

August 2014

Safe Routes to School Audit Report Kate Sullivan Elementary School



Leon County
Public Schools



Table of Contents

| | |
|--|-----|
| Acknowledgements..... | iii |
| Chapter 1: Introduction | 1 |
| Project Purpose..... | 1 |
| School Overview | 1 |
| School Zone..... | 1 |
| Chapter 2: On-Site Meeting and Inventory..... | 3 |
| Date and Weather Conditions | 3 |
| Highlights and Key Observations of On-Site Meeting..... | 3 |
| Circulation | 3 |
| Inventory Map..... | 4 |
| Issues and Opportunities | 6 |
| Chapter 3: Student Travel Survey | 7 |
| Chapter 4: Parent Survey – Summary of Results | 8 |
| Chapter 5: Neighborhood Field Review | 9 |
| Character of Neighborhood Area..... | 9 |
| Crash Data | 9 |
| Neighborhood Assessment | 13 |
| Walk/Bike Shed | 13 |
| Methodology | 13 |
| Evaluating Roadways | 14 |
| Hazardous Walking Conditions, as defined per Florida Statute | 15 |
| Evaluating Other Factors and Barriers | 16 |
| Chapter 6: Findings and Recommendations | 18 |
| Infrastructure Improvements | 18 |
| Off-Site Recommendations..... | 20 |
| Programs | 22 |
| Policies | 22 |
| Planning-Level Cost Estimates | 23 |
| Chapter 7: Conclusion | 24 |
| Appendix A: Student Travel Survey..... | 26 |

Appendix B: Student Travel Survey – Detailed Analysis 27

Appendix C: Parent Survey..... 31

Appendix D: Parent Survey – Detailed Analysis..... 33

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 Kate Sullivan Elementary School.

Capital Region Transportation Planning Agency (CRTPA)



Safe Routes to School (SRTS) National Partnership



Leon County Public Schools (LCS)



Florida Department of Transportation (FDOT)



Leon County Sheriff's Office (LCSO)



Prepared By:



RENAISSANCE PLANNING GROUP

WENDY GREY LAND USE PLANNING LLC



Chapter 1: Introduction

Project Purpose

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

School Overview

Kate Sullivan Elementary School is located at 927 Miccosukee Road, Tallahassee, 32308 in Leon County, Florida. It is part of the Leon County Public Schools system. The school was established in 1948. The school is named after Miss Kate Sullivan, who served as a Leon County teacher for nearly fifty years. Regular school hours are from 8:30am to 2:50pm. A before school program is available from 7:00am to 7:45am. Additionally, an after school program is available from the end of the school day until 6:00pm.

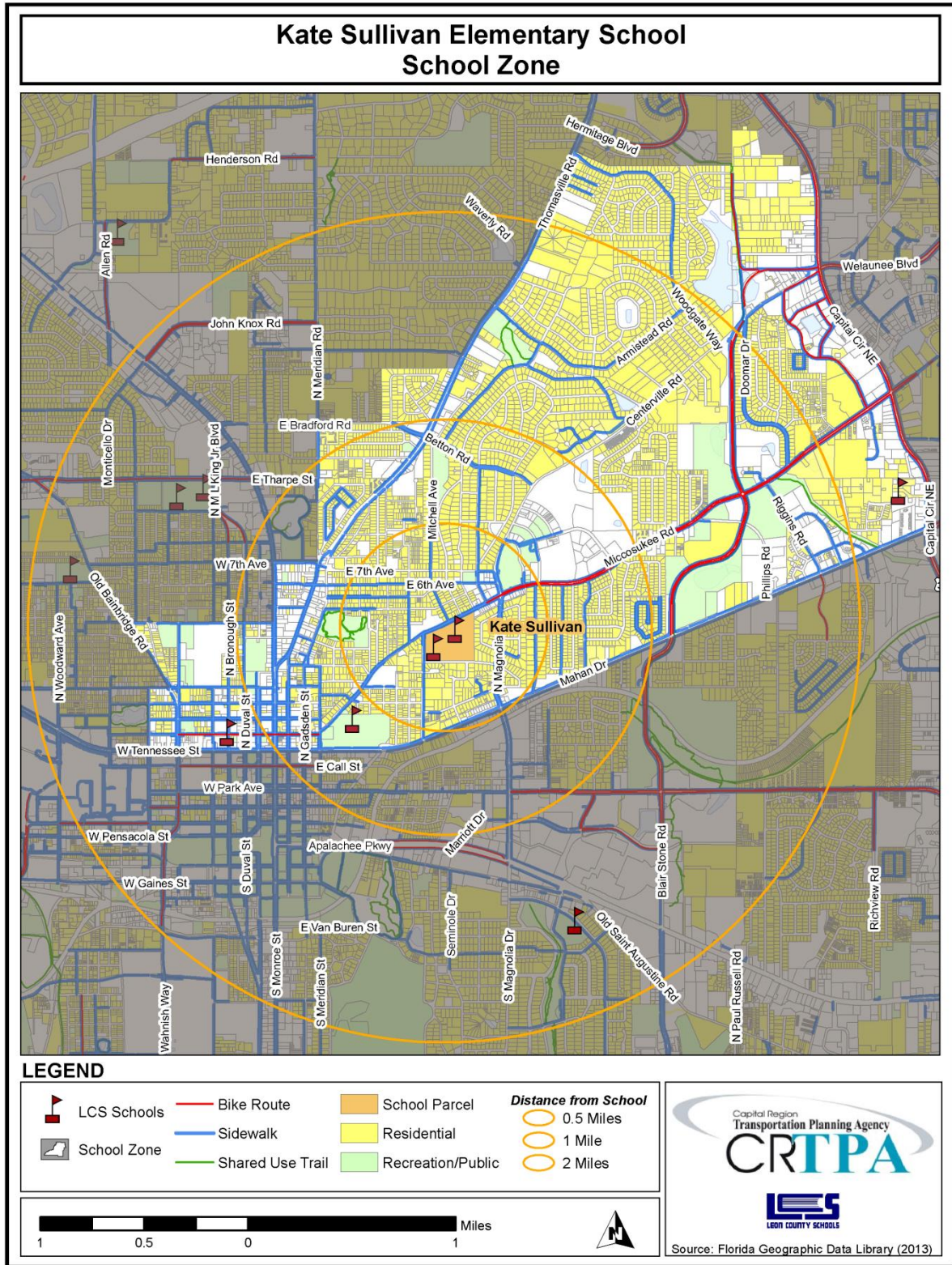
The number of students enrolled at the school, for the 2013 school year was 881. The school has a current capacity for 931 students. The school includes grade levels Pre-Kindergarten to 5th grade.

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

School Zone

The Kate Sullivan school zone, located northeast of Florida State University and Florida Agricultural & Mechanical University, encompasses the neighborhoods of Hillcrest Court, Capital Hills, Midtown, Betton Hills, and other residential areas near the north end of downtown Tallahassee. Land uses in the school zone consist of mostly residential, recreation, and institutional medical service-type uses. The presence of two major universities near the school influences the demographic makeup of the area, with a significant amount of housing occupied by college students.

The Kate Sullivan school zone includes four major roadways. Thomasville Road and Capital Circle run north to south along the western side and eastern sides of the zone, respectively. Miccosukee Road and Mahan Drive run southwest to northeast, mostly parallel, and divide the zone into north and south. Cobb Middle School and Leon High School fall within the Kate Sullivan school zone on Hillcrest Street and East Tennessee Street, respectively. Important recreation facilities within the school zone include Lee Park, Lafayette Park, Winthrop Park, and Guyte P. McCord Park. There are a variety of shared-use trails and bike routes that are important non-motorized shared-use transportation amenities that traverse the borders of the school zone, connecting the school to the surrounding areas.



Chapter 2: On-Site Meeting and Inventory

Date and Weather Conditions

The on-site inventory meeting was conducted on Friday, February 15th, 2013. The weather was cool with temperatures in the mid 50 degrees Fahrenheit.

Highlights and Key Observations of On-Site Meeting

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

It was noted that flashing lights (i.e. school zone warning lights) are located along Miccosukee Road. Also, there are speed humps along Crestview Avenue and Terrace Street. Students are permitted to arrive to school as early as 7:45am and there are after school programs available until 6:00pm. Approximately 175 students participate in the after school programs while another 80 students attend after school programs at East Hill Baptist Church, immediately northwest of the school.

There are two designated crossing guards available directly in front of the school at the intersection of Miccosukee Road & Mitchell Avenue and near Miccosukee Road & Crestview Avenue. Additionally, there are crossing guards available at the intersection of Magnolia Drive & Miccosukee Road, which can sometimes be challenging to students walking or biking to 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.

The school is located in an older neighborhood and has a fairly well-connected pattern of streets which offer good bike-ped connectivity. As such, some children do walk and bicycle to school. Existing sidewalks tend to have curbs but there are some areas that lack sidewalks completely. There is an outdoor bicycle parking rack available at the school with spaces for approximately ten bicycles. Walkers and bicyclists can enter campus from several points along Miccosukee Road. During school commuting hours there are temporary traffic control devices (i.e. cones and signs) present on Miccosukee Road.

The school bus drop-off and pick-up zone functions adequately. There is direct access to a walking facility. There are ushers to help guide students arriving and departing school with minimal difficulty and conflict. The zone for arrival and departure is covered. There are six buses using the zone during both the morning arrival and afternoon departure. It was also noted that there is a Star Metro route that runs directly in front of the school.

The parent drop-off and pick-up zone functions adequately to accommodate the volume of automobiles entering and exiting the site. School staff and administrators serve as ushers for students at the

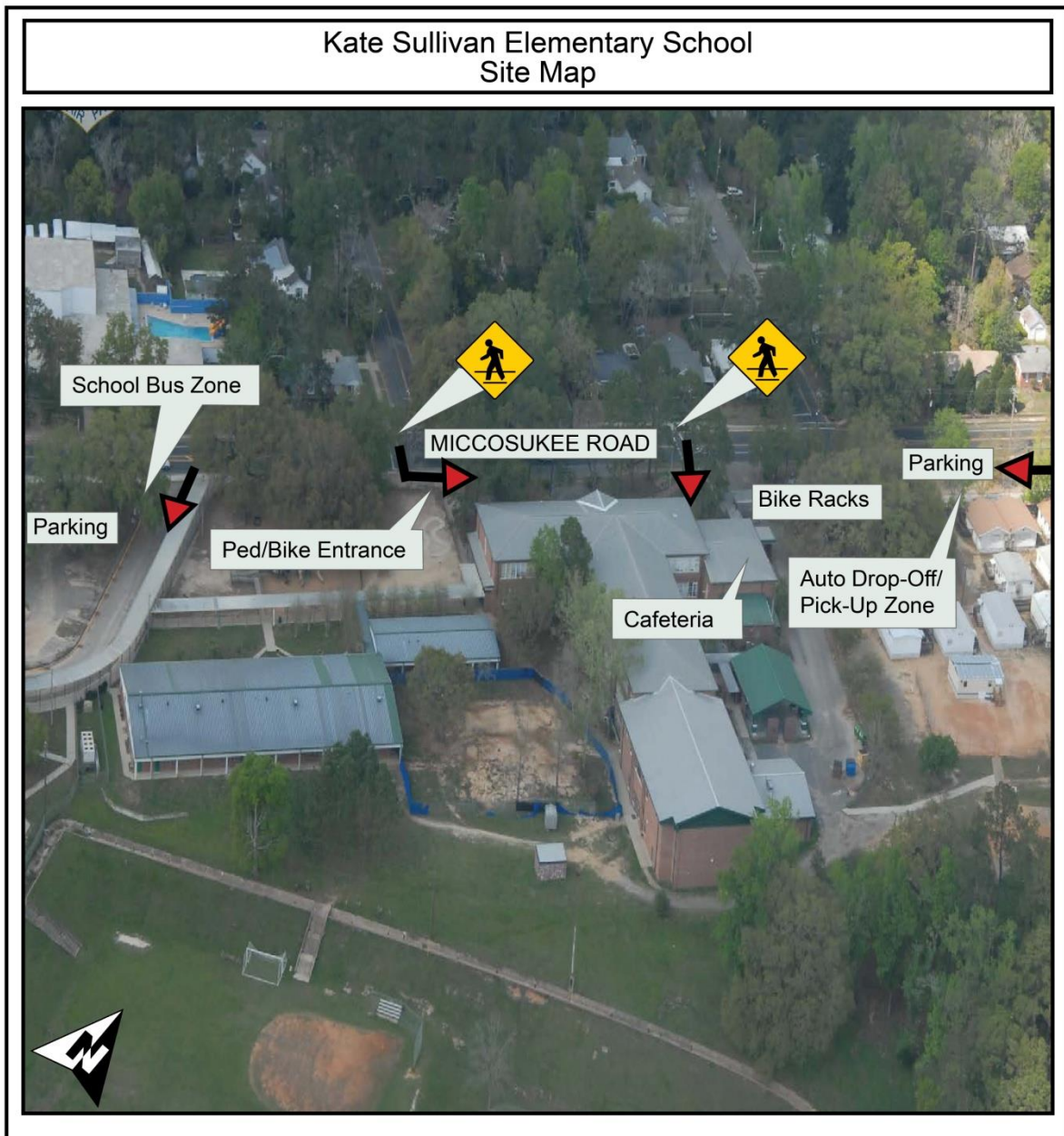
automobile drop-off/pick-up. There is direct access to a walking facility from the automobile zone. Some drivers reportedly park a couple blocks away from the school and walk students to the campus. It was noted that during the morning commute hours, left turns out of the zone are prohibited. Additionally, it was noted that there tends to be more students arriving by automobile than by school bus.

Inventory Map

An aerial photograph showing Kate Sullivan Elementary School is located on the following page. As shown in the photo, the school fronts Miccosukee Road. Students are able to access campus from several points along Miccosukee Road. Bicycle parking racks are located near the front entrance of the school.

Standard width sidewalks are located along both sides of Miccosukee Road and there are two midblock crosswalks that connect directly to a sidewalk that enters campus. Additionally, there are standard width sidewalks along one side of Mitchell Avenue, a residential street near the school's main entrance. However, there are no sidewalks along Crestview Avenue and Marion Avenue, two other residential streets near the school's main entrance.

The automobile pick-up and drop-off zone is located along Miccosukee Road on the east side of the school's main entrance. Automobiles both enter and exit the zone at separate driveways along Miccosukee Road. Parking spaces are located in this area as well as on the street. The bus drop-off and pick-up zone is separately located along Miccosukee Road on the west side of the school's main entrance. Buses both enter and exit the zone at separate driveways along Miccosukee Road. Additional parking spaces are located here as well.



Issues and Opportunities

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

Geography may be an issue with students' ability to walk or bicycle to school. While the area near the school has well-connected street and bike-ped infrastructure, further out from campus there are wide, busy roadways that may not be appropriate for crossing by elementary school children, especially those at the lower grade levels. This kind of external factor is often too difficult to overcome, at least in the short term.

With what opportunities that do exist to increase walking and bicycling, including student safety, consideration should be given to roadways leading to Miccosukee Road. Traffic calming measures should be explored on additional neighborhood streets to reduce automobile speeds and increase awareness of children in the area, especially during school commuting times. Also, school-related and –supportive committees such as the Parent/Teacher Association (PTA) 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 remind other parents about the importance of following appropriate behavior and protocol within the parent drop-off/pick-up zone so that it continues to function adequately.

Chapter 3: Student Travel Survey

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 Kate Sullivan Elementary School – approximately four out of five students – are dropped-off at school by car. The percentage rises slightly for younger-aged children, which is not uncommon. Riding a school bus and walking to school ranked a distance second and third place at approximately 15 percent and 6 percent of students, respectively. Of those commuting by school bus, the percentage rises slightly for older-aged children. Not surprisingly, the percentage of older students walking was slightly higher than that of younger students. While the total number of students walking could potentially be increased with the right combination of programs, policies, and infrastructure upgrades, the current rate of students walking to school establishes a solid foundation for improvement. A low percentage of students surveyed, only one percent each, reporting biking or arriving by public bus to school.

SUMMARY OF SCHOOL-WIDE RESULTS

| | Walk | Bicycle | Automobile | School Bus | Public Bus |
|------------------------|------|---------|------------|------------|------------|
| Average Overall | 6 % | 1 % | 78 % | 15 % | 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 Kate Sullivan Elementary School students are dropped off by car in the morning, while fewer return home by the same mode in the afternoon. In the afternoon, there are greater percentages of students returning home by school bus or another mode not described specifically in the survey such as an after-school program van. Overall, a combined total of approximately one-quarter to one-fifth of students commutes to and from school by either walking or bicycling.

With regard to neighborhood safety, the concerns were generally agreed upon by parents from both Kindergarten through 2nd and 3rd through 5th. Survey respondents overall showed concerns for the condition and/or lack of sidewalks as well as the behavioral patterns of automobile drivers, generally, in terms of excessive driving speeds. As for speeding complaints, specific problem locations cited include Magnolia Drive, Miccosukee Road, Mitchell Avenue, Ingleside Avenue, and Terrace Street.

With regard to factors that might influence their decisions to allow their child to walk or bike to school, survey responses indicate that factors such as accompanying children (by themselves/other parents), enforcing speed limits in school zones, and having separated bicycle/pedestrian pathways from traffic were mutually agreed upon by parents from both Kindergarten through 2nd and 3rd through 5th.

Chapter 5: Neighborhood Field Review

A neighborhood field review was conducted on April 11th, 2013. The review consisted of an assessment of accessibility, connectivity and safety along neighborhood roadways within proximity to Kate Sullivan Elementary School. On the day of the field review, temperatures were in the 70 degrees Fahrenheit. Following the field review, a walk/bike shed area was delineated on a map within the school zone, surrounding the school. This chapter includes a Walk/Bike Shed section describing the approach to defining the area and an associated map for Kate Sullivan Elementary School.

Character of Neighborhood Area

Kate Sullivan Elementary is located in a dense, established residential area primarily comprised of single-family homes. The neighborhood has a well-connected pattern of mostly gridded streets which contributes to the school's accessibility. In the area directly surrounding the school, bike-ped connectivity is good. The grid layout, slower speed limits, and bike-ped infrastructure make this area a comfortable space to walk and bike. Because of the school's proximity to Florida State University and Florida Agricultural & Mechanical University, there is a strong university student presence in the area southwest of the school. A CSX railroad line south of Mahan Drive presents a barrier to walking and biking to neighborhoods south of the school zone.

Major roadways in the school zone include:

- Capital Circle, a heavily traveled north-south roadway with six lanes and a posted speed limit between 40-45mph.
- Thomasville Road, a north-south three to four lane roadway, with a posted speed limit between 40-45mph.
- Miccosukee Road, a southwest-northeast two lane roadway with a posted speed limit of 35mph or less.
- Tennessee Street, which turns into Mahan Drive, is a mostly east-west roadway that transitions from a four lane less than 35mph roadway to a six lane 40-45mph east of Magnolia Drive.

Crash Data

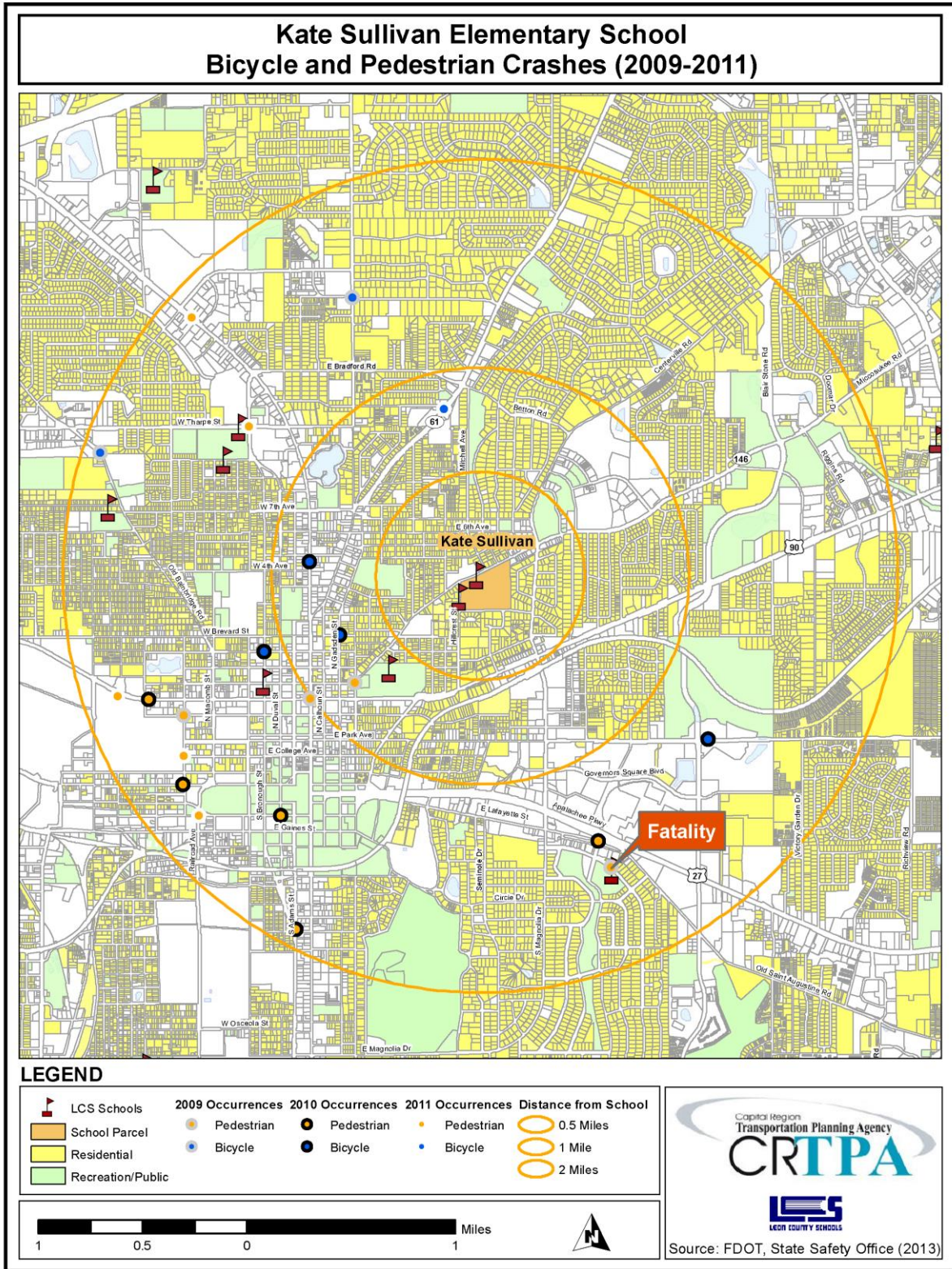
Crash data were collected from the Florida Department of Transportation's (FDOT) State Safety Office for years 2009-2011. Crashes reported include any crashes within Leon County and on any local and major roadways. The data were collected for a typical school year, August 15th to May 30th. Additionally, 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 22 bicycle and pedestrian crashes that occurred within the theoretical two-mile walk/bike radius of Kate Sullivan Elementary School. Of those total crashes, 7(32%) occurred during the morning hours and 15 (68%) occurred during the afternoon hours. A vast majority of the crashes involved adult pedestrians. However, there were a few incidents of crashes involving bicyclists and children. Injuries were reported in all but one crash. Additionally, one crash resulted in a child fatality.

Most of the crashes occurred approximately one to two miles southwest of Kate Sullivan Elementary School, in an area mainly comprised of the Florida State University and Florida Agricultural and Mechanical University campuses. Streets where crashes tend to be a problem are Monroe Street North, Tennessee Street, Duval Street, Georgia Street, and Brevard Street. Other streets that tend to be a problem in the north and southeast directions from the school include East Park Avenue, Lafayette Street, North Meridian Road, and Thomasville Road. The child fatality occurred on Chowkeebbin Nene.

SUMMARY OF CRASH REPORTS (2009-2011)

| Date | Time | Day | On Road | Nearest Intersection | Injury or Fatality? | Type of Crash | Person(s) Involved |
|-------------|-------------|------------|----------------------|-----------------------------|----------------------------|----------------------|---------------------------|
| 01/09/09 | 7:06am | Friday | 1414 Chowkeebin Nene | N/A | Fatality | Pedestrian | Child |
| 01/09/09 | 3:02pm | Friday | Tennessee St. | Monroe St. | Injury | Pedestrian | Adult |
| 02/10/09 | 3:20pm | Tuesday | Meridian Rd. | Virginia St. | Injury | Pedestrian | Child |
| 04/22/09 | 8:15am | Wednesday | Call St. W | Copeland St. | Injury | Pedestrian | Adult |
| 05/05/09 | 4:07pm | Tuesday | Old Bainbridge Rd. | Knots Ln. | Injury | Bicyclist | Adult |
| 09/23/09 | 3:13pm | Wednesday | S Ride | Meridian Rd. | Injury | Bicyclist | Adult |
| 01/06/10 | 8:09am | Wednesday | Lafayette St. | Indianhead Dr. | Injury | Pedestrian | Adult |
| 03/01/10 | 2:51pm | Monday | Gadsden St. N | Brevard St. E | Injury | Bicyclist | Adult |
| 05/27/10 | 8:06am | Thursday | Madison St. | Duval St. | Injury | Pedestrian | Adult |
| 09/06/10 | 2:09pm | Monday | Tennessee St. | Dewey St. N | Injury | Pedestrian | Adult |
| 09/09/10 | 3:54pm | Thursday | Monroe St. | 4 th Ave. | Injury | Bicyclist | Child |
| 10/26/10 | 3:46pm | Tuesday | Pensacola St. | Copeland St. S | No Injury | Pedestrian | Adult |
| 11/17/10 | 3:35pm | Wednesday | Bronough St. N | Georgia St. W | Injury | Bicyclist | Adult |
| 11/19/10 | 8:27am | Friday | Park Ave. E | Blairstone Rd. S | Serious Injury | Bicyclist | Adult |
| 12/29/10 | 3:12pm | Wednesday | Adams St. | Jennings St. | Serious Injury | Pedestrian | Adult |
| 01/07/11 | 2:15pm | Friday | US 27 | Silver Slipper Ln. | Injury | Pedestrian | Adult |
| 01/11/11 | 2:35pm | Tuesday | Academic Way | Territory Way | Injury | Pedestrian | Adult |
| 01/19/11 | 3:43pm | Wednesday | Copeland St. | College Ave. | Injury | Pedestrian | Adult |
| 02/08/11 | 3:32pm | Tuesday | Madison St. | Railroad Ave. | Injury | Pedestrian | Adult |
| 03/01/11 | 3:40pm | Tuesday | Thomasville Rd. | Glenview Rd. | Injury | Bicyclist | Adult |
| 04/29/11 | 8:10am | Friday | Duval St. | Madison St. | Injury | Pedestrian | Adult |
| 08/22/11 | 8:35am | Monday | W Tharpe St. Rd. | MLK Blvd. | Injury | Pedestrian | Adult |



Neighborhood Assessment

The overall neighborhood layout surrounding Kate Sullivan Elementary School lends itself well to walkability. The 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, there are still many residential streets without sidewalks and bicycle infrastructure is only available along Miccosukee Road. Although the infrastructure reaches some neighborhoods further away, much of it is along the major roadways and, thus, poses, safety concerns 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 Kate Sullivan Elementary School walk/bike shed map is included at the end of this chapter.

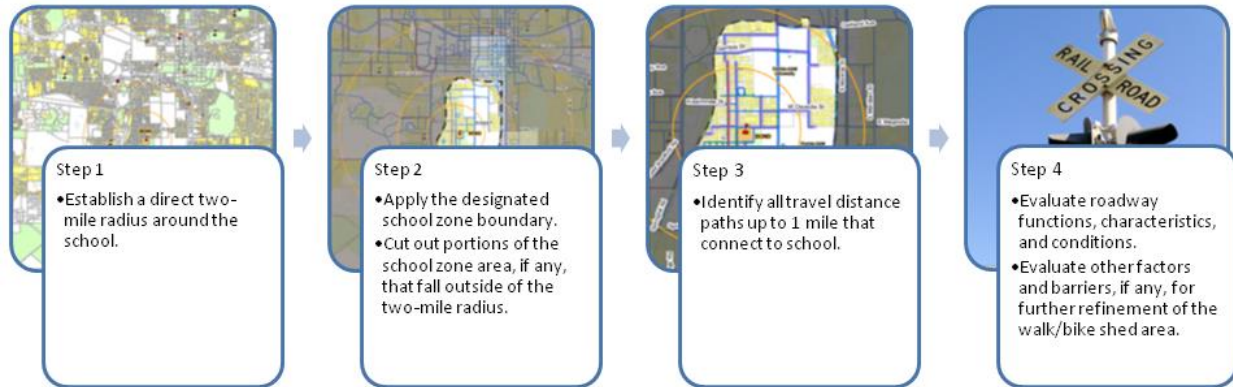
The walk/bike shed area and associated map are not meant to suggest that elementary school students of all ages, maturity level, and experience should commute to and/or from school within the area delineated. Certainly, younger children such as kindergarten students are not expected to walk or bike to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

The walk/bike shed for Kate Sullivan Elementary School mostly extends northeast and west from the school. Tennessee Street/Mahan Drive with their minimal separation from traffic and 4-6 travel lanes combine to contribute to the southern limits of the walk/bike shed. Centerville Road makes up the eastern limits of the walk/bike shed. Thomasville Road a four lane divided roadway with minimal separation from traffic 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 elementary school children walking and/or bicycling to school. Such conditions where walking and/or bicycling are deemed hazardous include the following. It should be noted that only one condition from either table needs to be met for a situation to be deemed hazardous.

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

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

Hazardous Walking Conditions, as defined per Florida Statute

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

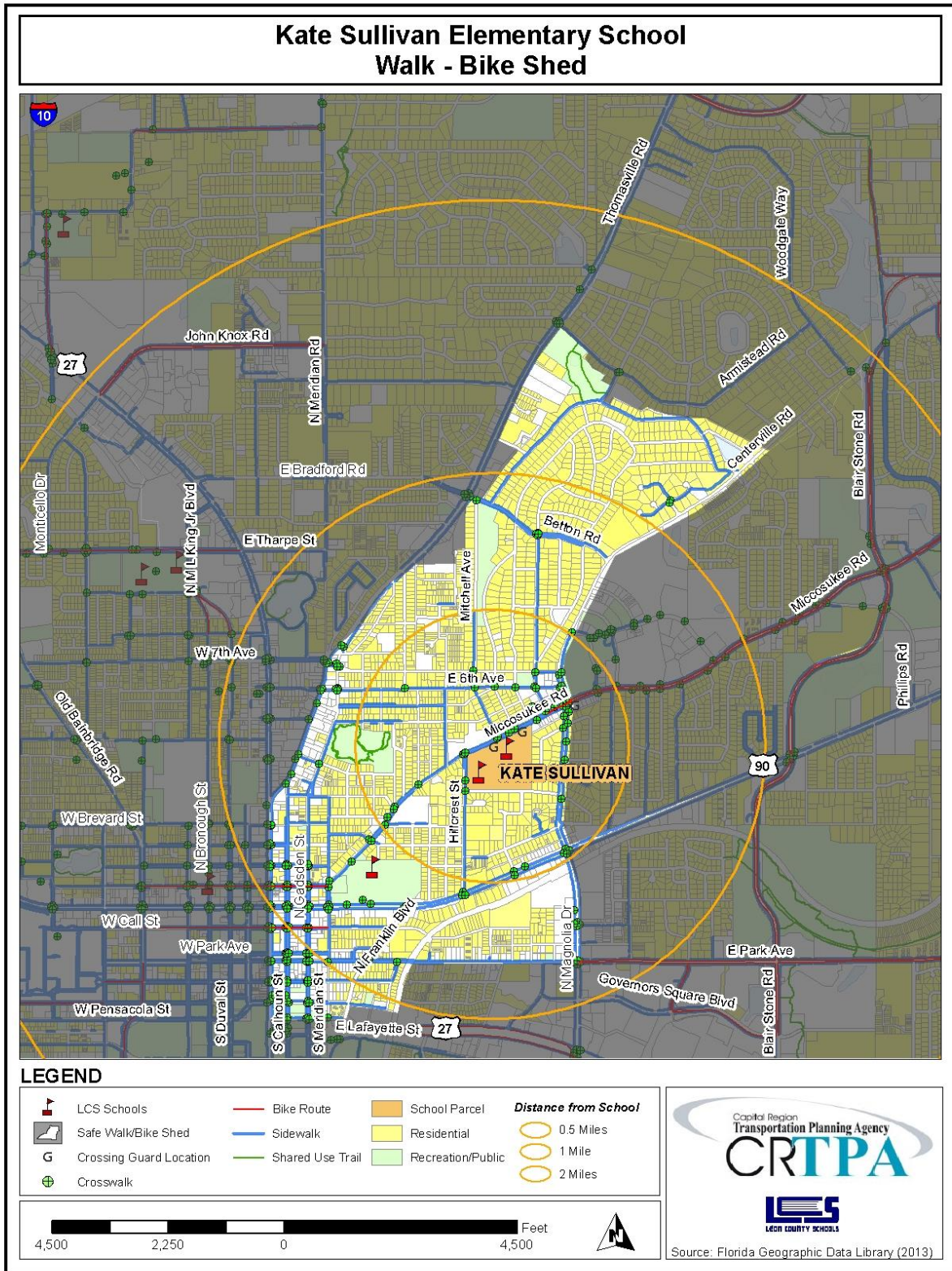
In determining a safe walking and bicycling area, this report applies a methodology and criterion that is more stringent than State standards and more in line with existing studies, research and opinions collected from numerous experts in the fields of pedestrian and bicycle transportation and safe routes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

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

Evaluating Other Factors and Barriers

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

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



Chapter 6: Findings and Recommendations

The existing points of access for walkers and bicyclists to Kate Sullivan Elementary School provide efficient access onto campus from all directions. For those requiring automobile and school bus access the existing zone function adequately. Additional policy and programmatic recommendations that might help to increase safe walking and bicycling to and from school are also included for the school's consideration.

The neighborhood surrounding Kate Sullivan Elementary School has a well-connected street network. And while there are more streets without sidewalks than desirable, 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 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 Kate Sullivan Elementary School. The off-site improvements include:

Kate Sullivan Elementary School Off-Site Recommendations

| Improvement: Off-Site | | Location | From | To | Geography | Direction | Length | Comments |
|-----------------------|---------------------------------|-----------------------|--|-----------------|----------------------------------|-----------|----------------------|----------|
| B1 | Stripe existing crosswalks | Miccosukee Road | At Mitchell Avenue; At West of Crestview Avenue | | In front of main school entrance | NW-SE | Approx. 30 feet | |
| B2 | Add sidewalk curb separator | Miccosukee Road | Crestview Avenue | Marion Avenue | South side of Miccosukee Road | E-W | Approx. 350 feet | |
| B3 | Mark new striped crosswalks (2) | Miccosukee Road | At Automobile Entrance and Exit Driveways | | South side of Miccosukee Road | E-W | Approx. 40 feet | |
| B4 | New Sidewalk | Alachua Avenue | Approx. 380' SW of Short Street | Magnolia Street | South side of Alachua Avenue | SW-NE | Approx. 1,440 feet | |
| B5 | Remark Crosswalks (4) | East Tennessee Street | At North Meridian Street | | All four sides | -- | Approx. 30 feet each | |
| B6 | Stripe Existing Crosswalks | East Tennessee Street | At Franklin Blvd./Terrace Street | | North, west, and south sides | -- | Approx. 30 feet each | |
| B7 | Stripe Existing Crosswalks | North Meridian Street | At Virginia Street; At Miccosukee Road | | -- | E-W | Approx. 30 feet each | |
| B8 | Traffic Calming | Miccosukee Road | Within School Zone | | -- | E-W | -- | Chicanes |

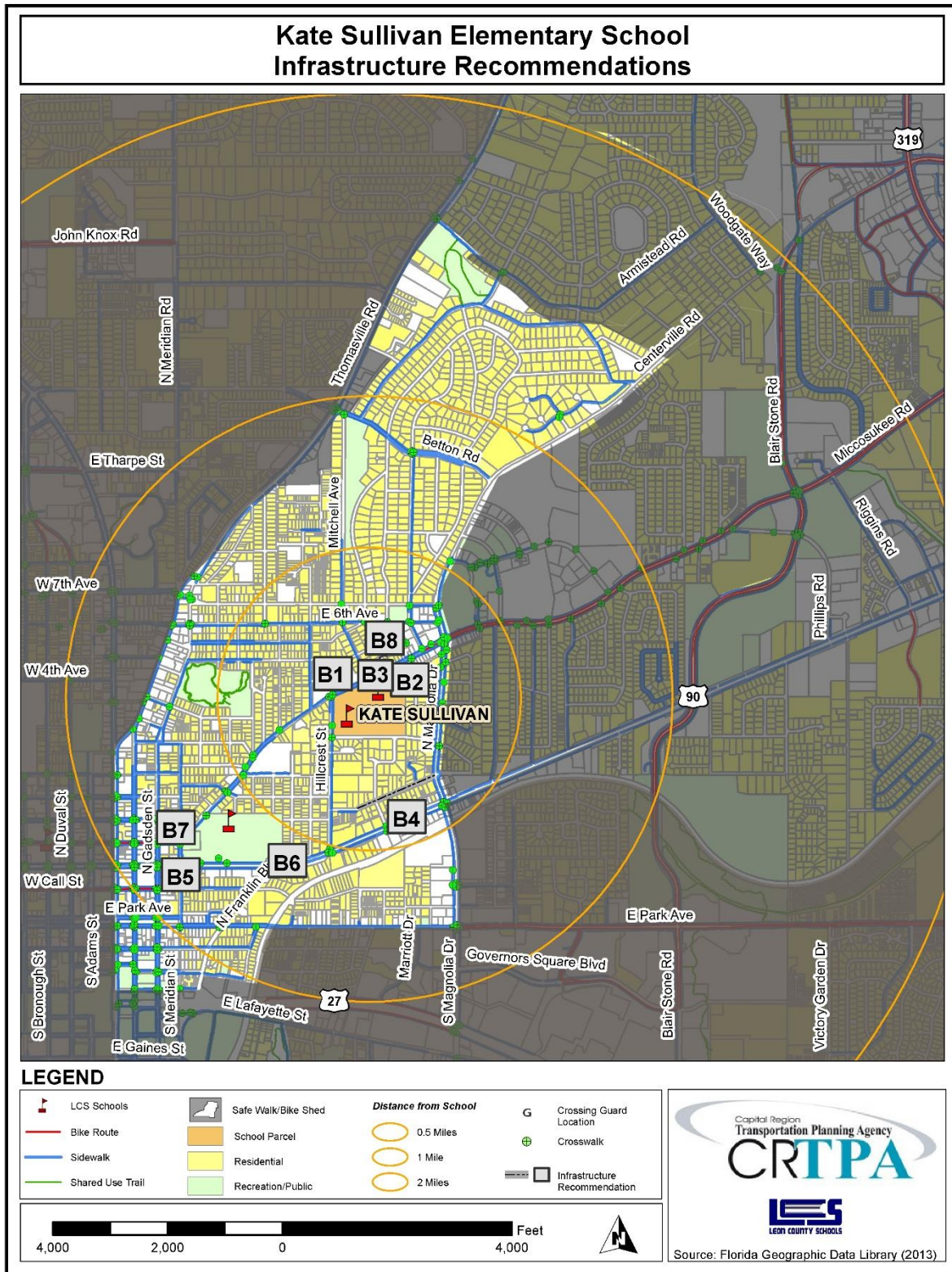
The table, above, corresponds to an infrastructure recommendations map on the following page.

Off-Site Recommendations

- B1) Stripe existing crosswalks on Miccosukee Road at Mitchell Avenue as well as the crosswalk west of Crestview Avenue.
- B2) Add a sidewalk curb separator along Miccosukee Road from Crestview Avenue to Marion Avenue. Currently, there is a portion of on-street parking that is directly adjacent to the sidewalk which can create difficult situations for students using the sidewalks if vehicles park on top of the sidewalk.
- B3) Mark new striped crosswalks along Miccosukee Road at both the automobile entrance and exit driveways to bring more attention to students who may be using the sidewalks in these areas.
- B4) Construct a new sidewalk along Alachua Avenue from approximately 380' west of Short Street to Magnolia Street.
- B5) Remark all four crosswalks at the intersection of East Tennessee Street & North Meridian Street. The pavement treatments in the crosswalks are faded and may be difficult for motorists to see.
- B6) Stripe the existing crosswalks at the intersection of East Tennessee Street & Franklin Boulevard/Terrace Street.
- B7) Stripe the existing crosswalks at North Meridian Street & Virginia Street as well as North Meridian Street & Miccosukee Road.
- B8) Construct traffic calming chicanes within the school zone along Miccosukee Road. Chicanes should be constructed just east of Crestview Avenue, where the on-street parking ends, and where otherwise appropriate. An example of the type of chicane style recommended is shown¹. Additionally, the median along Miccosukee Road should be raised where appropriate.



¹ Source: <http://www.sinoconcept.com/blog/traffic-calming-practices-traffic-calming/>



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; or creating a mileage club where students or entire classrooms keep track of how much they walk or bike to school to compete for prizes or certificates.
- C2) Bicycle safety and accessibility workshop – 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.

Policies

- D1) Bike check and security – School policies to encourage bicycle riding could include having a school official or parent volunteer at the bike rack in the morning and afternoon to check-in and check-out students parking their bikes. The adult assigned to handle check-in and check-out can assist with locking the bike in the morning and unlocking 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 Estimates²

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

² Bushell, M. A., Poole, B. W., Zegeer, C. V., & Rodriuez, D. A. (2013). *Costs for Pedestrian and Bicyclist Infrastructure Improvements: A Resource for Researchers, Engineers, Planners, and the General Public*. Federal Highway Administration.

Chapter 7: Conclusion

While Kate Sullivan Elementary School enjoys a well-connected roadway network consisting of mostly low-volume residential streets, it doesn't correlate to high walking and bicycling commuting rates for students. Overall, just six percent of students commute to and from school by walking, while even fewer (one percent) commute to/from school by bicycle. There appear to be two primary reasons. First, outside of the immediate school area there tend to be major, busy roadways that are not conducive to walking/bicycling for elementary school aged children. While this is a difficult issue to fix, there are still plenty of opportunities to increase walking and bicycling for students closer to school

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

For those students within a relatively safe walking and bicycling distance to school, opportunities to improve student walking and bicycling rates are rooted primarily in informational and educational programmatic solutions as well as policies that encourage bicycle commuting. 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 making existing crosswalks more visible. This is mostly due to the already well-connected network of low-volume residential streets surrounding the school and existing sidewalk infrastructure in the area.

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 |
| 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 433 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) | 433 |
| Total K-2nd Students Surveyed | 313 |
| Total 3rd-5th Students Surveyed | 120 |

Walking and Bicycling

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

Walking and Bicycling School-Wide Travel Patterns

The school-wide student travel surveys indicate that the walk-to-school average for the week ranged from 5% to 6%, with an overall average of 6%. Overall, the bike-to-school average for the week ranged from <1% to 1%, with an overall average of 1%. Of the students that bike to school, an overall average of 100% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 6% to 7%, with an overall average of 7%.

SUMMARY OF WALKING AND BICYCLE SCHOOL-WIDE TRAVEL PATTERNS

| | Walk | Bicycle | Helmet Use | Total Walk + Bike |
|------------------------|-------------|----------------|-------------------|--------------------------|
| Average Overall | 6 % | 1 % | 100 % | 7 % |
| Highest Day | 6 % | 1 % | 100 % | 7 % |
| Lowest Day | 5 % | <1 % | 100 % | 6 % |

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

The younger-aged (K-2nd) children student travel surveys indicate that the walk-to-school average for the week ranged from 5% to 6%, with an overall average of 5%. Overall, the bike-to-school average for the week ranged from <1% to 1%, with an overall average of 1%. Of the students that bike to school, an overall average of 100% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 6% to 7%, with an overall average of 6%.

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

| | Walk | Bicycle | Helmet Use | Total Walk + Bike |
|------------------------|------|---------|------------|-------------------|
| Average Overall | 5 % | 1 % | 100 % | 6 % |
| Highest Day | 6 % | 1 % | 100 % | 7 % |
| Lowest Day | 5 % | <1 % | 100 % | 6 % |

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

The older-aged (3rd-5th) children student travel surveys indicate that the walk-to-school average for the week ranged from 7% to 8%, with an overall average of 7%. Overall, the bike-to-school average for the week ranged from 1% to 1%, with an overall average of 1%. Of the students that bike to school, an overall average of 100% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 8% to 8%, with an overall average of 8%.

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

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

Bus and Automobile Drop-Off

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

³ Includes one 2nd-4th grade class

Bus and Automobile School-Wide Travel Patterns

The school-wide travel surveys indicate that the automobile-to-school average for the week ranged from 78% to 79%, with an overall average of 78%. Of the students that ride to school in an automobile, an overall average of 95% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 13% to 15%, with an overall average of 15%. The public bus-to-school average for the week ranged from <1% to 1%, with an overall average of 1%. (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 | 78 % | 95 % | 15 % | 1 % |
| Highest Day | 79 % | 98 % | 15 % | 1 % |
| Lowest Day | 78 % | 93 % | 13 % | <1 % |

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

The younger-aged (K-2nd) children student travel surveys indicate that the automobile-to-school average for a typical week ranges from 79% to 81%, with an overall average of 80%. Of the students that ride to school in an automobile, an overall average of 95% wore a seatbelt. Overall, the school bus-to-school average for a typical week ranges from 12% to 14%, with an overall average of 13%. The public bus-to-school average for a typical week ranges from 1% to 1%, with an overall average of 1%.

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

| | Automobile | Seat Belt | School Bus | Public Bus |
|------------------------|------------|-----------|------------|------------|
| Average Overall | 80 % | 95 % | 13 % | 1 % |
| Highest Day | 81 % | 100 % | 14 % | 1 % |
| Lowest Day | 79 % | 93 % | 12 % | 1 % |

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

The older-aged (3rd-5th) children student travel surveys indicate that the automobile-to-school average for a typical week ranges from 72% to 75%, with an overall average of 73%. Of the students that ride to school in an automobile, an overall average of 94% wore a seatbelt. Overall, the school bus-to-school average for a typical week ranges from 18% to 20%, with an overall average of 19%. The public bus-to-school average for a typical week ranges from 0% to 1%, with an overall average of less than one percent.

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

| | Automobile | Seat Belt | School Bus | Public Bus |
|------------------------|-------------------|------------------|-------------------|-------------------|
| Average Overall | 73 % | 94 % | 19 % | <1 % |
| Highest Day | 75 % | 95 % | 20 % | 1 % |
| Lowest Day | 72 % | 92 % | 18 % | 0 % |

⁴ Includes one 2nd-4th grade class

Appendix C: Parent Survey

Leon County Schools

PARENT SURVEY

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

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

Sex: Male Female

Age: _____

Grade: _____

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

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

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

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

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

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

Capital Region Transportation Planning Agency

Leon County Schools

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

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

Capital Region Transportation Planning Agency

Appendix D: Parent Survey – Detailed Analysis

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

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

The parent surveys were conducted during the winter/spring semester of 2013. There were 146 parent surveys returned. Of those, 81 (55%) claimed to reside within the theoretical two-mile walk/bike radius of the school. Surveys from families residing within the theoretical two-mile walk/bike radius were split nearly 70/30 by grade level grouping, with 54 students representing Kindergarten through 2nd Grade, and 27 students representing 3rd Grade through 5th Grade.

SUMMARY OF PARENT SURVEY PARTICIPATION

| | |
|---|------|
| Total Enrollment | 881 |
| Total Number of Parent Surveys | 146 |
| Total Number within 2 Miles (K-2nd Grade) | 54 |
| Total Number within 2 Miles (3rd-5th Grades) | 27 |
| Percentage of Surveys within 2 Miles | 55 % |

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 | 62 % |
| Walk | 23 % |
| School Bus | 12 % |
| Bicycle | 1 % |
| Other | 1 % |
| Public Bus | 0 % |
| Afternoon | |
| Car | 56 % |
| Walk | 20 % |
| School Bus | 16 % |
| Other | 7 % |
| Bicycle | 1 % |
| Public Bus | 0 % |

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

The surveys of parents of younger-aged (K-2nd grade) indicate that the car-to-school average for a typical week is 61% in the morning and decreases to 59% in the afternoon. The walk-to-school and bike-to-school averages for a typical week are 22% and 2% in the morning and 15% and 2% in the afternoon, respectively. The school bus-to-school average for a typical week is 13% in both the morning and afternoon. The alternative commute mode-to-school average for a typical week is 2% in the morning and 11% in the afternoon. None of the students rode a public bus in the morning or afternoon.

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

| Morning | Average Overall |
|------------------|------------------------|
| Car | 61 % |
| Walk | 22 % |
| School Bus | 13 % |
| Bicycle | 2 % |
| Other | 2 % |
| Public Bus | 0 % |
| Afternoon | |
| Car | 59 % |
| Walk | 15 % |
| School Bus | 13 % |
| Other | 11 % |
| Bicycle | 2 % |
| 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 63% in the morning and decreases to 48% in the afternoon. The walk-to-school average for a typical week is 26% in the morning and increases to 30% in the afternoon. The school bus-to-school average for a typical week is 11% in the morning and increases to 22% in the afternoon. None of the students rode a bicycle, public bus, or used an alternative commute mode in the morning or afternoon.

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

| Morning | Average Overall |
|------------------|------------------------|
| Car | 63 % |
| Walk | 26 % |
| School Bus | 11 % |
| Bicycle | 0 % |
| Public Bus | 0 % |
| Other | 0 % |
| Afternoon | |
| Car | 48 % |
| Walk | 30 % |
| School Bus | 22 % |
| Bicycle | 0 % |
| Public Bus | 0 % |
| Other | 0 % |

Neighborhood Safety Concerns

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

SUMMARY OF TOP RANKING NEIGHBORHOOD SAFETY CONCERNS

| Neighborhood Safety Concern | Number of Comments |
|------------------------------------|---------------------------|
| Speeding Vehicles | 19 |
| Issues with Sidewalks/Walking | 18 |

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/walking, and issues with transportation outside of the school zone. There were approximately 12 comments of concern regarding issues with speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Magnolia Drive, Miccosukee Road, Mitchell Avenue, Ingleside Avenue, and Terrace Street. Additionally, there were 10 comments of concern regarding issues with transportation outside of the school zone. General concerns include high traffic volumes, distracted drivers not paying attention to crossing guards, and bus stops located next to major roads. Specific locations where there tends to be problems include Magnolia Drive and Miccosukee Road. Lastly, there were nine comments of concern regarding issues with sidewalks and walking. General concerns include the lack of sidewalks and crosswalks, broken sidewalks, and people not sharing the road/sidewalk. Specific locations where sidewalks tend to be a problem are East Georgia Street, Jean Avenue, and Marion Avenue.

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

| Neighborhood Safety Concern | Number of Comments |
|---|--------------------|
| Speeding Vehicles | 12 |
| Issues with Transportation Outside of School Zone | 10 |
| Issues with Sidewalks/Walking | 9 |

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 sidewalks/walking, speeding vehicles, and issues with the parent pick-up/drop off area of the school. There were approximately nine comments of concern regarding issues with sidewalks. General concerns include the lack of sidewalks and crosswalks, as well as, broken sidewalks. Specific locations where sidewalks tend to be a problem are East Brevard Street, East Georgia Street, East Ninth Avenue, Crestview Avenue, and Ingleside Avenue between Terrace Street and Mitchell Avenue. Additionally, there were approximately seven comments of concern regarding speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Mitchell Avenue, Magnolia Drive, Ingleside Avenue, and Miccosukee Road. Lastly, there were six comments of concern regarding the parent pick-up/drop-off area of the school. General concerns include an unofficial pick-up/drop-off area on Mitchell Avenue, limited availability of parking for dropping-off children, and the aggressive driving behavior of parents in the school parking lot.

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

| Neighborhood Safety Concern | Number of Comments |
|---|--------------------|
| Issues with Sidewalks/Walking | 9 |
| Speeding Vehicles | 7 |
| Issues with Parent Pick-Up/Drop-Off Areas | 6 |

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

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

SUMMARY OF TOP RANKING SCHOOL-WIDE INFLUENTIAL FACTORS RESULTS

| | SCALE | 1 | 2 | 3 | 4 | 5 | N/A |
|---|-------|---|---|---|----|----|-----|
| I would allow my child to walk or bicycle to school more often if: | | | | | | | |
| <i>#1 Accompanied by myself or other parents</i> | | 0 | 3 | 3 | 7 | 39 | 9 |
| <i>#2 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school</i> | | 2 | 1 | 7 | 6 | 31 | 14 |
| <i>#3 Speed limits were strictly enforced in school speed zones</i> | | 3 | 1 | 5 | 10 | 29 | 13 |

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

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

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: | | | | | | | |
| <i>#1 Accompanied by myself or other parents</i> | | 0 | 2 | 3 | 4 | 23 | 6 |
| <i>#2 Speed limits were strictly enforced in school speed zones</i> | | 2 | 1 | 2 | 6 | 19 | 8 |
| <i>#3 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school</i> | | 1 | 1 | 5 | 4 | 18 | 9 |
| <i>#3 There were continuous sidewalks or bike paths from my neighborhood to school</i> | | 1 | 0 | 5 | 3 | 18 | 11 |

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

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

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: | | | | | | | |
| <i>#1 Accompanied by myself or other parents</i> | | 0 | 1 | 0 | 3 | 16 | 3 |
| <i>#2 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school</i> | | 1 | 0 | 2 | 2 | 13 | 5 |
| <i>#3 Additional crossing guards were provided at busy intersections</i> | | 0 | 0 | 6 | 3 | 12 | 2 |
| <i>#4 Speed limits were strictly enforced in school speed zones</i> | | 1 | 0 | 3 | 4 | 10 | 5 |