August 2014

Safe Routes to School Audit Report
Conley Elementary 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 Conley Elementary School.

Capital Region Transportation Planning Agency (CRTPA)

Safe Routes to School (SRTS) National Partnership

Leon County Public Schools (LCS)

Florida Department of Transportation (FDOT)

Leon County Sheriff's Office (LCSO)

Prepared By:

RENAISSANCE PLANNING GROUP

WENDY GREY LAND USE PLANNING LLC

Chapter 1: Introduction

Project Purpose

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

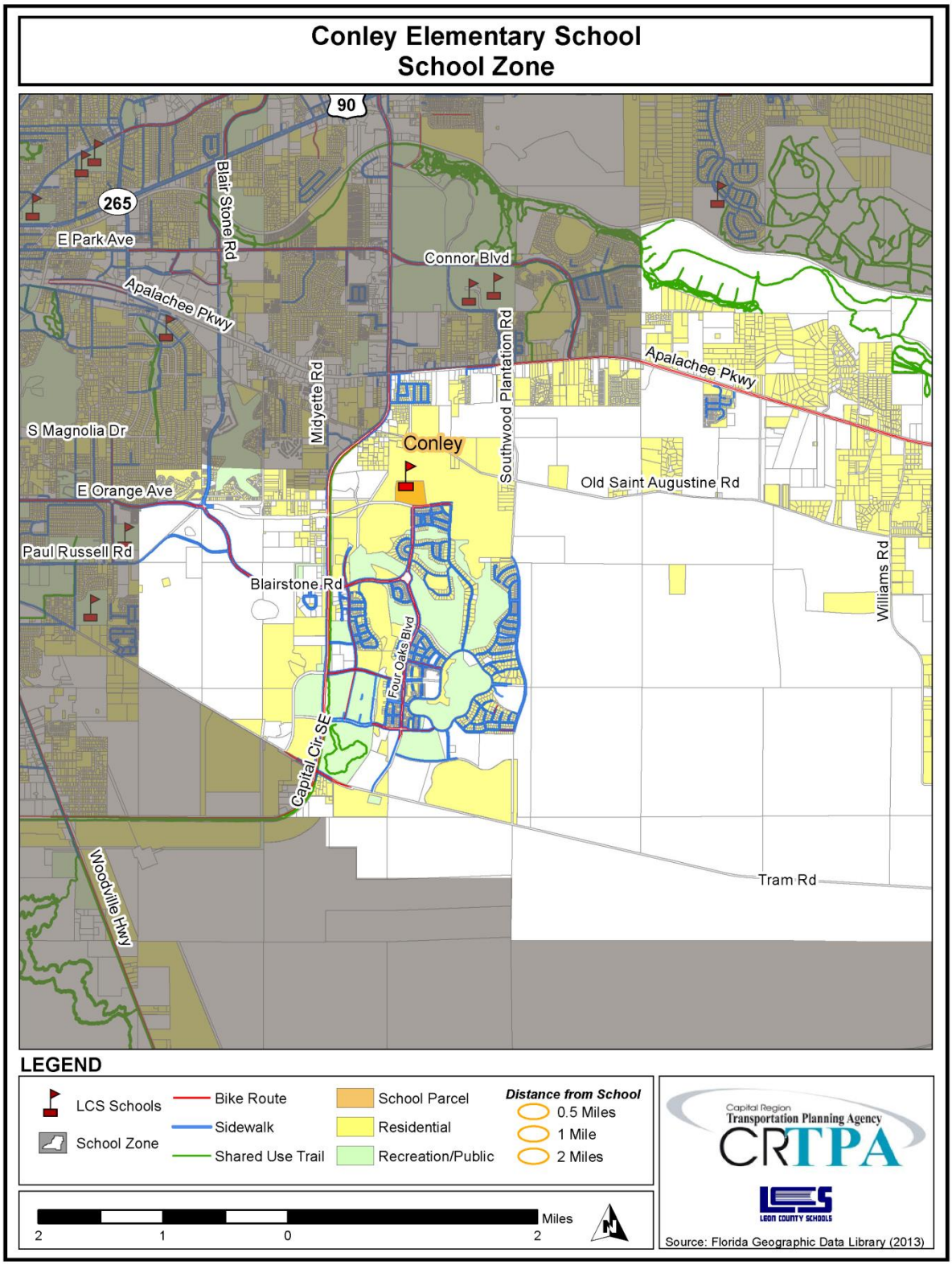
Conley Elementary School is located at 2400 Orange Avenue East, Tallahassee, 32311 in Leon County, Florida. It is part of the Leon County Public Schools system. Conley is one of Leon County's newer elementary schools. It opened its doors in 2008 and is named after Mike Conley who served as a principal of Leon High School for almost two decades. Before that, Mr. Conley coached and taught at the same school. Regular school hours are from 8:30am to 2:50pm. A before school program is offered from 7:00am to 7:45am. Additionally, an after school program is available from 2:50pm to 6:00pm.

The number of students enrolled at the school, for the 2013 school year was 820. The school has a current capacity for 835 students. The school includes grade levels Pre-Kindergarten to 5th grade.

Students attending this school feed into Fairview and Swift Creek Middle Schools and either Rickards or Lincoln High Schools.

School Zone

The Conley Elementary school zone, located in the southeastern portion of Leon County, encompasses the Southwood Golf Club neighborhood of Tallahassee. Land uses in the school zone consist of mostly residential, recreation, and more natural uses. The Conley Elementary school zone includes two major roadways. Apalachee Parkway runs east to west along the northern portion of the school zone. Capital Circle Southeast runs north to south along the western portion of the school zone. A recreation facility within the school zone includes the Capital Circle Southeast Trail which is a paved, shared-use trail, connecting residential areas in the southern portion of Southwood to the school.


Conley Elementary School
School Zone
90
265
E Park Ave
Blair Stone Rd
Connor Blvd
Apalachee Pkwy
Midyette Rd
Southwood Plantation Rd
Apalachee Pkwy
S Magnolia Dr
Conley
E Orange Ave
Old Saint Augustine Rd
Paul Russell Rd
Blairstone Rd
Williams Rd
Four Oaks Blvd
Capital Cir SE
Tram Rd
Woodville Hwy
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 7th, 2013 with temperatures in the lower 60 degrees Fahrenheit.

Highlights and Key Observations of On-Site Meeting

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

It was noted that flashing lights (i.e. school zone warning lights) are located along both East Orange Avenue and Four Oaks Boulevard. There are several restrictive access gates located around campus for safety and security reasons. Students are permitted to arrive to school as early as 7:00am and there are after school programs on campus available until 6:00pm. School representatives noted that approximately 250 students participate in the after school program; however, numbers for the before school were not available during the on-site visit.

There is one designated crossing guard along East Orange Avenue at the north-south crosswalk near the school bus entrance driveway. School representatives noted that East Orange Avenue can be quite intimidating during school commuting hours due to the commuting chaos of different modes of travel. School staff and administrators serve as ushers for students at the automobile drop-off/pick-up and school bus zones. The student safety patrol assist with these functions as well. It was noted that bike safety is taught in Physical Education (P.E.) curriculum for grades 3rd- 5th. During school commuting hours temporary traffic control devices (i.e. cones and signs) are used in the school bus and automobile zones. It was also noted that the City is doing some reconfiguring of the medians on East Orange Avenue. The plan is to close the median at Mist Flower Road and create a left-turn only median near the parent pick-up/drop-off driveway.

Circulation

During a tour of the school, school representatives provided explanations of school circulation patterns as to where and how children were entering and exiting school grounds via walking or bicycle and arriving and departing by automobile or school bus.

The school is located near newer residential neighborhoods with a comprehensive network of bicycle and pedestrian facilities. Sidewalks are fairly wide and have high curb separation from the local roads. Additionally, almost all are ADA compliant. As such, it would be expected that there would be many children walking and bicycling to school; however, this does not appear to be the case. Instead, many rely on school busing and automobile rides. Walkers and bicyclists can enter campus from several points along East Orange Avenue. There are four large outdoor bicycle racks located at the school with space for approximately 50 bicycles; however, there was only one bicycle parked during the site visit.

The school bus drop-off and pick-up zone functions adequately. The zone for arrivals and departures is covered, which reduces stress during times of inclement weather, and there is direct access to a walking facility. Additionally, there are two lanes to facilitate the circulation of the three school buses and one exceptional student education bus that use the zone daily. School representatives estimate that around 250 students ride school buses. Additionally, before and after school program vans use the school bus zone for arrivals and departures.

The parent drop-off and pick-up zone functions adequately to accommodate the volume of automobiles entering and exiting the site. The zone for arrivals and departures is covered and there is direct access to a walking facility. Also, there is a holding area for students waiting to be picked up in the afternoons. It was noted that the intersection in front of the school is a four-way stop, which can be awkward during school commuting hours since the intersection is fairly large. Some drivers reportedly drop-off students along the side of East Orange Avenue, leaving the children to walk through a busy parking lot or congested circulation line. Additionally, there have been problems in the past with drivers parking their vehicles along East Orange Avenue and Four Oaks Boulevard instead of proceeding through the automobile line.

Inventory Map

An aerial photograph showing Conley Elementary School is located on the following page. As shown in the photo, the school fronts East Orange Avenue. Students can access campus from this street either near Four Oaks Boulevard or near Mist Flower Road. Bicycle parking racks are located near the front entrance of the school.

Standard width sidewalks are located along both sides of East Orange Avenue and there are two mid block crossings near the intersection of East Orange Avenue and Four Oaks Boulevard that connect directly to a sidewalk that enters onto campus. Additionally, there are standard width sidewalks available along Mist Flower Road and Four Oaks Boulevard connecting to the adjacent residential neighborhood that also has an extensive sidewalk network available.

The automobile pick-up and drop-off zone is located along the east side of the school. Automobile both enter and exit the zone from East Orange Avenue. Parking spaces are located in this area as well. The bus drop-off and pick-up zone is separately located along the front of the school. Buses enter the zone from and exit onto East Orange Avenue from separate driveways. Additional parking spaces are located in this area as well.


Conley Elementary School
Site Map
MIST FLOWER ROAD
FOUR OAKS BOULEVARD
EAST ORANGE AVENUE
School Bus Zone
Ped/Bike Entrance
Bike Racks
Auto Drop-Off/
Pick-Up Zone
N
N

Issues and Opportunities

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

Geography and the chaotic-nature of multiple modes of transportation along East Orange Avenue appear to be the primary issue with students' ability to walk and bicycle to school. Residential land uses are all that surrounds the school. As such, there are fewer opportunities to have households with school-aged children. Additionally, parents may not feel East Orange Avenue is appropriate for crossing by elementary school children, especially those at lower grade levels, even with the presence of a crossing guard. These kind of external factors are often difficult to overcome, at least in the short term.

With what opportunities that do exist to increase walking and bicycling, including student safety, consideration should be given to East Orange Avenue. Traffic calming measures should be explored to reduce automobile speeds and increase awareness of children in the area, especially during school commuting times. Additionally, replacing the four-way stop in front of the school with a roundabout should be explored to see if it would be warranted.

Also, school-related and –supportive committees such as the Parent/Teacher (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 on-campus issues, such as appropriate behavior and protocol with dropping off and picking up students, as well as the importance of not parking on grassy medians. Continued education and enforcement during the morning and afternoon commuting 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 Kindergarten through 5th Grade traveled to their school from home during a one week period. (A copy of the student travel survey can be found in **Appendix A**.)

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

The survey indicates that the vast majority of students at Conley Elementary School – approximately five out of six 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 ranked a distant second and third place at approximately 14 percent and 2 percent of students, respectively. Of those commuting by school bus, the percentage rises slightly for older-aged children. Not surprisingly, two times as many older students from 3rd, 4th, and 5th grade walked to school than younger students. A low percentage, 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
Average Overall	2 %	<1 %	84 %	14 %	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 2nd Grade and 3rd Grade through 5th Grade, respectively. (A detailed description of the parent surveys for the two grade level groupings can be found in **Appendix D**.)

The surveys of students living within two miles from the school indicate that a greater percentage of Conley 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, walking, or another mode not described specifically in the survey such as an after-school program van. Overall, a combined total of approximately 9% to 12% of students commute to and from school by either walking or bicycling.

With regard to neighborhood safety, the concerns were generally agreed upon by parents from both Kindergarten through 2nd and 3rd through 5th. Survey respondents overall showed concerns for the condition of sidewalks, as well as, the behavioral patterns of automobile drivers, generally, in terms of excessive driving speeds and aggressive driving behavior and, more specifically, with both the functionality of the parent drop-off/pick-up area and the unsanctioned use of unofficial drop-off/pick-up areas just off of school premises. As for speeding complaints, specific problem locations cited include East Orange Avenue, Mossy Creek Lane, and Four Oaks Boulevard.

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), enforcing speed limits in school zones, and having a greater adult presence along routes to school were mutually agreed upon by parents from both Kindergarten through 2nd and 3rd through 5th.

Chapter 5: Neighborhood Field Review

A neighborhood field review was conducted on March 28th, 2013. The review consisted of an assessment of accessibility, connectivity and safety along neighborhood roadways within proximity to Conley Elementary School. On the day of the field review, temperatures were in the 50'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 Conley Elementary School.

Character of Neighborhood Area

Conley Elementary is located in a newer, residential community primarily comprised of single-family homes. There is limited development in the area immediately north of the school. The neighborhood has a well-connected pattern of mostly gridded streets which contributes to the school's accessibility. Sidewalks are present on almost all streets within the community while bike infrastructure is limited to Four Oaks Boulevard, Blairstone Road, and Capital Circle Southeast. Capital Circle Southeast could be a major bike-ped barrier due to its width and high traffic volumes. However, it does have crosswalks to the shared-used trail system along the roadway.

Major roadways in the school zone include:

- Capital Circle Southeast, a heavily traveled north-south roadway with six lanes and a posted speed limit between 40-45mph.
- Apalachee Parkway, an east-west four lane roadway with a 40-45mph speed limit that transitions to 50-55 mph just east of Connor Boulevard.

Crash Data

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

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

Neighborhood Assessment

The overall neighborhood layout surrounding Conley Elementary School lends itself well to walkability. The well connected gridded street network allows for multiple route choices to access the school. In addition, there is a fairly comprehensive existing sidewalk infrastructure throughout the immediately adjacent neighborhood streets. While bicycle lanes are only present on a few roadways near the school, the bicycle lanes along Four Oaks Boulevard provides a direct north-south connection between the school and residences to the south, up to the two miles away. Project-specific recommendations to further increase walkability and bikeability 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 Conley Elementary School walk/bike shed map is included on the following page.

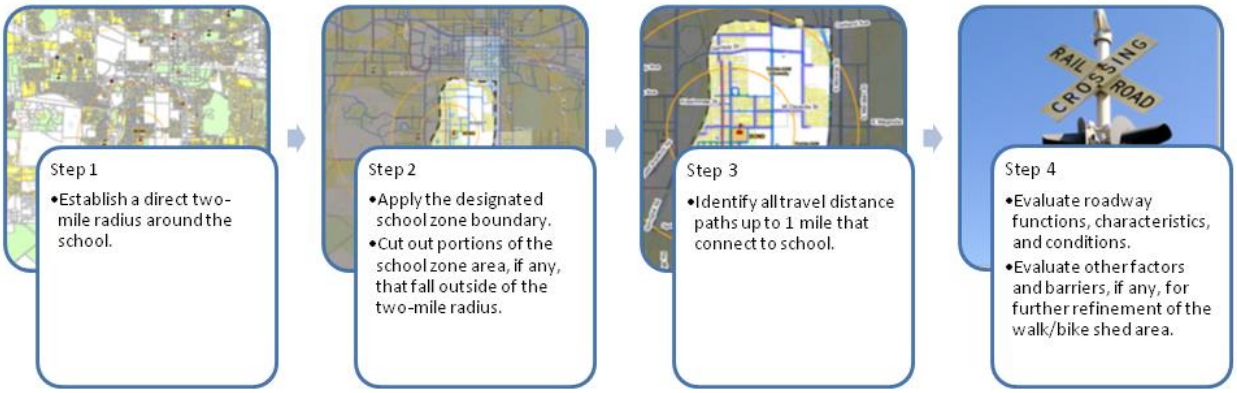
The walk/bike shed area and associated map are not meant to suggest that elementary school students of all ages, maturity level, and experience should commute to and/or from school within the area delineated. Certainly, younger children such as kindergarten students are not expected to walk or bike to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

The walk/bike shed for Conley Elementary School extends almost entirely south of the school into the SouthWood Golf Club neighborhood. Capital Circle Southeast with its six lanes of traffic and few residential land uses to the west contributes to the western limits of the walk/bike shed. Also, because there are no residential land uses east of Biltmore Avenue or immediately north of Orange Avenue, they form the eastern and northern limits of the walk/bike shed. The presence of a Florida State University facility combined with few residential land uses south of Shumard Oak Boulevard contribute to the southern limits of the walk/bike shed. While the walk/bike shed extends out to almost two miles south of the school, a distance further than would normally be expected for an elementary-aged student, the abundance of ped/bike infrastructure throughout the residential neighborhoods positively facilitates non-motorized commuting from such a distance with ease.

It should be noted that certain improvement recommendations could potentially expand the potential walk/bike shed area, due to improved conditions for walking and bicycling.

Methodology

Many factors were evaluated to ultimately determine the limits of the walk/bike shed area. The general methodology for identifying the shed included the following steps:



Evaluating Roadways

Four types of safety hazards were evaluated pertaining to roadways. They include:

- Sidewalks along roadways
- Roadways without sidewalks
- Roadway crossing points
- Railroad crossing points (along roadways)

Primary hazard conditions include, but are not necessarily limited to factors such as:

- Sidewalk width (where present)
- Separation between the walking/bicycling space and the vehicular travel space
- Intersection control measures for crossing
- Number of rail tracks (for railroad crossings)
- Traffic volume
- Traffic speed
- Roadway geometry
- Length of a hazardous condition present

Multiple factors are no doubt present for each hazard. And no two factors or situations are the same. This makes evaluation as much of an art as a science. Nonetheless, there are certain conditions in and of themselves that are considered decisive limitations to elementary school children walking and/or bicycling to school. Such conditions where walking and/or bicycling are deemed hazardous include the following. It should be noted that only one condition from either table needs to be met for a situation to be deemed hazardous.

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

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

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.

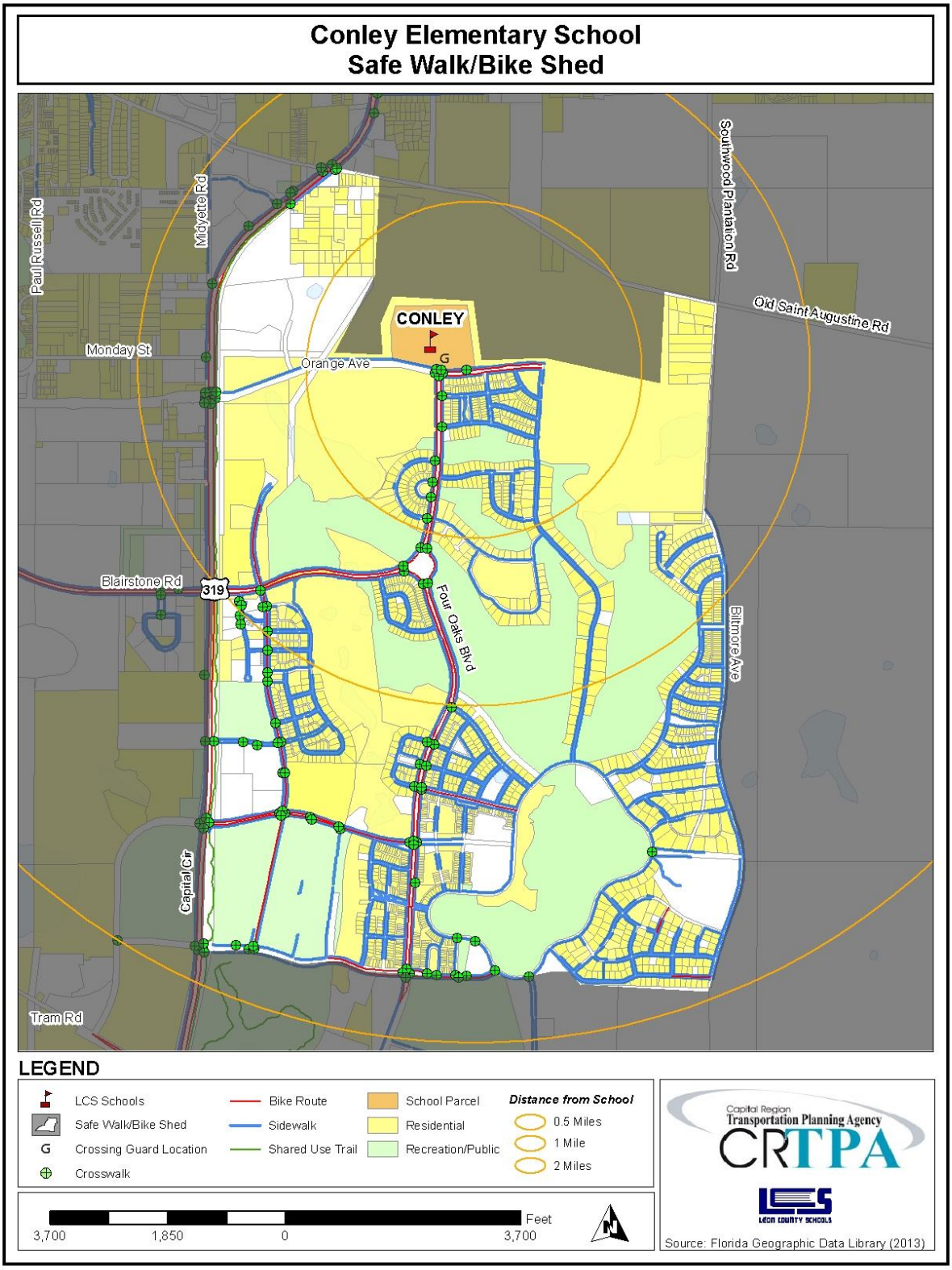
In determining a safe walking and bicycling area, this report applies a methodology and criterion that is more stringent than State standards and more in line with existing studies, research and opinions collected from numerous experts in the fields of pedestrian and bicycle transportation and safe routes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


Conley Elementary School
Safe Walk/Bike Shed
CONLEY
G
Orange Ave
Monday St
Paul Russell Rd
Midyette Rd
Southwood Plantation Rd
Old Saint Augustine Rd
Blairstone Rd
319
Four Oaks Blvd
Biltmore Ave
Capital Cir
Tram Rd
LEGEND
LCS Schools
Safe Walk/Bike Shed
Crossing Guard Location
Crosswalk
Bike Route
Sidewalk
Shared Use Trail
School Parcel
Residential
Recreation/Public
Distance from School
0.5 Miles
1 Mile
2 Miles
Feet
3,700
1,850
0
3,700
N
Capital Region Transportation Planning Agency
CRTPA
LEON COUNTY SCHOOLS
Source: Florida Geographic Data Library (2013)

Chapter 6: Findings and Recommendations

The neighborhood to the south of Conley Elementary School is well-connected to the school with a comprehensive network of sidewalks and bicycle lanes. And while there are many streets without bicycle lanes, most of these streets are internal residential subdivision streets with low-volume traffic that empty onto Four Oaks Boulevard. 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.

For those requiring or desiring automobile access, there may be potential to improve the situation with some reconfiguration changes to the intersection of East Orange Avenue & Four Oaks Boulevard. However, there are probably more parents transporting their children to school than necessary, given the proximity of homes, layout of roadways and the quality of street infrastructure. 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.

Also it should be noted that there is a sizeable area north of Conley Elementary School that is vacant and undeveloped. It is uncertain as to how much, if any, of this land will eventually be developed. Conley Elementary School and the Leon County School Board should be prepared to engage any future developers and local agencies regarding desired pedestrian and bicycle-related infrastructure connections as well as automobile circulation plans that could impact East Orange Avenue.

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 Conley Elementary School.

Conley Elementary School Off-Site Recommendations

	Improvement: Off-Site	Location	From	To	Geography	Direction	Length	Comments
B1	Roundabout to Replace Four-Way Stop	East Orange Avenue	At Four Oaks Boulevard		N/A	N/A	N/A	Warrant Study
B2	Stripe Existing Crosswalks	East Orange Avenue	At Four Oaks Boulevard		East, West, North, and South sides	N/A	N/A	Recommended only if **B1** is not warranted
B3	No Parking Signage	East Orange Avenue	Mist Flower Road	Four Oaks Boulevard	Center grassy median	N/A	N/A	In conjunction with **B4**
B4	No Parking Signage	Four Oaks Boulevard	Just south of East Orange Avenue		Center grassy median	N/A	N/A	In conjunction with **B3**
B5	Bike Sharrow	Mossy Creek Lane	Grove Park Drive	East Orange Avenue	N/A	N-S	Approx. 1.25 miles	
B6	Bike Sharrow	Grove Park Drive	Mulberry Park Blvd.	Mossy Creek Lane	N/A	SW-NE	Approx. 0.25 miles	

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

Off-Site Recommendations

B1) Replace existing four-way stop with a roundabout at the intersection of East Orange Avenue and Four Oaks Boulevard. The existing intersection is quite large and there are a maximum of seven different lane movements that can occur at any one time. During school commuting hours this intersection can be quite busy and hazardous for students trying to walk or bicycle to school. A roundabout warrant study should be conducted to determine whether or not it would be advantageous to construct a new roundabout at the intersection.

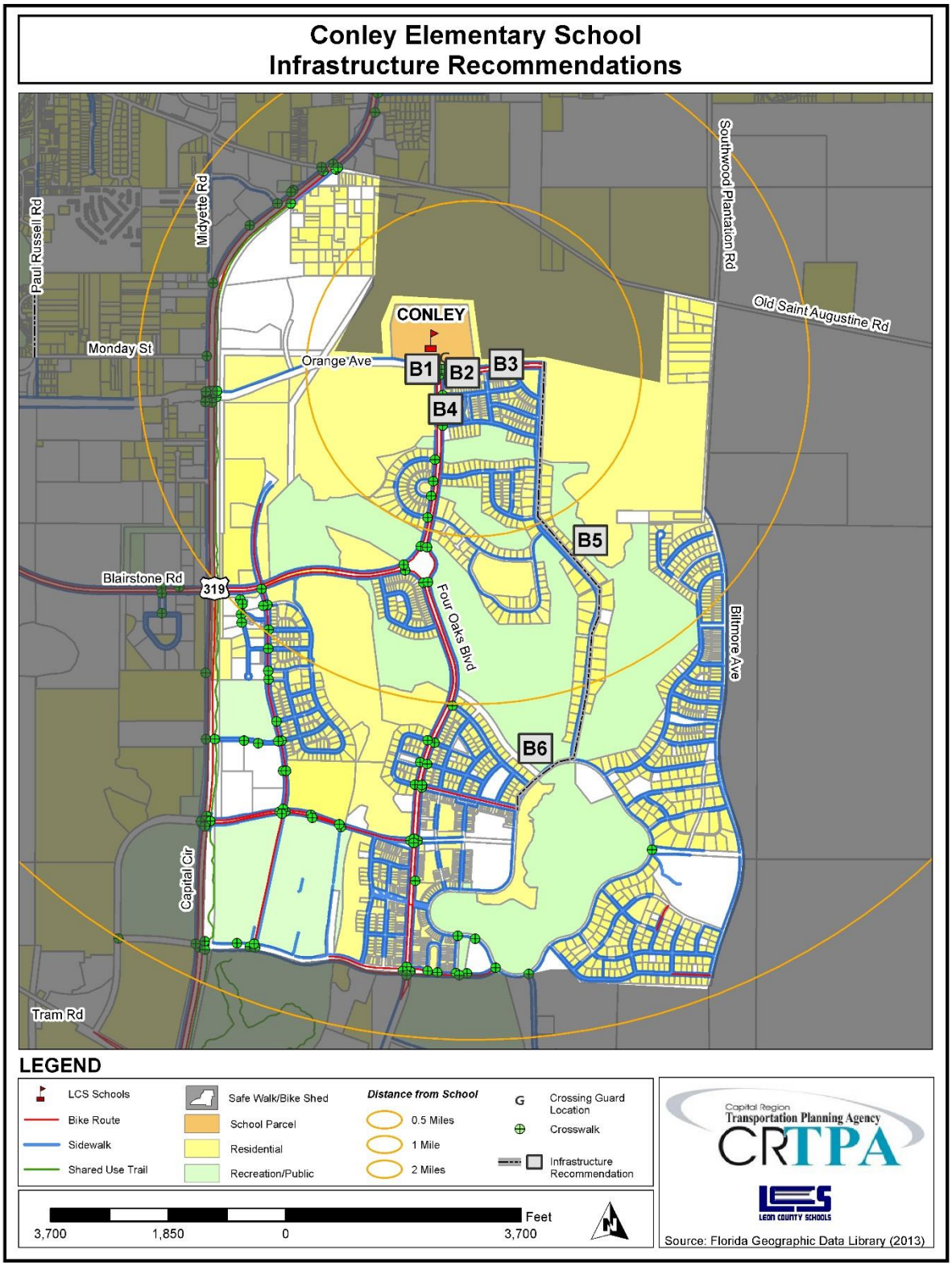
B2) Stripe the existing crosswalks at the intersection of East Orange Avenue and Fours Oaks Boulevard. East, west, north, and south side crosswalks should all be striped to make motorists more away of pedestrians, especially children, crossing the larger intersection. However, this recommendation should only be completed if **Off-Site Recommendation B1** is not warranted.

B3) No parking signage in the center grassy median on East Orange Avenue from Mist Flower Road to Four Oaks Boulevard. School representatives as well as parents expressed concern with parents who drop-off/pick-up students along the roadway instead of going through the designated parent pick-up/drop-off zone.

B4) No parking signage in the center grassy median, on Four Oaks Boulevard from just south of East Orange Avenue. School representatives as well as parents expressed concern with parents who drop-off/pick-up students along the roadway instead of going through the designated parent pick-up/drop-off zone.

B5) Bike sharrow on Mossy Creek Lane from Grove Park Drive to East Orange Avenue; existing bicycle lanes are mostly limited to streets from Four Oaks Boulevard and westward. Mossy Creek Lane is already quite narrow so a full bicycle lane is not ideal. A bike sharrow will provide an additional bicycle-friendly route to Conley Elementary from residences east of Four Oaks Boulevard.

B6) Bike sharrow on Grove Park Drive from Mulberry Park Boulevard to Mossy Creek Lane; existing bicycle lanes are mostly limited to streets from Four Oaks Boulevard and westward. Grove Park Drive is already quite narrow so a full bicycle lane is not ideal. A bike sharrow will provide an additional bicycle-friendly route to Conley Elementary from residences east of Four Oaks Boulevard.


Conley Elementary School
Infrastructure Recommendations
CONLEY
B1
B2
B3
B4
B5
B6
Orange Ave
Monday St
Paul Russell Rd
Midyette Rd
Southwood Plantation Rd
Old Saint Augustine Rd
Blairstone Rd
319
Four Oaks Blvd
Biltmore Ave
Capital Cir
Tram Rd
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
3,700
1,850
0
3,700
Capital Region Transportation Planning Agency
CRTPA
LEON COUNTY SCHOOLS
Source: Florida Geographic Data Library (2013)

Programs

C1) Walk and bicycle encouragement literature – Send home literature to parents, as well as make it available on the school website, about the benefits of children walking and bicycling to school. Information and statistics from the National Safe Routes to School organization can be used to highlight health and safety benefits. The literature provided to parents should highlight some specific examples of how parents and the community can make walking and bicycling to school safe and fun. Examples of programs to promote walking and bicycling include encouraging parents to coordinate with other parents to establish walking and bicycling groups (i.e. buddy programs and walking school buses) to help ease safety concerns; participating in Walk/Bike to School Days; 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 – During the on-site visit, school representatives mentioned that bicycle safety is taught to 3rd-5th grade students. It would be beneficial to organize and hold a workshop or a bike rodeo that demonstrates bicycle safety topics, catered to K-2nd grade students, 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 before the drop zone, releasing them on the side of East Orange Avenue, 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 guard- Currently, there is only one crossing guard to assist students walking or bicycling. The current crossing guard location is at the intersection of East Orange Avenue & Four Oaks Boulevard. It might also be beneficial to have a crossing guard at the roundabout located at the intersection of Four Oaks Boulevard & Blairstone Road.

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) Parent drop-off/pick-up zone protocol – Setting protocol for the parent drop-off/pick-up process improves the traffic conditions and creates a safer environment for automobiles, as well as, pedestrians and bicyclists.

Drop-Off Procedures

- Please stay in vehicle and pull forward to the front of the parent drop-off/pick-up zone.
- Please continue to queue the line for parent drop-off along East Orange Avenue but please do not block driveways.
- Please be prepared to promptly help your child(ren) exit the vehicle with their belongings upon arriving at the drop-off point. Someone will be outside to assist and direct children into school each morning.
- If you must enter the school, please park your vehicle in the parking lot. Do not park in the parent drop-off/pick-up zone or along East Orange Avenue as this will delay others trying to drop-off their children.

Pick-Up Procedures

- Please stay in vehicle and pull forward to the front of the parent drop-off/pick-up zone.
- Please continue to queue the line for parent pick-up along East Orange Avenue, but please do not block driveways.
- It is suggested that parents clearly and boldly write their child's name, classroom teacher, and grade level on a letter-sized sheet of paper and place it on the dash of their vehicle to assist staff and others in the parent pick-up zone. Please be prepared to promptly assist your child(ren) entering your vehicle at the pick-up point.
- As soon as your child(ren) are securely in the car with their belongings, pull forward and exit the drop-off/pick-up zone so that other cars may pull forward and pick up their children.
- If you must enter the school, please park your vehicle in the parking lot. Do not park in the parent drop-off/pick-up zone or along East Orange Avenue as this will delay others trying to pick-up their children.

Planning-Level Cost Estimates

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

General Unit Cost Estimates[1]

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

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

Chapter 7: Conclusion

East Orange Avenue is the gateway into Conley Elementary School and, as such, it should be given full attention when it comes to pedestrian improvements related to safe routes to school. The existing points of access for walkers and bicyclists to Conley Elementary School provide efficient access onto campus. Additionally, the surrounding network of sidewalks and bicycle lanes provide a comprehensive network of routes to and from school. However, this does not translate into high walking or bicycling rates by students. Overall, approximately, two percent of students commute to/from school by walking while less than one percent commutes to/from school by bicycle. There appear to be two primary reasons for low walking and bicycling commuting rates.

First, the intersection of East Orange Avenue & Four Oaks Boulevard, directly in front of the school can be quite intimidating during school commuting hours due to the many different commute modes using the intersection. At the present time the intersection is a four-way stop which can make it difficult to travel through due to the many different lane directions converging. Additionally, there is only one crossing guard at the intersection to assist students across East Orange Avenue.

The second reason for low walking and bicycling rates to school was revealed from information garnered from the parent survey results. Overall, when it comes to allowing their children to walk or bicycle to school, parents primarily expressed concerns for speeding vehicles, aggressive driving behavior, and unsanctioned use of unofficial drop-off/pick-up areas just off of school premises. Factors that might influence their decision to allow their child to walk or bike to school included accompanying children (by themselves/other parents), enforcing speed limits in school zones, and having a greater adult presence along routes to school.

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-six classrooms participated in the survey for a total of 787 student responses recorded. In a few instances, surveys were conducted within overlapping multiple grade level classrooms. Those instances are noted where relevant to the data results.

SUMMARY OF STUDENT TRAVEL SURVEY POPULATION

Total Number of Participating Classrooms	46
Total Students Surveyed (K-5th)	787
Total K-2nd Students Surveyed	415
Total 3rd-5th Students Surveyed	372

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 1% to 2%, with an overall average of 2%. 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 56% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 1% to 3%, with an overall average of 2%.

SUMMARY OF WALKING AND BICYCLE SCHOOL-WIDE TRAVEL PATTERNS

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	2 %	<1 %	56 %	2 %
Highest Day	2 %	1 %	100 %	3 %
Lowest Day	1 %	<1 %	33 %	1 %

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

The younger-aged (K-2nd) children student travel surveys indicate that the walk-to-school average for the week ranged from 1% to 3%, with an overall average of 1%. 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 45% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 1% to 3%, with an overall average of 2%.

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

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	1 %	1 %	45 %	2 %
Highest Day	3 %	1 %	100 %	3 %
Lowest Day	1 %	<1 %	33 %	1 %

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

The older-aged (3rd-5th) children student travel surveys indicate that the walk-to-school average for the week ranged from 1% to 3%, with an overall average of 2%. 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 five students that bike to school, an overall average of 80% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 1% to 3%, with an overall average of 2%.

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

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	2 %	<1 %	80 %	2 %
Highest Day	3 %	<1 %	100 %	3 %
Lowest Day	1 %	<1 %	0 %	1 %

Bus and Automobile Drop-Off

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

[2] Includes one 2nd-3rd class

Bus and Automobile School-Wide Travel Patterns

The school-wide travel surveys indicate that the automobile-to-school average for the week ranged from 83% to 84%, with an overall average of 84%. 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 14% to 15%, with an overall average of 14%. None of the students surveyed reported riding a public bus to school.

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

	Automobile	Seat Belt	School Bus	Public Bus
Average Overall	84 %	90 %	14 %	0 %
Highest Day	84 %	91 %	15 %	0 %
Lowest Day	83 %	89 %	14 %	0 %

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

The younger-aged (K-2nd) children student travel surveys indicate that the automobile-to-school average for the week ranged from 83% to 86%, with an overall average of 85%. Of the students that ride to school in an automobile, an overall average of 91% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 12% to 13%, with an overall average of 13%. None of the students surveyed reported riding a public bus to school.

SUMMARY OF YOUNGER-AGED CHILDREN BUS & AUTOMOBILE DROP-OFF TRAVEL PATTERNS (K-2nd)[3]

	Automobile	Seat Belt	School Bus	Public Bus
Average Overall	85 %	91 %	13 %	0 %
Highest Day	86 %	92 %	13 %	0 %
Lowest Day	83 %	90 %	12 %	0 %

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

The older-aged (3rd-5th) children student travel surveys indicate that the automobile-to-school average for the week ranged from 79% to 83%, with an overall average of 82%. Of the students that ride to school in an automobile, an overall average of 89% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 15% to 18%, with an overall average of 16%. None of the students surveyed reported riding a public bus to school.

[3] Includes one 2nd-3rd class

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

	Automobile	Seat Belt	School Bus	Public Bus
Average Overall	82 %	89 %	16 %	0 %
Highest Day	83 %	92 %	18 %	0 %
Lowest Day	79 %	87 %	15 %	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:

_____
_____
_____

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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 78 parent surveys returned. Of those, 61 (78%) 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 50/50 by grade level grouping, with 31 students representing Kindergarten through 2nd Grade, and 30 students representing 3rd Grade through 5th Grade.

SUMMARY OF PARENT SURVEY PARTICIPATION

Total Enrollment	820
Total Number of Parent Surveys	78
Total Number within 2 Miles (K-2nd Grade)	31
Total Number within 2 Miles (3rd-5th Grades)	30
Percentage of Surveys within 2 Miles	78 %

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	87 %
Bicycle	7 %
School Bus	3 %
Walk	2 %
Public Bus	0 %
Other	0 %
Afternoon	
Car	75 %
Other	8 %
Bicycle	7 %
Walk	5 %
School Bus	5 %
Public Bus	0 %

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

The surveys of parents of younger-aged (K-2nd grade) indicate that the car-to-school average for a typical week is 90% in the morning and decreases to 81% in the afternoon. The bike-to-school averages for a typical week are 3% in both the morning and afternoon. The school bus-to-school average for a typical week is 3% in the morning and doubles to 6% in the afternoon. None of the students walk or ride a public bus in the morning or afternoon. Also, none of the students use an alternative commute mode in the morning, while 10% use an alternative commute mode in the afternoon.

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

Morning	Average Overall
Car	90 %
Bicycle	3 %
School Bus	3 %
Walk	0 %
Public Bus	0 %
Other	0 %
Afternoon	
Car	81 %
Other	10 %
School Bus	6 %
Bicycle	3 %
Walk	0 %
Public Bus	0 %

Commuting Patterns of Older-Aged Children (3rd – 5th Grade)

The surveys of parents of older-aged (3rd-5th grade) indicate that the car-to-school average for a typical week is 83% in the morning and decreases to 70% in the afternoon. The walk-to-school and bike-to-school averages for a typical week are 3% and 10% in the morning and 10% and 10% in the afternoon, respectively. The school bus-to-school average for a typical week is 3% in both the morning and afternoon. 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 (3rd-5th)

Morning	**Average Overall**
Car	83 %
Bicycle	10 %
Walk	3 %
School Bus	3 %
Public Bus	0 %
Other	0 %
Afternoon	
Car	70 %
Walk	10 %
Bicycle	10 %
Other	7 %
School Bus	3 %
Public Bus	0 %

Neighborhood Safety Concerns

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

SUMMARY OF TOP RANKING NEIGHBORHOOD SAFETY CONCERNS

Neighborhood Safety Concern	Number of Comments
Issues with Parent Pick-Up/Drop-Off Areas	14
Speeding Vehicles	12
Issues with Sidewalks/Walking	3
Issues with Transportation Outside of School Zone	3

Neighborhood Safety Concerns For Younger-Aged Children (K – 2nd Grade)

Neighborhood safety concerns for parents of younger-aged (K-2nd) children include three main concerns including issues with speeding vehicles, the parent pick-up/drop off area of the school, and transportation outside of the school zone. There were approximately five comments of concern regarding speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Four Oaks Boulevard and East Orange Avenue. Parents mention vehicles speeding in the school parking lot and around the corner from the school entrance. Additionally, there were five comments of concern regarding issues with the parent pick-up/drop-off area of the school. General concerns include dropping-off/picking-up students at undesignated area just outside of the school grounds, aggressive drivers in the parent line, and the limited off-campus parking available for parents to park and walk their child to class. Lastly, there were three comments of concern regarding issues with transportation outside of the school zone. General concerns include the behaviors of motorists such as not obeying stop signs, veering around cars, and texting/talking on the phone that make it dangerous for children walking or biking to school.

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

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	5
Issues with Parent Pick-Up/Drop-Off Areas	5
Issues with Transportation Outside of School Zone	3

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

Neighborhood safety concerns for parents of older-aged (3rd-5th) children also include issues with the parent pick-up/drop off area of the school, speeding vehicles, and issues with sidewalks/walking. There were approximately nine comments of concern regarding issues with the parent pick-up/drop-off area of school. General concerns include cars parking on the right-of-way, cars taken shortcuts through

nearby neighborhood streets, dropping-off/picking-up students at undesignated area just outside of the school grounds, cars parking on medians, and cars trying to cut in the line of traffic instead of waiting. Specific locations mentioned where parked cars are a problem are East Orange Avenue and Four Oaks Boulevard. Additionally, there were seven comments of concern regarding speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Four Oaks Boulevard, East Orange Avenue, and Mossy Creek Lane. Parents also mention vehicles speeding in school zones, particularly, tailgating and driving aggressively. Lastly, there were three comments of concern regarding issues with sidewalks and walking. Specific concerns include the lack of sidewalks on Mossy Creek Lane, Southwood Plantation Road towards East Orange Avenue, as well as, broken sidewalks on Mossy Creek Lane.

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

Neighborhood Safety Concern	Number of Comments
Issues with Parent Pick-Up/Drop-Off Areas	9
Speeding Vehicles	7
Issues with Sidewalks/Walking	3

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), enforcing speed limits in school zones, and having a greater adult presence along routes to school were mutually agreed upon by parents from both Kindergarten through 2nd and 3rd through 5th. However, parents of younger-aged children showed more concern with bicycle/pedestrian pathways that were separated from traffic while parents of older-aged children showed more concern with accompanying children (other children).

SUMMARY OF TOP RANKING SCHOOL-WIDE INFLUENTIAL FACTORS RESULTS

	SCALE	1	2	3	4	5	N/A
I would allow my child to walk or bicycle to school more often if:							
#1 Accompanied by myself or other parents		*1*	*2*	*3*	*4*	*35*	8
#2 Speed limits were strictly enforced in school speed zones		*2*	*1*	*4*	*6*	*31*	9
#3 There was a greater adult presence of parent volunteers or police officers along walk routes to school		*1*	*1*	*4*	*8*	*28*	11

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

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

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

	SCALE	1	2	3	4	5	N/A
I would allow my child to walk or bicycle to school more often if:							
#1 Accompanied by myself or other parents		*0*	*1*	*0*	*2*	*20*	4
#2 Speed limits were strictly enforced in school speed zones		*0*	*1*	*2*	*2*	*18*	4
#3 There was a greater adult presence of parent volunteers or police officers along walk routes to school		*0*	*1*	*1*	*4*	*15*	6
#4 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school		*1*	*1*	*0*	*4*	*14*	6

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

Parents of children in 3rd through 5th grade agreed that the top four influential factors to allow their child to walk or bicycle to school more often included factors related to accompanying children (by themselves/other parents, or other children), having a greater adult presence along routes to school, and enforcing speed limits in school zones.

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

	SCALE	1	2	3	4	5	N/A
I would allow my child to walk or bicycle to school more often if:							
#1 Accompanied by myself or other parents		*1*	*1*	*3*	*2*	*15*	4
#2Accompanied by other children		*2*	*1*	*4*	*2*	*14*	3
#3 There was a greater adult presence of parent volunteers or police officers along walk routes to school		*1*	*0*	*3*	*4*	*13*	5
#3 Speed limits were strictly enforced in school speed zones		*2*	*0*	*2*	*4*	*13*	5