April 2014

Safe Routes to School Audit Report
SAIL High 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 SAIL High 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)

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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, and programs. 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, on-site meetings with school officials, and field reviews.

School Overview

SAIL High School is located 2006 Jackson Bluff Road, 32304 in Leon County, Florida. It is part of the Leon County Public Schools system. The school was established in 1975 as the School for Applied Individualized Learning. It was the first public alternative school in Florida to become fully accredited for the Southern Association of Colleges and States in 1982. The school offers honors classes, as well around three athletic groups and over 13 clubs. Regular school hours are from 8:00am to 2:45pm.

The number of students enrolled at the school, for the 2013 school year, was 341. The school has a current capacity for 512 students. The school includes grade levels 9th to 12th grade.

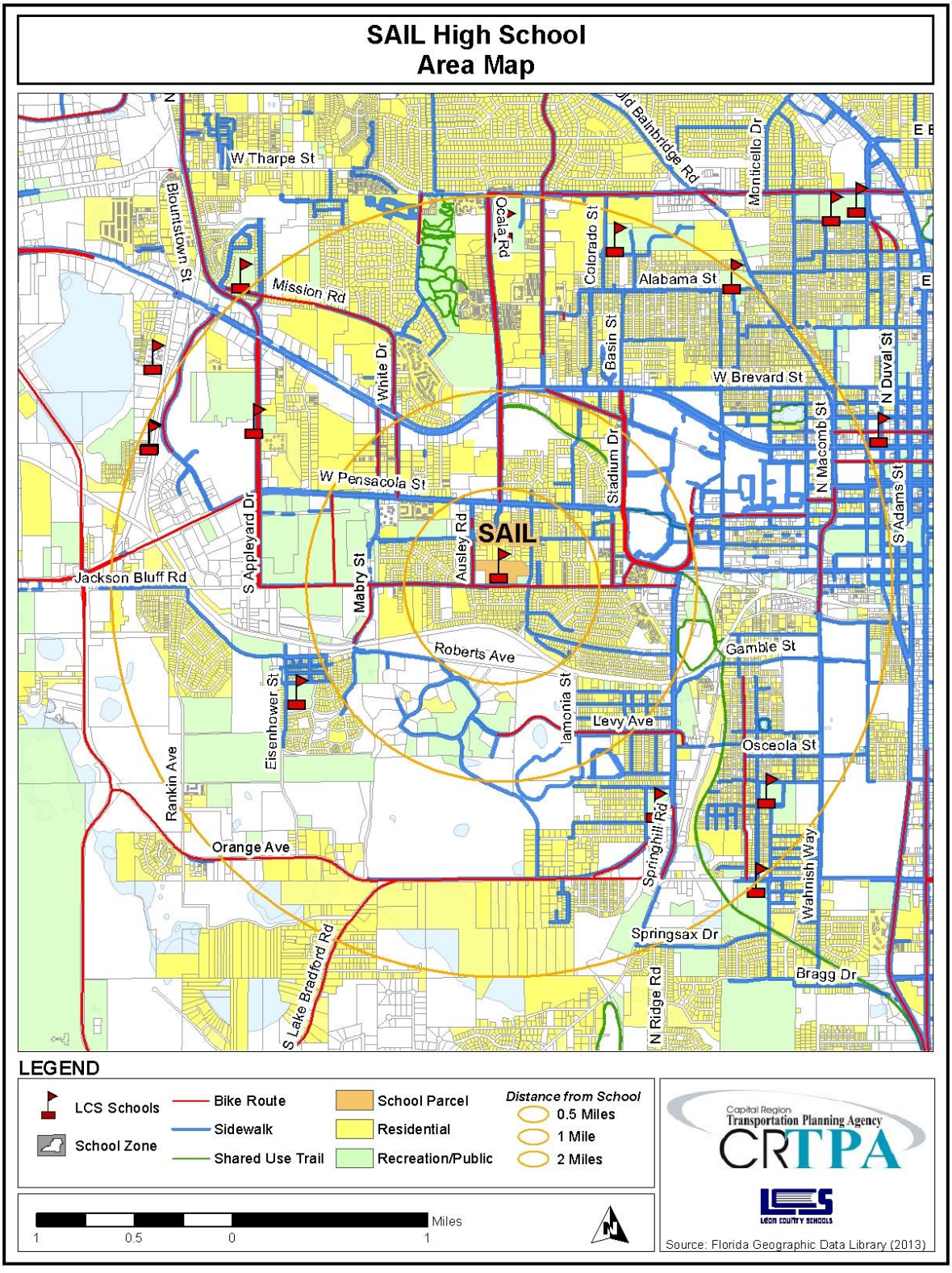
SAIL is a school of choice so any students interested in attending the school may do so as long as there is an opening available.

School Zone

SAIL High School does not have a designated school zone since it is a magnet, choice high school. Students living anywhere in Leon County are eligible to attend SAIL High School. Students attending SAIL can either be picked up at their zoned high school bus stop or dropped off directly at their zoned high school and shuttled directly to SAIL. The school is located near downtown Tallahassee near the neighborhoods of Seminole Manor, Mabry Manor, Callen, Providence, Elberta Empire, Bloxham Terrace, Evergreen Terrace, Amelia Circle, and Chapel Ridge. Tallahassee Community College is located just west of the school while Florida State University and Florida Agricultural & Mechanical University are located just east of the school. The presence of a college and two universities near the school influences the demographic makeup of the area, with a significant amount of housing occupied by college students. In addition to the college and universities, land uses in the area consist of mostly residential and recreation with some commercial centered on North Ocala Road, just west of Florida State University.

The SAIL area includes four major roadways. Interstate-10 runs mostly east to west approximately three miles north of the school. West Tennessee Street and West Pensacola Street both run mostly east to west approximately one mile north of the school and less than a mile north of the school, respectively.

North Monroe Street runs north to south approximately one mile east of the school. Recreational facilities within the school zone include the Palmer Munroe Teen Center, San Luis Mission Park, John G. Riley Park, Lawrence Gregory Center & Robinson Trueblood Pool, James Messer Fields Park, South Mabry Manor Park, Springsax Park, as well as, golf courses such as Seminole and Jake Gaither. Additionally, there are a variety of shared-use trails and bike routes that are important non-motorized shared-use transportation amenities that traverse throughout the school area, connecting the school to areas throughout the downtown Tallahassee and elsewhere in the City.


SAIL High School
Area Map
W Tharpe St
Blountstown St
Mission Rd
Ocala Rd
Old Bainbridge Rd
Monticello Dr
Colorado St
Alabama St
Basin St
W Brevard St
N Duval St
N Macomb St
S Adams St
White Dr
Stadium Dr
W Pensacola St
SAIL
Ausley Rd
S Appleyard Dr
Mabry St
Jackson Bluff Rd
Roberts Ave
Gamble St
Eisenhower St
Iamonia St
Levy Ave
Osceola St
Rankin Ave
Springhill Rd
Wahnish Way
Orange Ave
Springsax Dr
Bragg Dr
S Lake Bradford Rd
N Ridge Rd
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 1st, 2013. The weather was cool with temperatures in the mid 40 degrees Fahrenheit.

Highlights and Key Observations of On-Site Meeting

During this visit, SAIL High 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 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 Jackson Bluff Road. Also, there are school zone speed limit signs along Ausley Road. It was noted that the school does not use any temporary traffic control devices such as cones or signs during school commuting hours. Students are permitted to arrive to school as early as 7:45am and there are programs, clubs, and sports available until well after 4:00pm. Immediately east of the campus is the Palmer Munroe Teen Center. There are programs available at the center until 8:00pm. Approximately 40 students participate in the after school program; however, only 10 students are from SAIL High School.

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, it is located just west of Florida State University. So, the surrounding housing is heavily university student oriented and there are few high-school aged students in the neighborhood surrounding the school. Additionally since the school is a magnet, choice school many students commute from further away, outside of a safe waking or bicycling distance. School representatives estimate that approximately 10 students walk or bike to school. Walkers and bicyclists can enter campus from several points along Jackson Bluff Road as well as Ausley Road. School staff noted pedestrians encountering issues along Ausley Road and Belle Vue Road. Additionally, there are sidewalks along Jackson Bluff Road but none that directly connect to the school's main entrance. There are two bicycle parking rack locations on campus. Each rack has room for approximately 4 bicycles.

The school bus drop-off and pick-up zone functions adequately. The zone for arrival and departure is covered, which helps during times of inclement weather. There are five school buses during the mornings and eight school buses in the afternoons. School staff noted that there are approximately five students that ride Star Metro.

Few students are dropped-off/picked-up at school, as many ride the buses, so the covered parent drop-off and pick-up zone functions well to accommodate the low volume of automobiles entering and

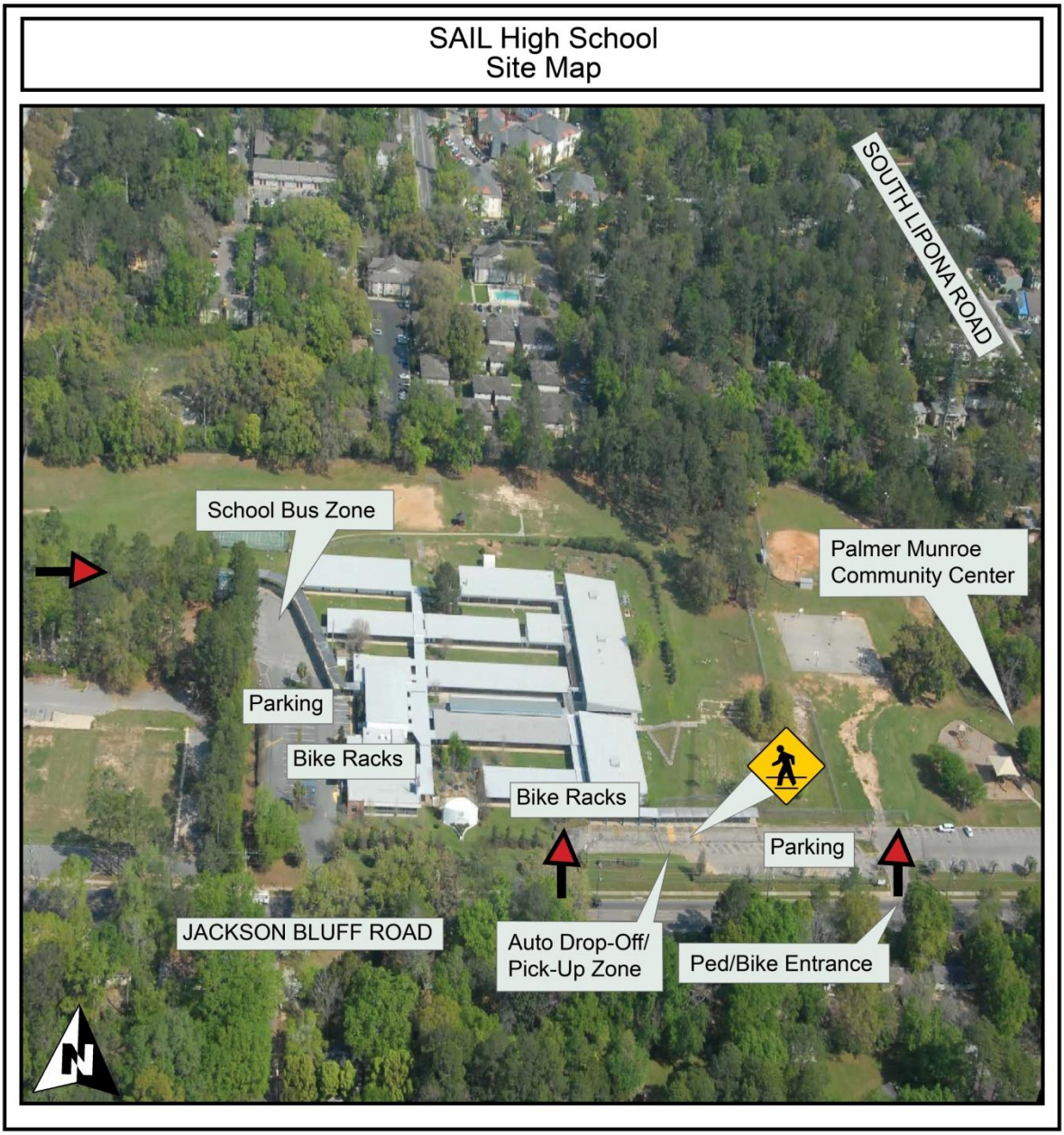
exiting the site daily. There are only about 40-50 parking spots on campus for students and school staff. However, there is an overflow parking lot located at the Palmer Munroe Teen Center that is used.

Inventory Map

An aerial photograph showing SAIL High School is located on the following page. As shown in the photo, the school fronts Jackson Bluff Road. Students can access campus from two points along Jackson Bluff Road as well as from west of campus at Ausley Road (not pictured). Bicycle parking racks are located near the front entrance of the school as well as along the west side of campus.

Standard width sidewalks are available along the north side of Jackson Bluff Road along the school property. East of South Lipona Road, sidewalks are only available along the south side of Jackson Bluff Road. West of Jacqueline Lane (not pictured), standard width sidewalks are available along both sides of Jackson Bluff Road. Additionally, standard width sidewalks are available along both sides of South Lipona Road, east of campus, and Ausley Road (not pictured), west of campus.

The automobile pick-up and drop-off zone is located directly in front of the school's main entrance. Automobiles both enter and exit at Jackson Bluff Road. Parking spaces located in this area as well. The bus drop-off and pick-up zone is separately located along the side of the school. Buses enter the zone from Jackson Bluff Road and exit onto Ausley Road (not pictured). Additional parking spaces are located in this area as well.


SAIL High School
Site Map
SOUTH LIPONA ROAD
School Bus Zone
Palmer Munroe
Community Center
Parking
Bike Racks
Bike Racks
Parking
JACKSON BLUFF ROAD
Auto Drop-Off/
Pick-Up Zone
Ped/Bike Entrance
N

Issues and Opportunities

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

Geography and a teenage "rite-of-passage" appear to be the primary issues with students' ability to walk and bicycle to school. Since the school is a magnet, choice school, students come from all of Leon County. This means many students live more than two miles away from their school which can create a distance that is too long to walk or bicycle to school within a reasonable amount of time. Also, the presence of university oriented housing in the area is likely to remain. Additionally, many students tend to enjoy being able to drive themselves to school since they have never been able to in the past and had to rely upon others. Many students also participate in after-school clubs and sports that may require them to bring additional items from home. Thus, it may be harder to walk or bicycle with these extra items. 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 Jackson Bluff Road. Traffic calming measures should be explored to help reduce automobile speeds and increase awareness of students in the area, especially during school commuting times. Additionally, adding a sidewalk from the main entrance of the school to the sidewalk that runs along the north side of Jackson Bluff Road should be considered. Also, school-related and –supportive committees 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 students see if students would be interested in alternative forms of transportation such as carpooling to and from school to alleviate the number of vehicles in the parking lot.

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 9th to 12th 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**.)

Not surprisingly, the survey indicates that the vast majority of students at SAIL High School – approximately seven out of ten students – arrived to school by car. Riding a school ranked a distant second at 25 percent. Walking and arriving to school by public bus tied for third place at two percent each. A low percentage of students, only one percent, reported biking to school. (A detailed description of the analysis by mode can be found in **Appendix B**.)

SUMMARY OF SCHOOL-WIDE RESULTS

	Walk	Bicycle	Automobile	School Bus	Public Bus
Average Overall	2 %	1 %	71 %	25 %	2 %

Chapter 4: 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 SAIL High School. On the day of the field review, temperatures were in the 70's Fahrenheit. Following the field review, a walk/bike shed area was delineated on a map within the school zone, surrounding the school. This chapter includes a Walk/Bike Shed section describing the approach to defining the area and an associated map for SAIL High School.

Character of Neighborhood Area

SAIL High is located in a neighborhood comprised of higher density single family homes, multifamily homes, and manufactured homes. For the most part, the neighborhood connects in a mostly gridded manner which contributes to the school's accessibility. However, bicycle-pedestrian infrastructure is limited on streets throughout the neighborhoods. Where sidewalks do exist, they tend to only be available on one side of a street. A CSX railroad line runs east to west, just south of the school, and presents itself as a major connectivity barrier to neighborhoods on the other side.

Major roadways in the neighborhood include:

- Capital Circle, a 2-3 lane roadway with a posted speed limit between 40-45mph.
- West Pensacola Street, an east-west, 2-5 lane roadway with a posted speed limit between 30-45mph.
- West Tennessee Street, an east-west, 4-7 lane roadway with a posted speed limit between 30-45mph.
- Monroe Street, a north-south, 4-5 lane roadway with a posted speed limit of 35mph or less.

Crash Data

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

There were a total of 26 bicycle and pedestrian crashes that occurred within the theoretical two-mile walk/bike radius of SAIL High School. Of those total crashes, 11 (42%) occurred during the morning hours and 15 (58%) occurred during the afternoon hours. A majority of the crashes involved adult pedestrians and bicyclists. However, there were two incidents of crashes involving child pedestrians. Injuries were reported in all but three crashes. Additionally, one crash resulted in a pedestrian child fatality.

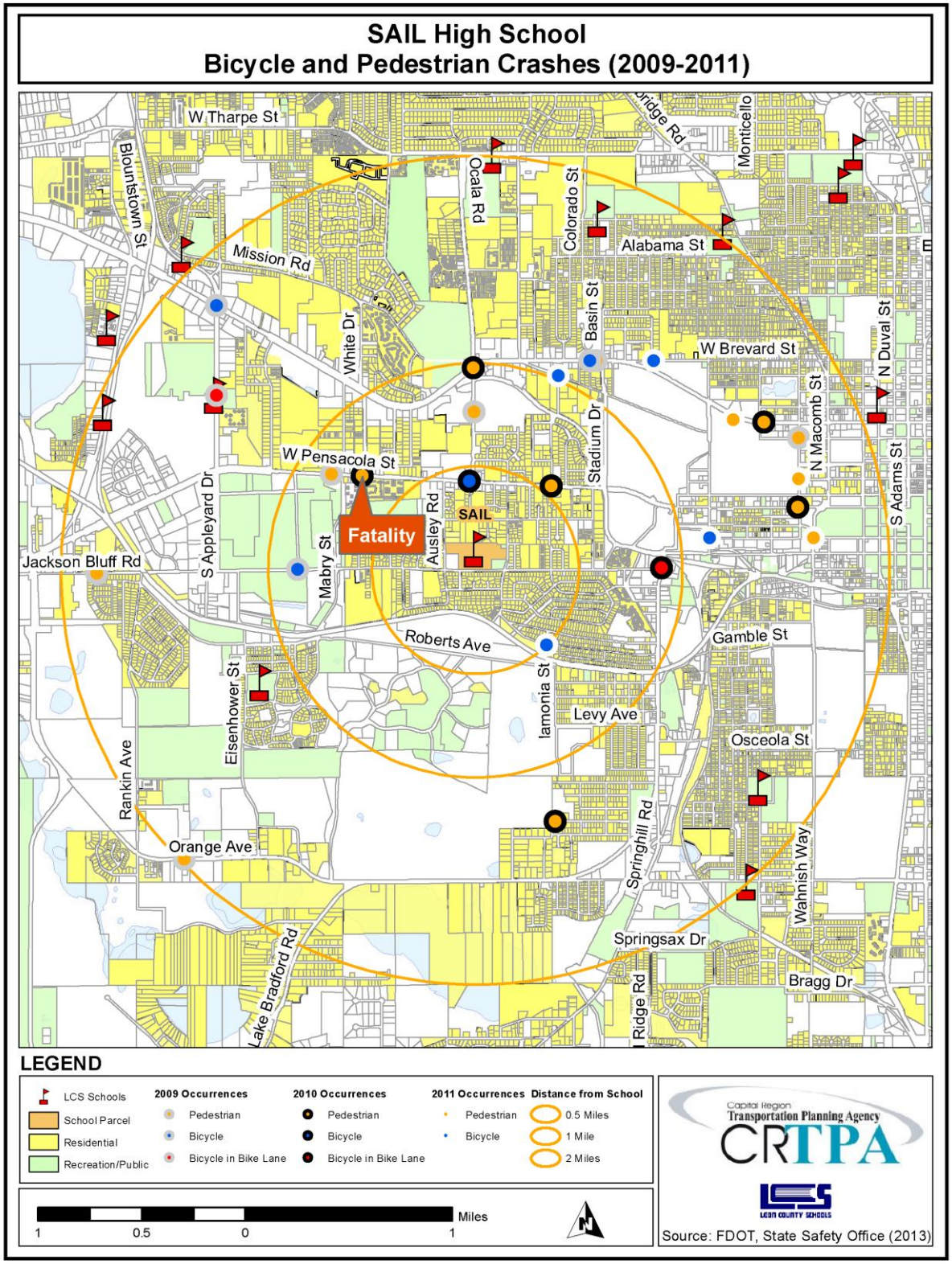
Most of the crashes occurred approximately one-half mile to two miles northeast of SAIL High School, in an area mainly comprised of residential neighborhoods and the Florida State University campus. Streets in this area that tend to have problems with crashes are Pensacola Street, Tennessee Street, Madison

Street, and Ocala Road. Other roadways with reported crashes include Jackson Bluff Road, Lake Bradford Road, and Orange Avenue. The child fatality occurred on Pensacola Street.

SUMMARY OF CRASH REPORTS (2009-2011)

Date	Time	Day	On Road	Nearest Intersection	Injury or Fatality?	Type of Crash	Person(s) Involved
01/27/09	7:25am	Tuesday	Jackson Bluff Rd.	Doolittle Rd.	Serious Injury	Pedestrian	Child
02/20/09	4:18pm	Friday	Heritage Grove Dr.	Ocala Rd.	Injury	Pedestrian	Adult
04/08/09	8:35am	Wednesday	Jackson Bluff Rd.	Dupree St.	Injury	Bicyclist	Adult
04/20/09	7:28am	Monday	W Tennessee St.	Appleyard Dr. N	Injury	Bicyclist	Adult
04/22/09	8:15am	Wednesday	Call St. W	Copeland St. N	Injury	Pedestrian	Adult
04/29/09	8:27am	Wednesday	Tennessee St.	Bryan St.	Injury	Pedestrian	Adult
04/29/09	9:00am	Wednesday	Pensacola St.	Mabry St.	Injury	Pedestrian	Adult
05/22/09	3:22pm	Friday	Orange Ave.	John Cox Dr.	Serious Injury	Pedestrian	Adult
09/16/09	4:11pm	Wednesday	Tennessee St.	Campus Cir.	Injury	Bicyclist	Adult
10/06/09	3:35pm	Tuesday	400 Block Appleyard Dr.	N/A	Injury	Bicyclist in Bike Lane	Adult
03/16/10	9:09am	Tuesday	Daniels St.	Bruce Ln.	Serious Injury	Pedestrian	Adult
03/23/10	7:51am	Tuesday	Pensacola St.	White Dr.	Fatality	Pedestrian	Child
05/20/10	4:11pm	Thursday	Ocala Rd.	Tennessee St.	Injury	Pedestrian	Adult
09/06/10	2:09pm	Monday	Tennessee St.	Dewey St. N	Injury	Pedestrian	Adult
10/04/10	2:14pm	Monday	Lake Bradford Rd.	Jackson Bluff Rd.	No Injury	Bicyclist in Bike Lane	Adult
10/12/10	7:53am	Tuesday	Pensacola St.	Chapel Dr.	Injury	Pedestrian	Adult
10/26/10	3:46pm	Tuesday	Pensacola St.	Copeland St. S	No Injury	Pedestrian	Adult
10/29/10	3:46pm	Friday	Ocala Rd. S	Pensacola St.	Injury	Bicyclist	Adult
11/11/11	9:30am	Friday	Ocala Rd.	Tennessee St.	Injury	Pedestrian	Adult
01/11/11	2:35pm	Tuesday	Academic Way	Territory	Injury	Pedestrian	Adult
01/18/11	2:40pm	Tuesday	Glenda Dr.	Pepper Rd.	Injury	Bicyclist	Adult
01/19/11	3:43pm	Wednesday	Copeland St.	College Ave.	Injury	Pedestrian	Adult
02/08/11	3:32pm	Tuesday	Madison St.	Railroad Ave.	Injury	Pedestrian	Adult
02/14/11	2:15pm	Monday	Brevard St.	Richmond St.	No Injury	Bicyclist	Adult

Date	Time	Day	On Road	Nearest Intersection	Injury or Fatality?	Type of Crash	Person(s) Involved
02/16/11	4:05pm	Wednesday	Madison St.	Woodward Ave S.	Injury	Bicyclist	Adult
10/04/11	7:53am	Tuesday	Call St. W	Chapel Dr.	Injury	Bicyclist	Adult


SAIL High School
Bicycle and Pedestrian Crashes (2009-2011)
W Tharpe St
Blountstown St
Mission Rd
White Dr
Ocala Rd
Colorado St
Monticello
Alabama St
Basin St
W Brevard St
N Duval St
N Macomb St
S Adams St
Stadium Dr
W Pensacola St
Fatality
SAIL
Ausley Rd
Mabry St
S Appleyard Dr
Jackson Bluff Rd
Roberts Ave
Gamble St
Eisenhower St
Iamonia St
Levy Ave
Osceola St
Rankin Ave
Orange Ave
Springhill Rd
Wahnish Way
Springsax Dr
Bragg Dr
Lake Bradford Rd
Ridge Rd
LEGEND
LCS Schools
School Parcel
Residential
Recreation/Public
2009 Occurrences
Pedestrian
Bicycle
Bicycle in Bike Lane
2010 Occurrences
Pedestrian
Bicycle
Bicycle in Bike Lane
2011 Occurrences
Pedestrian
Bicycle
Distance from School
0.5 Miles
1 Mile
2 Miles
Miles
1
0.5
0
1
Capital Region Transportation Planning Agency
CRTPA
Leon County Schools
Source: FDOT, State Safety Office (2013)

Neighborhood Assessment

The immediate neighborhood layout surrounding SAIL High School lends itself well to walkability. Streets are pretty well connected, allowing for multiple route choices to/from school. In addition, there is a fairly comprehensive existing sidewalk and bicycle infrastructure throughout the immediately adjacent neighborhood streets. Although, the infrastructure reaches some neighborhoods further away, much of it is along major roadways and/or outside of the assumed walk/bike distance for a typical high-school student which poses safety concerns for students walking and bicycling.

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

Walk/Bike Shed

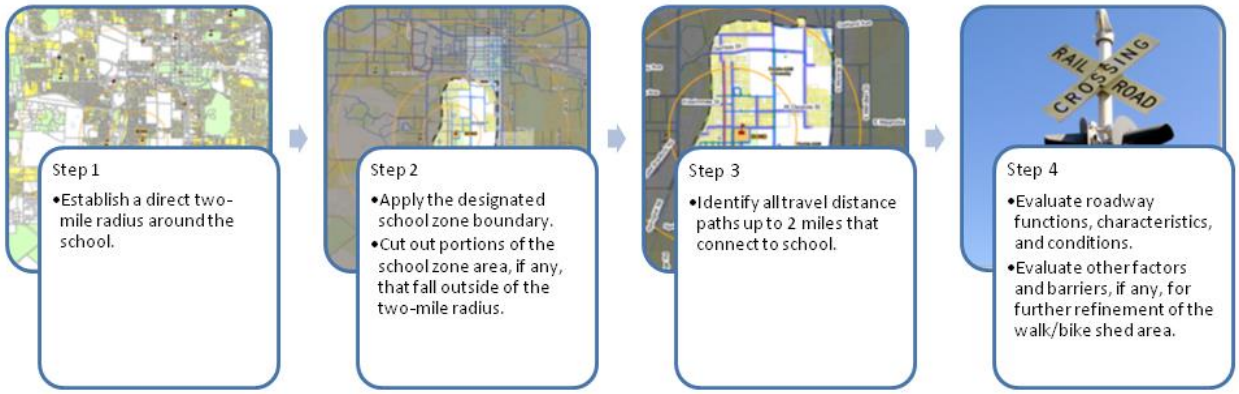
The walk/bike shed area and associated map are not meant to suggest that all SAIL High School students of all ages, maturity levels, and experiences should commute to and/or from school within the area delineated. Certainly, all students are not expected to walk or bike to school from practically any distance. Students 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 SAIL High School mostly extends south, north, and east of the school. West Tennessee Street with its minimal separation from traffic and high number of travel lanes forms the northern limits of the walk/bike shed. The areas east of Macomb Street and southeast of Lake Bradford Road are excluded from the walk/bike shed due to the few residential land uses in the area and the presence of Florida State University (FSU) and Florida Agricultural & Mechanical University (FAMU). Considering the typical distance a high-school-aged student can travel by foot or by bicycle and the types of land uses present, the walk/bike shed extends just over a mile south of the school to the Don Veller Seminole Golf Course and Club. Lastly, the area west of Mabry Street is excluded from the walk/bike shed due to the few residential land uses and forms the western limits of the walk/bike shed.

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 students 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.

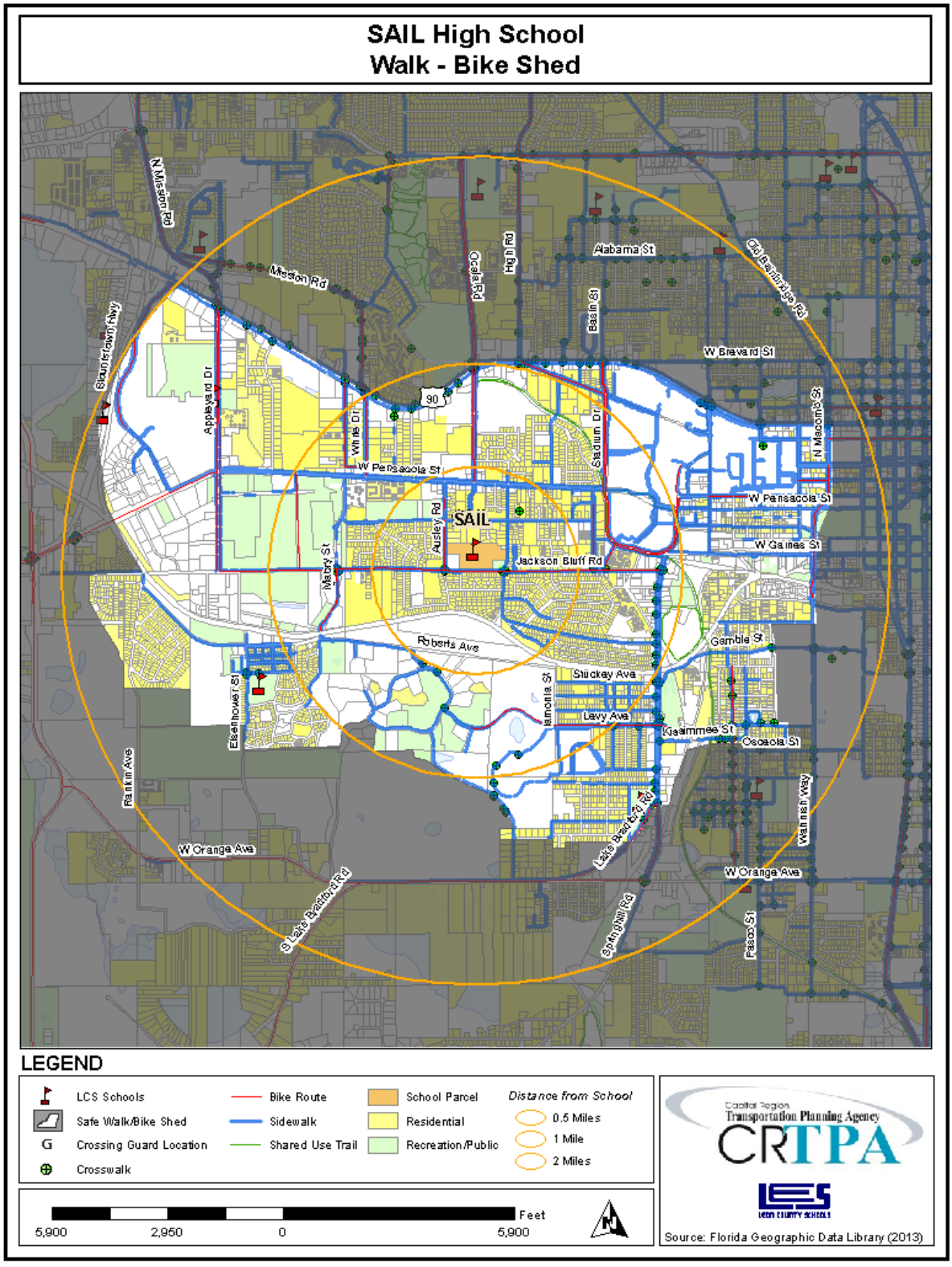
Travel Along Roadways				
Sidewalk Type	**Hazardous Conditions**			
	Type of Road	**Posted Speed Limit**	**Peak Hour Traffic**	**Length**
< 2' wide sidewalk OR without sidewalk	All roadways other than local, neighborhood streets	N/A	N/A	Exceeding 0.5 miles in length
</= 3' wide sidewalk OR </= 4' separation 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				

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


SAIL High School
Walk - Bike Shed
SAIL
N Meridian Rd
Meridian Rd
Blountstown Hwy
Appleyard Dr
White Dr
W Pensacola St
Ausley Rd
Mabry St
Jackson Bluff Rd
Roberts Ave
Eisenhower St
Rankin Ave
W Orange Ave
S Lake Bradford Rd
Pottsdamer Rd
High Rd
Alabama St
Basin St
Old Bainbridge Rd
W Brevard St
90
Stadium Dr
N Macomb St
W Gaines St
Gamble St
Stuckey Ave
Lavy Ave
Kissimmee St
Osceola St
Lake Bradford Rd
Wahnish Way
Spring Hill Rd
Pasco 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
5,900
2,950
0
5,900
Capital Region Transportation Planning Agency
CRTPA
Source: Florida Geographic Data Library (2013)

Chapter 5: Findings and Recommendations

The existing points of access for walkers and bicyclists to SAIL High School provide efficient access onto campus. For those requiring automobile or school bus access, the zones function fairly adequately. Additional 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 SAIL High School has a fairly well-connected street network. Many of 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 some 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 SAIL High School. They include both on- and off-site improvements as follows:

SAIL High School On- and Off-Site Recommendations

	Improvement: On-Site	Location	From	To	Geography	Direction	Length	Comments
A1	Remark Existing Crosswalk	Automobile Zone	N/A		West of Automobile Parking Lot	N-S	N/A	
A2	New Sidewalk (Min' 4' width)	West of Automobile Driveway Exit	Jackson Bluff Road	Main School Entrance	North side of Jackson Bluff Road	N-S	Approx. 105 feet	Would require fence to be reconfigured

	Improvement: Off-Site	Location	From	To	Geography	Direction	Length	Comments
B1	Stripe New Crosswalk	Jackson Bluff Road	At Automobile Driveway Entrance		North side of Jackson Bluff Road	E-W	N/A	
B2	Remark Existing Crosswalks (4)	Jackson Bluff Road	At Ausley Road		N/A	N/A	N/A	Crosswalks for all 4 directions need to be remarked.
B3	Remark Existing Crosswalks (3)	Ausley Road	At Belle Vue Way		N/A	N/A	N/A	Crosswalks for north, west, and east directions need to be remarked.
B4	Widening Sidewalk	Belle Vue Way	At utility poles in middle of sidewalk		South side of Belle Vue Way	E-W	N/A	
B5	New Sidewalk (Min' 4' width)	Roberts Avenue	Paul Dirac Drive	Iamonia Street	South side of Roberts Avenue	E-W	Approx. 3.668 feet	
B6	New Sidewalk (Min' 4' width)	Iamonia Street	Roberts Avenue	Levy Avenue	West side of Iamonia Street	N-S	Approx. 1,459 feet	Ditches along Iamonia Street may constrain some ROW
B7	Stripe/Define Sidewalk on Driveways	Mabry Street	South of Belle Vue Way	Jackson Bluff Road	East side of Mabry Street	N-S	N/A	

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

On-Site Recommendations

A1) Remark the existing crosswalk located in the automobile zone. It is faded and may be difficult for motorists to see.

A2) Construct a new sidewalk, minimum 4' width, along the west side of the automobile driveway exit from Jackson Bluff Road to the main school entrance. Currently, there are no direct sidewalks that onto campus. This type of improvement would require the existing fence/gate along the front of the school to be reconfigured.

Off-Site Recommendations

B1) Stripe a new crosswalk along the north side of Jackson Bluff Road at the automobile driveway entrance.

B2) Remark the existing four crosswalks at the intersection of Jackson Bluff Road & Ausley Road. They are faded and may be difficult for motorists to see.

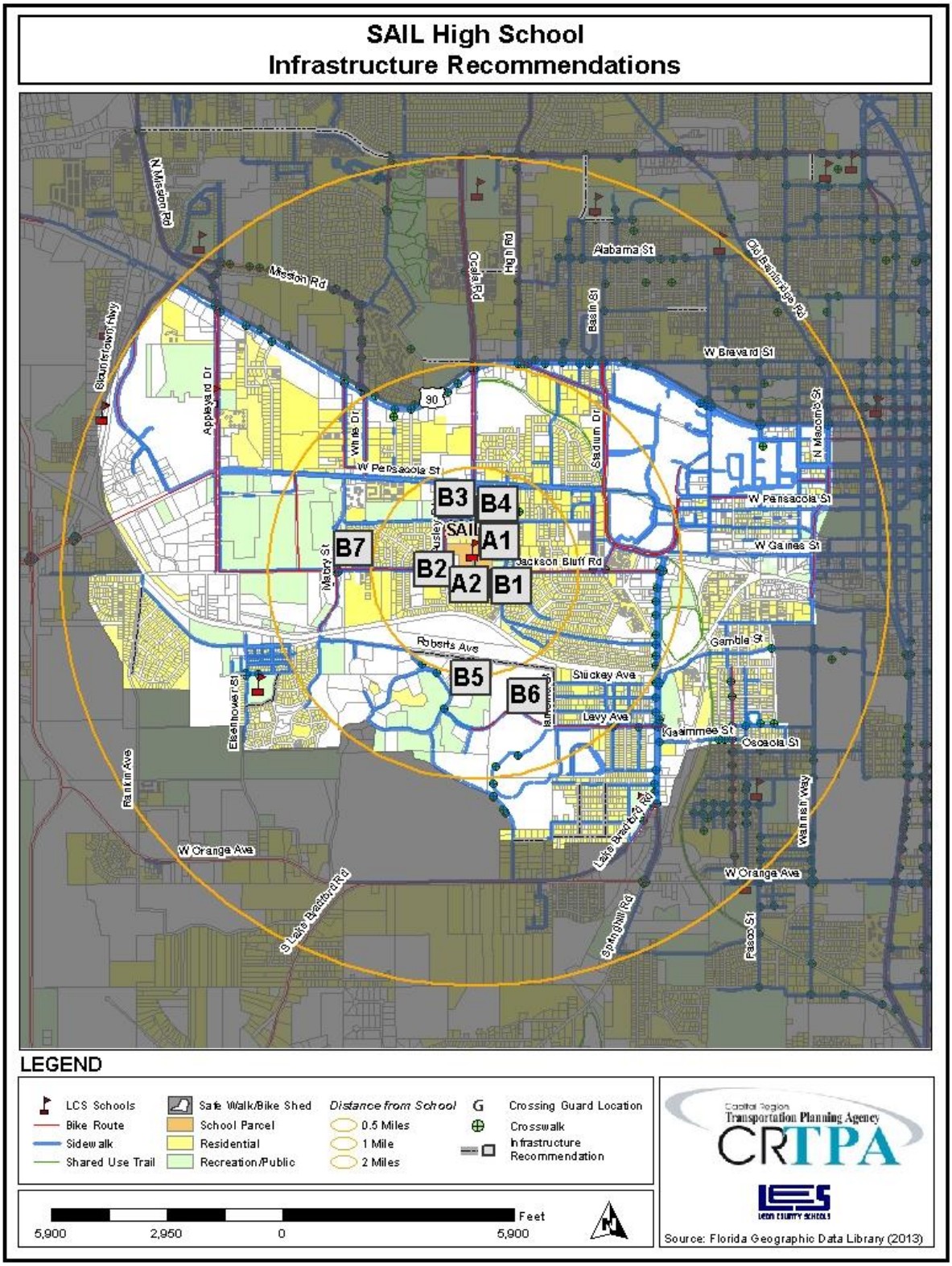
B3) Remark the existing three crosswalks at the intersection of Ausley Road & Belle Vue Way. The north, west, and east crosswalks are faded and may be difficult for motorists to see.

B4) Widen the existing sidewalk along Belle Vue Way where the utility poles are in the direct path of the sidewalk. This will allow more room for pedestrians using the path to/from school.

B5) Construct a new sidewalk, minimum 4' width, along Roberts Avenue from Paul Dirac Drive to Iamonia Street.

B6) Construct a new sidewalk, minimum 4' width, along Iamonia from Roberts Avenue to Levy Avenue.

B7) Stripe/define the sidewalk path along the east side of Mabry Street from just south of Belle Vue Way to Jackson Bluff Road. There are a number of very wide business driveways along this segment of Mabry Street that can pose a hazard for students trying to walk on this route to/from school. A better defined sidewalk will also help make motorists entering/exiting the businesses more aware of pedestrians.


SAIL High School
Infrastructure Recommendations
B1
B2
B3
B4
B5
B6
B7
A1
A2
SAIL
N Mission Rd
Mission Rd
Alabama St
Old Bainbridge Rd
W Brevard St
Appleyard Dr
Stadium Dr
N Macomb St
W Pensacola St
Jackson Bluff Rd
Mary St
Roberts Ave
Stuckey Ave
Gamble St
Lavy Ave
Kissimmee St
Osceola St
Eisenhower St
Rankin Ave
W Orange Ave
S Lake Bradford Rd
Wahnish Way
Fasco St
LEGEND
LCS Schools
Bike Route
Sidewalk
Shared Use Trail
Safe Walk/Bike Shed
School Parcel
Residential
Recreation/Public
Distance from School
0.5 Miles
1 Mile
2 Miles
Crossing Guard Location
Crosswalk
Infrastructure Recommendation
Feet
5,900
2,950
0
5,900
Capital Region Transportation Planning Agency
CRTPA
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.

C3) Student Carpool Program – Due to the school-choice element of the school, not all students live within a safe, walkable/bikeable distance to school. As such, many of these students rely on automobile or school bus rides. It would be beneficial for parents and/or students to organize a carpool amongst the students to reduce the amount of automobiles arriving/departing to/from the school daily.

Planning-Level Cost Estimates

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

General Unit Cost Estimates[1]

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

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

Chapter 6: Conclusion

While the neighborhood immediately surrounding SAIL High 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 2% of students commute to and from school by walking, while there are only a few (if any) bicycle commuters. There appear to be two primary reasons. First, a sizeable cohort of students attending SAIL High School lives far from the school, outside of a safe, reasonable walking and bicycling distance due to the presence of the magnet program and school choice procedure. This is more of a system-wide transportation and geography issue outside the purview of this analysis.

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 crosswalk improvements. Additionally, informational and educational programmatic solutions that encourage bicycle commuting have been provided. For students who will continue to commute by automobile as well as those outside of a safe walking and bicycling distance, the current situation works well for the volume of automobile accessing campus. While SAIL High School has a sizeable student population outside of a safe, reasonable walking and bicycling distance, there are measures for which the school can take that will help to improve walking and bicycling safety and increase non-motorized commuting rates.

Appendices

Appendix A: 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. Seventeen classrooms participated in the survey for a total of 234 student responses recorded. Student travel survey results were counted and analyzed for the school as a whole.

SUMMARY OF STUDENT TRAVEL SURVEY POPULATION

Total Number of Participating Classrooms	17
Total Students Surveyed (9th – 12th)	234

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 1% to 3%, with an overall average of 2%. Overall, the bike-to-school average for a typical week ranges from 0% to 1%, with an overall average of 1%. Of the students that bike to school, an overall average of 0% wore a bicycle helmet. In total, the combined walk-bike average for a typical week ranges from 1% to 4%, with an overall average of 2%.

SUMMARY OF WALKING AND BICYCLE SCHOOL-WIDE TRAVEL PATTERNS

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	2 %	1 %	0 %	2 %
Highest Day	3 %	1 %	0 %	4 %
Lowest Day	1 %	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.

Bus and Automobile School-Wide Travel Patterns

The school-wide student travel surveys indicate that the automobile-to-school average for a typical week ranges from 71% to 72%, with an overall average of 71%. Of the students that ride to school in an automobile, an overall average of 73% wore a seatbelt. Overall, the school bus-to-school average for a typical week ranges from 24% to 26%, with an overall average of 25%. The public bus-to-school average for a typical week ranges from 1% to 2%, with an overall average of 2%.

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

	Automobile	Seat Belt	School Bus	Public Bus
Average Overall	71 %	73 %	25 %	2 %
Highest Day	72 %	76 %	26 %	2 %
Lowest Day	71 %	68 %	24 %	1 %