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# Safe Routes to School Audit Report DeSoto Trail Elementary School



Leon County  
Public Schools



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### Capital Region Transportation Planning Agency (CRTPA)



### Safe Routes to School (SRTS) National Partnership



### Leon County Public Schools (LCS)



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### Leon County Sheriff's Office (LCSO)



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## **Chapter 1: Introduction**

### **Project Purpose**

The purpose of this Safe Routes to School (SRTS) audit report is to provide recommendations to improve student walking and bicycling rates to and from school. In addition, this report addresses other enhancements to improve the overall travel safety and convenience for students, parents and the school. Improvement recommendations are provided in the following categories: infrastructure, programs, and 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**

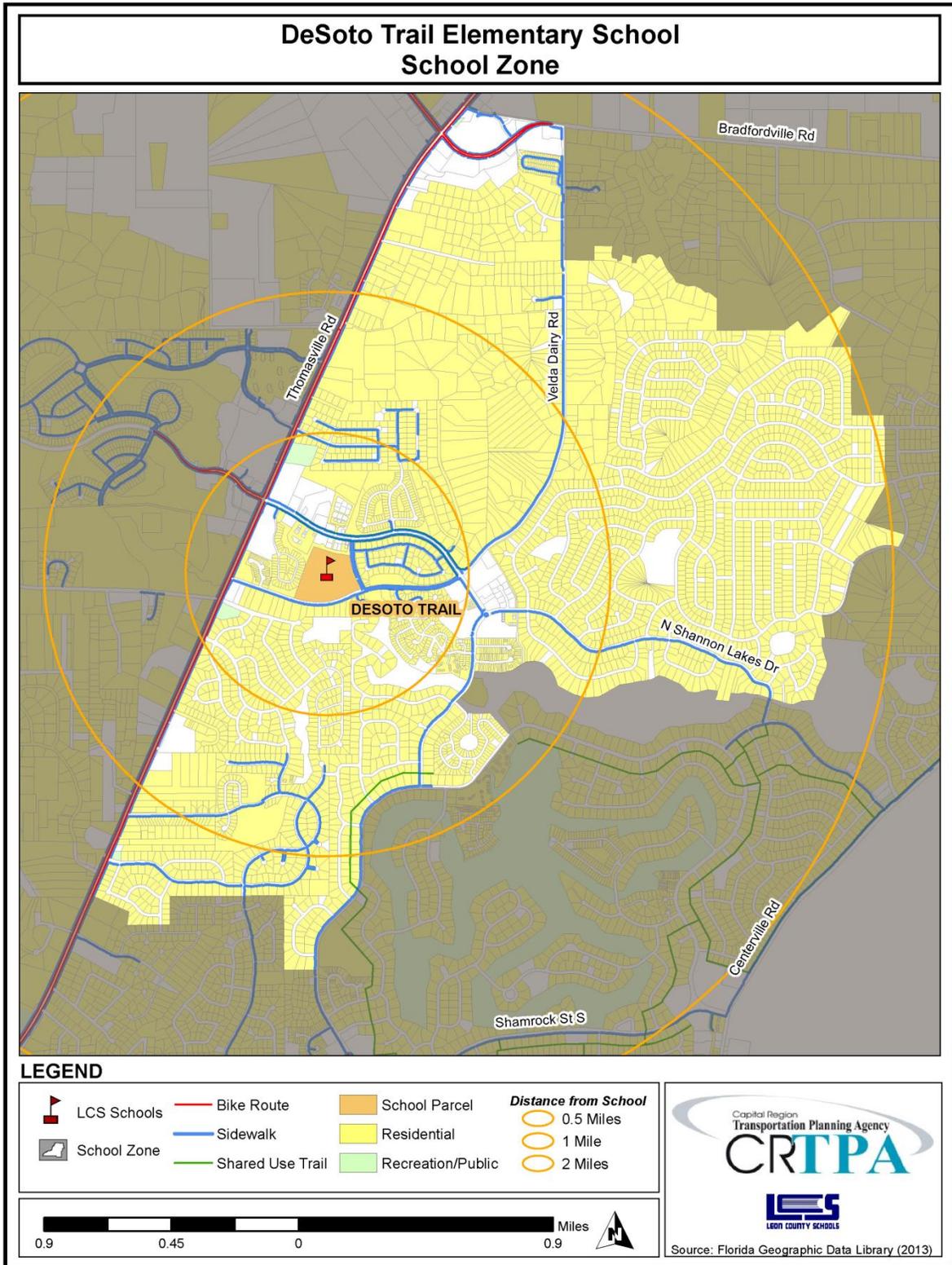
DeSoto Trail Elementary School is located at 5200 Tredington Park Drive, Tallahassee, 32309 in Leon County, Florida. It is part of the Leon County Public Schools system. The school was established in 1989 in northeast Leon County. Regular school hours are from 8:30am to 2:50pm. An after school program is available from the end of the school day until 6:00pm.

The number of students enrolled at the school, for the 2013 school year was 598. The school has a current capacity for 639 students. The school includes grade levels Pre-Kindergarten to 5<sup>th</sup> grade.

Students attending this school feed to Montford Middle School and Chiles High School.

### **School Zone**

The DeSoto Trail Elementary school zone, located in northern Leon County, encompasses the neighborhoods of Tredington Park, Kinsail, Foxcroft, Lenox Mill, Killlearn Acres, Highlands, Northampton, Quail Rise, and Lake Carolyn Estates. Land uses in the school zone are almost entirely residential. The DeSoto Trail school zone includes three major roadways. Thomasville Road runs southwest to northeast along the western portion of the school zone. Kerry Forest Parkway, which eventually turns into Shannon Lakes Drive North, runs mostly west to east and bisects the zone into north and south. Velda Dairy Road runs mostly north to south and bisects the zone into east and west. Recreational facilities near the school zone include the Killlearn Country Club just southeast of the zone.



## Chapter 2: On-Site Meeting and Inventory

### Date and Weather Conditions

The on-site inventory meeting was conducted on March 7<sup>th</sup>, 2013 with temperatures in the mid 50 degrees Fahrenheit.

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

During this visit, DeSoto Trail 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 overhead signs and flashing lights (i.e. school zone warnings) are located on Kerry Forest Parkway near Tredington Park Drive. Only those students who pay to participate in the before school program are allowed on campus at 7:00am. There are after school programs available until 6:00pm. Approximately 30 students participate in the before school program while 150 students participate in the after school program. It was noted that both before school and after school programs are fee-based. Regular student supervision hours are from 7:45am to 3:20pm.

There are two designated crossing guards at the intersections of Tredington Park Drive & Umberland Drive as well as Tredington Park Drive & Kerry Forest Parkway. School staff and administrators serve as ushers for students at both the automobile drop-off/pick-up and school bus zones. It was noted that parents have a general concern with the safety and security of the children at school. School representatives noted that the roundabout located at Kerry Forest Parkway & Shannon Lakes Drive North is a major concern for pedestrians and bicyclists. Drivers reportedly are not aware of pedestrians and bicyclists trying to get through the crosswalks in the roundabout and drivers are not making complete stops, making the roundabout hazardous for non-motorized travel.

### 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 surrounded by mostly residential streets with low traffic volumes and slower speeds, the large parcel sizes and lack of through streets does not facilitate good bike/ped connectivity in the area. As a result, there are a limited number of students that walk or bicycle to/from school, as many must rely heavily on school busing and automobile rides. Walkers and bicyclists may enter campus from a restrictive –access gate near Tredington Park Drive & Umberland Road. School representatives noted that there is an unofficial walk/bike entrances at the south end of the school. During school commuting hours, temporary traffic control devices (i.e. cones and signs) are used. The school has three small outdoor bicycle racks with space for a total of 30 bicycles. During the site visit, there were six bicycles parked at the racks.

The single lane, school bus drop-off and pick-up zone functions adequately to accommodate the four school buses, in both the mornings and afternoons. The zone for arrivals and departures is covered and there is direct access to a walking facility. Additionally, there are hand rails present that act as a barrier between school buses and children in the zone. Just north of the school bus zone is a small parking lot where day care vans load/unload children. In order to get to the parking lot, day care vans must go through the school bus lane.

The parent drop-off and pick-up zone functions adequately to accommodate the volume of automobiles entering and exiting the site. The zone for drop-off and pick-up is covered, which helps during times of inclement weather, and there are ushers to assist with loading and unloading of students. Two school staff members act as crossing guards at the crosswalks located in the automobile zone. Students whose parents use the short-term parking are escorted from the parking lot to the school building. There are signs present to warn drivers not to block the two crosswalks. While there are benches available in the automobile zone, these are not used as a holding area for students. Instead, students are held in the cafeteria or the playground while waiting to be picked up.

### **Inventory Map**

An aerial photograph showing DeSoto Trail Elementary School is located on the following page. As shown in the photo, the school fronts Tredington Park Drive. Students can access campus from this street near the intersection to Kerry Forest Parkway. Bicycle parking racks are located near the front entrance of the school.

Standard width sidewalks are located along both sides of Tredington Park Drive and there is a midblock crosswalk that connects directly to a sidewalk that enters onto campus. Additionally, standard width sidewalks are available along one side of Velda Dairy Road, opposite of the school property. A multi-use path is also available along both sides of Kerry Forest Parkway and there is a midblock crosswalk that connects to a sidewalk along Tredington Park Drive.

The automobile pick-up and drop-off zone is located directly in front of the school's main entrance. Automobiles both enter and exit the zone at separate driveways along Tredington Park Drive. Parking spaces are located in this area as well. The bus drop-off and pick-up zone is separately located along the rear of the school. Buses enter the zone from and exit onto Velda Dairy Road. Additional parking spaces are located in this area as well.



### **Issues and Opportunities**

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

Geography is the primary issues with students' ability to walk and bicycle to school. The neighborhoods surrounding the school are not well connected to the school due to a lack of thru streets. It will be difficult to connect to neighborhoods south of Velda Dairy Road due to the presence of private, single family lots along the roadway. Additionally, further out from campus there are wide, busy roadways that may not be appropriate for crossing by elementary school children, especially those at lower grade levels. These kind of external factors are often too difficult to overcome, at least in the short term.

With what opportunities that do exist to increase walking and bicycling, including students safety, considerations should be given to the school zone and roundabout located on Kerry Forest Parkway. At present, the school zone is only about 100-200 yards on either side of Tredington Park Drive. The expansion of the school zone to increase awareness of children in the area should be explored. Additionally, traffic calming measures leading up to the roundabout at Kerry Forest Parkway & Shannon Lakes Drive North should be explored to address bike/ped safety concerns.

Also, school-related and –supportive committees such as the Parent/Teacher Organization (PTO) can be used to help educate parents on the opportunities and benefits to having their children walk or bicycle to school, where such options are feasible. These groups can also help get the word out to parents concerning continued compliance with protocol in the parent drop-off/pick-up zone.

### Chapter 3: Student Travel Survey – Summary of Results

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

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

The survey indicates that a vast majority of students at DeSoto Trail Elementary School – approximately seven out of eight students – are dropped off at school by car. The percentage rises slightly for younger aged children, which is not uncommon. Riding a school bus and walking to school ranked a distant second and third place at approximately 10% and 3% of students, respectively. Of those commuting by school bus and walking, the percentages rise slightly for older-aged children. While this 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 foundation for improvement. A low percentage of students, less than one percent, reported biking to school and none of the students surveyed reported arriving by public bus.

#### SUMMARY OF SCHOOL-WIDE RESULTS

	Walk	Bicycle	Automobile	School Bus	Public Bus
<b>Average Overall</b>	3 %	<1 %	87 %	10 %	0 %

## Chapter 4: Parent Survey – Summary of Results

School administrators carried out a school-wide survey to better understand the neighborhood safety issues and concerns of parents and the factors influencing their decision to allow their children to walk or bicycle to school. (A copy of the parent survey can be found in **Appendix C.**)

Parent survey results were counted and analyzed by grade level groupings of Kindergarten through 2<sup>nd</sup> Grade and 3<sup>rd</sup> Grade through 5<sup>th</sup> Grade, respectively. (A detailed description of the parent surveys for the two grade level groupings can be found in **Appendix D.**)

The surveys of students living within two miles from the school indicate that a greater percentage of DeSoto Trail 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 out of twenty 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 2<sup>nd</sup> and 3<sup>rd</sup> through 5<sup>th</sup>. Survey respondents overall showed concerns for the condition and/or lack of sidewalks and crosswalks, as well as, the behavioral patterns of automobile drivers, generally, in terms of excessive driving speeds and, issues with transportation outside of the school zone. As for speeding complaints, specific problem locations cited include Thomasville Road, Kerry Forest Parkway, and Velda Dairy Road.

With regard to factors that might influence their decision to allow their child to walk or bike to school, survey responses indicate that factors such as accompanying children (by themselves/other parents), living closer to school and the availability of crossing guards were mutually agreed upon by parents from both Kindergarten through 2<sup>nd</sup> and 3<sup>rd</sup> through 5<sup>th</sup>.

## Chapter 5: Neighborhood Field Review

A neighborhood field review was conducted on April 10<sup>th</sup>, 2013. The review consisted of an assessment of accessibility, connectivity and safety along neighborhood roadways within proximity to DeSoto Trail Elementary School. On the day of the field review, the weather was overcast with some light rain and temperatures in the 70's Fahrenheit. Following the field review, a walk/bike shed area was delineated on a map within the school zone, surrounding the school. This chapter includes a Walk/Bike Shed section describing the approach to defining the area and an associated map for DeSoto Trail Elementary School.

### Character of Neighborhood Area

DeSoto Trail Elementary is located in a suburban area of north Tallahassee near the city limits. The surrounding neighborhoods are primarily comprised of low density single family homes. The area has a typical suburban neighborhood feel, with large lots, wide streets and a non-grid street network. Thomasville Rd creates the western boundary of the DeSoto Trail school zone. Thomasville Road is a high volume facility that acts as a walk/bike hazard as well as the school zone boundary. Because of the non-grid street network some potential walking and biking routes to the school are over two mile routes although the residence are within the 1.5-mile or 2-mile school radius.

Major roadways in the school zone include:

- Thomasville Road, a high volume, six-lane, roadway with a posted 45 mph speed limit.
- Kerry Forest Parkway, an east-west roadway with a 35 mph speed limit. It terminates at a roundabout intersection with Shannon Lakes Drive. Typical roadway width is 70 feet.
- Velda Dairy Road, a two-lane roadway with a shared automobile - bike lane between Thomasville Road and Kerry Forest Parkway. Velda Dairy Road also has a 35 mph speed limit.

### Crash Data

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

There were no bicycle or pedestrian crashes reported within the theoretical two-mile walk/bike radius of Desoto Trail Elementary School between 2009 and 2011.

### Neighborhood Assessment

The overall neighborhood layout surrounding DeSoto Trail Elementary School lends itself fairly well to walkability, although large lot sizes and a less connected street network can cause longer routes to school from some areas. The suburban street network funnels smaller neighborhood roads to larger arterial roads that give accessibility to the school and other area services. Each of the arterial roads surrounding DeSoto Trail Elementary School have sidewalk infrastructure adequate for walking and biking. Most of the residential streets in this area do not have a comprehensive sidewalk infrastructure

in place, but because of the low traffic volumes and slower speeds, this infrastructure is not essential for a safe route to school. Although the sidewalk infrastructure is present along Thomasville Road near DeSoto Elementary School, the buffer between the sidewalk and roadway is not large enough to warrant being included in the safe routes to DeSoto Trail Elementary. Additionally, a school speed reduction zone was identified in working order on Kerry Forest Parkway at the intersection of Tredington Park Drive.

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

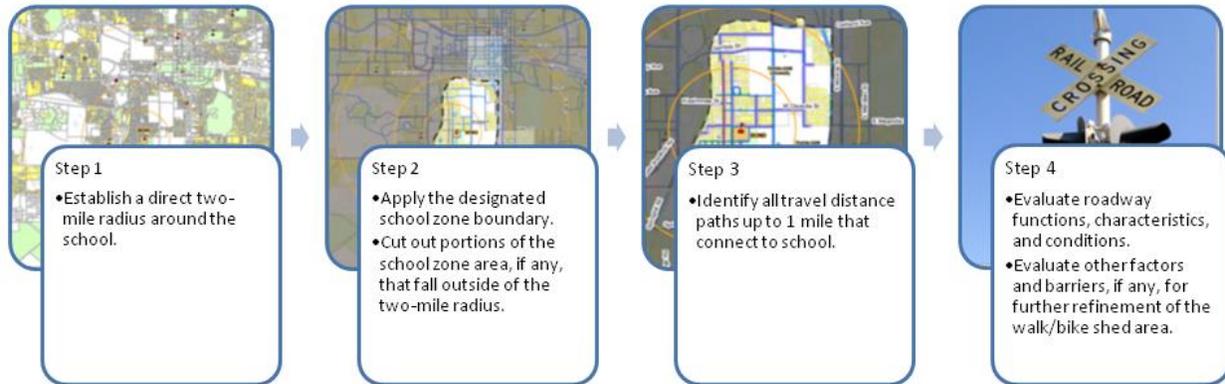
The walk/bike shed area and associated map are not meant to suggest that elementary school students of all ages, maturity level, and experience should commute to and/or from school within the area delineated. Certainly, younger children such as kindergarten students are not expected to walk or bike to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

The walk/bike shed for DeSoto Trail Elementary School mostly extends northeast and south from the school. Thomasville Road with its high speeds and high traffic volumes forms the western limits of the walk/bike shed. The area southeast of Shamrock Street is excluded from the walk/bike shed because of the presence of the Killlearn Country Club golf course. Also, the area just south of Bradfordville Road is excluded from the walk/bike shed because of the lack of through street connections to/from the Killlearn Acres neighborhood. 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:

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### 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.

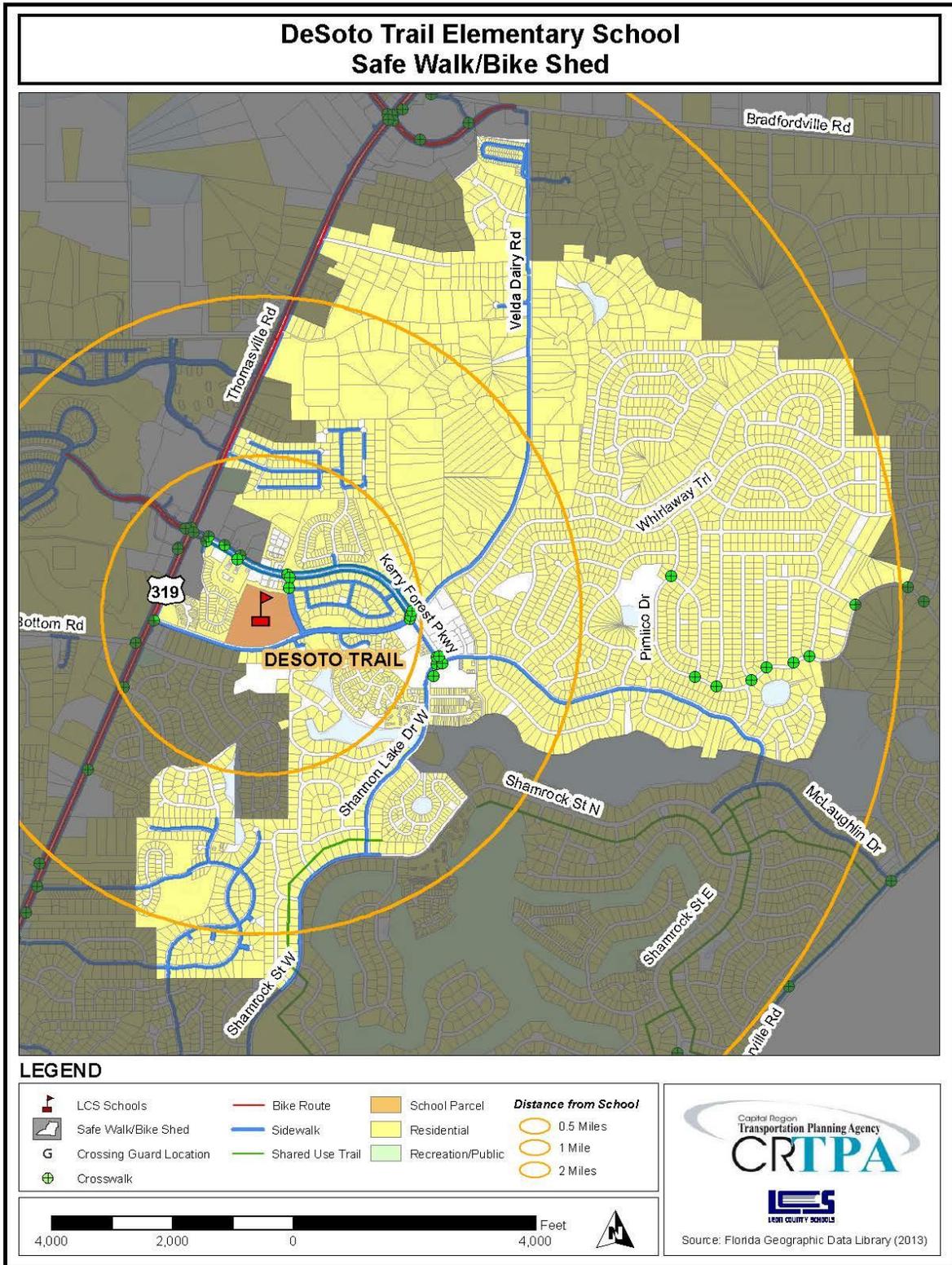
In determining a safe walking and bicycling area, this report applies a methodology and criterion that is more stringent than State standards and more in line with existing studies, research and opinions collected from numerous experts in the fields of pedestrian and bicycle transportation and safe routes 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 point of access for walkers and bicyclists to DeSoto Elementary School provides efficient access onto campus from Tredington Park Drive. For those requiring or desiring automobile access, the current situation area functions quite well already. However, there are probably more parents transporting their children to school than necessary, given the proximity of homes to the school. This chapter includes some policy and programmatic recommendations for the school's consideration that might help to ease concerns of parents regarding speeding vehicles and increase walking and bicycling to and from school.

There are a number of residences within a fairly close proximity to DeSoto Trail Elementary School. And while there are many streets without sidewalks, most of these streets are internal residential subdivision streets with low-volume traffic that empty onto both Shannon Lakes Drive and Kerry Forest Parkway. Most can be navigated by walkers and bicyclists with a fair amount of ease. Still, parents are apprehensive primarily with regard to potentially speeding vehicles especially along Kerry Forest Parkway. There are a number of infrastructure recommendations that would provide some benefit toward improving existing conditions for pedestrians and bicyclists.

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

### DeSoto Trail Elementary School On- and Off-Site Recommendations

Improvement: On-Site		Location	From	To	Geography	Direction	Length	Comments
A1	Move Middle Bicycle Rack	Existing Bike Rack Area	N/A	N/A	N/A	N/A	N/A	
A2	Bicycle Helmet Rack	Existing Bike Rack Area	N/A	N/A	N/A	N/A	N/A	

Improvement: Off-Site		Location	From	To	Geography	Direction	Length	Comments
B1	Stripe Existing Crosswalk	Tredington Park Drive	At UMBERLAND Drive		N/A	E-W	N/A	
B2	Stripe Existing Crosswalk	Kerry Forest Parkway	At Tredington Park Drive		South side of Kerry Forest Parkway	E-W	N/A	
B3	Extend School Zone Signage	Kerry Forest Parkway	600' West of Current Signage	Appledore Lane	N/A	E-W	N/A	Currently zone is only about 450' in length.
B4	Relocate School Zone Utility Poles	Kerry Forest Parkway	N/A	N/A	North and south sides of Kerry Forest Parkway	N/A	N/A	
B5	Bike/Ped Pavement Markings	Kerry Forest Parkway	On Existing Multi-Use Path		North and south sides of Kerry Forest Parkway	E-W	N/A	
B6	Roundabout Improvements	Kerry Forest Parkway	At Shannon Lakes Drive		N/A	N/A	N/A	See Description for Improvements

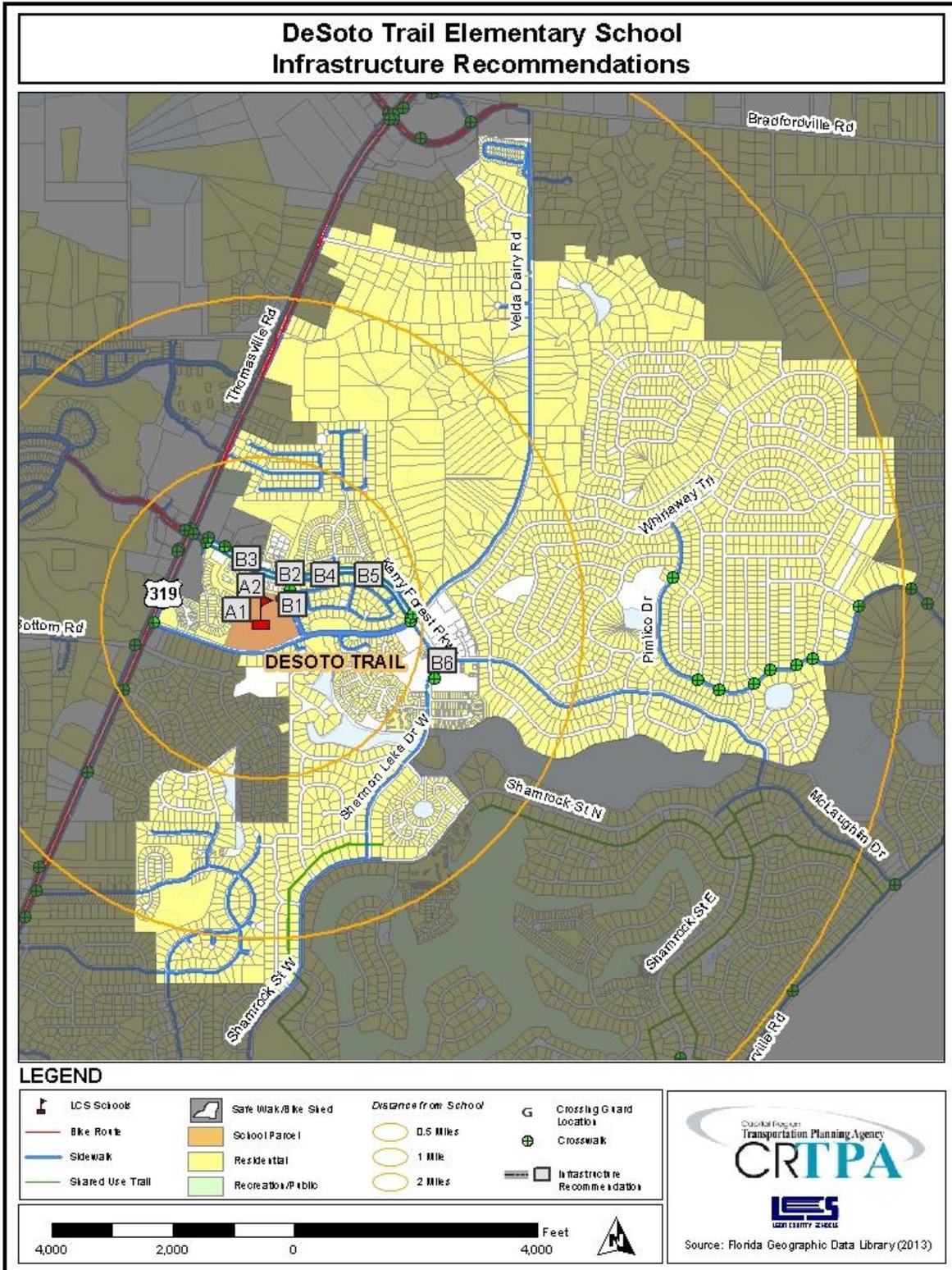
The table, above, corresponds to an infrastructure recommendations map on the following page.

### On-Site Recommendations

- A1) Move middle bicycle rack – There are three existing bicycle racks located near the parent pick-up/drop-off zone at the school. The middle bicycle rack should be moved because it appears that there is not enough room between the racks for students to use the middle bicycle rack. Suggestions for relocating the middle rack include placing it along the building or behind the northern bicycle rack. During the on-site visit, student’s bicycles were only parked on the two outside racks.
- A2) Bicycle helmet rack – A bicycle rack would be a beneficial add-on to the existing bicycle rack area at the school. Of the bikes parked at the school during the on-site visit, almost all had a helmet hanging on the handlebars. A bicycle rack helmet will allow safe storage of student’s helmets and decrease the chances of helmets falling off of the bikes and getting damaged.

### Off-Site Recommendations

- B1) Stripe the existing crosswalk at the intersection of Tredington Park Drive & Umlerland Drive. This is the only designated bike/ped entrance onto campus so it should be made more visible to bring increased attention to children who may be crossing the street.
- B2) Stripe the existing crosswalk at the intersection of Kerry Forest Parkway & Tredington Park Drive. Striping the crosswalk will help bring increased attention to children who may be crossing the street.
- B3) Extend the school zone signage to approximately 600 feet west of the current signage on Kerry Forest Parkway and eastward to Appledore Lane. The existing school zone is quite small at only around 450 feet and while the posted speed limit on the roadway is 30 mph there are concerns from parents about vehicles speeding in this area.
- B4) Relocate the existing school zone sign utility poles, where possible. The existing poles used to hold the overhead “School Zone” signs are directly in the bicycle paths along Kerry Forest Parkway, which may create an unsafe situation for younger students using the paths.
- B5) Bicycle/pedestrian pavement markings on the existing multi-use path on Kerry Forest Parkway will help elementary-aged students know which of the two paths they should be using depending on their commute mode. While there is existing signage on the paths, younger children may not be able to read the sign or see the sign adequately do to their height.
- B6) Improvements to the Kerry Forest Parkway/Shannon Lakes Drive roundabout include:
- Repainting existing crosswalks at the roundabout – some are faded and may be difficult for motorists to see while driving
  - Add landscaping to middle of roundabout and reduce width of pavement – drivers may feel inclined to speed around the roundabout if they have clear sight lines across the circle. Some landscaping will help slow them down and make them more cautious as they proceed.



## 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; and/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.
- C3) Parent drop-off/pick-up zone protocol encouragement– Send home literature to parents, as well as make it available on the school website, about the proper drop-off and pick-up process for the school, particularly at the start of a new school year or after an extended school break. Maps of the drop-off/pick-up zone, as well as, the traffic flow pattern can be very helpful to parents. The literature available to parents should remind them to be patient and courteous to other parent drivers and clearly discourage parents from letting children out in the parking lot before the drop zone, releasing them on the side of the road, or parking on the side of the road (to wait for their child). Providing small rewards, such as stickers or pencils, to students whose parents follow the proper drop-off/pick-up process is typically more beneficial than punishing improper behavior. If necessary, educational flyers could be placed on the windshields of vehicles illegally parked to remind parents of the proper rules and procedures.
- C4) Additional crossing guards – Crossing guards are currently available at the intersection of Tredington Park Drive & Umland Drive as well as Tredington Park Drive & Kerry Forest Parkway. Parent surveys expressed concern form more crossing guards during school commuting times. A suggested locations for an additional crossing guard includes the roundabout located at Kerry Forest Parkway & Shannon Lakes Drive.

## Policies

- D1) Bike check and security – School policies to encourage bicycle riding could include having a school official or parent volunteer at the bike rack in the morning and afternoon to check-in and check-out students parking their bikes. The adult assigned to handle check-in and check-out will assist with locking the bike in the morning and will unlock the bike for the students in the afternoon. The existing bike rack is in a relatively secure, visible spot; however, theft is still a concern. The school should consider investing in basic, school-owned bike locks that can be applied when students check-in. By having locks available at school, students do not need to remember to bring one each day. Basic locks can be purchased fairly cheap.
- D2) School bus and daycare van shared zone – Currently, day care vans use a small parking lot located just north of the school bus zone to load and unload students during commuting hours. Considering that there are only about four school buses that serve the school each day, it may be more efficient to allow the day care vans to use the school bus lane instead of parking and waiting for students. Additionally, this may help free up some parking spots for faculty/parents.

### Planning-Level Cost Estimates

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

**General Unit Cost Estimates<sup>1</sup>**

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

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

## Chapter 7: Conclusion

Currently, DeSoto Trail Elementary School does not have high walking and bicycling commuting rates for students. Overall, approximately 3% of students commute to and from school by walking and similarly less than 1% of students bicycle to and from school.

Several reasons for low walking and bicycling rates to school were 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 for the condition and/or lack of sidewalks and crosswalks as well as speeding vehicles, particularly on Kerry Forest Parkway and Velda Dairy Road. However, parents indicated that accompanying children (by themselves/other parents), living closer to school and the availability of crossing guards during school commuting times were factors that might influence their decision to allow their children to walk or bicycle to school.

For those students within a relatively safe walking and bicycling distance to school, opportunities to improve student walking and bicycling rates are rooted primarily in infrastructure improvements including but not limited to crosswalk and sidewalk improvements. Additionally, informational and educational programmatic solutions as well as policies that encourage walking and 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, policy suggestions are included in this audit report to address better management and enforcement within the parent drop-off/pick-up area. While walking and bicycling commute rates to and from school are low now, there are measures for which the school can take that will help to improve walking and bicycling safety and increase non-motorized commuting rates.

# Appendices

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## Appendix A: Student Travel Survey

### Leon County Schools

#### STUDENT TRAVEL SURVEY

NAME OF SCHOOL: \_\_\_\_\_

**Dear Teacher:**

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

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

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

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

TEACHER'S NAME: \_\_\_\_\_ GRADE: \_\_\_\_\_

DATE: \_\_\_\_\_ NUMBER OF STUDENTS IN CLASS TODAY: \_\_\_\_\_

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

**Note to Principals:**

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

**Capital Region Transportation Planning Agency**

## Appendix B: Student Travel Survey – Detailed Analysis

The survey consisted of a one-page sheet with a script of questions for homeroom teachers to read to students as they took morning attendance. Surveys were conducted each morning during a typical week of the school year for a total of five straight days, Monday to Friday. The script prompted teachers to ask and record the number of children in their class that came to school by walking, bicycling, car, school bus, or city bus. The student travel survey was conducted in February, 2013. Twenty-nine classrooms participated in the survey for a total of 572 student responses recorded. In a few instances, surveys were conducted within overlapping multiple grade level classrooms. Those instances are noted where relevant to the data results.

### SUMMARY OF STUDENT TRAVEL SURVEY POPULATION

<b>Total Number of Participating Classrooms</b>	29
<b>Total Students Surveyed (K-5<sup>th</sup>)</b>	572
<b>Total K-2<sup>nd</sup> Students Surveyed</b>	301
<b>Total 3<sup>rd</sup>-5<sup>th</sup> Students Surveyed</b>	271

### 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 2% to 3%, with an overall average of 3%. Overall, the bike-to-school average for the week ranged from <1% to 1%, with an overall average of less than one percent. Of the students that bike to school, an overall average of 100% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 3% to 3%, with an overall average of 3%.

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

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

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

The younger-aged (K-2<sup>nd</sup>) children student travel surveys indicate that the walk-to-school average for the week ranged from 2% to 2%, with an overall average of 2%. None of the students surveyed reported biking to school. In total, the combined walk-bike average for the week ranged from 2% to 2%, with an overall average of 2%.

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

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

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

The older-aged (3<sup>rd</sup>-5<sup>th</sup>) children student travel surveys indicate that the walk-to-school average for the week ranged from 2% to 3%, with an overall average of 3%. 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 3% to 4%, with an overall average of 3%.

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

	Walk	Bicycle	Helmet Use	Total Walk + Bike
<b>Average Overall</b>	3 %	1 %	100 %	3 %
<b>Highest Day</b>	3 %	1 %	100 %	4 %
<b>Lowest Day</b>	2 %	<1 %	100 %	3 %

**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 travel surveys indicate that the automobile-to-school average for the week ranged from 85% to 89%, with an overall average of 87%. 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 the week

ranged from 8% to 12%, with an overall average of 10%. None of the students surveyed reported riding a public bus to school.

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

	<b>Automobile</b>	<b>Seat Belt</b>	<b>School Bus</b>	<b>Public Bus</b>
<b>Average Overall</b>	87 %	94 %	10 %	0 %
<b>Highest Day</b>	89 %	96 %	12 %	0 %
<b>Lowest Day</b>	85 %	92 %	8 %	0 %

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

The younger-aged (K-2<sup>nd</sup>) children student travel surveys indicate that the automobile-to-school average for the week ranged from 88% to 91%, with an overall average of 89%. Of the students that ride to school in an automobile, an overall average of 97% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 7% to 9%, with an overall average of 9%. None of the students surveyed reported riding a public bus to school.

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

	<b>Automobile</b>	<b>Seat Belt</b>	<b>School Bus</b>	<b>Public Bus</b>
<b>Average Overall</b>	89 %	97 %	9 %	0 %
<b>Highest Day</b>	91 %	99 %	9 %	0 %
<b>Lowest Day</b>	88 %	95 %	7 %	0 %

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

The older-aged (3<sup>rd</sup>-5<sup>th</sup>) children student travel surveys indicate that the automobile-to-school average for the week ranged from 82% to 87%, with an overall average of 85%. Of the students that ride to school in an automobile, an overall average of 90% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 10% to 14%, with an overall average of 12%. None of the students surveyed reported riding a public bus to school.

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

	<b>Automobile</b>	<b>Seat Belt</b>	<b>School Bus</b>	<b>Public Bus</b>
<b>Average Overall</b>	85 %	90 %	12 %	0 %
<b>Highest Day</b>	87 %	94 %	14 %	0 %
<b>Lowest Day</b>	82 %	87 %	10 %	0 %

## 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
	1	2	3	4	5	
a) Accompanied by other children	1	2	3	4	5	NA
b) Accompanied by myself or other parents	1	2	3	4	5	NA
c) Schools provided more walking and bicycling safety training for students	1	2	3	4	5	NA
d) Additional crossing guards were provided at busy intersections	1	2	3	4	5	NA
e) Crossing guards were more effective	1	2	3	4	5	NA
f) There were continuous sidewalks or bike paths from my neighborhood to school	1	2	3	4	5	NA
g) There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school	1	2	3	4	5	NA
h) We lived closer to school	1	2	3	4	5	NA
i) Speed limits were strictly enforced in school speed zones	1	2	3	4	5	NA
j) School speed zones were marked with flashing signs	1	2	3	4	5	NA
k) School speed zones were a greater distance surrounding school	1	2	3	4	5	NA
l) The school provided a secure place for storing bicycles	1	2	3	4	5	NA
m) There was a greater adult presence of parent volunteers or police officers along walk routes to school	1	2	3	4	5	NA
n) There was better street lighting along walk routes to school	1	2	3	4	5	NA
o) Please write below any additional factors that might influence you to let your child walk or bicycle to school more often:						

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**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 165 parent surveys returned. Of those, 108 (65%) 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 60/40 by grade level grouping, with 62 students representing Kindergarten through 2<sup>nd</sup> Grade, and 46 students representing 3<sup>rd</sup> Grade through 5<sup>th</sup> Grade.

### SUMMARY OF PARENT SURVEY PARTICIPATION

<b>Total Enrollment</b>	598
<b>Total Number of Parent Surveys</b>	165
<b>Total Number within 2 Miles (K-2<sup>nd</sup> Grade)</b>	62
<b>Total Number within 2 Miles (3<sup>rd</sup>-5<sup>th</sup> Grades)</b>	46
<b>Percentage of Surveys within 2 Miles</b>	65 %

### Commuting to/from School

Parents were asked how their child usually traveled to and from school, in the morning and afternoon. Choices of travel modes included: school bus, car, walk, bicycle, public bus, and other (where they were asked to explain).

**SUMMARY OF SCHOOL-WIDE COMMUTING RESULTS**

<b>Morning</b>	<b>Average Overall</b>
Car	81 %
School Bus	13 %
Walk	5 %
Bicycle	1 %
Other	1 %
Public Bus	0 %
<b>Afternoon</b>	
Car	59 %
School Bus	23 %
Other	13 %
Walk	4 %
Bicycle	1 %
Public Bus	0 %

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

The surveys of parents of younger-aged (K-2<sup>nd</sup> grade) indicate that the car-to-school average for a typical week is 81% in the morning and decreases to 60% in the afternoon. The school bus-to-school average for a typical week is 13% in the morning and 19% in the afternoon. The walk-to-school for a typical week is 5% in the morning and 3% in the afternoon. The alternative commute mode-to-school average for a typical week is 2% in the morning and increases to 18% in the afternoon. None of the students ride a bicycle or public bus in the morning or afternoon.

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

<b>Morning</b>	<b>Average Overall</b>
Car	81 %
School Bus	13 %
Walk	5 %
Other	2 %
Bicycle	0 %
Public Bus	0 %
<b>Afternoon</b>	
Car	60 %
School Bus	19 %
Other	18 %
Walk	3 %
Bicycle	0 %
Public Bus	0 %

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

The surveys of parents of older-aged (3<sup>rd</sup>-5<sup>th</sup> grade) indicate that the car-to-school average for a typical week is 80% in the morning and decreases to 59% in the afternoon. The school bus-to-school average for a typical week is 13% in the morning and rises to 28% in the afternoon. The walk-to-school and bike-to-school averages for a typical week are 4% and 2% in both the morning and afternoon, respectively. None of the students ride a public bus in the morning or afternoon. Also, none of the students use an alternative commute mode in the morning. However, 7% use an alternative commute mode in the afternoon.

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

<b>Morning</b>	<b>Average Overall</b>
Car	80 %
School Bus	13 %
Walk	4 %
Bicycle	2 %
Public Bus	0 %
Other	0 %
<b>Afternoon</b>	
Car	59 %
School Bus	28 %
Other	7 %
Walk	4 %
Bicycle	2 %
Public Bus	0 %

**Neighborhood Safety Concerns**

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

**SUMMARY OF TOP RANKING NEIGHBORHOOD SAFETY CONCERNS**

<b>Neighborhood Safety Concern</b>	<b>Number of Comments</b>
Speeding Vehicles	25
Issues with Sidewalks/Walking	19
Issues with Transportation Outside of School Zone	15

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

Neighborhood safety concerns for parents of younger-aged (K-2<sup>nd</sup>) children include 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 speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Kerry Forest Parkway, Thomasville Road, and Velda Dairy Road. Parents also mentioned speeding near neighborhood entrances and vehicles speeding in the presence of crossing guards. Additionally, there were approximately 12 comments of concern regarding issues with sidewalks. General concerns include the lack of sidewalks and crosswalks and sidewalks that are too close to major traffic with no separation barrier. Specific locations where sidewalks tend to be a problem are near Whirlaway Trail, Velda Dairy Road, and Hill Gail Trail. Lastly, there were 11 comments of concern regarding transportation outside of the school zone. General concerns include unreliable morning buses, major roads with high traffic, and dangerous intersections. Specific locations where transportation tends to be a problem are the Velda Dairy Road and the roundabout at the Kerry Forest Parkway & Shannon Lakes Drive North intersection, as well as, Thomasville Road.

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

<b>Neighborhood Safety Concern</b>	<b>Number of Comments</b>
Speeding Vehicles	12
Issues with Sidewalks/Walking	12
Issues with Transportation Outside of School Zone	11

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

Neighborhood safety concerns for parents of older-aged (3<sup>rd</sup>-5<sup>th</sup>) children also include issues with speeding vehicles, sidewalks, and issues with transportation outside of the school zone. There were approximately 13 comments of concern regarding speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Kerry Forest Parkway, Thomasville Road, Velda Dairy, and Whirlaway Trail. Additionally, there were approximately seven comments of concern regarding issues

with sidewalks. General concerns include the lack of sidewalks on both sides of streets and broken sidewalks. Some parents noted that some streets just feel unsafe to walk or bike such as Velda Dairy Road. Other locations where sidewalks are a problem are Bantry Bay Drive and Whirlaway Trail. Lastly, there were four comments of concern regarding issues with transportation outside of the school zone. General concerns include the lack of crossing guards, unreliable morning school bus, and major roads with high traffic. Specific locations mentioned by parents were Velda Dairy Road and Kerry Forest Parkway.

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

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	13
Issues with Sidewalks/Walking	7
Issues with Transportation Outside of School Zone	4

**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 Influential Factors**

Influential factors such as accompanying children (by themselves/other parents), living closer to school and the availability of crossing guards were mutually agreed upon by parents from both Kindergarten through 2<sup>nd</sup> and 3<sup>rd</sup> through 5<sup>th</sup>. However, parents of younger-aged children showed more concern with bicycle/pedestrian pathways that were continuous and separated from traffic while parents of older-aged children showed more concern with having a great adult presence along walk routes and enforcing speed limits.

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

	SCALE	1	2	3	4	5	N/A
<b>I would allow my child to walk or bicycle to school more often if:</b>							
<i>#1 Accompanied by myself or other parents</i>		3	1	4	8	56	9
<i>#2 We lived closer to school</i>		7	2	10	7	40	14
<i>#3 Additional crossing guards were provided at busy intersections</i>		6	6	6	5	37	19

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

Parents of children in Kindergarten through 2<sup>nd</sup> grade agreed that the top five 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 continuous and separated bicycle/pedestrian pathways, living closer to school, and the availability of crossing guards.

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

	SCALE	1	2	3	4	5	N/A
<b>I would allow my child to walk or bicycle to school more often if:</b>							
<i>#1 Accompanied by myself or other parents</i>		1	0	1	2	34	7
<i>#2 There were continuous sidewalks or bike paths from my neighborhood to school</i>		3	0	6	4	23	9
<i>#3 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school</i>		4	1	2	8	21	9
<i>#4 We lived closer to school</i>		5	2	6	4	19	8
<i>#5 Additional crossing guards were provided at busy intersections</i>		4	5	3	5	16	11

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

Parents of children in 3<sup>rd</sup> through 5<sup>th</sup> grade agreed that the top five 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 a greater adult presence along routes to school, living closer to school, availability of crossing guards, and enforcing speed limits in school zones.

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

	SCALE	1	2	3	4	5	N/A
<b>I would allow my child to walk or bicycle to school more often if:</b>							
<i>#1 Accompanied by myself or other parents</i>		2	1	3	6	22	2
<i>#1 There was a greater adult presence of parent volunteers or police officers along walk routes to school</i>		1	3	5	2	22	3
<i>#2 We lived closer to school</i>		2	0	4	3	21	6
<i>#2 Additional crossing guards were provided at busy intersections</i>		2	1	3	0	21	8
<i>#3 Speed limits were strictly enforced in school speed zones</i>		1	0	2	7	19	5