August 2014

Safe Routes to School Audit Report
Montford Middle School

Leon County
Public Schools

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Acknowledgements

Renaissance Planning Group and Wendy Grey Land Use Planning, LLC would like to thank the following organizations for their input, guidance, and resources in developing this Safe Routes to School Audit report for Montford Middle 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 polices. This SRTS audit includes an array of considerations formulated from a range of research and analytical tools employed to better understand and comprehend the issues and concerns affecting current walking and bicycling rates of student to and from school. This report highlights a summary of students' school travel patterns through in-class student travel surveys, parent self-reported surveys, on-site meetings with school officials, and field reviews.

School Overview

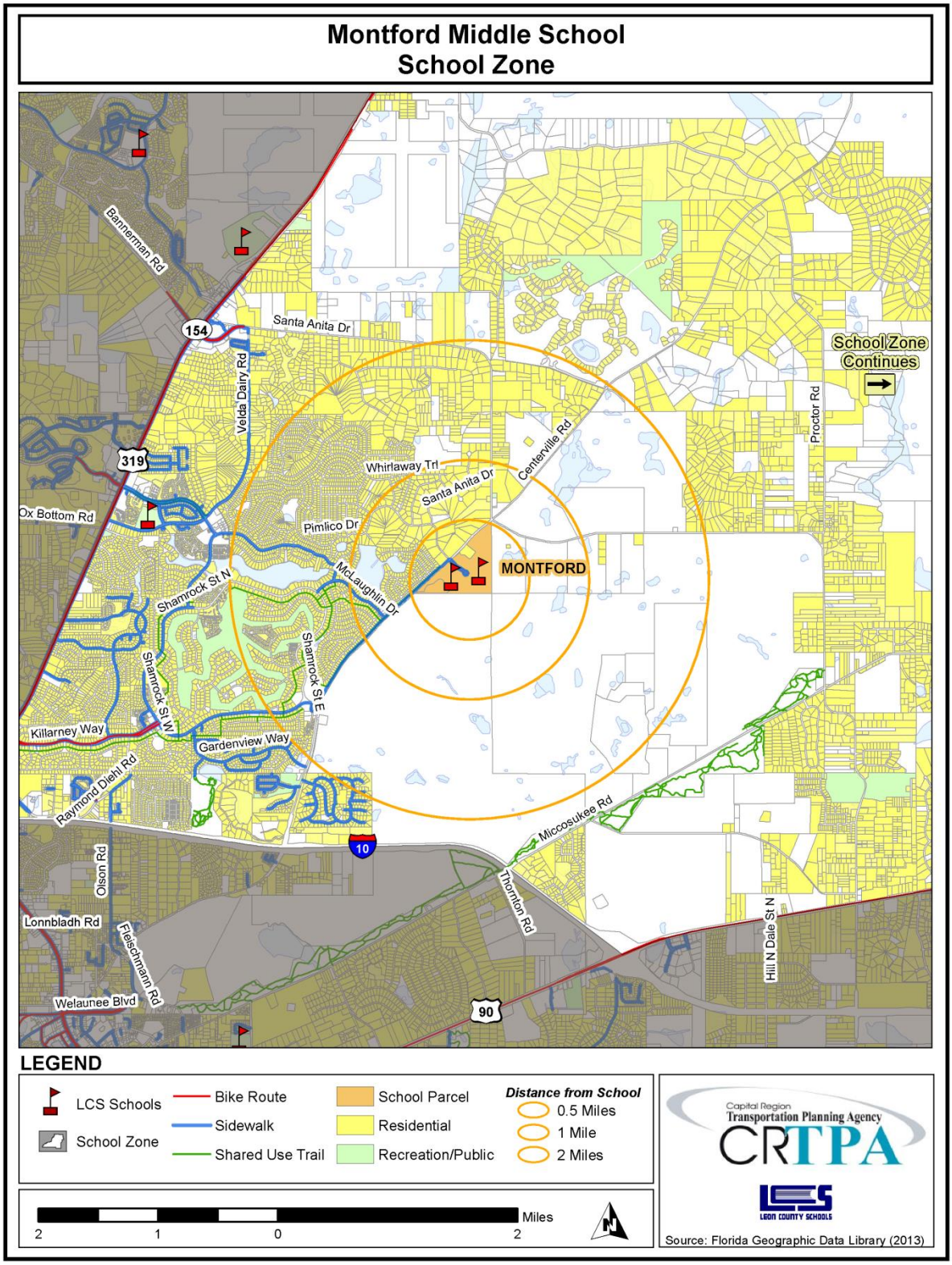
Montford Middle School is located at 5789 Pimlico Drive, Tallahassee, 32309 in Leon County, Florida. It is part of the Leon County Public Schools system. Regular school hours are from 9:30am to 3:50pm. A before school program is offered from 7:45am to 9:00am. In addition, an after school program is available from 4:00pm to 6:00pm.

The number of students enrolled at the school, for the 2013 school year, was 1,140. The school has a current capacity for 584 students. The school includes grade levels 6th to 8th grade.

Students attending this school feed from Desoto Trail, Gilchrist, W.T. Moore, and Roberts Elementary Schools and either to Chiles or Lincoln High Schools.

School Zone

The Montford Middle school zone, located in northeastern Leon County, encompasses the neighborhoods of Sawgrass Plantation, Killearn Estates, Whitfield Plantation, Royal Oaks, Foxcroft, Killearn Acres, and Tredington Park. Land uses in the school zone are predominantly residential with some recreation uses. However, a significant portion of the school zone is vacant. The Montford school zone includes three major roadways. Interstate-10 runs east to west and borders the zone to the south. Thomasville Road runs slightly southwest to northeast and borders the zone to the west. Centerville Road also runs slightly southwest to northeast and bisects the zone into east and west. There are two other Leon County schools within the zone including Roberts Elementary School on Pimlico Drive and Desoto Trail Elementary School on Velda Dairy Road. Recreational facilities within the school zone include the Miccosukee Greenway Trail and the Killearn golf course.


Montford Middle School
School Zone
Bannerman Rd
154
Santa Anita Dr
Velda Dairy Rd
School Zone
Continues
Proctor Rd
319
Whirlaway Trl
Centerville Rd
Santa Anita Dr
Ox Bottom Rd
Pimlico Dr
MONTFORD
McLaughlin Dr
Shamrock St N
Shamrock St E
Shamrock St W
Killarney Way
Gardenview Way
Raymond Diehl Rd
Miccosukee Rd
10
Olson Rd
Thornton Rd
Lonnbladh Rd
Fleischmann Rd
Hill N Dale St N
Welaunee Blvd
90
LEGEND
LCS Schools
School Zone
Bike Route
Sidewalk
Shared Use Trail
School Parcel
Residential
Recreation/Public
Distance from School
0.5 Miles
1 Mile
2 Miles
Miles
2
1
0
2
N
Capital Region
Transportation Planning Agency
CRTPA
LEON COUNTY SCHOOLS
Source: Florida Geographic Data Library (2013)

Chapter 2: On-Site Meeting and Inventory

Date and Weather Conditions

The on-site inventory meeting was conducted on March 6th, 2013. The weather was cool with temperatures in the 50 degrees Fahrenheit.

Highlights and Key Observations of On-Site Meeting

During this visit, Montford Middle 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.

The school does not currently have a student safety patrol program or any bicycle or pedestrian safety education programs. Only students in the before school program are permitted to arrive to school as early as 7:45am; others cannot arrive until 8:45am. After-school programs are available until 6:00pm. There are safety concerns with riding bicycles on sidewalks on campus. School administrators would prefer students walk bicycles out to Pimlico Drive.

It was noted that flashing lights (i.e., school zone warning lights) are located along Centerville Road. There are three designated crossing guards at the intersection of Centerville Road & Pimlico Drive, the intersection of Centerville Road & McLaughlin Drive, as well as at the roundabout on Pimlico Drive between Roberts Elementary School and Montford Middle School. The crossing guard at the roundabout is paid for by Montford Middle School. School representatives noted that some parents pickup students from the elementary school (Roberts) parking lot, which is not condoned by either school. Although, the schools operate at different hours, this causes problems for school staff. Also, there is a problem with some parents picking up their children at Centerville Road and Donnybrook Place, where is no actual official parking area.

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.

Walking and bicycling to the school has traditionally been fairly substantial. However, during the site visit a trail that students and parents normally use to get to Pimlico Drive from Killearn Estates was closed temporarily due to a City utility project. Walkers and bicyclists can only enter campus from Pimlico Drive. The school has bicycle parking racks conveniently located near the front of the school.

The school bus drop-off and pick-up zone functions adequately and with direct access to a walking facility. Additionally, the loading and unloading zone is mostly covered. It was also noted that a temporary shuttle bus is being provided for those students who normally walk or bike to school but cannot do so due to the City utility project occurring along the trail.

The parent drop-off and pick-up zone functions adequately to accommodate the volume of automobiles entering and exiting the site. The loading/unloading zone is covered and there is direct access to a walking facility. There is a holding area available for students waiting to be picked-up. It was noted that the school handles about 600 automobiles daily.[1]

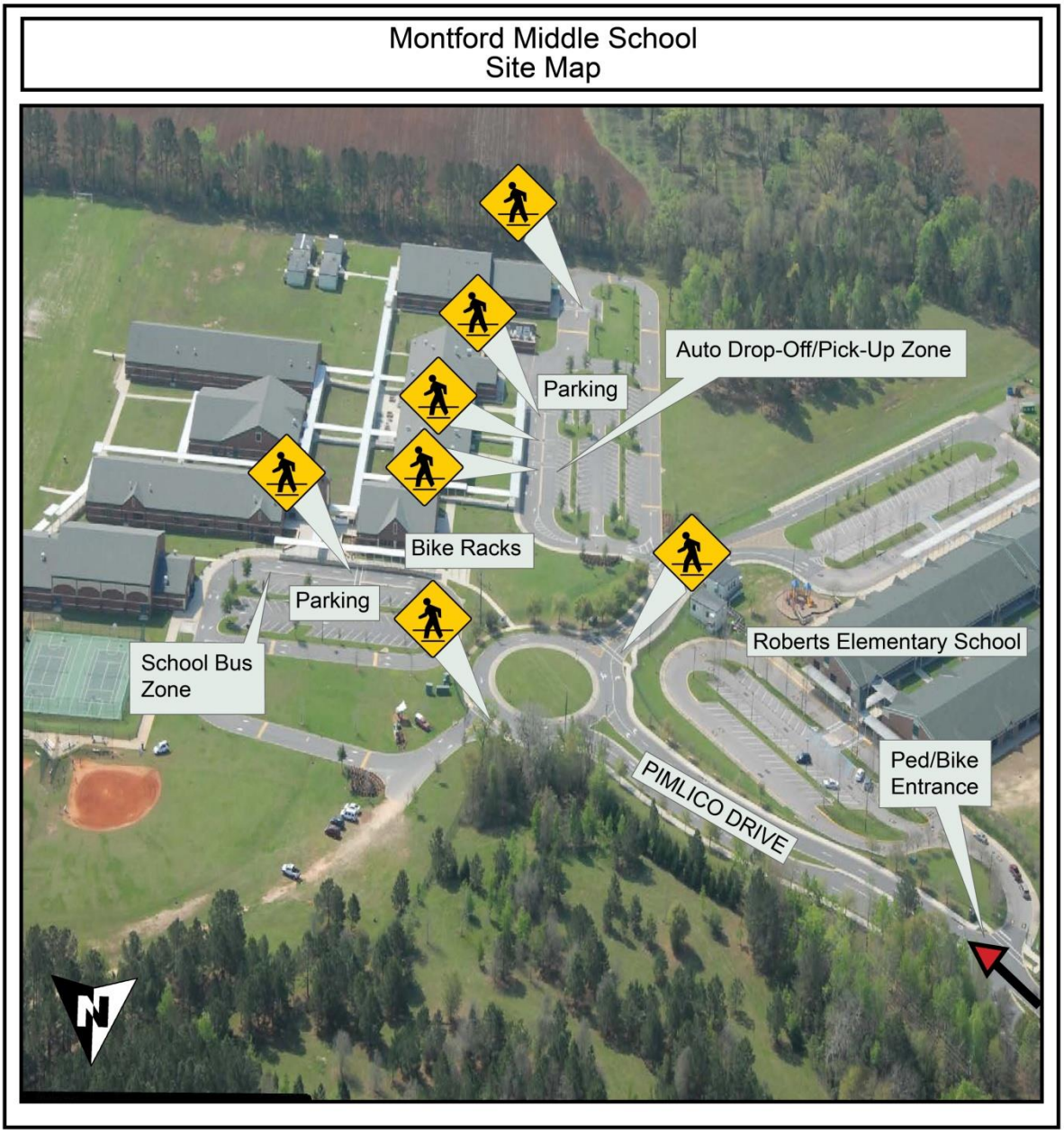
Inventory Map

An aerial photograph showing Montford Middle School is located on the following page. As shown in the photo, the school fronts Pimlico Drive. Students can access campus from Pimlico Drive via Centerville Road (not pictured). Bicycle parking racks are located near the front entrance of the school.

Standard width sidewalks are located along both sides of Pimlico Drive, from Centerville Road to the school, which connect directly to the school's main entrance. Additionally, there are several crosswalks in the immediate school property area that give students identified crossing zones through the Pimlico Drive roundabout, automobile zone, and school bus zone. Pimlico Drive, north of Centerville Road, has standard width sidewalks on only one side of the street. Additionally, there are standard width sidewalks along the non-school (northwest) side of Centerville Road, southwest of Pimlico 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 from a shared driveway (with Roberts Elementary School) along the roundabout at Pimlico Drive. Parking spaces are located in this area as well. The bus drop-off and pick-up zone is separately located along the side of the school. Buses enter and exit the zone from a shared driveway along the roundabout at Pimlico Drive. Additional parking spaces are located in this area as well.

[1] It was not specified if this was the typical number of automobiles for before or after the City utility project began.


Montford Middle School
Site Map
Auto Drop-Off/Pick-Up Zone
Parking
Bike Racks
Parking
School Bus Zone
Roberts Elementary School
PIMLICO DRIVE
Ped/Bike Entrance
N

Issues and Opportunities

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

Geography appears to be the primary issue with students' ability to walk and bicycle to school. A large portion of the area surrounding the school to the south and east is vacant or farmland, thereby, limiting the amount of residential housing within walking distance for middle school children. This kind of external factor is not something that will change in the short-term; however, there are opportunities to increase walking and bicycling infrastructure to and from existing surrounding housing west of Centerville Road.

With what opportunities that do exist to increase walking and bicycling, including student safety, consideration should be especially given to Centerville Road and Pimlico Drive. Traffic calming measures should be explored to reduce automobile speeds and increase awareness of children in the area, especially during school commuting times. Also, school-related and –supportive committees such as the Parent/Teacher 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 same groups can also help get the word out to parents of both Montford Middle School and Roberts Elementary School, concerning on-campus (and off-campus) issues, such as appropriate behavior and protocol for dropping-off and picking-up students. There is the possibility of reconfiguring the parking area for the two schools, as a way to make the current ad hoc situation work more efficiently. In the mean time, continued education and enforcement during the morning and afternoon commute hours are critical.

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 6th to 8th 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**.)

The survey indicates that nearly half of students at Montford Middle School are dropped-off at school by car. Riding a school bus and walking to school ranked a close second and distant third place at approximately 46 percent and four percent of students, respectively. A low percentage of students, only one percent, reported biking to school and less than one percent arrived to school by public bus. (To note, there are no public buses within a reasonable distance to the school.) (A detailed description of the analysis by mode can be found in **Appendix B**.)

SUMMARY OF SCHOOL-WIDE RESULTS

	Walk	Bicycle	Automobile	School Bus	Public Bus
Average Overall	4 %	1 %	49 %	46 %	<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 6th-8th Grade. (A detailed description of results for the parent surveys can be found in **Appendix D**.)

The surveys of students living within two miles from the school indicate that a greater percentage of Montford Middle School students arrive to school by car in the morning, while fewer return home by the same mode in the afternoon. The car-to-school average for a typical week is 42% in the morning and decreases to 31% in the afternoon. In the afternoon, there are a greater percentage of students returning walking. Overall, approximately one out of three students commutes to and from school by walking or biking. The school bus-to-school average for a typical week is 25% in both the morning and afternoon. The walk-to-school and bike-to-school averages for a typical week are 19% and 15% in the morning and 29% and 15% in the afternoon, respectively. None of the students rode a public bus or used an alternative commute mode in the morning or afternoon.

Neighborhood safety concerns for parents of middle-school-aged (6th-8th) children include three main concerns including issues with speeding vehicles, sidewalks/walking, and transportation outside of the school zone. There were 15 comments of concern regarding issues with speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Pimlico Drive, Centerville Drive, and Bradfordville Road. Parents also mention vehicles speeding in the school zone and residential neighborhoods such as Donnybrook in Killearn Estates. Additionally, there were 12 comments of concern regarding issues with sidewalks and walking. General concerns include the lack of sidewalks, sidewalks too close to major roads, and walk routes that are isolated due to woods. Lastly, there were four comments of concern regarding issues with transportation outside of the school zone.

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 having separated and continuous bicycle/pedestrian pathways, accompanying children (other children), having a greater adult presence along walk routes to school, and enforcing speeding limits were agreed upon by parents from 6th-8th grade.

Chapter 5: Neighborhood Field Review

A neighborhood field review was conducted on February 26th, 2013. The review consisted of an assessment of accessibility, connectivity and safety along neighborhood roadways within proximity to Montford Middle School. On the day of the field review, the weather was rainy with temperatures in the mid 60's degrees Fahrenheit. Following the field review, a walk/bike shed area was delineated on a map within the school zone, surrounding the school. This chapter includes a Walk/Bike Shed section describing the approach to defining the area and an associated map for Montford Middle School.

Character of Neighborhood Area

Montford Middle School is located in a mostly suburban residential neighborhood primarily comprised of low-density, single-family homes. The neighborhood street pattern throughout the area is mostly residential cul-de-sacs and curved streets that connect to residential collector roadways in a semi-gridded manner. For the most part, there is a pretty good sidewalk network on streets that are busiest. Streets without sidewalks in the neighborhoods are still very walkable due to low traffic volumes and their residential nature. However, most roads northeast, past Pimlico Drive, are not suitable for walking or bicycling due to the lack of bike/ped infrastructure and higher speeds. The shared-use Killearn Trails run throughout the Killearn Country Club neighborhood and extend along Centerville Road to the school, providing a well-connected bike-ped network throughout the neighborhood.

A major roadway in the school zone includes:

- Centerville Road, a two-lane undivided roadway with a posted speed limit of 35mph.
- Bradfordville Road, a two-lane undivided roadway with a posted speed limit of 35 mph.

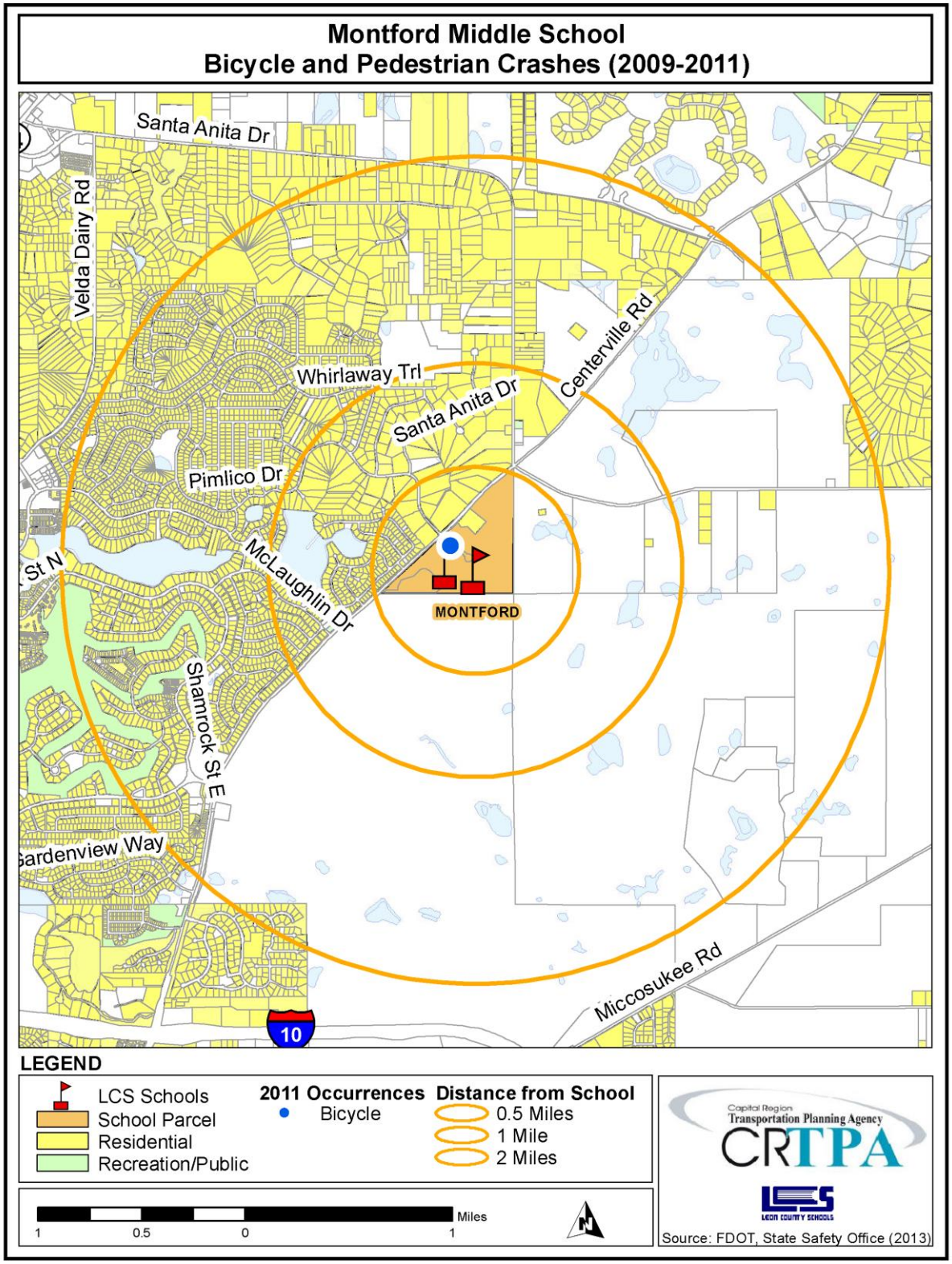
Crash Data

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, 7:00A to 9:30A and 1:50P to 4:20P, and school days, Monday to Friday, were examined.

There was one bicycle crash that occurred within the theoretical two-mile walk/bike radius of Montford Middle School. The crash occurred during the afternoon and injuries were reported. The crash involved a child and occurred at the intersection of Centerville Road and Pimlico Drive, immediately in front of Montford Middle School.

SUMMARY OF CRASH REPORTS (2009-2011)

Date	Time	Day	On Road	Nearest Intersection	Injury or Fatality?	Type of Crash	Person(s) Involved
05/05/11	4:15P	Thursday	Centerville Rd.	Pimlico Dr.	Injury	Bicyclist	Child


Montford Middle School
Bicycle and Pedestrian Crashes (2009-2011)
Santa Anita Dr
Velda Dairy Rd
Whirlaway Trl
Santa Anita Dr
Centerville Rd
Pimlico Dr
McLaughlin Dr
MONTFORD
Shamrock St E
Miccosukee Rd
10
LEGEND
LCS Schools
School Parcel
Residential
Recreation/Public
2011 Occurrences
Bicycle
Distance from School
0.5 Miles
1 Mile
2 Miles
Miles
1
0.5
0
1
Capital Region Transportation Planning Agency
CRTPA
LEON COUNTY SCHOOLS
Source: FDOT, State Safety Office (2013)

Neighborhood Assessment

Montford Middle School can be considered a neighborhood school, in part, as it services surrounding nearby neighborhoods within relative close proximity. However, the school's campus on the southeast side of Centerville Road, opposite of the neighborhoods within proximity, does pose certain safety concerns, as students are required to cross an active major roadway for access. The current pedestrian and bicycle infrastructure along Pimlico Drive and Centerville Road, southwest of Pimlico Drive, help to improve the safety and accessibility tremendously. Unfortunately, however, neighborhoods within a reasonable walking and bicycling distance to the northwest along Bradfordville Road and northeast along Centerville Road are not so fortunate.

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 Montford Middle School walk/bike shed map is included on page 14.

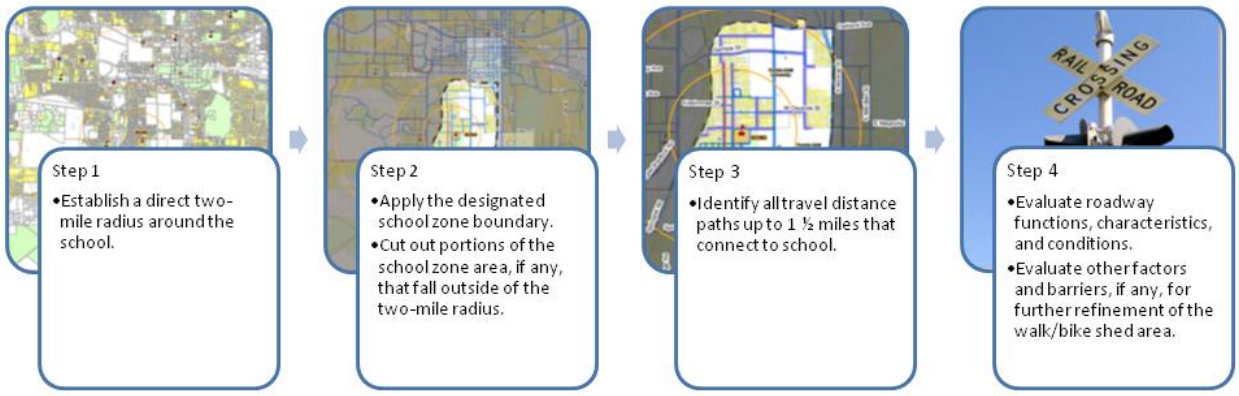
The walk/bike shed area and associated map are not meant to suggest that middle school students of all ages, maturity level, and experience should commute to and/or from school within the area delineated. Certainly, all students are not expected to walk or bike to school from practically any distance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

The walk/bike shed for Montford Middle School mostly extends west and southwest from the school. Centerville Road generally forms the eastern limits of the walk/bike shed because there is a lack of residential land uses to the east. Considering the distance middle-school-aged students can be expected to travel on foot or bicycle, the walk/bike shed extends approximately two miles west of Centerville Road into the Killearn Acres and Killearn Estates neighborhoods where there are local, neighborhood streets. Neighborhoods further north of Killearn Acres were excluded from the walk/bike shed due primarily to their lack of thru streets.

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 middle 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.

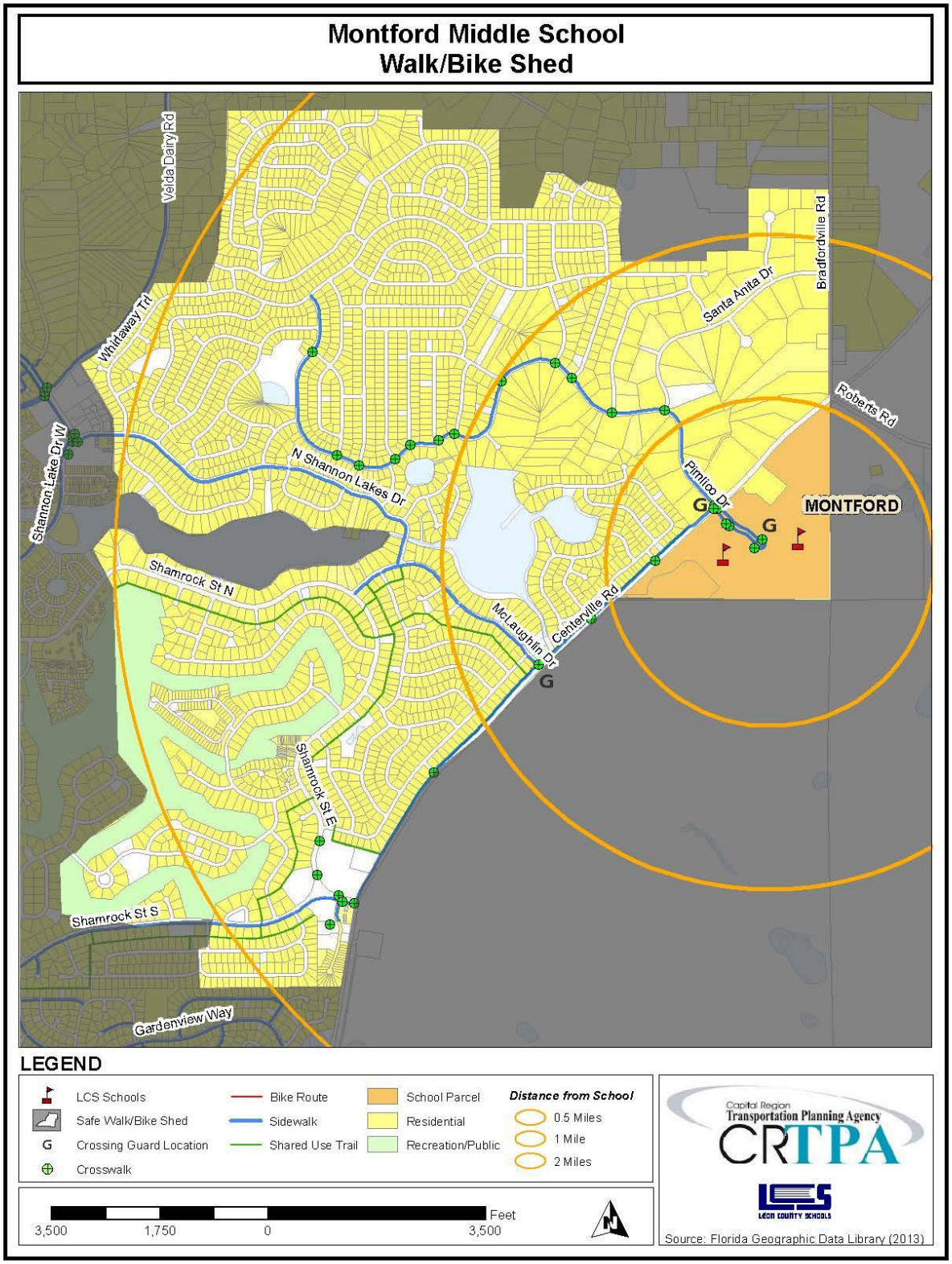
Travel Along Roadways				
Sidewalk Type	**Hazardous Conditions**			
	Type of Road	**Posted Speed Limit**	**Peak Hour Traffic**	**Length**
< 2' wide sidewalk OR without sidewalk	All roadways other than local, neighborhood streets	N/A	N/A	Exceeding 0.5 miles in length
</= 3' wide sidewalk OR </= 4' separation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

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


Montford Middle School
Walk/Bike Shed
Velda Dairy Rd
Whidaway Trl
Shannon Lake Dr W
N Shannon Lakes Dr
Shamrock St N
Shamrock St E
Shamrock St S
Gardenview Way
McLaughlin Dr
Centerville Rd
Pimlico Dr
Santa Anita Dr
Bradfordville Rd
Roberts Rd
MONTFORD
G
LEGEND
LCS Schools
Safe Walk/Bike Shed
Crossing Guard Location
Crosswalk
Bike Route
Sidewalk
Shared Use Trail
School Parcel
Residential
Recreation/Public
Distance from School
0.5 Miles
1 Mile
2 Miles
3,500
1,750
0
3,500
Feet
Capital Region Transportation Planning Agency
CRTPA
Source: Florida Geographic Data Library (2013)

Chapter 6: Findings and Recommendations

The existing points of access for walkers and bicyclists to Montford Middle School provide efficient access onto campus. Pimlico Drive was designed specifically to accommodate such functions. This is also true for those requiring or desiring automobile or school bus access. The sole roadway corridor linking to Pimlico Drive is Centerville Road, for which school representatives expressed concerns with speeding automobiles. Other than Centerville Road, there appear to be few issues with safety or convenience relative to walking and bicycling to Montford Middle School.

The primary issues experienced by school representatives include bicycles riding along sidewalks on campus; parents parking near the Centerville Road and Donnybrook Place intersection to pick-up students; and parents using the Roberts Elementary School parking lot to pick up students so to avoid the official drop-off / pick-up zone. Regarding the latter, even though the schools operate at different hours, this causes problems for school staff. It would benefit both schools to work together to study the issues and come up with joint solutions to resolve the problem.

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 same groups can also help get the word out to parents of both Roberts Elementary School and Montford Middle School concerning on-campus issues such as appropriate behavior and protocol for dropping-off and picking-up students. This chapter includes some policy and programmatic recommendations for the school's consideration that might help to ease some of these concerns while increasing walking and bicycling to and from school.

Finally, there is a sizeable area surrounding Montford Middle School that is currently used for agriculture purposes or is vacant and undeveloped. It is uncertain as to how much, if any, of this land will eventually be developed. Montford Middle School along with Roberts Elementary School and the Leon County School Board should be prepared to engage future developers and local agencies regarding desired pedestrian and bicycle-related infrastructure connections as well as automobile circulation plans that could impact Pimlico Drive.

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 Montford Middle School. They include both on- and off-site improvements as follows:

Montford Middle School On- and Off-Site Recommendations

	Improvement: On-Site	Location	From	To	Geography	Direction	Length	Comments
A1	Study parking/circulation issues and opportunities	To be determined by Montford MS and Roberts ES	N/A		N/A	N/A	N/A	Engage Roberts ES in a joint study to determine the issues and find opportunities to address parking and circulation conflicts between the two schools

	Improvement: Off-Site	Location	From	To	Geography	Direction	Length	Comments
B1	New sidewalk	Clarecastle Way	N Shannon Lakes Drive	Pimlico Drive	East side of Clarecastle Way	N-S	approx. 742’	
B2	New sidewalk	Shamrock Street North	W Shannon Lakes Drive	McLaughlin Drive	North side of Shamrock Street North	W-E	approx. 1.2 miles	
B3	New sidewalk	Shamrock Street East	McLaughlin Drive	Tralee Road	East side of Shamrock Street East	N-S	approx. 4,363’	
B4	Speed Enforcement Device	Centerville Road	N/A		Southbound side of roadway, just south of school zone speed limit sign	Southbound traffic	N/A	

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

On-Site Recommendations

A1) Parking and Circulation Study – A study focusing on parking and circulation issues and opportunities through a joint partnership between Montford Middle School and Roberts Elementary School and is highly recommended to address conflicts between the schools.

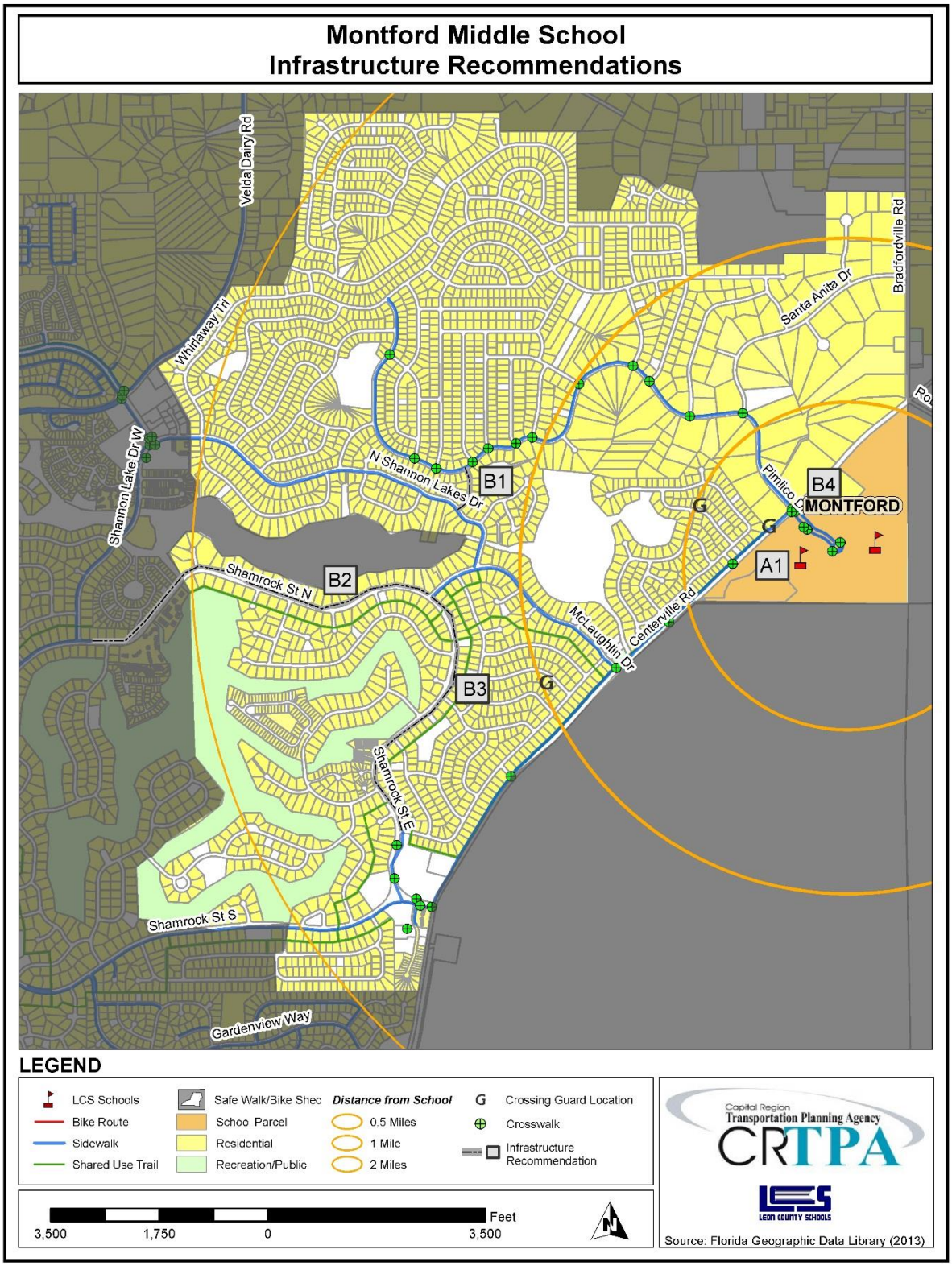
Off-Site Recommendations

B1) Construct a new sidewalk on the east side of Clarecastle Way from N Shannon Lakes Drive to Pimlico Drive.

B2) Construct a new sidewalk on the north side of Shamrock Street N from W Shannon Lakes Drive to McLaughlin Drive.

B3) Construct a new sidewalk on the east side of Shamrock Street E from McLaughlin Drive to Tralee Road.

B4) Install a speed enforcement device on the southbound side of Centerville Road near the school speed zone limit sign. The speed enforcement device will help increase driver's awareness of the school zone and children in the area during school commuting hours.


Montford Middle School
Infrastructure Recommendations
Velda Dairy Rd
Whirlaway Trl
Shannon Lake Dr W
N Shannon Lakes Dr
B1
Santa Anita Dr
Bradfordville Rd
Pimlico Dr
B4
MONTFORD
G
A1
Shamrock St N
B2
McLaughlin Dr
Centerville Rd
B3
Shamrock St E
Shamrock St S
Gardenview Way
LEGEND
LCS Schools
Bike Route
Sidewalk
Shared Use Trail
Safe Walk/Bike Shed
School Parcel
Residential
Recreation/Public
Distance from School
0.5 Miles
1 Mile
2 Miles
Crossing Guard Location
Crosswalk
Infrastructure Recommendation
Feet
3,500
1,750
0
3,500
Capital Region Transportation Planning Agency
CRTPA
LEON COUNTY SCHOOLS
Source: Florida Geographic Data Library (2013)

Programs

C1) Walk and bicycle encouragement literature – While there exists a strong percentage of students within a two-mile radius that commute by walking, rates can still be improved by sending home literature to parents, as well as making 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 participating in Walk/Bike to School Days; creating a mileage club where students or entire classrooms keep track of how much they walk or bike to school to compete for prizes or certificates; and encouraging families who normally drive to school to look for ways to safely and legally park in a parking lot away from school, but within walking distance, and then walk to school from the lot.

C2) Bicycle safety and accessibility workshop – Bicycling at the middle school level is a great option. Such rates could be further improved by organizing and holding 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, 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 drivers and clearly discourage parents from letting children out in the parking lot outside 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 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.

Policies

D1) School-Specific Safe Routes Coordinator/Advisor – Both Montford Middle School and Roberts Elementary School could benefit from having a safe routes coordinator to help accomplish

projects, jumpstart programs and implement polices to improve and diversify student commuting options and increase student safety. Given the shared proximity between the two schools, this role could be a combined role between them both and would not require a fulltime staff commitment to safe routes-related issues and needs and, thus, could possibly be performed by an existing school administrator or staff member. The safe routes coordinator would also advocate for improvements and changes before the School Board and other various agencies with transportation and funding responsibilities throughout the County. In addition, the safe routes coordinator could be assigned with seeking out potential funding sources and completing grant applications.

D2) Increased enforcement along Centerville Road – There are concerns with vehicles speeding along Centerville Road during drop-off and pick-up times. While this may be impacting student walking and bicycling rates, it also exposes a safety issue that should be addressed. Greater enforcement along with speed awareness could increase safety and improve walking and bicycling rates to and from school. Also, random, however persistent, enforcement of speed limits along Centerville Road could help to increase speed compliance overall. Also, speed record/reveal trailers that show motorists how fast they are traveling could be placed along Centerville Road, both north and south of Pimlico Drive. These temporary sign devices are known to improve speed limit compliance.

D3) Bike check and security – School policies to encourage bicycle riding could include having a school official or parent volunteer at the bike parking area 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. For further encouragement, the school should consider investing in basic, school-owned bike locks that can be applied when students check-in. By having locks available at school, students do not need to remember to bring one each day. Basic locks can be purchased fairly cheap.

Planning-Level Cost Estimates

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

General Unit Cost Estimates[2]

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
speed trailer	temporary sign board that display the speed of passing vehicles	each	9,510
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 Montford Middle School is situated off of Centerville Road, along the opposite side of most walkable and bikeable neighborhoods, the pedestrian infrastructure connecting it is mostly adequate to support students walking and bicycling to and from school. This convenience is reflected somewhat in the walking and bicycling rates to and from school. Overall, over one-third of students commute to and from school by either walking or bicycling. Compared to other schools in Leon County, this rate is admirable; however, there still exists a sizeable cohort that could be encouraged.

One thing made clear by parents is there concerns with speeding vehicles, sidewalks/walking, and transportation outside of the school zone. Factors influencing their decisions to allow their children to walk or bike to school include things such as having separated and continuous bicycle/pedestrian pathways, accompanying children (other children), having a greater adult presence along walk routes to school, and enforcing speeding limits. The recommendations included in this report attempt to address many of the sentiments expressed by parents.

It's worth noting that the multi-use trail along Centerville Road is well-separated and buffered from automobile traffic. Also, the design of this facility is, in fact, ideal for mixing motorized and non-motorized traffic along busy roadways. Either way, Centerville Road is a fairly busy roadway that encourages elevated speeds for motorists commuting to and from downtown. Regardless of walk-bike facility quality, automobile traffic can still understandably standout as an influential factor in deciding how a child commutes to school.

There are proven health benefits to children riding and bicycling to school. Besides the obvious physical fitness benefits, it has been shown that children who walk and bike to school are more alert and comprehensive in their daily learning. This is another point of education that is beneficial for parents and educators to know, as indicated in the Findings and Recommendations chapter.

Montford Middle School has most of the physical elements to improve walking and bicycling to school. Not to mention, the school is well organized when it comes to procedure and assistance in getting kids on and off campus safely and efficiently. There are, however, a few measures that should be explored to help improve overall walking and bicycling rates to and from school, as laid out in the previous chapter. These measures along with what is already occurring in and around Montford Middle School will no doubt help to improve walking and bicycling safety and increase non-motorized commuting rates.

Appendices

Appendix A: Student Travel Survey

Leon County Schools

STUDENT TRAVEL SURVEY

NAME OF SCHOOL: _____

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

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

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

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

TEACHER'S NAME: _____ GRADE: _____

DATE: _____ NUMBER OF STUDENTS IN CLASS TODAY:_____

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

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

Capital Region Transportation Planning Agency

Appendix B: Student Travel Survey – Detailed Analysis

The survey consisted of a one-page sheet with a script of questions for homeroom teachers to read to students as they took morning attendance. Surveys were conducted each morning during a typical week of the school year for a total of five straight days, Monday to Friday. The script prompted teachers to ask and record the number of children in their class that came to school by walking, bicycling, car, school bus, or city bus. The student travel survey was conducted in February, 2013. Forty classrooms participated in the survey for a total of 759 student responses recorded. Student travel survey results were counted and analyzed for the school as a whole.

SUMMARY OF STUDENT TRAVEL SURVEY POPULATION

Total Number of Participating Classrooms	40
Total Students Surveyed (6th – 8th)	759

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 4% to 5%, with an overall average of 4%. 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 32% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 4% to 6%, with an overall average of 5%.

SUMMARY OF WALKING AND BICYCLE SCHOOL-WIDE TRAVEL PATTERNS

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	4 %	1 %	32 %	5 %
Highest Day	5 %	1 %	50 %	6 %
Lowest Day	4 %	1 %	22 %	4 %

Bus and Automobile Drop-Off

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

Bus and Automobile School-Wide Travel Patterns

The school-wide student travel surveys indicate that the automobile-to-school average for the week ranged from 48% to 51%, with an overall average of 49%. Of the students that ride to school in an automobile, an overall average of 86% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 44% to 47%, with an overall average of 46%. The public bus-to-school average for the week ranged from 0% to <1%, with an overall average of less than one percent. (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	49 %	86 %	46 %	<1 %
Highest Day	51 %	89 %	47 %	<1 %
Lowest Day	48 %	83 %	44 %	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
a) Accompanied by other children	1	2	3	4	5	NA
b) Accompanied by myself or other parents	1	2	3	4	5	NA
c) Schools provided more walking and bicycling safety training for students	1	2	3	4	5	NA
d) Additional crossing guards were provided at busy intersections	1	2	3	4	5	NA
e) Crossing guards were more effective	1	2	3	4	5	NA
f) There were continuous sidewalks or bike paths from my neighborhood to school	1	2	3	4	5	NA
g) There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school	1	2	3	4	5	NA
h) We lived closer to school	1	2	3	4	5	NA
i) Speed limits were strictly enforced in school speed zones	1	2	3	4	5	NA
j) School speed zones were marked with flashing signs	1	2	3	4	5	NA
k) School speed zones were a greater distance surrounding school	1	2	3	4	5	NA
l) The school provided a secure place for storing bicycles	1	2	3	4	5	NA
m) There was a greater adult presence of parent volunteers or police officers along walk routes to school	1	2	3	4	5	NA
n) There was better street lighting along walk routes to school	1	2	3	4	5	NA
o) Please write below any additional factors that might influence you to let your child walk or bicycle to school more often:						

_____

_____

_____

_____

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Appendix D: Parent Survey – Detailed Analysis

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

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

The parent surveys were conducted during the winter/spring semester of 2013. There were 200 parent surveys returned. Of those, 48 (34%) claimed to reside within the theoretical two-mile walk/bike radius of the school.

SUMMARY OF PARENT SURVEY PARTICIPATION

Total Enrollment	653
Total Number of Parent Surveys	200
Total Number within 2 Miles	48
Percentage of Surveys within 2 Miles	34 %

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	42 %
School Bus	25 %
Walk	19 %
Bicycle	15 %
Public Bus	0 %
Other	0 %
Afternoon	
Car	31 %
Walk	29 %
School Bus	25 %
Bicycle	15 %
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.

SUMMARY OF TOP NEIGHBORHOOD SAFETY CONCERNS

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	15
Issues with Sidewalks/Walking	12
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).

TOP RANKING INFLUENTIAL FACTORS FOR MIDDLE-SCHOOL-AGED CHILDREN

	SCALE	1	2	3	4	5	N/A
I would allow my child to walk or bicycle to school more often if:							
#1 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school		*6*	*1*	*5*	*3*	*23*	6
#2 Accompanied by other children		*1*	*5*	*11*	*5*	*20*	4
#2 There were continuous sidewalks or bike paths from my neighborhood to school		*5*	*1*	*5*	*5*	*20*	10
#3 There was a greater adult presence of parent volunteers or police officers along walk routes to school		*7*	*3*	*5*	*7*	*19*	4
#4 Speed limits were strictly enforced in school speed zones		*6*	*4*	*10*	*5*	*18*	3