services to students in grades 2nd through 5th who have poor academics or have low test scores on standardized tests such as the FCAT (Florida Comprehensive Achievement Test). The M.A.K.E Program operates from 2:55pm to 6:20pm on Monday through Friday.

Students attending this school feed into Griffin Middle School and Godby High School.

School Zone

The Astoria Park Elementary school zone encompasses the neighborhoods of Hartsfield Plantation, Settlers Creek, Hartsfield Woods, Hartsfield Village, Hidden Lakes, and Forest Heights/Holly Hills. The land uses in the school zone consist of mostly residential with a few areas of recreation. Just south of the school zone are Riley Elementary School and Godby High School. The Astoria Park school zone includes four major roadways. Interstate-10 and Hartsfield Road run east-west mostly parallel and bisect the zone into north and south. Old Bainbridge Road runs along the eastern side of the school zone while North Mission Road runs along the western side of the school zone. Important recreation areas near the school zone include San Luis Mission Park just south of West Tharpe Street, which includes a shared-use trail system, and Northwest Park near North Mission Road and Fred George Road.


Astoria Park Elementary School
School Zone
ASTORIA PARK
27
10
263
Fred George Rd
Gearhart Rd
N Mission Rd
Hartsfield Rd
Pullen Rd
W Lakeshore Dr
Lakeshore Dr E
N Monroe St
Allen Rd
John Knox Rd
W Tharpe St
Blountstown St
Ocala Rd
High Rd
Colorado St
Alabama St
Old Bainbridge Rd
Mission Rd
Appleyard Dr
Stadium Dr
W Brevard St
LEGEND
LCS Schools
School Zone
Bike Route
Sidewalk
Shared Use Trail
School Parcel
Residential
Recreation/Public
Distance from School
0.5 Miles
1 Mile
2 Miles
Miles
1
0.5
0
1
Capital Region
Transportation Planning Agency
CRTPA
LEON COUNTY SCHOOLS
Source: Florida Geographic Data Library (2013)

Chapter 2: On-Site Meeting and Inventory

Date and Weather Conditions

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

Highlights and Key Observations of On-Site Meeting

During this visit, Astoria Park 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 Atlas Road as well as Hartsfield Road. There are several restrictive access gates around campus to aid with safety and security at the school. Students are permitted to arrive to school as early as 7:45am and there are after school programs available until 6:20pm. Approximately 20 students participate in the before school program while the after school program typically has between 50-60 students.

There is one designated crossing guard at the intersection of Atlas Road and Hartsfield Road. Two teacher aides supervise crossing on Atlas Road, directly in front of the school. School representatives noted that the two major barriers to increasing walking and bicycling rates to/from school are the age of the students and their preference for riding the school bus. It was noted that there is low crime in the area and safety from traffic does not appear to be a major issue. However, school representatives did note that there are crosswalks that need to be repainted. It was also noted that walking and bicycling safety is taught annually through Physical Education (P.E.) 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 a family-dense area and the walking facilities are a good quality, there are a limited number of students that walk or bicycle to/from school, as many rely on school busing and automobile rides. Walkers and bicyclists can enter campus from along Atlas Road. However, hardly any students are known to commute via bicycle. There is one bicycle rack located outdoors at the school with space for approximately 6-8 bicycles. It would be wise to consider relocating the bike rack from its current location. There were no bicycles parked during the on-site visit.

The school bus drop-off and pick-up zone functions adequately for the four morning and afternoon buses that use it daily. The zone for arrival and departure is covered and leads directly to a walking facility. The zone does not contain multiple arrival/departure lanes but it was noted that these are not needed due to the few buses that service the school. It was also noted that no students are known to commute by Star Metro.

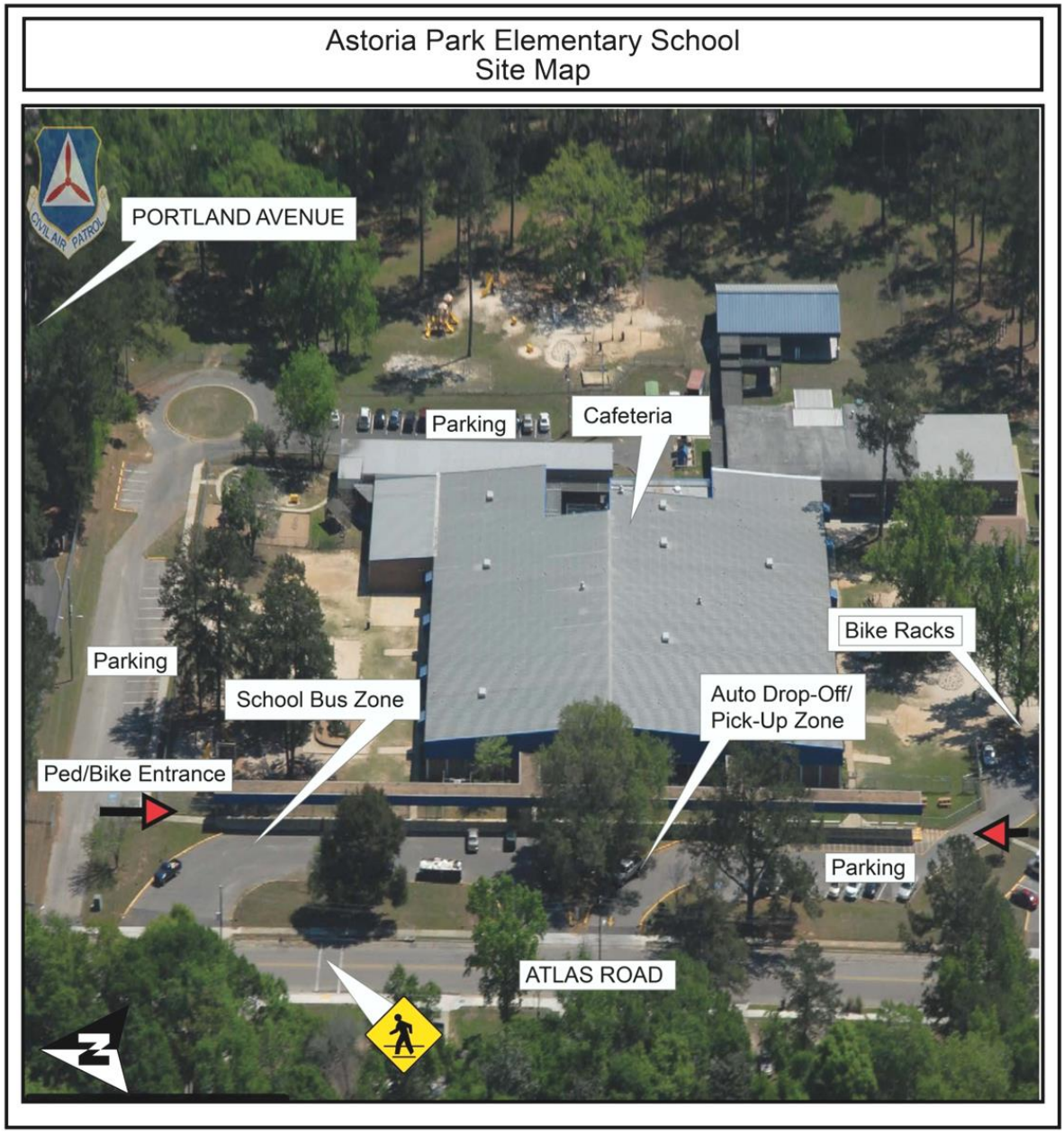
The parent drop-off and pick-up zone functions adequately to accommodate the volume of automobiles entering and exiting the site. The zone for arrivals and departures is covered which helps during times of inclement weather and there are ushers to assist students during the morning and afternoon commuting hours. Additionally, there are benches available for students waiting to be picked up. Students may also wait in one of the two playground areas on campus, depending on their grade level. The Kingergarten-2nd grade playground is located on the north side of the school while the 3rd-5th grade playground is located on the south side of the school. It was noted that during school commuting hours temporary traffic control devices (i.e. cones and signs) are used.

Inventory Map

An aerial photograph showing Astoria Park Elementary School is located on the following page. As shown in the photo, the school fronts Atlas Road. Students can access campus from two points along this street on either side of campus. Bicycle parking racks are located near the parent pick-up/drop-off zone.

Standard width sidewalks are located along both sides of Atlas Road and there is a midblock crosswalk that connects directly to a sidewalk that enters onto campus. Additionally, standard width sidewalks are located along one side of Portland Avenue leading up to Atlas Road.

The automobile pick-up and drop-off zone as well as the bus drop-off and pick-up zone are both located along the school's main entrance off Atlas Road. Each zone has its own driveway to enter from and exit to Atlas Road. The bus zone driveway is located along the northwest portion of the school's main entrance while the automobile zone driveway is located along the southwest portion. Staff and visitor parking are located in this area near the automobile driveway as well. Additional parking is provided north of the school and to the rear of the school.


Astoria Park Elementary School
Site Map
PORTLAND AVENUE
Parking
Cafeteria
Bike Racks
Parking
School Bus Zone
Auto Drop-Off/
Pick-Up Zone
Ped/Bike Entrance
Parking
ATLAS ROAD
N

Issues and Opportunities

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

Students' young ages and preference for other modes of transportation appear to be the primary issue with students' ability to walk and bicycle to school. Parents may feel that their children are too young to safely navigate to school by walking or bicycling. Additionally, as mentioned during the on-site visit, students seem to enjoy riding the school bus. This could be because it is something new to them or because it offers them a chance to socialize with friends. And while riding the bus is usually a factor of distance constrained access to the school, it may or may not be a factor influencing the amount of students walking and/or bicycling to school.

With what opportunities that do exist to increase walking and bicycling, including student safety, consideration should be given to restriping crosswalks, where necessary, and relocating the bicycle rack. Its current location in the center of the automobile drop-off/pick-up zone and short-term parking lot can be dangerous for students trying to enter and exit the bike rack location since they have to cross in the path of the car line. Additionally, school-related and –supportive committees such as the Parent/Teacher Organization (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.

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 Astoria Park Elementary School – approximately two out of three 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 distant second and third place at approximately 23 percent and nine percent of students, respectively. Of those commuting by school bus, two times as many were older students from 3rd, 4th, and 5th grades. Again, 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. Less than one percent of the students surveyed reported biking to school or arriving by public bus. (To note, there are no public buses within a reasonable distance to the school.)

SUMMARY OF SCHOOL-WIDE RESULTS

	Walk	Bicycle	Automobile	School Bus	Public Bus
Average Overall	9 %	<1 %	67 %	23 %	<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 Astoria Park Elementary School students are dropped off by car or walk 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 school bus or another mode not described specifically in the survey such as an after-school program van. Overall, approximately one-fifth of students commute 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 behavioral patterns of automobile drivers, generally, in terms of excessive driving speeds, the condition and/or lack of sidewalks, as well as, issues with transportation outside of the school zone mostly dealing with buses/bus stops and the number of crossing guards available along some routes. As for speeding complaints, specific problem locations cited include Hartsfield Road, Atlas Road, and Portland Avenue.

With regard to facts that might influence their decision to allow their child to walk or bike to school, survey responses indicate that factors such as the speed, marking and the distance of school zones; accompanying children (by themselves/other parents), and the availability of crossing guards 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 26th, 2013. The review consisted of an assessment of accessibility, connectivity and safety along neighborhood roadways within proximity to Astoria Park Elementary School. On the day of the field review, the weather was overcast with some light rain and temperatures in the 70's Fahrenheit. Following the field review, a walk/bike shed area was delineated on a map within the school zone, surrounding the school. This chapter includes a Walk/Bike Shed section describing the approach to defining the area and an associated map for Astoria Park Elementary School.

Character of Neighborhood Area

Astoria Park Elementary is located in a family dense area comprised of a mix of residential that includes single-family homes, townhomes, and a few condominiums. The neighborhood street pattern throughout the area includes looped streets that connect in a semi-gridded manner. Bike-ped infrastructure is available on North Mission Road, Hartsfield Road, Old Bainbridge Road, as well as, some neighborhoods to the north and south of the school. The neighborhoods of Forest Heights and Holly Hills, just south of the school, are well-connected to the school by a bike-ped path. Overall, the area seems to be very walkable. However, Interstate-10 acts as a significant barrier for the neighborhoods north of the school.

Major roadways in the school zone include:

- Interstate-10, a heavily traveled six lane, east-west roadway with a posted speed limit of 70mph.
- Old Bainbridge Road, a northwest-southeast two lane roadway with a posted speed limit of 35mph or less.
- North Mission Road, a north-south two lane with center turn lane roadway, with a posted speed limit of 35mph or less.
- Hartsfield Road, an east-west two lane roadway with a posted speed limit of 35mph or less.

Crash Data

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

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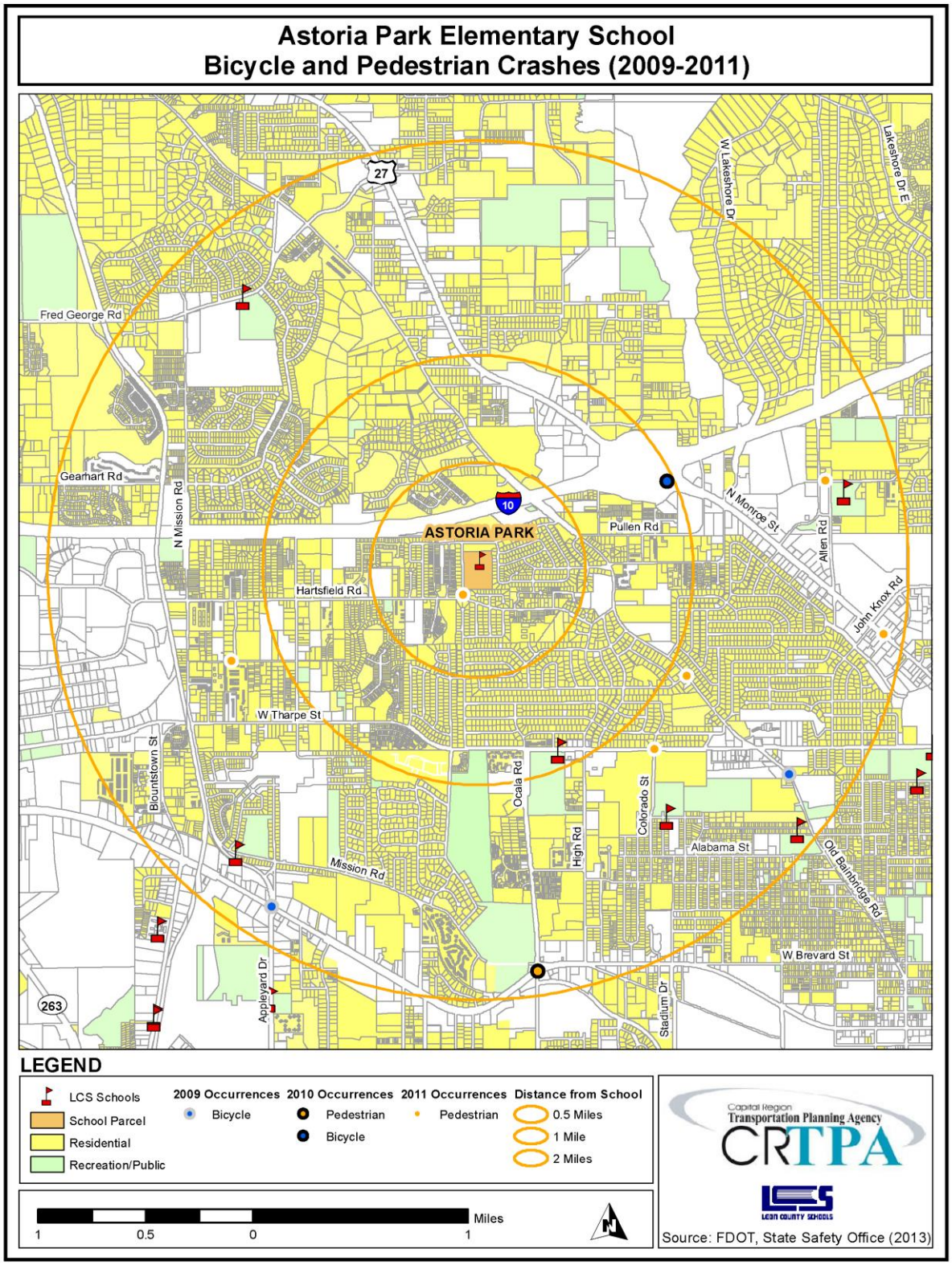
There were a total of 10 bicycle and pedestrian crashes that occurred within the theoretical two-mile walk/bike radius of Astoria Park Elementary School. Of those crashes, 2 (20%) occurred during the

morning hours and 8 (80%) occurred during the afternoon hours. A vast majority of the crashes involved adult bicyclists and pedestrians. However, there were three crashes involving child pedestrians. Injuries were reported in all crashes but two.

All but one crash occurred approximately ½ mile to 2 miles away from Astoria Park Elementary School. Streets where bicycle and pedestrian crashes tend to be a problem are North Monroe Street, Old Bainbridge Road, Ocala Road, and Pecan Road. Additionally, one crash occurred at the intersection of Atlas Road & Hartsfield Road, near the school, and involved a child pedestrian.

SUMMARY OF CRASH REPORTS (2009-2011)

Date	Time	Day	On Road	Nearest Intersection	Injury or Fatality?	Type of Crash	Person(s) Involved
04/20/09	7:28am	Monday	Tennessee St.	Appleyard Dr.	Injury	Bicyclist	Adult
05/05/09	4:07pm	Tuesday	Old Bainbridge Rd.	Knots Ln.	Injury	Bicyclist	Adult
06/21/10	7:27am	Monday	I-10	N Monroe St.	No Injury	Bicyclist	Adult
05/20/10	4:11pm	Thursday	Ocala Rd.	Tennessee St.	Injury	Pedestrian	Adult
01/07/11	2:15pm	Friday	N Monroe St.	Silver Slipper Ln.	Injury	Pedestrian	Adult
03/01/11	3:35pm	Tuesday	Old Bainbridge Rd.	Raa Ave.	Injury	Pedestrian	Child
03/30/11	4:13pm	Wednesday	CR 158	Colorado St.	No Injury	Pedestrian	Child
07/18/11	3:41pm	Monday	Pecan Rd.	2738	Injury	Pedestrian	Adult
11/16/11	4:10pm	Wednesday	Atlas Rd.	Hartsfield Rd.	Injury	Pedestrian	Child
11/30/11	4:20pm	Wednesday	Fulton Rd.	Sharer Rd.	Injury	Pedestrian	Adult


Astoria Park Elementary School
Bicycle and Pedestrian Crashes (2009-2011)
ASTORIA PARK
Fred George Rd
Gearhart Rd
N Mission Rd
Hartsfield Rd
Pullen Rd
N Monroe St
Allen Rd
John Knox Rd
W Lakeshore Dr
Lakeshore Dr E
W Tharpe St
Blountstown St
Ocala Rd
High Rd
Colorado St
Alabama St
Old Bainbridge Rd
W Brevard St
Mission Rd
Appleyard Dr
Stadium Dr
27
10
263
LEGEND
LCS Schools
School Parcel
Residential
Recreation/Public
2009 Occurrences
Bicycle
2010 Occurrences
Pedestrian
Bicycle
2011 Occurrences
Pedestrian
Distance from School
0.5 Miles
1 Mile
2 Miles
Miles
1
0.5
0
1
Capital Region Transportation Planning Agency
CRTPA
LEON COUNTY SCHOOLS
Source: FDOT, State Safety Office (2013)

Neighborhood Assessment

The overall neighborhood layout surrounding Astoria Park Elementary School lends itself well to walkability. The fairly well connected gridded street network allows for multiple route choices to access the school. In addition, there is a fairly comprehensive existing sidewalk infrastructure throughout the immediately adjacent neighborhood streets; however, crosswalk and school pavement markings are beginning to fade and could use some general remarking throughout.

Further away from Astoria Park, outside of a half-mile radius of the school, the sidewalk network generally continues on at least one side of the road uninterrupted to most residential areas within the school zone south of Interstate 10. Although the infrastructure reaches some neighborhoods further away to the south, much of it is outside the expected walking distance for elementary-aged children walking and bicycling.

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 Astoria Park Elementary School walk/bike shed map is included on the following page.

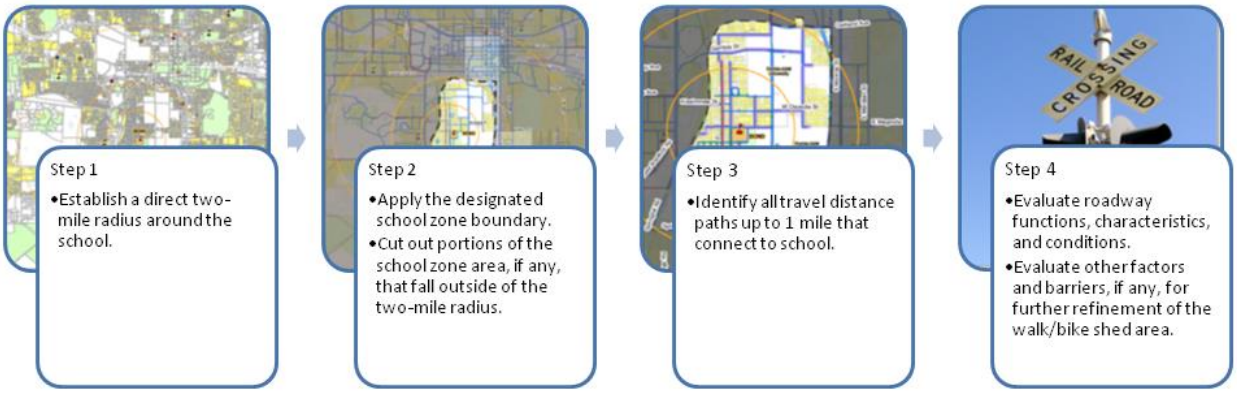
The walk/bike shed area and associated map are not meant to suggest that elementary school students of all ages, maturity level, and experience should commute to and/or from school within the area delineated. Certainly, younger children such as kindergarten students are not expected to walk or bike to 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 Astoria Park Elementary School extends approximately one mile east, west, and south of the school. The presence of Interstate-10 to the north contributes to the northern limits of the school being excluded. West Tharpe Street with its limited crossing points and four lanes of undivided traffic forms the southern limits of the walk/bike shed. Also, because Old Bainbridge Road has gaps in the sidewalk network as well as little to no separation from traffic, it forms the eastern limits of the walk/bike shed. Mission Road, from Interstate-10 to Hartsfield Road, forms the western limits.

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.

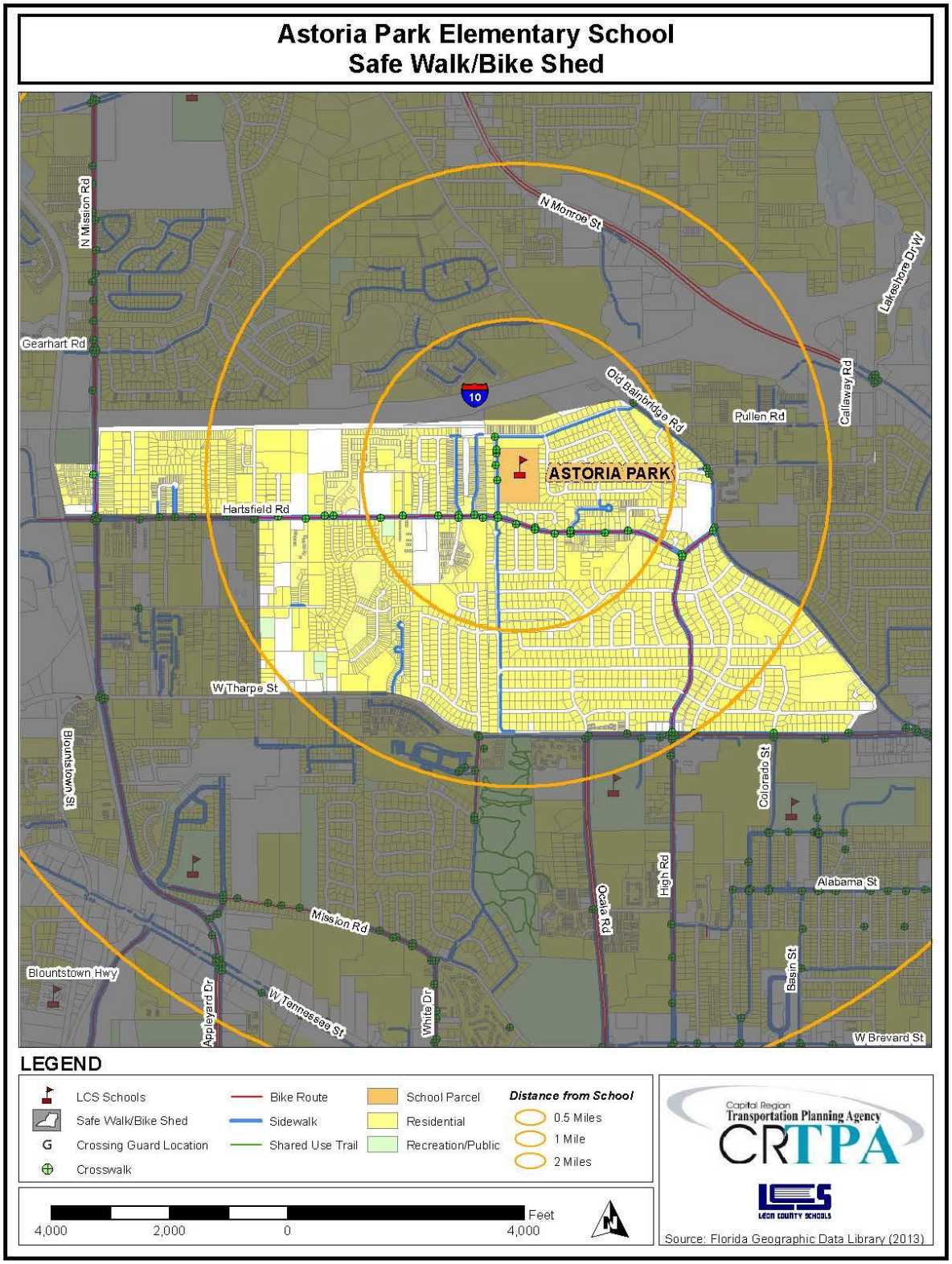
In determining a safe walking and bicycling area, this report applies a methodology and criterion that is more stringent than State standards and more in line with existing studies, research and opinions collected from numerous experts in the fields of pedestrian and bicycle transportation and safe routes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


Astoria Park Elementary School
Safe Walk/Bike Shed
ASTORIA PARK
N Monroe St
N Mission Rd
Gearhart Rd
Old Bainbridge Rd
Pullen Rd
Callaway Rd
Lakeshore Dr W
Hartsfield Rd
W Tharpe St
Blountstown St
Colorado St
High Rd
Ocala Rd
Alabama St
Mission Rd
Blountstown Hwy
Appleyard Dr
W Tennessee St
White Dr
Basin St
W 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
4,000
2,000
0
4,000
Capital Region Transportation Planning Agency
CRTPA
Leon County Schools
Source: Florida Geographic Data Library (2013)

Chapter 6: Findings and Recommendations

The two existing points of access for walkers and bicyclists to Astoria Park Elementary School provide efficient access onto campus from all directions; however, there is the potential to remark many of the crosswalks and pavement markings near the school. For those requiring automobile access, the current automobile circulation layout is adequate to accommodate the amount of vehicles entering and existing the school daily. Additional policy and programmatic recommendations that might help to increase safe walking and bicycling to and from school (and likewise provide some relief to both the car line and bus zone) are also included for the school's consideration.

The neighborhood surrounding Astoria Park Elementary School has a well-connected street network. And while many of the streets are without sidewalks, the streets are low-volume traffic resident streets that can be navigated by walkers and bicyclists with a fair amount of ease, depending in part on grade level and maturity. Still, there are a number of infrastructure recommendations that would provide much benefit toward improving existing conditions.

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 Astoria Park Elementary School. They include both on- and off-site improvements as follows:

Astoria Park Elementary School On- and Off-Site Recommendations

	Improvement: On-Site	Location	From	To	Geography	Direction	Length	Comments
A1	Move Existing Bicycle Rack	Parent Pick-Up/Drop-Off Zone	Move from the parent pick-up/drop-off zone	Southwest of parent pick-up/drop-off zone	N/A	N/A	N/A	Inside of existing fence
A2	New Striped Crosswalk	Parent Pick-Up/Drop-Off Zone	N/A	N/A	Just north of parking lot in front of school	N-S	approx. 30 feet	

	Improvement: Off-Site	Location	From	To	Geography	Direction	Length	Comments
B1	Stripe Existing Crosswalk	Atlas Road	N/A	N/A	West of School Bus Zone	E-W	approx. 37 feet	
B2	New Striped Crosswalk	Atlas Road & Portland Avenue	N/A	N/A	East side of Atlas Road	N-S	approx. 37 feet	
B3	Remark “SCHOOL” pavement marking	Atlas Road	N/A	N/A	approx. 65’ north of Hartsfield Road	N/A	N/A	Existing mark is faded
B4	Remark Existing Crosswalks	Hartsfield Road	Mission Road	Old Bainbridge Road	N/A	N/A	N/A	See description below for specific locations
B5	Remark Existing Bicycle Lanes	Hartsfield Road	Mission Road	Old Bainbridge Road	N/A	E-W	N/A	
B6	Add New Crosswalk	Hartsfield Road	At Ludmila Lane		North side of Hartsfield Road	E-W		
B7	Remark “SCHOOL” pavement marking	Hartsfield Road	N/A	N/A	approx. 100’ west of Nugget Lane	N/A	N/A	Existing mark is faded

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

On-Site Recommendations

A1) Move existing bicycle rack near the parent drop-off/pick-up zone – The existing bicycle rack is located in a fenced in area in the middle of the parent pick-up/drop-off zone. In order to access the bicycle rack students must go through the path of the parent pick-up/drop-off parking lot circulation route. It is suggested that the existing bicycle rack be moved south of the parking lot inside the existing fence. This new location is easily accessible from the existing sidewalk and provides a secure location during school hours where the fence can be locked.

A2) New crosswalk leading from parking lot in front of school to main entrance – There is an existing sidewalk that leads from the parking lot to the main entrance of campus; however, there is no crosswalk from the sidewalk to campus. Adding a crosswalk will give students and parents a more visible path to/from the parking lot.

Off-Site Recommendations

B1) Add striping to the existing crosswalk, on Atlas Road, so the crossing of pedestrians and bicyclists is more noticeable by motorists.

B2) Add a new striped crosswalk, north-south direction, at the intersection of Atlas Road & Portland Avenue.

B3) Remark the existing "SCHOOL" pavement marking located on Atlas Road approximately 65' north of Hartsfield Road. The current pavement marking is faded and may be difficult for motorists to see.

B4) Remark existing crosswalks:

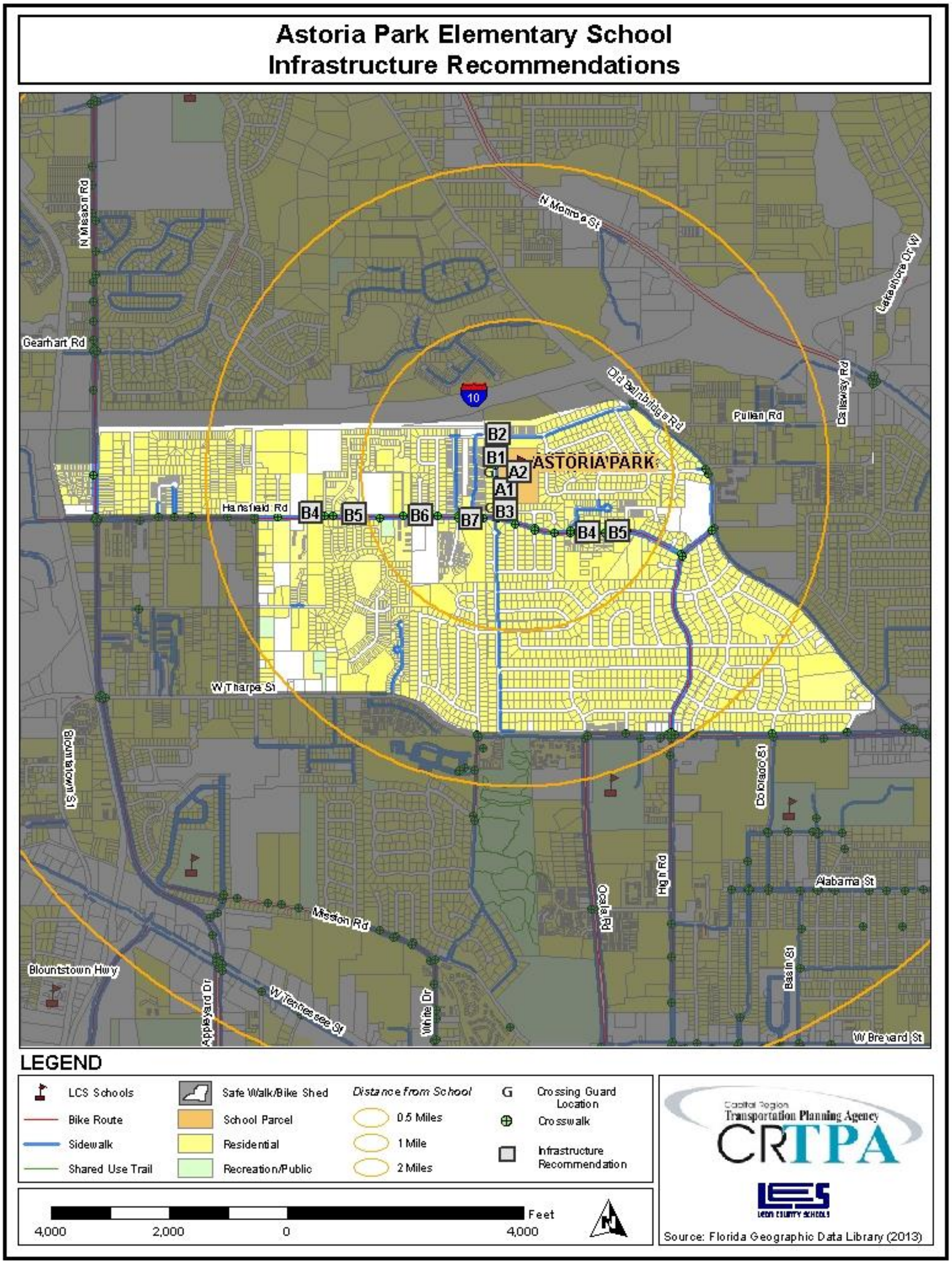
- North side of Geri Ann Lane (E-W direction)
- North side of Emerald Ridge Loop (E-W direction)
- South side of Willie Vause Road (E-W direction)
- North side of Emerald Ridge Loop
- North side of Cumberland Drive (E-W direction)
- North side of Via Sardina Street (E-W direction)
- North and south side of Trimble Road (E-W direction)
- North side of Astoria Court (E-W direction)
- North side of Hollyhock Hill (E-W direction)
- South side of Foster Drive (E-W direction)
- North and South side of Talco Hills Drive (E-W direction)
- South side of Wanda Court (E-W direction)
- South side of Vinkara Drive (E-W direction)
- North side of May Meadow Lane (E-W direction)
- South side of San Mateo Court (E-W direction)
- North side of Hartsfield Court (E-W direction)

- West side of High Road (N-S direction)

B5) Remark the existing bicycle lanes and symbols located along Hartsfield Road. The current pavement markings are faded and may be difficult for motorists to see.

B6) Add a new crosswalk on the north side of Hartsfield Road at Ludmila Lane.

B7) Remarking the existing “SCHOOL” pavement marking located on Hartsfield Road approximately 100’ west of Nugget Lane. The current pavement marking is faded and may be difficult for motorists to see.


Astoria Park Elementary School
Infrastructure Recommendations
N Mission Rd
N Monroe St
Gearhart Rd
10
Old Bainbridge Rd
Pullen Rd
Lakeshore Dr W
Dollieway Rd
B2
B1
A2
ASTORIA PARK
A1
Hartsfield Rd
B4
B5
B6
B7
B3
B4
B5
W Tharpe St
Blountstown St
Colorado St
Alabama St
High Rd
Ocala Rd
Mission Rd
Blountstown Hwy
Appleyard Dr
W Tennessee St
White Dr
Basin St
W 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
G
Crossing Guard Location
Crosswalk
Infrastructure Recommendation
4,000
2,000
0
4,000
Feet
Capital Region Transportation Planning Agency
CRTPA
Leon County Schools
Source: Florida Geographic Data Library (2013)

Programs

C1) Walk and bicycle encouragement literature – Send home literature to parents, as well as make it available on the school website, about the benefits of children walking and bicycling to school. Information and statistics from the National Safe Routes to School organization can be used to highlight health and safety benefits. The literature provided to parents should highlight some specific examples of how parents and the community can make walking and bicycling to school safe and fun. Examples of programs to promote walking and bicycling include encouraging parents to coordinate with other parents to establish walking and bicycling groups (i.e. buddy programs and walking school buses) to help ease safety concerns; participating in Walk/Bike to School Days; 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, 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, 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, Florida Agricultural & Mechanical University, 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) Additional crossing guards – Currently, crossing guards are available on Atlas Road and at the intersection of Atlas Road & Hartsfield Road. It would be beneficial to add an additional crossing guard at the intersection of Hartsfield Road & High Road to aid students who live southeast of the school.

Policies

D1) Bike check and security – School policies to discourage theft and 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[1]

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

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

Chapter 7: Conclusion

While Astoria Park 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, less than 10% of students commute to and from school by walking, while less than 1% commutes to and from school by bicycle. There appear to be two primary reasons. The first 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 and from school, parents primarily expressed concerns with speeding vehicles, lack of/ conditions of sidewalks, and the minimal number of crossing guards available along routes to school. However, parents indicated that the presence of adults and the availability of crossing guards were factors that might influence their decision to allow their children to walk or bicycle to school.

Second, parent and student preferences regarding transportation to Astoria Park seem to be impacting walking and bicycling rates to/from school as mentioned by school administrators and representatives in the on-site meetings. Opportunities to change these preferences and improve student walking and bicycling rates are rooted primarily in informational and educational programmatic solutions included in this audit report. For students who will continue to commute by automobile as well as those outside of a safe walking and bicycling distance, policy suggestions are included in this audit report to address better management and enforcement within the parent drop-off/pick-up area. Recommended infrastructure improvements are centered primarily on remarking existing crosswalks and traffic calming along key roadways. This is mostly due to the already fairly well-connected network of residential streets surrounding the school.

Astoria Park Elementary School has a sizeable student population within a reasonable walking and bicycling distance. With the suggested program and infrastructure measures, the school should be able 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. Nineteen classrooms participated in the survey for a total of 328 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	19
Total Students Surveyed (K-5th)	328
Total K-2nd Students Surveyed	124
Total 3rd-5th Students Surveyed	204

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 a typical week ranges from 9% to 10%, with an overall average of 9%. Overall, the bike-to-school average for a typical week ranges from 0% to 1%, with an overall average of less than one percent. Of the students that bike to school, an overall average of 67% wore a bicycle helmet. In total, the combined walk-bike average for the ranges from 9% to 10%, with an overall average of 10%.

SUMMARY OF WALKING AND BICYCLE SCHOOL-WIDE TRAVEL PATTERNS

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	9 %	<1 %	67 %	10 %
Highest Day	10 %	1 %	100 %	10 %
Lowest Day	9 %	0 %	0 %	9 %

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

The younger-aged (K-2nd) student travel surveys indicate that the walk-to-school average for a typical week ranges from 6% to 7%, with an overall average of 7%. Overall, the bike-to-school average for a typical week ranges from 0% to 2%, with an overall average of less than one percent. Of the students that bike to school, an overall average of 67% wore a bicycle helmet. In total, the combined walk-bike average for the week ranges from 6% to 8%, with an overall average of 7%.

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

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	7 %	<1 %	67 %	7 %
Highest Day	7 %	2 %	100 %	8 %
Lowest Day	6 %	0 %	50 %	6 %

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

The older-aged (3rd-5th) student travel surveys indicate that the walk-to-school average for a typical week ranges from 10% to 11%, with an overall average of 11%. None of the older-aged students surveyed reported riding a bike to school. In total, the combined walk-bike average for the week ranges from 10% to 11%, with an overall average of 11%.

SUMMARY OF OLDER-AGED CHILDREN WALKING AND BICYCLE TRAVEL PATTERNS (3rd-5th)[2]

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	11 %	0 %	N/A	11 %
Highest Day	11 %	0 %	N/A	11 %
Lowest Day	10 %	0 %	N/A	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.

[2] Includes one K,2nd-5th class

Bus and Automobile School-Wide Travel Patterns

The school-wide travel surveys indicate that the automobile-to-school average for a typical week ranges from 67% to 68%, with an overall average of 67%. Of the students that ride to school in an automobile, an overall average of 85% wore a seatbelt. Overall, the school bus-to-school average for a typical week ranged from 23% to 24%, with an overall average of 23%. The public bus-to-school average for the week ranged from 0% to <1%, with an overall average of less than one percent. Only one student reported riding a public bus to school, making up less than 1% of the students surveyed. (To note, there are no public buses within a reasonable distance to the school.)

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

	Automobile	Seat Belt	School Bus	Public Bus
Average Overall	67 %	85 %	23 %	<1 %
Highest Day	68 %	88 %	24 %	<1 %
Lowest Day	67 %	82 %	23 %	0 %

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 a typical week ranges from 76% to 80%, with an overall average of 77%. Of the students that ride to school in an automobile, an overall average of 84% wore a seatbelt. Overall, the school bus-to-school average for a typical week ranges from 14% to 16%, with an overall average of 15%. The public bus-to-school average for the week ranged from 0% to <1%, with an overall average of less than one percent. Only one student reported riding a public bus to school, making up less than 1% of the students surveyed.

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

	Automobile	Seat Belt	School Bus	Public Bus
Average Overall	77 %	84 %	15 %	<1 %
Highest Day	80 %	85 %	16 %	<1 %
Lowest Day	76 %	83 %	14 %	0 %

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

The older-aged (3rd-5th) student travel surveys indicate that the automobile-to-school average for a typical week ranges from 60% to 62%, with an overall average of 61%. Of the students that ride to school in an automobile, an overall average of 85% wore a seatbelt. Overall, the school bus-to-school

average for a typical week ranges from 26% to 29%, with an overall average of 28%. None of the older-aged students surveyed reported riding a public bus to school.

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

	Automobile	Seat Belt	School Bus	Public Bus
Average Overall	61 %	85 %	28 %	0 %
Highest Day	62 %	92 %	29 %	0 %
Lowest Day	60 %	80 %	26 %	0 %

[3] Includes one K,2nd-5th 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:						

_____

_____

_____

_____

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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 151 parent surveys returned. Of those, 108 (72%) 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 56% and 44% by grade level grouping, with 60 students representing Kindergarten through 2nd Grade, and 48 students representing 3rd Grade through 5th Grade.

SUMMARY OF PARENT SURVEY PARTICIPATION

Total Enrollment	626
Total Number of Parent Surveys	151
Total Number within 2 Miles (K-2nd Grade)	60
Total Number within 2 Miles (3rd-5th Grades)	48
Percentage of Surveys within 2 Miles	72 %

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	66 %
Walk	19 %
School Bus	10 %
Other	2 %
Bicycle	0 %
Public Bus	0 %
Afternoon	
Car	56 %
Walk	19 %
School Bus	13 %
Other	9 %
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 80% in the morning and decreases to 62% in the afternoon. The walk-to-school average for a typical week is 15% in both the morning and afternoon. The school bus-to-school average for a typical week is 7% in the morning and increases to 12% in the afternoon. None of the students ride a bicycle or a public bus in the morning or afternoon. Also, none of the students use an alternative commute mode in the morning, but 13% use an alternative commute mode in the afternoon.

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

Morning	Average Overall
Car	80 %
Walk	15 %
School Bus	7 %
Bicycle	0 %
Public Bus	0 %
Other	0 %
Afternoon	
Car	62 %
Walk	15 %
Other	13 %
School Bus	12 %
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 48% in the morning and afternoon. The walk-to-school average for a typical week is 25% in both the morning and afternoon. The school bus-to-school average for a typical week is 15% in both the morning and afternoon. The alternative commute mode-to-school average for a typical week is 4% in the morning and afternoon. None of the students ride a bicycle or a public bus in the morning or afternoon.

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

Morning	**Average Overall**
Car	48 %
Walk	25 %
School Bus	15 %
Other	4 %
Bicycle	0 %
Public Bus	0 %
Afternoon	
Car	48 %
Walk	25 %
School Bus	15 %
Other	4 %
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**
Issues with Speeding Vehicles	21
Issues with Sidewalks/Walking	14
Issues with Transportation Outside of School Zone	4

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, sidewalks, and issues with transportation outside of the school zone. There were approximately 10 comments of concern regarding speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Atlas Road, Portland Avenue, Hartsfield Road, and Gothic Drive. Additionally, there were approximately 7 comments of concern regarding issues with sidewalks and walking. General concerns include the lack of sidewalks on some roads, broken sidewalks, and the dangers associated with children having to cross an interstate overpass with no designated pedestrian path. Specific locations where sidewalks tend to be a problem are near the Springwood Townhomes and Old Bainbridge Road over Interstate-10. Lastly, there were 3 comments of concern regarding issues with transportation outside of the school zone. General concerns include children's bus stops being near busy highways, the amount of crossing guards available, and the amount of traffic on roadways, specifically, Hartsfield Road.

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

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	10
Issues with Sidewalks/Walking	7
Issues with Transportation Outside of School Zone	3

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

Neighborhood safety concerns for parents of older-aged (3rd-5th) children also include issues with speeding vehicles, sidewalks, and issues with the parent pick-up/drop off area of the school. There were approximately 11 comments of concern regarding speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Hartsfield Road, Nugget Lane, and Atlas Road. Parents also mention speeding in residential areas near the school. Additionally, there were approximately 7 comments of concern regarding issues with sidewalks and walking. General concerns include the lack of sidewalks, broken sidewalks, and that some roads are unsafe in the afternoon once out of school zone range, specifically Hartsfield Road. Parents also noted that there are not enough children walking from their neighborhoods and there is no area of cover in the chance of inclement weather. Lastly, three neighborhood safety concerns tied for third, with one comment each, regarding issues with the parent pick-up/drop-off, crime, and transportation outside of the school zone.

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

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	11
Issues with Sidewalks/Walking	7
Issues with Parent Pick-Up/Drop-Off	1
Issues with Crime	1
Issues with Transportation Outside of School Zone	1

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		*0*	*0*	*8*	*9*	*61*	17
#1 Accompanied by myself or other parents		*3*	*2*	*4*	*8*	*61*	18
#3 School speed zones were marked with flashing signs		*1*	*1*	*9*	*13*	*54*	17
#4 School speed zones were a greater distance surrounding school		*2*	*1*	*9*	*13*	*52*	16
#5 Additional crossing guards were provided at busy intersections		*4*	*2*	*9*	*14*	*50*	17

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

Parents of children in Kindergarten through 2nd grade agreed that the top six influential factors to allow their child to walk or bicycle to school more often included factors related to the speed, marking and the distance of school zones; accompanying children (by themselves/other parents), providing more walking and bicycling training for students and the availability of crossing guards.

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

	SCALE	1	2	3	4	5	N/A
I would allow my child to walk or bicycle to school more often if:							
#1 Accompanied by myself or other parents		*1*	*1*	*0*	*4*	*37*	11
#2 Speed limits were strictly enforced in school speed zones		*0*	*0*	*3*	*4*	*35*	11
#3 School speed zones were marked with flashing signs		*1*	*1*	*3*	*5*	*31*	12
#4 Schools provided more walking and bicycling safety training for students		*3*	*3*	*6*	*3*	*29*	10
#5 Additional crossing guards were provided at busy intersections		*3*	*1*	*4*	*8*	*27*	11
#5 School speed zones were a greater distance surrounding school		*1*	*0*	*5*	*7*	*27*	11

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

Parents of children in 3rd through 5th grade agreed that the top eight influential factors to allow their child to walk or bicycle to school more often included factors related to the speed, marking and the distance of school zones; having greater adult presence along routes to school, accompanying children (by themselves/other parents, or other children), availability of crossing guards, and having continuous sidewalks or bike paths from their neighborhood to school.

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

	SCALE	1	2	3	4	5	N/A
I would allow my child to walk or bicycle to school more often if:							
#1 Speed limits were strictly enforced in school speed zones		*0*	*0*	*5*	*5*	*26*	6
#2 School speed zones were a greater distance surrounding school		*1*	*1*	*4*	*6*	*25*	5
#3 There was a greater adult presence of parent volunteers or police officers along walk routes to school		*1*	*1*	*5*	*6*	*24*	5
#3 Accompanied by myself or other parents		*2*	*1*	*4*	*4*	*24*	7
#4 School speed zones were marked with flashing signs		*0*	*0*	*6*	*8*	*23*	5
#4 Additional crossing guards were provided at busy intersections		*1*	*1*	*5*	*6*	*23*	6
#4 There were continuous sidewalks or bike paths from my neighborhood to school		*1*	*4*	*1*	*6*	*23*	7
#4 Accompanied by other children		*2*	*0*	*4*	*5*	*23*	7