



CRTPA RETREAT

TUESDAY, OCTOBER 19, 2021
9 AM – 1 PM

THE PARKVIEW AT CASCADES
414 E. BLOXHAM STREET, SUITE 300
TALLAHASSEE, FL 32301

MISSION STATEMENT

"The mission of the CRTPA is to act as the principal forum for collective transportation policy discussions that results in the development of a long range transportation plan which creates an integrated regional multimodal transportation network that supports sustainable development patterns and promotes economic growth."

FINAL AGENDA

NOTE: Due to limited seating, the public is invited to view the meeting's live broadcast on: <https://www.talgov.com/cotnews/wcot.aspx> or Comcast Channel 13 (WCOT-13).

- | | |
|----------------------|--|
| 9:00 – 9:15 | WELCOME |
| 9:15 – 9:50 | MULTIUSE TRAIL SAFETY REVIEW
A review of crash data associated with multi-use trails and streets/driveways will be provided. This review was requested by the Board at the September 13 meeting during an update of the Thomasville Road Multi-Use Path Feasibility Study. |
| 9:50 – 10:15 | RAIL DISCUSSION
A discussion of rail will be provided by Rickey Fitzgerald, Florida Department of Transportation Freight and Multimodal Operations Office. |
| 10:15 – 10:30 | BREAK |

"Public Participation is solicited without regard to race, color, national origin, age, sex, religion, disability, or family status. Persons who require special accommodations under the Americans With Disabilities Act, or persons who require translation services (free of charge) should contact the CRTPA Title VI Coordinator, Suzanne Lex, four days in advance of the meeting at 850-891-8627 (Suzanne.Lex@crtpa.org) and for the hearing impaired, telephone 711 or 800-955-8771 (TDY)."

"La participación pública se solicita sin distinción de raza, color, nacionalidad, edad, sexo, religión, discapacidad o estado familiar. Las personas que requieran adaptaciones especiales en virtud de la Ley de Americanos con Discapacidades, o las personas que requieran servicios de traducción (sin cargo) deben comunicarse con Suzanne Lex, CRTPA Coordinadora del Título VI, al 850-891-8627 (Suzanne.lex@crtpa.org) y para las personas con discapacidad auditiva, teléfono 711 o 800-955-8771 (TDY) cuatro días antes de la reunión."

10:30 – 11:00 FDOT SETTING THE STAGE

Alison Stettner, Director, Office of Policy Planning, Florida Department of Transportation, will discuss trends in transportation.

11:00 – 11:30 STARMETRO DISCUSSION

An update on the development of StarMetro's Transit Development Plan and Comprehensive Operations Analysis will be provided.

11:30 – 12:00 PENSACOLA STREET ROADWAY SAFETY AUDIT (RSA)

A discussion of the Pensacola RSA, including recommendations, will be provided by Michael Lewis, P.E., Traffic Safety Program Manager, Florida Department of Transportation – District 3.

12:00 – 12:15 WORKING LUNCH

12:15 – 12:30 CRTPA PROJECTS UPDATE/WRAP UP

The CRTPA Executive Director will provide an update of upcoming CRTPA projects.

October 19, 2021



RETREAT AGENDA ITEM

MULTI-USE TRAIL SAFETY REVIEW

STATEMENT OF ISSUE

The Thomasville Road Multi-Use Path Project Team will be presenting materials included in the safety review and comparison memo (***Attachment 1***).

At the September 13, 2021 CRTPA Board meeting, members were presented the Existing Conditions Report along with alternatives for the Thomasville Road Multi-Use Path. During the discussion, Board members requested a review and comparison of similar paths/trails. To that end, the attached memo provides a review and comparison to similar paths/trails at the Local (Leon County), State of Florida, and national levels.

The attached memo includes a description of each of the trails used in the review and comparison. The last page of the memo is a table that includes all of the trails with details for each trail for review and comparison.

ATTACHMENTS

Attachment 1: Safety Memorandum

Attachment 2: Draft Presentation



MEMORANDUM

To: CRTPA
From: Kimley-Horn and Associates, Kate Widness, AICP, CNU-A
Date: October 2021
Subject: *Thomasville Road Multi-Use Path Feasibility Study: Safety Review and Comparison*

Purpose

The purpose of the memorandum is to outline the existing conditions and crash analysis for corridors with comparable conditions to what is being evaluated along Thomasville Road as part of the *Thomasville Road Multi-Use Path Feasibility Study*. It is important to note that no two roads are exactly alike, and the corridors reviewed were comparable to the facility under evaluation along Thomasville Road by all having an adjacent 8- to 12-foot multi-use path and one or more of the following characteristics:

- Average Annual Daily Traffic (AADT)
- Posted Speed Limit
- Surrounding land uses
- Number of driveways entrances/curb cuts

The attached matrix summarizes the key characteristics for each of the comparable corridors, which are further described below, in addition to summary crash data. Due to the varying corridor characteristics, crash data was reviewed on a per mile per year basis. These crash rates serve as a consistent comparison of the number of crashes along each of the study corridors.

Thomasville Road

The corridor under evaluation, Thomasville Road, is approximately a 2.41-mile segment extending from Betton Road to Metropolitan Boulevard in Tallahassee, FL. This corridor is under feasibility study to determine the possibility of constructing a 10- to 12-foot multi-use path adjacent to the road within existing right-of-way. Existing Annual Average Daily Traffic (AADT) volumes were obtained from the 2019 Florida Department of Transportation (FDOT) Florida Traffic Online (FTO) reports. The AADT along this segment varies between 30,000 and 34,000 as there are two AADT count locations. Due to the potential for traffic counts to be skewed due to COVID-19, the 2019 traffic volumes were used in the place of the 2020 volumes. Crash data was collected for a five-year period from January 1, 2016 to December 31, 2020 using the University of Florida's Signal4 Analytics online application. Over the five-year period, a total of 673 crashes occurred along this segment of Thomasville Road. The crash rate resulting from the 673 crashes occurring over the five-year period over the 2.41-mile segment is 56 crashes per mile per year. Of those 673 crashes, five (5) involved a bicycle or a pedestrian which gives a crash rate of less than one (1) Bike/Ped crash per mile per year. This crash rate is based on the existing facilities along the corridor which is a sidewalk and 4-ft bike lane (which is not present

along the entire 2.41-mile segment). In addition, over the five-year period, four (4) of the Bike/Ped crashes resulted in injury and there was one (1) fatality.

Local Comparisons

Two corridors within Tallahassee-Leon County were reviewed to compare facilities within the community as it would relate to an 8-to-12-foot multi-use path in an area with multiple curb cuts. These local corridors for comparison purposes are Lafayette Street and Franklin Boulevard. Though these corridors do not have comparable speeds or AADTs, the number of curb cuts and land uses are similar to Thomasville Road. For these local comparisons existing Annual Average Daily Traffic (AADT) volumes were obtained from the 2019 Florida Department of Transportation (FDOT) Florida Traffic Online (FTO) reports. Due to the potential for traffic counts to be skewed due to COVID-19, the 2019 traffic volumes were used in the place of the 2020 volumes. Crash data was collected for each of the corridors over a five-year period from January 1, 2016 to December 31, 2020 using the University of Florida's Signal4 Analytics online application.

Lafayette Street, Tallahassee, FL

The section of multi-use path reviewed along Lafayette Street is approximately a 0.89-mile segment extending from Franklin Boulevard to Magnolia Drive in Tallahassee, FL. The trail was constructed approximately in year 2012. The AADT along this segment of Lafayette Street is 9,300. Over the five-year period, a total of 210 crashes occurred along the studied segment. The crash rate resulting from the 210 crashes occurring over the five-year period and the 0.89-mile segment is 48 crashes per mile per year. Of those 210 crashes, three (3) involved a bicycle or a pedestrian which gives a crash rate of less than one (1) Bike/Ped crash per mile per year. In addition, over the five-year period, the three (3) Bike/Ped crashes resulted in injury and there were no fatalities. An aerial image of the Lafayette Street Trail is shown below in **Figure 1**.

Figure 1: Lafayette Street Trail



Franklin Boulevard, Tallahassee, FL

The section of multi-use path reviewed along Franklin Boulevard is approximately a 0.54-mile segment extending from Mahan Drive to Lafayette Street in Tallahassee, FL. This trail was constructed approximately in year 2013. The AADT along this segment of Franklin Boulevard is 8,700. Over the five-year period, a total of 156 crashes occurred along the studied segment of Franklin Boulevard. The crash rate resulting from the 156 crashes occurring over the five-year period and the 0.54-mile segment is 58 crashes per mile per year. Of those 156 crashes, three (3) involved a bicycle or a pedestrian which gives a crash rate of 2 Bike/Ped crashes per mile per year. In addition, over the five-year period, all seven (7) of the Bike/Ped crashes resulted in injury and there were no fatalities. An aerial image of the Franklin Boulevard Trail is shown below in **Figure 2**.

Figure 2: Franklin Boulevard Trail



State Comparisons

Three corridors within the State of Florida were reviewed to compare facilities across the state as it would relate to an 8- to 12-foot multi-use path in an area with multiple curb cuts. These corridors have varying AADTs, but the number of curb cuts, speed limits, and adjacent land uses are similar to that along the Thomasville Road study area. For these state comparisons, existing Annual Average Daily Traffic (AADT) volumes were obtained from the 2019 Florida Department of Transportation (FDOT) Florida Traffic Online (FTO) reports. Due to the potential for traffic counts to be skewed due to COVID-19, the 2019 traffic volumes were used in the place of the 2020 volumes. Crash data was collected for each corridor over a five-year period from January 1, 2016 to December 31, 2020 using the University of Florida's Signal4 Analytics online application.

US 1 – Overseas Trail, Marathon, FL

This section of the Overseas Trail along US 1 reviewed for this effort is approximately a 5.72-mile segment extending from Knights Key Boulevard to Gulf of Mexico Boulevard in Marathon, FL. This trail was constructed sometime prior to year 2000 based on Google Earth aerial photography. The AADT along this segment of US 1 varies between 12,800 and 29,900 as there are four AADT count locations. Over the five-year period, a total of 997 crashes occurred along this segment of US 1. The crash rate resulting from the 997 crashes occurring over the five-year period and the 5.72-mile segment is 35 crashes per mile per year. Of those 997 crashes, 49 involved a bicycle or a pedestrian which gives a crash rate of 2 Bike/Ped crashes per mile per year. In addition, over the five-year period, 37 of the Bike/Ped crashes resulted in injury and there were four (4) fatalities. An aerial image of the Overseas Trail is shown below in **Figure 3**.

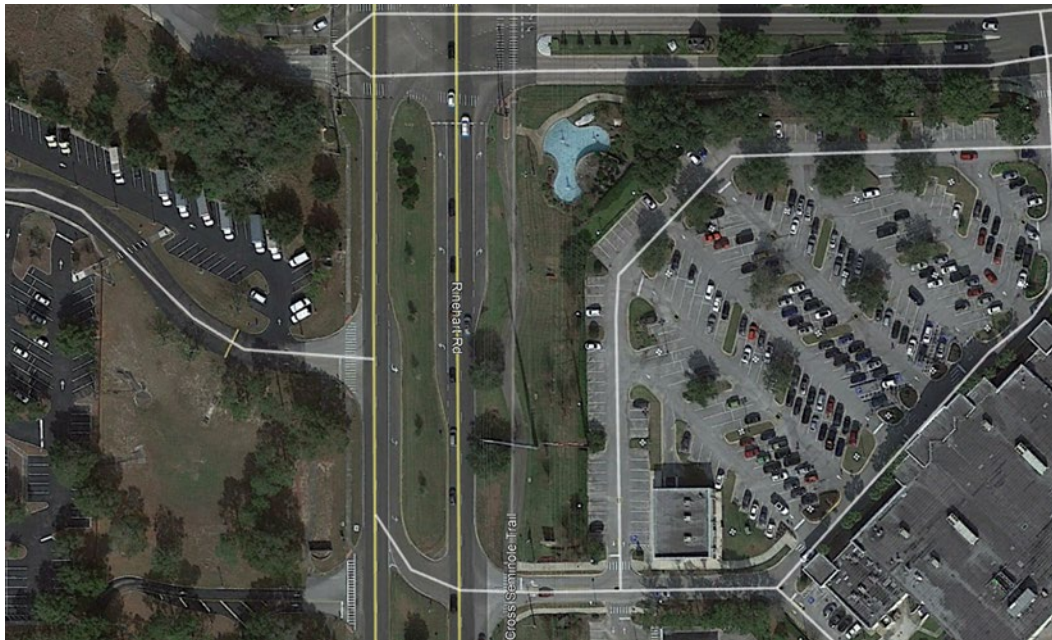
Figure 3: Overseas Trail



Cross Seminole Trail, Sanford, FL

This section of the Cross Seminole Trail reviewed along Rinehart Road is approximately a 4.22-mile segment extending from North Sun Drive to State Road 46 in Sanford, FL. This trail was constructed sometime prior to year 2000 based on Google Earth aerial photography. The AADT along this segment of US 1 varies between 18,500 and 29,500 as there are two AADT count locations. Over the five-year period, a total of 997 crashes occurred along this segment of Rinehart Road. The crash rate resulting from the 997 crashes occurring over the five-year period and the 4.22-mile segment is 72 crashes per mile per year. Of those 997 crashes, 14 involved a bicycle or a pedestrian which gives a crash rate of less than 1 Bike/Ped crash per mile per year. In addition, over the five-year period, ten (10) of the Bike/Ped crashes resulted in injury and there were no fatalities. An aerial image from the Cross Seminole Trail is shown below in **Figure 4**.

Figure 4: Cross Seminole Trail



Cortez Boulevard, Spring Hill, FL

This section of multi-use path reviewed along Cortez Boulevard is approximately a 5.84-mile segment extending from US 19 to Suncoast Parkway in Spring Hill, FL. This path was constructed approximately in year 2014 based on Google Earth aerial photography. The AADT along this segment of Cortez Boulevard varies between 27,500 and 40,500 as there are four AADT count locations. Over the five-year period, a total of 1,513 crashes occurred along this segment of Cortez Boulevard. The crash rate resulting from the 1,513 crashes occurring over the five-year period and the 5.84-mile segment is 52 crashes per mile by year. Of those 1,513 crashes, 18 involved a bicycle or a pedestrian which gives a crash rate of less than one (1) Bike/Ped crash per mile by year. In addition, over the five-year period, 16 of the Bike/Ped crashes resulted in injury and there were two (2) fatalities. An aerial image from the Cortez Boulevard Trail is shown below in **Figure 5**.

Figure 5: Cortez Boulevard Trail



National Comparisons

Three corridors outside the State of Florida were reviewed to compare facilities across the country as it would relate to an 8- to 12-foot multi-use path in an area with multiple curb cuts. These corridors have varying AADTs, but the number of curb cuts, speed limits, and land uses are similar to that along Thomasville Road. For these national comparisons existing Annual Average Daily Traffic (AADT) volumes were obtained from each state's online traffic count application. Due to the potential for traffic counts to be skewed due to COVID-19, the 2019 traffic volumes were used in the place of the 2020 volumes. Crash data was collected for each corridor over a five-year period from January 1, 2016 to December 31, 2020.

North Walton Boulevard Trail, Bettonville, AR

This section of trail reviewed along North Walton Boulevard is approximately a 1.48-mile segment extending from NW 14th Street (Walton Boulevard) to SW I Street in Bentonville, AR. This trail was constructed in approximately year 2015 based on Google Earth aerial photography. Existing Annual Average Daily Traffic (AADT) volumes were obtained from the 2019 Arkansas Department of Transportation (ARDOT) Average Daily Traffic online application. The AADT along this segment of North Walton Boulevard varies between 25,000 and 30,000 as there are two AADT count locations. Crash data was collected using the ARDOT Arkansas Crash Analytics Tool (ACAT) online application. Due to the limitations of the ACAT online application, total crashes along the segment were not collected and only Bicycle/Pedestrian crashes were collected. Over the five-year period, one (1) Bike/Ped crash occurred along this segment of North Walton Boulevard which results in a crash rate of less than one (1) Bike/Ped crash per mile by year. No injuries or fatalities were observed in the Bike/Ped crash data along the segment. An aerial image from the trail along North Walton Boulevard is shown below in **Figure 6**.

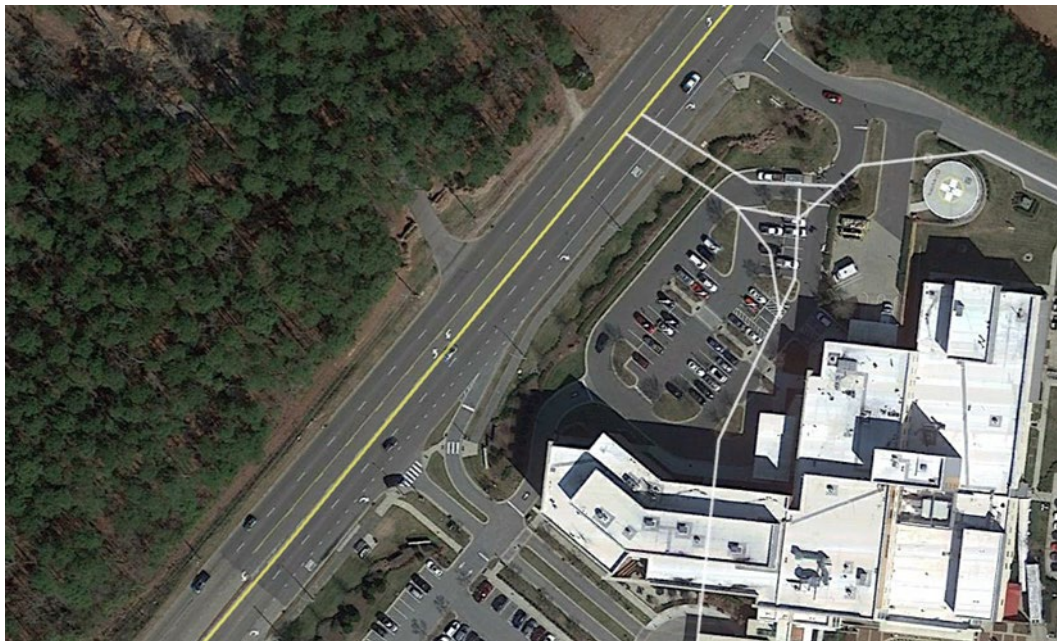
Figure 6: North Walton Boulevard Trail



Falls of Neuse Road Trail, Raleigh, NC

This section of trail along Falls of Neuse Road reviewed for this effort is approximately a 3.13-mile segment extending from Falls Valley Drive to Old Falls of Neuse Road in Raleigh, NC. This trail was constructed in approximately year 2005 based on Google Earth aerial photography. Existing Annual Average Daily Traffic (AADT) volumes were obtained from the 2019 North Carolina Department of Transportation (NCDOT) Annual Average Daily Traffic Mapping Application. The AADT along this segment of Falls of Neuse Road varies between 39,000 and 50,500 as there are four AADT count locations. Crash data was collected using the NCDOT Planning Level Safety Scoring Data interactive web application. Over the five-year period, a total of 726 crashes occurred along this segment of Falls of Neuse Road. The crash rate resulting from the 726 crashes occurring over the five-year period and the 3.13-mile segment is 47 crashes per mile by year. Of those 726 crashes, ten (10) involved a bicycle or a pedestrian which gives a crash rate of less than one (1) Bike/Ped crash per mile by year. The crash data obtained from NCDOT did not indicate severity of the injury or whether a fatality occurred for bicycle and pedestrian crashes. An aerial image from the Falls of Neuse Road Trail is shown below in **Figure 7**.

Figure 7: Falls of Neuse Road Trail



Dallas Road Trail, Dallas, TX

This section of trail reviewed along Dallas Road is approximately a 0.34-mile segment extending from Ball Street to Main Street in Dallas, TX. This Trail was constructed approximately in year 2020 based on Google aerial photography. Existing Annual Average Daily Traffic (AADT) volumes were obtained from the 2020 Texas Department of Transportation (TxDOT) District Traffic Web Viewer online application. The AADT along this segment of Dallas Road is 25,927. Crash data was collected using the TxDOT Crash Record Information System (CRIS) Query online application. Over the five-year period, a total of 192 crashes occurred along this segment of Dallas Road. The crash rate resulting from the 192 crashes occurring over the five-year period and the 0.34-mile segment is 113 crashes per mile by year. Of those 192 crashes, four (4) involved a bicycle or a pedestrian which gives a crash rate of two (2) Bike/Ped crashes per mile by year. In addition, over the five-year period, two (2) of the Bike/Ped crashes resulted in injury and there were no fatalities. An aerial image from the Dallas Road Trail is shown below in **Figure 8**.

Figure 8: Dallas Road Trail



Summary

In summary, each of the corridors reviewed varied in length, number of curb cuts, and AADTs. However, the number of bicycle/pedestrian crashes occurring per mile per year was generally consistent across the eight (8) study corridors ranging from 0.31 miles to 5.84 miles in length. Based on the corridors reviewed, there are a consistent number of crashes involving bicycles and pedestrians occurring along each of the comparable corridors.

Comparable Locations						Comparable Characteristics to Study Corridor				Crash Summary Data						
Comparison Type	Location	Limits of Evaluated Corridor	Map Link	Year Trail was Constructed ¹	Segment Length	Number of driveways/curb cuts the trail crosses (includes intersections) ¹	AADT ²	Posted Speed Limit	Surrounding Land Uses	Total Crashes (2016 - 2020)		Crashes per mile per year (2016 - 2020)		Bike/Ped Crash Severity (2016 - 2020)		Data Sources for Crash History
										Total	Bike/Ped	Total	Bike/Ped	Injuries	Fatalities	
Study Corridor	Thomasville Road (Tallahassee, FL) ³	Betton Road to Metropolitan Boulevard	Google Maps	-	2.41	44	30,000 34,000	45 MPH	Commercial/ Residential	673	5	56	<1	4	1	2016 - 2020 Signal4 Analytics
Local	Lafayette Street (Tallahassee, FL)	Franklin Boulevard to Magnolia Drive	Google Maps	2012	0.89	21	9,300	30 MPH	Commercial/ Residential	210	3	48	<1	3	0	2016 - 2020 Signal4 Analytics
Local	Franklin Boulevard (Tallahassee, FL)	Mahan Drive to Lafayette Street	Google Maps	2013	0.54	21	8,700	30 MPH	Residential/ Limited Commercial and Office/Open Space	156	7	58	2	7	0	2016 - 2020 Signal4 Analytics
State	US 1 - Overseas Trail (Marathon Key, FL)	Knights Key Boulevard to Gulf of Mexico Boulevard	Google Maps	~2000	5.72	125	12,800 19,300 29,900 24,000	45 MPH	Commercial/ Residential	997	49	35	2	37	4	2016 - 2020 Signal4 Analytics
State	Cross Seminole Trail - Rinehart Road (Sanford, FL)	N. Sun Drive to SR 46	Google Maps	~2000	4.22	44	18,500 29,500	45 MPH	Commercial/ Residential	997	14	72	<1	10	0	2016 - 2020 Signal4 Analytics
State	Cortez Boulevard (Spring Hill, FL)	US 19 to Suncoast Parkway (589)	Google Maps	Prior to 2016	5.84	62	27,500 38,000 40,500 35,000	45 MPH	Commercial/ Residential	1513	18	52	<1	16	2	2016 - 2020 Signal4 Analytics
National	N. Walton Boulevard (Bentonville, AR)	(Walton Boulevard) NW 14th Street to SW I Street	Google Maps	~2015	1.48	52	25,000 30,000	45 MPH	Commercial	Not Available	1	Not Available	<1	0	0	2016 - 2020 Arkansas Crash Analytics Tool
National	Falls of Neuse Road (Raleigh, NC)	Falls Valley Drive to Old Falls of Neuse Road	Google Maps	~2005	3.13	46	44,000 39,000 49,500 50,500	45 MPH	Commercial/ Residential	726	10	47	<1	Not Available	Not Available	2016 - 2020 NCDOT Planning Level Safety Scoring Data
National	Dallas Road (Dallas, TX)	Ball Street to Main Street	Google Maps	2020	0.34	9	25,927	40 MPH	Commercial/Office	192	4	113	2	2	0	2016 - 2020 TxDOT CRIS Query

¹Based on desktop review using Google Earth.

²Segments with multiple AADTs have more than one count location along the corridor in the applicable DOT count application.

³Crash data based on the existing facilities along Thomasville Road



Existing sidewalk on east side of Thomasville Road



Thomasville Road **MULTI-USE PATH** Feasibility Study



Existing sidewalk on west side of Thomasville Road

**CRTPA
BOARD
RETREAT**
*Safety Review &
Comparison*
10.19/2021

Safety Review & Comparison

Compared existing characteristics to the facility being evaluated along
Thomasville Road between Betton Road and Metropolitan Boulevard

Local	State	National
<ul style="list-style-type: none">• Lafayette Street• Franklin Boulevard	<ul style="list-style-type: none">• US 1 Overseas Trail• Cross Seminole Trail• Cortez Boulevard	<ul style="list-style-type: none">• N. Walton Boulevard (AR)• Falls of Neuse Road (NC)• Dallas Road (TX)

Study Corridor – Thomasville Road

Thomasville
Road
Tallahassee,
FL

- 45 mph
- AADT varies between 30,000 and 34,000
- 44 openings in 2.41 miles*
- <1 bike/ped crashes per mile per year**

*Based on the following alignment:

- East side of Thomasville Road from Betton Road to Woodgate Way
- West side of Thomasville Road from Woodgate Way to Metropolitan Boulevard

** Based on the existing facilities along Thomasville Road which include sidewalks for the entire length and bike lanes from Waverly Road north

Local Corridors

Lafayette Street

- 30 mph
- AADT 9,300
- 21 openings in .89 miles
- <1 bike/ped crashes per mile per year

Franklin Boulevard

- 30 mph
- AADT 8,700
- 21 openings in .54 miles
- 2 bike/ped crashes per mile per year

State Corridors

US 1 Overseas Trails Marathon, FL

- 45 mph
- AADT varies between 12,800 and 29,900
- 125 openings in 5.72 miles
- 2 bike/ped crashes per mile per year (2016-2020 data)

Cross Seminole Trail Rinehart Road Sanford, FL

- 45 mph
- AADT varies between 18,500 and 29,500
- 44 openings in 4.22 miles
- <1 bike/ped crashes per mile per year (2016-2020 data)

Cortez Boulevard Spring Hill, FL

- 45 mph
- AADT varies between 27,500 and 40,500
- 62 openings in 5.84 miles
- <1 bike/ped crashes per mile per year (2016-2020 data)

National Corridors

N. Walton Boulevard Bentonville, AR

- 45 mph
- AADT varies between 25,500 and 30,000
- 52 openings in 1.48 miles
- 2 bike/ped crashes per mile per year (2016-2020 data)

Falls of Neuse Road Raleigh, NC

- 45 mph
- AADT varies between 39,000 and 50,500
- 46 openings in 3.13 miles
- <1 bike/ped crashes per mile per year (2016-2020 data)

Dallas Road Dallas, TX

- 40 mph
- AADT is 25,927
- 9 openings in 0.34 miles
- 2 bike/ped crashes per mile per year (2016-2020 data)

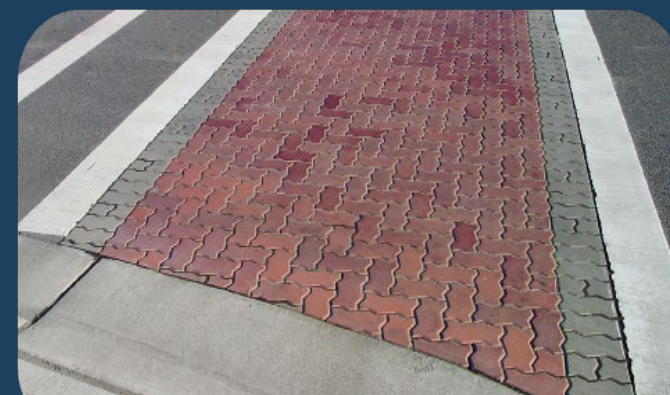
Crosswalk Treatment Examples



Thomasville Road
**MULTI-USE
PATH** Feasibility Study



Downtown Loop, Orlando, FL



October 19, 2021



RETREAT AGENDA ITEM

RAIL DISCUSSION

STATEMENT OF ISSUE

This item provides a discussion of rail by Rickey Fitzgerald, Florida Department of Transportation Freight and Multimodal Operations Office.

October 19, 2021



RETREAT AGENDA ITEM

STARMETRO UPDATE

STATEMENT OF ISSUE

An update on the recent initiative of the StarMetro related to the development of the [transit development plan \(TDP\)](#) and COA, branded as [Think Transit](#) will be provided. This initiative has been a yearlong effort to chart the next steps for StarMetro through a long range TDP and shorter term comprehensive operations analysis (COA).

The update will include an overview of the completed TDP, highlighting the agency's long range vision and goals and investment strategy. Additionally, information about the ongoing COA, including ridership trends, passenger preferences, and early findings regarding short-term service adjustments will be provided.

October 19, 2021



RETREAT AGENDA ITEM

PENSACOLA STREET ROADWAY SAFETY AUDIT

STATEMENT OF ISSUE

A presentation will be provided on the recently completed roadway safety audit (RSA) conducted for W. Pensacola Street (SR 399) from Appleyard Drive to Stadium Drive (a distance of 1.873 miles).

The findings of the Pensacola RSA are included in the ***attached*** technical memorandum.

BACKGROUND

An RSA provides a formal safety performance examination of an existing or future road or intersection by an independent, multidisciplinary team. It qualitatively estimates and reports on potential road safety issues and identifies opportunities for improvements in engineering, education, enforcement, and emergency response to improve safety for all road-users. The following steps are typically included in an RSA as set forth in guidelines by the Federal Highway Administration's (FHWA's) Roadway Safety Audit (RSA) process:

1. Identify project or road in service to be audited.
2. Select RSA team.
3. Conduct pre-audit meeting to review project information.
4. Perform field observations under various conditions.
5. Conduct audit analysis and prepare report of findings.
6. Present audit findings to Project Owner/Design Team.
7. Project Owner/Design Team prepares formal response.
8. Incorporate findings into project when appropriate.

May 4, 2021

TECHNICAL MEMORANDUM

**ROADWAY SAFETY AUDIT
SR 366 (WEST PENSACOLA STREET)
FROM APLEYARD DRIVE TO STADIUM
DRIVE**

Section No. 55090, Milepost 0.921-2.794

Leon County

Submitted to:
Florida Department of Transportation, District Three

1.0 INTRODUCTION

The Florida Department of Transportation, District Three Safety Office has retained Johnson, Mirmiran, & Thompson, Inc. (JMT) under a subconsultant agreement with Greenman-Pedersen, Inc. (GPI) to perform a Roadway Safety Audit (RSA) along SR 399 (W. Pensacola Street) from Appleyard Drive and Stadium Drive. The total length of the study segment is 1.873 miles.

The analysis methods used in conducting this study are consistent with those set forth in the Federal Highway Administration's (FHWA's) Roadway Safety Audit (RSA) process. An RSA is the formal safety performance examination of an existing or future road or intersection by an independent, multidisciplinary team. It qualitatively estimates and reports on potential road safety issues and identifies opportunities for improvements in engineering, education, enforcement, and emergency response to improve safety for all road-users.

A typical RSA consists of the following steps:

1. Identify project or road in service to be audited.
2. Select RSA team.
3. Conduct pre-audit meeting to review project information.
4. Perform field observations under various conditions.
5. Conduct audit analysis and prepare report of findings.
6. Present audit findings to Project Owner/Design Team.
7. Project Owner/Design Team prepares formal response.
8. Incorporate findings into project when appropriate.

Crash analysis tools implemented include the Crash Analysis Reporting System (CARS) and the Signal Four Analytics crash software databases. Crash reports, rates, and statewide comparisons were analyzed using the crash data from January 1, 2014 through December 31, 2018.

An RSA field review was conducted for the study segment on December 11, 2019. The field observations of the roadway's operational conditions were gathered during an average weekday.

Prior to the field review a meeting was held to discuss the RSA. Those in attendance were:

- Sergio Quevedo, JMT
- Michael Lewis, FDOT
- Delmas Barber, City of Tallahassee
- Ed Gomez, City of Tallahassee
- Allen Secreast, City of Tallahassee Traffic Engineering
- Bob Varble, Tallahassee Police Department
- Marie Vandenberg, Big Bend Homeless Coalition
- Koron Daniels CESC/Kearney Center
- Bret Oakessy, CESC/Kearney Center
- Jacob Reiter, CESC/Kearney Center

The RSA team participants included:

- Sergio Quevedo, JMT
- Glenn Bailey, JMT
- Michael Lewis, FDOT
- Delmas Barber, City of Tallahassee
- Ed Gomez, City of Tallahassee
- Justin Evans, GPI
- Dustin Roeder, Tallahassee Police Department

The findings and recommendations are summarized in Section 5.0 of this report.

2.0 EXISTING CONDITIONS

This section of the report describes the existing physical and operational conditions of the following corridors:

- SR 399 (West Pensacola Street) from Appleyard Drive to Stadium Drive

From Appleyard Drive to Stadium Drive, W. Pensacola Street is a two-way, four-lane divided roadway with a continuous two-way left turn lane, with limited areas of raised median and median striping. Figure 1 shows the segment location in relation to the adjacent roadway system.

The roadway within the study limits is classified as an urban minor arterial. The lanes are 11-feet wide with a 10-foot wide two-way left turn lane. There is curb and gutter on both sides of the corridors. Sidewalk is present along both sides of the roadway that ranges from 4-feet to 6-feet wide with grass utility strips located along both the north and south side of W. Pensacola Street. There are 4-foot bike lanes running eastbound and westbound along W. Pensacola Street.

Land uses along W. Pensacola Street are generally commercial and multi-family residential properties. These include Leon County Schools Administration West, Big Bend Homeless Coalition, The Kearney Center, Goodwill, University Village Shopping Center, McDonalds, Wendy's and multiple apartment buildings and other small commercial establishments. The side streets generally provide access to single family residential land uses and additional multi-family residential properties.

There are eight signalized intersections within the study segment. These intersections are located at:

- W. Pensacola Street at Appleyard Drive
- W. Pensacola Street at Dupree Street
- W. Pensacola Street at White Drive
- W. Pensacola Street at Ausley Road
- W. Pensacola Street at S. Ocala Road
- W. Pensacola Street at N. Lippona Road
- W. Pensacola Street at S. Chapel Drive
- W. Pensacola Street at Stadium Drive

The posted speed limits are as follows:

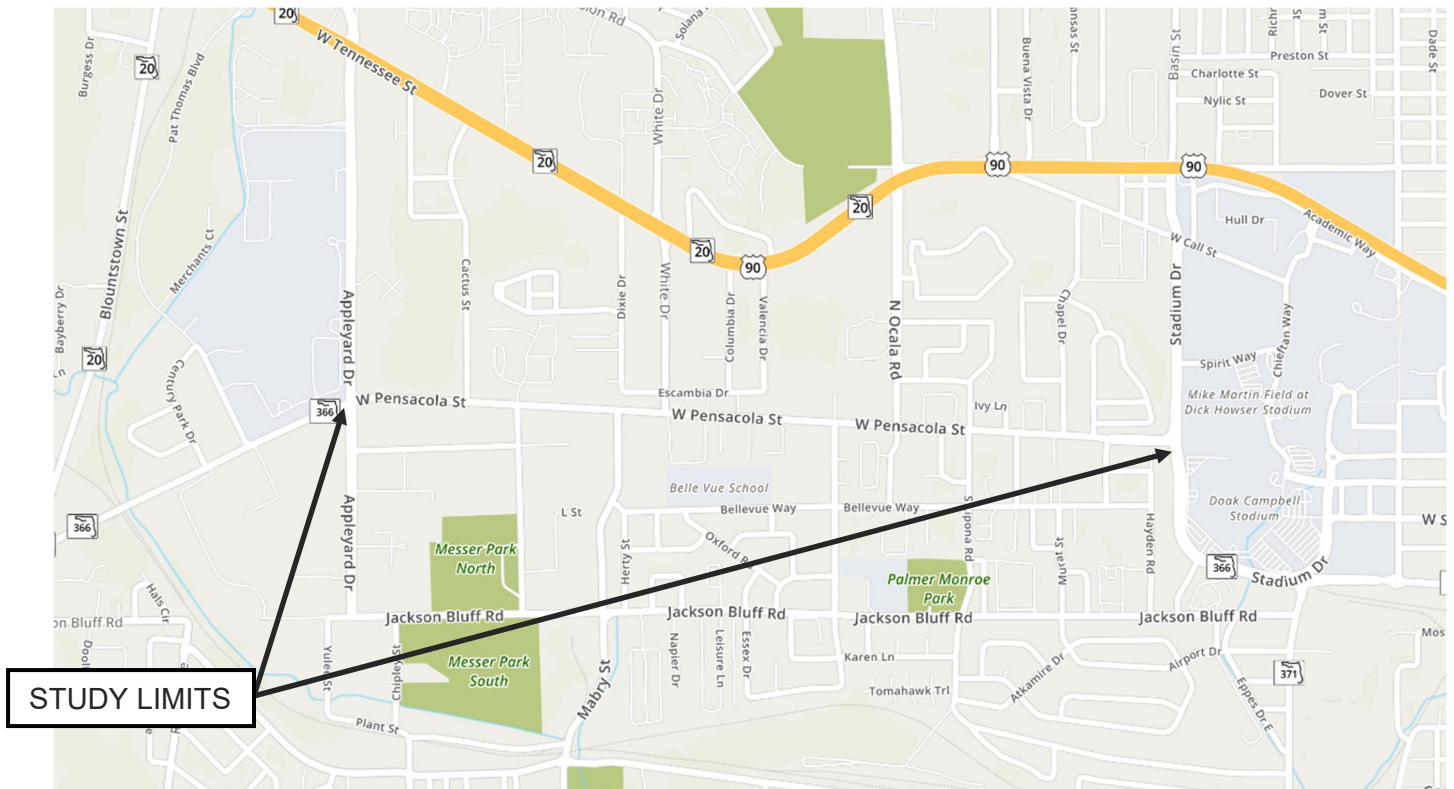
- W. Pensacola Street between Appleyard Drive and Dupree Street is 45 mph.
- W. Pensacola Street between Dupree Street and Stadium Drive is 40 mph.

There is limited lighting along the northbound and southbound sides of W. Pensacola Street as well as all of the signalized intersections.

There is at least one bus stop between every intersection within the study limits, except for the westbound segment on W. Pensacola Street between Appleyard Drive and Dupree Street. Starmetro and Seminole Express provide five bus routes along the segments. There are 9 bus stops along the south (eastbound) side of W. Pensacola Street. Routes T and 3 are for Starmetro, and routes HE, OS, NN are for Seminole Express. There are 6 bus stops along the north (westbound) side of W. Pensacola Street. Routes T and 3 are for Starmetro and routes HE, OS, NN are for Seminole Express.

Roadway Safety Audit
SR 366 (West Pensacola Street) from Appleyard Drive to Stadium Drive

Figure 1: Map of study segment



3.0 PEDESTRIAN AND BICYCLE COUNT DATA

Pedestrian and bicycle counts were performed along the corridor by HSA Consulting Group on Tuesday, September 17, 2019. The counts were performed from 7:00AM-10:00AM, 11:00AM-1:00PM, and 4:00PM-7:00PM. This count data is summarized in Appendix A of this report.

According to the count data the highest pedestrian and bicycle crossing activity was observed between Cactus Street and Ausley Road. The following is a summary of the daily crossings that were observed in this area.

- Cactus St to Dupree St – 105 daily crossings
- Dupree St – 161 daily crossings
- Dupree St to Mabry St – 115 daily crossings
- Mabry St to White Dr – 80 daily crossings
- White Dr – 47 daily crossings
- White Dr to College Square DW – 55 daily crossings
- College Square DW to Ausley Rd – 45 daily crossings
- Ausley Rd – 129 daily crossings

4.0 CRASH ANALYSIS

Crash reports were obtained from the University of Florida's Signal Four Analytics database and the FDOT's Crash Analysis Reporting System (CARS) database for the 60-month period extending between January 2014 and December 2018. Crash data for 2019 is not complete as of the date of this report; however, the 2019 pedestrian and bicycle crash data that has been reported to date was collected to include in the analysis. The crash data is summarized in Table 1.

The following is a summary of the crash analysis findings.

- There have been 1536 crashes reported within the study segment during the 6-year time period.
- The majority of crashes were rear end type with 805 (52%).
 - 83% of the rear end crashes occurred at signalized intersections.
- 262 (17%) of the crashes were angle collisions
- 195 (13%) of the crashes were sideswipe crashes.
- 134 (9%) of the crashes were left turn crashes.
- There were 57 crashes reported involving a pedestrian or bicycle.
 - 41 of these bicycle/pedestrian crashes occurred midblock and at unsignalized intersections/driveways, with the other 16 occurring at signalized intersections.
 - There were 2 fatal and 10 serious injuries involving a pedestrian or bicycle.
- Five total fatalities occurred along the corridor.
- 424 (28%) of the crashes resulted in personal injury.
- 482 (31%) of the crashes occurred at night.
- 248 (16%) of the crashes occurred on wet pavement.

*Table 1: Collision Summary
SR 399 (W. Pensacola Avenue) from Appleyard Drive to Stadium Drive
January 2014 - December 2019
(72 months of data)*

COLLISION TYPE	2014	2015	2016	2017	2018	2019	TOTAL
Rear End	124	158	146	145	121	111	805
Left Turn	11	21	24	23	27	28	134
Angle	51	48	57	45	42	19	262
Sideswipe	30	37	37	28	34	29	195
Run-Off-Road	0	3	1	1	5	3	13
Right Turn	0	0	0	0	0	3	3
Pedestrian/Bicycle	5	9	12	10	8	13	57
Head On	3	3	2	4	2	5	19
Other	17	4	13	8	3	3	48
Total	241	283	292	264	242	214	1536

Fatal	0	3	1*	0	0	1*	5
Injury	61	73	82	66	67	75	424
Property Damage Only	180	207	209	198	175	138	1107

Day	162	206	195	188	166	137	1054
Night	79	77	97	76	76	77	482

Wet	41	41	45	42	47	32	248
Dry	200	242	247	222	195	182	1288

*Fatal crash involved a bicyclist or pedestrian.

5.0 QUALITATIVE ASSESSMENT

Qualified Engineers observed the segment of SR 399 (W. Pensacola Street) from Appleyard Drive to Stadium Drive during an average weekday to assess existing safety and operating conditions. The Findings Detail Sheets include the observation overview, picture of the observation, suggestions for consideration, and level of safety impact. It also includes a map and latitude/longitude data to define the location of the observation.

Observations and corresponding recommendations are assigned one of three levels of safety impact categories—Low, Medium, and High:

- “Low” improvements consist of basic improvements such as ADA improvements or pavement markings that can generally be done with in-house maintenance forces and has a lower safety impact.
- “Medium” improvements are more involved and include improvements such as signing, minor drainage repair, and minor roadway upgrades. These can typically be done as part of a RRR project and have a moderate safety impact.
- “High” improvements are the most involved in scope, may require right-of-way and public involvement, and typically will require a separate work program project to complete. This includes improvements such as signal upgrades, lighting, and access management and have a high safety impact.

Observations are also assigned one of three implementation mechanisms.

- RRR - the recommendations can be included in an already programmed RRR project.
- HSIP - the recommendations can be done as a safety project.
- Maintenance - the recommendations can be done under a maintenance contract.

The observations and corresponding recommendations are grouped into spot observations and corridor-wide observations.

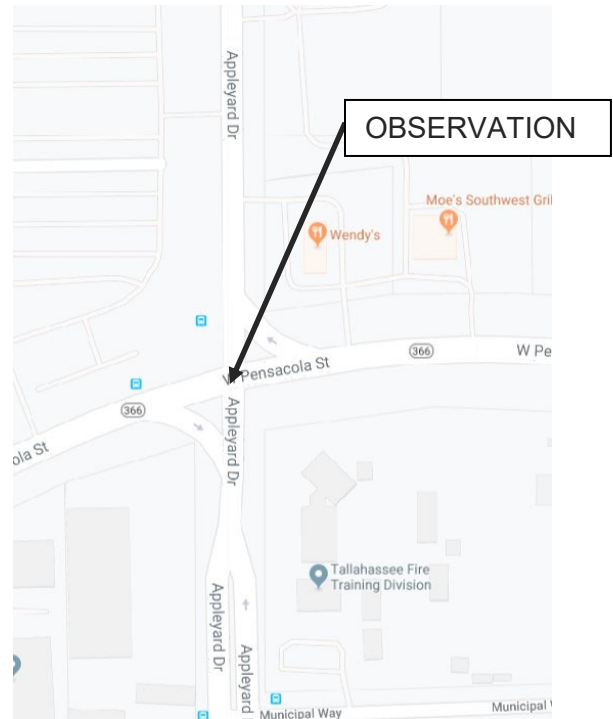
- Spot observations relate to one issue at a single location
- Corridor-wide observations relate to a recurring issue throughout a study area

Intersection Observation #1

Location – SR 399 (W. Pensacola Street) at Appleyard Drive. (Position: +30.441378°/-84.337878°)

Observation Overview –

- Clearance times for pedestrians crossing Appleyard Drive is insufficient.
- Crosswalks are not high emphasis.
- The Yield sign in the northeast corner is mounted on the signal pole.
- The pedestrian walk indication is not functioning for the crossing across the north leg of Appleyard Drive.
- Lighting for the intersection is insufficient.



Recommendation –

- Add more pedestrian clearance time to the crossings across Appleyard Drive.
- Restripe all crosswalks to high emphasis markings.
- Replace the Yield sign in northeast corner.
- Fix the pedestrian signal heads for the crossing across the north leg of Appleyard Drive.
- Upgrade the intersection lighting.

Improvement Type – Vehicular and Pedestrian Safety

Implementation Mechanism – HSIP or RRR and Maintenance

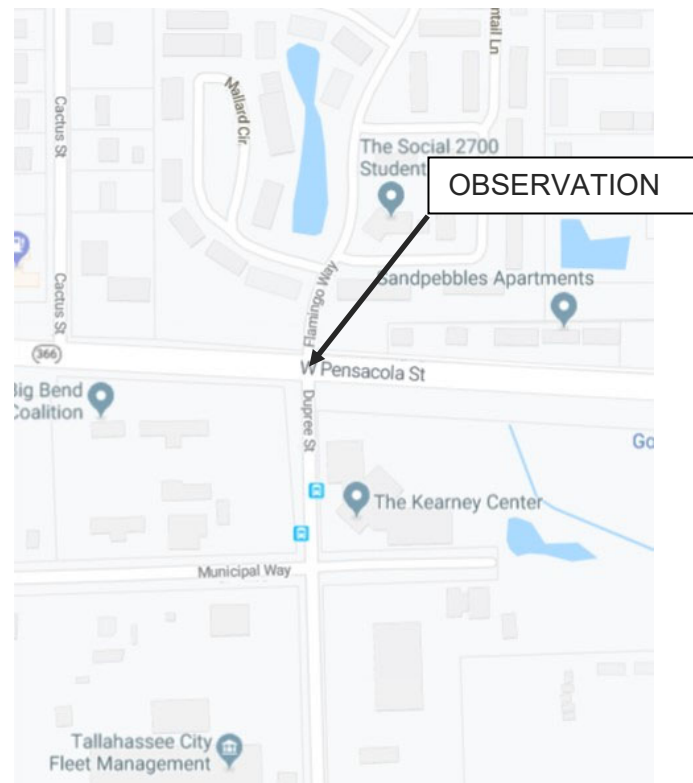
Level of Impact – High

Intersection Observation #2

Location – SR 399 (W. Pensacola Street) at Dupree Street. (Position: +30.441292°/-84.331565°)

Observation Overview –

- Lighting for the intersection is insufficient with only one luminaire located in the southeast corner.
- Crosswalks are not high emphasis.
- Pedestrian detectors are on single pedestals in each corner of the intersection.
- Street name signs are old and outdated.
- The left turn phasing along Pensacola Street is protected-permissive with 5-section signal heads.



Recommendation –

- Upgrade the intersection lighting.
- Restripe all crosswalks to high emphasis markings.
- Separate the pedestrian detectors (one for each direction) and upgrade all to audible version.
- Add internally illuminated street name signs.
- Replace all existing left turn signal heads with 4-section signal heads with flashing arrows and protected only operation when a conflicting pedestrian call is received.

Improvement Type – Vehicular and Pedestrian Safety

Implementation Mechanism – HSIP or RRR

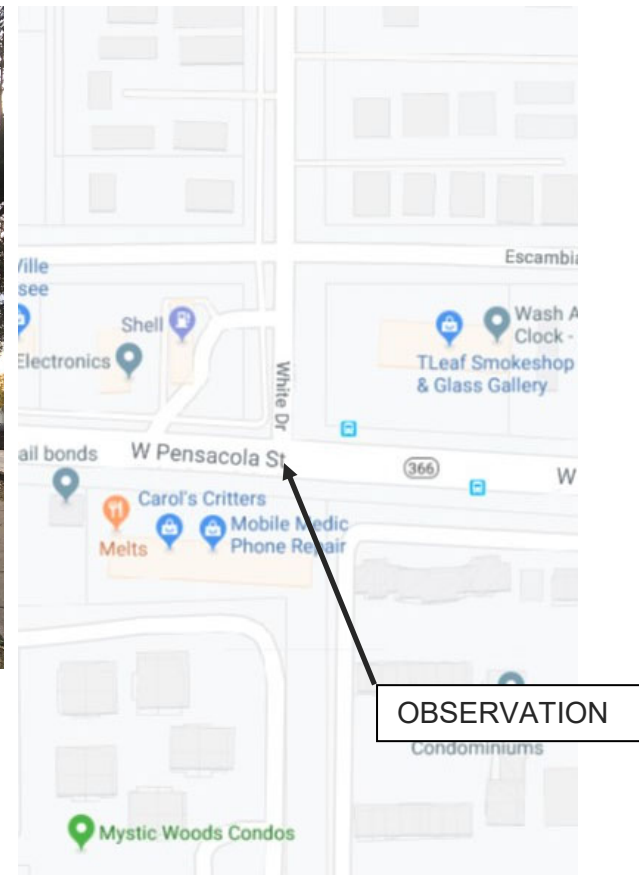
Level of Impact – High

Intersection Observation #3

Location – SR 399 (W. Pensacola Street) at White Drive. (Position: +30.441023°/-84.325967°)

Observation Overview –

- There is an oak tree with overhanging limbs eastbound (south side) that obstructs the signal indications.
- Lighting for the intersection is insufficient.
- The detectable warning in the northwest corner is damaged.
- The left turn phasing along Pensacola Street is protected-permissive with 5-section signal heads.



Recommendation –

- Trim the oak tree that is obstructing the visibility of the signal heads.
- Upgrade the intersection lighting.
- Replace the detectable warning in the northwest corner.
- Replace all existing left turn signal heads with 4-section signal heads with flashing arrows and protected only operation when a conflicting pedestrian call is received.

Improvement Type – Vehicular and Pedestrian Safety

Implementation Mechanism – HSIP or RRR and Maintenance

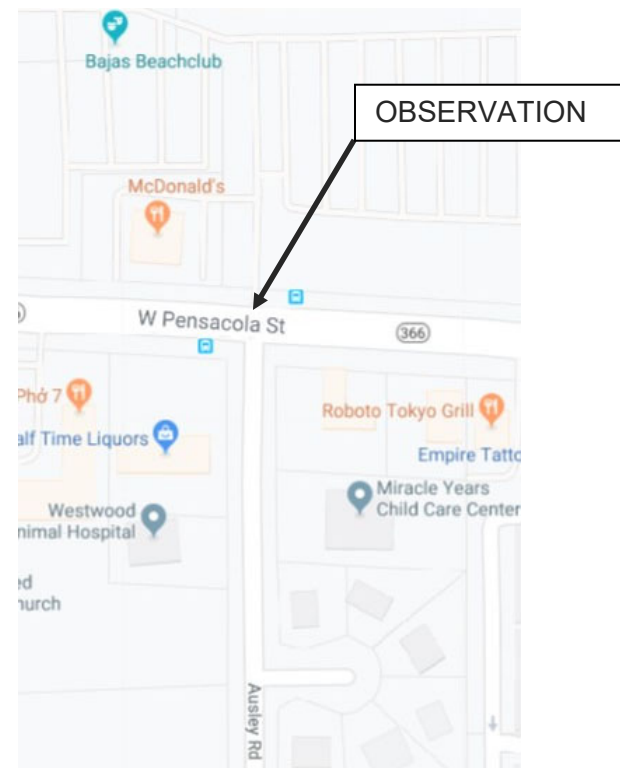
Level of Impact – High

Intersection Observation #4

Location – SR 399 (W. Pensacola Street) at Ausley Road. (Position: +30.440700°/-84.319545°)

Observation Overview –

- Lighting for the intersection is insufficient with only one luminaire located in the southeast corner.
- Crosswalks are not high emphasis.
- Pedestrian detectors are on single pedestals in each corner of the intersection.
- Street name signs are old and outdated.
- The left turn phasing along Pensacola Street is protected-permissive with 5-section signal heads.



Recommendation –

- Upgrade the intersection lighting.
- Restripe all crosswalks to high emphasis markings.
- Separate the pedestrian detectors (one for each direction) and upgrade all to audible version.
- Add internally illuminated street name signs.
- Replace all existing left turn signal heads with 4-section signal heads with flashing arrows and protected only operation when a conflicting pedestrian call is received.

Improvement Type – Vehicular and Pedestrian Safety

Implementation Mechanism – HSIP or RRR

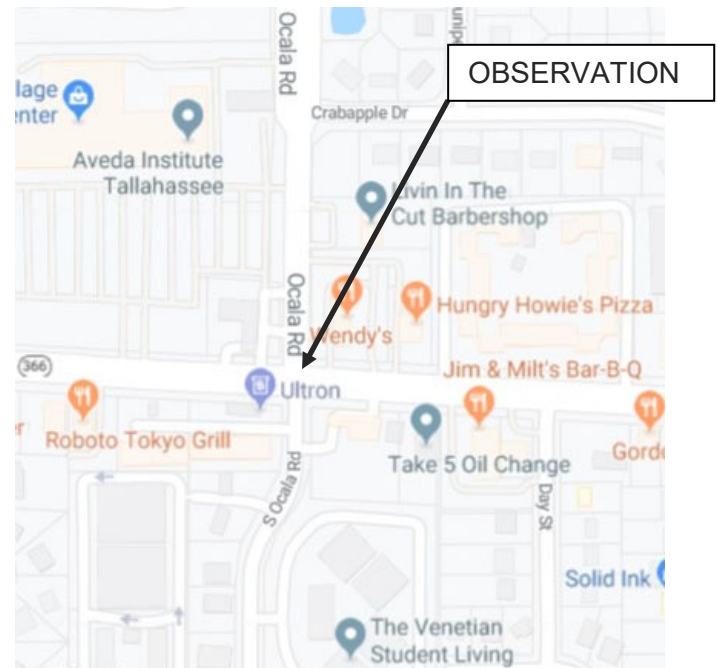
Level of Impact – High

Intersection Observation #5

Location – SR 399 (W. Pensacola Street) at S. Ocala Road. (Position: +30.44060°/-84.317167°)

Observation Overview –

- Lighting for the intersection is insufficient with single luminaires located in three corners.
- Crosswalks are not high emphasis.
- Pedestrian detectors are on single pedestals in each corner of the intersection.
- Street name signs are old and outdated.
- A pullbox in the northeast corner of the intersection is damaged.
- The left turn phasing along Pensacola Street is protected-permissive with 5-section signal heads eastbound and permissive only westbound.



Recommendation –

- Upgrade the intersection lighting.
- Restripe all crosswalks to high emphasis markings.
- Separate the pedestrian detectors (one for each direction) and upgrade all to audible version.
- Add internally illuminated street name signs.
- Replace the damaged pullbox in the northeast corner of the intersection.
- Replace all existing left turn signal heads with 4-section signal heads with flashing arrows and protected only operation when a conflicting pedestrian call is received.

Improvement Type – Vehicular and Pedestrian Safety

Implementation Mechanism – HSIP or RRR and Maintenance

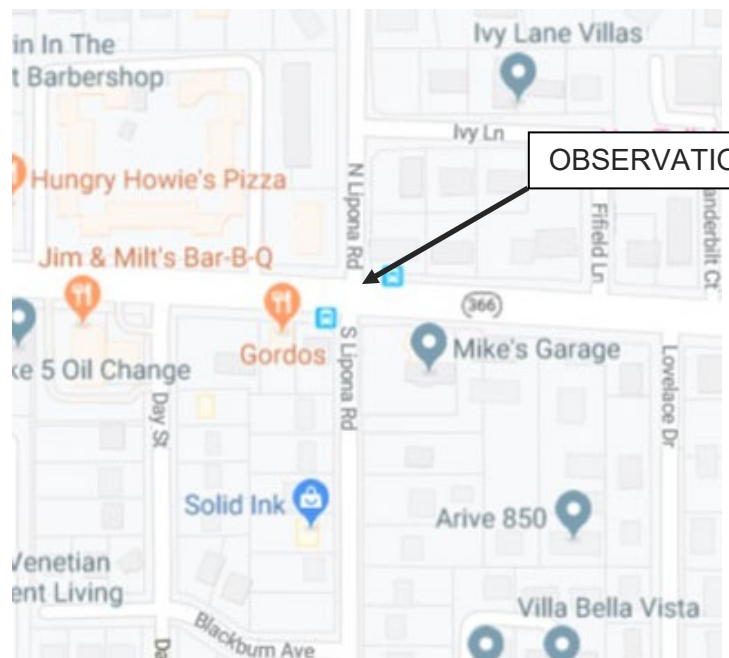
Level of Impact – High

Intersection Observation #6

Location – SR 399 (W. Pensacola Street) at Lipona Road. (Position: +30.440470°/-84.314414°)

Observation Overview –

- Lighting for the intersection is insufficient with only one luminaire located in the southwest corner.
- Crosswalks are not high emphasis.
- Pedestrian detectors are on single pedestals in each corner of the intersection.
- Street name signs are old and outdated.
- The left turn phasing along Pensacola Street is protected-permissive with 5-section signal heads.
- The signal pole in the southeast corner of the intersection is located in the middle of the sidewalk and appropriate walking width is not provided per ADA.



Recommendation –

- Upgrade the intersection lighting.
- Restripe all crosswalks to high emphasis markings.
- Separate the pedestrian detectors (one for each direction) and upgrade all to audible version.
- Add internally illuminated street name signs.
- Replace all existing left turn signal heads with 4-section signal heads with flashing arrows and protected only operation when a conflicting pedestrian call is received.
- Reconfigure the sidewalk in the southeast corner to provide appropriate walking width around the signal pole.

Improvement Type – Vehicular and Pedestrian Safety

Implementation Mechanism – HSIP or RRR

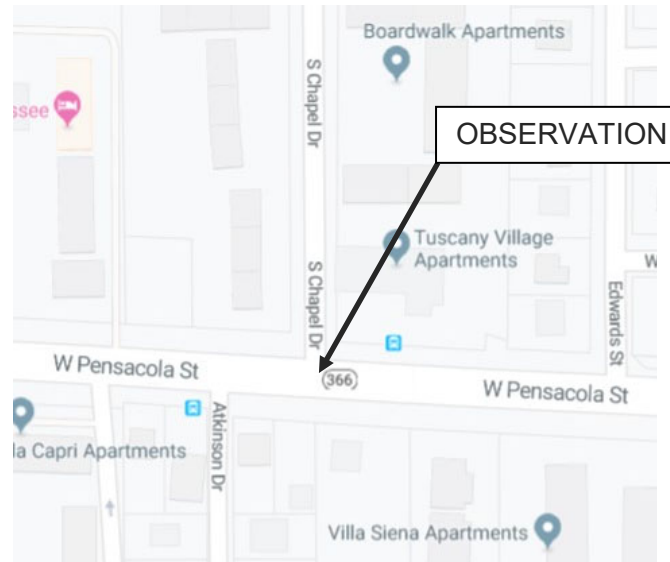
Level of Impact – High

Intersection Observation #7

Location – SR 399 (W. Pensacola Street) at S Chapel Drive. (Position: +30.440287°/-84.310843°)

Observation Overview –

- There is an apartment complex currently being built in the northwest corner of the intersection.
- There is no crosswalk for the west leg of Pensacola Street and existing crosswalks are not high emphasis.
- There is no lighting for the intersection.
- Street name signs are old and outdated.
- Some pedestrian detector buttons are outdated and in poor condition.
- Pedestrian detector buttons are located on a single pedestal pole in the northeast corner and on the signal poles in both the northwest and southeast corner.
- The pedestrian button in the northeast corner is not accessible.
- The left turn phasing along Pensacola Street is protected-permissive with 5-section signal heads.



Recommendation –

- Restripe all crosswalks to high emphasis markings and add a crosswalk and pedestrian features across the west leg of Pensacola Street.
- Upgrade the intersection lighting.
- Separate the pedestrian detectors (one for each direction) and upgrade all to audible version. Move the pedestrian detector/signal station in the northeast corner to the back of sidewalk.
- Add internally illuminated street name signs.
- Replace all existing left turn signal heads with 4-section signal heads with flashing arrows and protected only operation when a conflicting pedestrian call is received.

Improvement Type – Vehicular and Pedestrian Safety

Implementation Mechanism – HSIP or RRR

Level of Impact – High

Corridor Observation #1

Location – SR 399 (W. Pensacola Street) between Appleyard Drive and Dupree Street, multiple locations.

Positions:

+30.441325°/-84.336823°, eastbound

+30.441638°/-84.336823°, westbound

Observation Overview –

- Extremely high volume of pedestrian crossings between Cactus Street and Dupree Street.
- There is damaged sidewalk on the north side and south side of Pensacola Street in front of Moe's Southwest Grill.



Recommendation –

- Recommend a mid-block crossing be installed on Pensacola Street between Cactus Street and Dupree Street with a raised median island and appropriate traffic control.
- Repair damage to sidewalks.

Improvement Type – Pedestrian Safety

Implementation Mechanism – HSIP or RRR and Maintenance

Level of Impact – High

Corridor Observation #2

Location – SR 399 (Pensacola Street) between Dupree Street and White Street, multiple locations.

Positions:

+30.441116°/-84.327805°, east & westbound
+30.441134°/-84.330695°, eastbound

+30.441149°/-84.327915°, westbound
+30.441337°/-84.330765°, westbound
+30.441309°/-84.329793°, westbound
+30.441368°/-84.330842°, westbound

Observation Overview –

- Extremely high volume of pedestrian crossings between Dupree Street and Mabry Street.
- There are tripping hazards and a sidewalk drop-off on the north side of Pensacola Street just prior to Dupree Street.



Recommendation –

- Recommend a mid-block crossing be installed on Pensacola Street between Dupree Street and White Street with a raised median island and appropriate traffic control.
- Add speed feedback signs along the corridor.
- Recommend adding a boarding and alighting pad for the bus stop on the north side of westbound Pensacola Street immediately west of Mabry Street.
- Repair the tripping hazards and sidewalk drop-offs along the corridor.

Improvement Type – Pedestrian Safety

Implementation Mechanism – HSIP or RRR and Maintenance

Level of Impact – High

Corridor Observation #3

Location – SR 399 (Pensacola Street) between White Drive and Ausley Road, multiple locations.

+30.440856°/-84.323145°, eastbound
+30.440684°/-84.319750°, eastbound
+30.440626°/-84.321039°, eastbound
+30.440779°/-84.324117°, eastbound
+30.440970°/-84.325225°, eastbound

+30.440852°/-84.322113°, westbound

Observation Overview –

- Power poles are located in the south side (eastbound) sidewalk are not providing enough clearance for pedestrians.
- There is encroaching shrubbery along the south side (eastbound) sidewalk.
- There is sidewalk drop-off in front of Palms West condominiums along the south side (eastbound) of Pensacola Street.



Recommendation –

- Reconfigure the sidewalk around the power poles to provide enough pedestrian walking width along the south side (eastbound) sidewalk.
- Trim the encroaching shrubbery along the south side (eastbound) sidewalk.
- Add handrail along the south side (eastbound) sidewalk of Pensacola Street in front of Palms West condominiums.

Improvement Type – Pedestrian Safety

Implementation Mechanism – HSIP or RRR and Maintenance

Level of Impact – Low

Corridor Observation #4

Location – SR 399 (Pensacola Street) between Ausley Road and Ocala Road, multiple locations.

30.440516°/-84.317963°, eastbound

+30.440803°/-84.318447°, westbound

+30.440758°/-84.318646°, westbound

Observation Overview –

- There is damaged sidewalk along the south side (eastbound) of Pensacola Street.
- There is a speed limit sign along the north side (westbound) of Pensacola Street that has been knocked over.



Recommendation –

- Repair the damaged sidewalk along the south side (eastbound) of Pensacola Street.
- Replace the speed limit sign along the north side (westbound) of Pensacola Street.

Improvement Type – Vehicular and Pedestrian Safety

Implementation Mechanism – Maintenance

Level of Impact – Medium

Corridor Observation #5

Location – SR 399 (Pensacola Street) between Ocala Road and Lipona Road, multiple locations.

+30.440444°/-84.315901°, eastbound

+30.440714°/-84.316560°, westbound

+30.440726°/-84.316978°, westbound

Observation Overview –

- There is damaged sidewalk along the north side (westbound) of Pensacola Street and along the south side (eastbound) of Pensacola Street.
- There is a power pole along the south side (eastbound) of Pensacola Street that is not allowing enough space for pedestrians to safely walk in the sidewalk.



Recommendation –

- Repair any damaged sidewalk on both sides of Pensacola Street.
- Reconfigure the sidewalk around the power poles to provide enough pedestrian walking width along the south side (eastbound) sidewalk.

Improvement Type – Pedestrian Safety

Implementation Mechanism – HSIP or RRR and Maintenance

Level of Impact – Low

Corridor Observation #6

Location – SR 399 (Pensacola Street) between Lipona Road and Chapel Drive, multiple locations.

+30.440262°/-84.311288°, eastbound

+30.440538°/-84.314287°, westbound

Observation Overview –

- There is raised sidewalk along the south side (eastbound) of Pensacola Street creating a tripping hazard for pedestrians.
- There is encroachment along the north side (westbound) of Pensacola Street.



Recommendation –

- Repair any damaged sidewalk on both sides of Pensacola Street.
- Recommend trimming the vegetation that is encroaching along the north side (westbound) sidewalk of Pensacola Street.

Improvement Type – Pedestrian Safety

Implementation Mechanism – Maintenance

Level of Impact – Low

Corridor Observation #7

Location – SR 399 (Pensacola Street) between Chapel Drive and Stadium Drive, multiple locations.

+30.440106°/-84.309493°, eastbound
+30.440123°/-84.308834°, eastbound
+30.440091°/-84.308628°, eastbound

+30.440328°/-84.308515°, westbound
+30.440358°/-84.310643°, westbound
+30.440414°/-84.310566°, westbound

Observation Overview –

- There is raised sidewalk along the south side (eastbound) of Pensacola Street in front of the Mellow Mushroom restaurant, creating a tripping hazard for pedestrians.
- The bike/ped sign on the north side (westbound) of Pensacola Street is old and worn.



Recommendation –

- Repair the damaged sidewalk on the south side (eastbound) of Pensacola Street.
- Recommend replacing the ped/bike sign on the north side (westbound) of Pensacola Street.

Improvement Type – Pedestrian Safety

Implementation Mechanism – Maintenance

Level of Impact – Low

6.0 RECOMMENDATIONS

The tables below summarize the recommendations made as part of this Roadway Safety Audit. In addition, cost estimates for the proposed safety improvements and a benefit-cost analysis were prepared and included in Appendix B and C.

Table 2: Intersection Recommendations (for Maintenance)

Recommendation	Appleyard Drive	Dupree Street	White Drive	Ausley Road	Ocala Road	Lipona Road	Chapel Drive
Add more pedestrian clearance time to the crossings	x						
Restripe all crosswalks to high emphasis markings	x	x		x	x	x	x
Replace the yield sign in northeast corner	x						
Trim the oak tree that is obstructing the visibility of the signal heads			x				
Replace the detectable warning in the northwest corner			x				
Replace the damaged pullbox in the northeast corner of the intersection					x		

Table 3: Corridor Recommendations (for Maintenance)

Recommendation	Appleyard Drive to Dupree Street	Dupree Street to White Street	White Drive to Ausley Road	Ausley Road to Ocala Road	Ocala Road to Lipona Road	Lipona Road to Chapel Drive	Chapel Drive to Stadium Drive
Repair damage to the sidewalks	x			x	x	x	x
Repair the tripping hazards and sidewalk drop offs along the corridor		x					
Replace the speed limit sign				x			
Trim the vegetation that is encroaching along the sidewalk			x			x	
Replace the ped/bike sign							x

Table 4: Intersection Recommendations (for HSIP Safety Project)

Recommendation	Appleyard Drive	Dupree Street	White Drive	Ausley Road	Ocala Road	Lipona Road	Chapel Drive
Fix the pedestrian signal heads for the crossing across the north leg	x						
Upgrade the intersection lighting	x	x	x	x	x	x	x
Separate the pedestrian detectors (one for each direction) and upgrade all to audible version		x		x	x	x	x
Add internally illuminated street name signs		x		x	x	x	x
Replace all existing left turn signal heads with 4-section signal heads with flashing arrows and protected only operation when a conflicting pedestrian call is received		x	x	x	x	x	x
Reconfigure the sidewalk in the southeast corner to provide appropriate walking width around the signal pole						x	
Add a crosswalk and pedestrian features across the west leg							x
Move the pedestrian detector/signal station in the northeast corner to the back of sidewalk							x

Table 5: Corridor Recommendations (for HSIP Safety Project)

Recommendation	Appleyard Drive to Dupree Street	Dupree Street to White Street	White Drive to Ausley Road	Ausley Road to Ocala Road	Ocala Road to Lipona Road	Lipona Road to Chapel Drive	Chapel Drive to Stadium Drive
Install a mid-block crossing with a raised median island and Rectangular Rapid Flashing Beacons	x	x					
Add speed feedback signs along the corridor		x					
Add a boarding and alighting pad for the bus stop		x					
Reconfigure the sidewalk around the power poles to provide enough pedestrian walking width along the sidewalk			x		x		
Add handrail			x				

APPENDIX A

Pedestrian and Bicycle Count Data



Pensacola Street Pedestrian & Bicycle Crossing Data Collection From Appleyard Drive to Stadium Drive

Pedestrian/ Bicycle Count:

September 17, 2019

7:00AM - 10:00AM

11:00AM - 1:00PM

4:00PM - 7:00PM

Prepared for:

**Florida Department of Transportation
District 3 Safety Office
Chipley, FL**

Prepared by:

HSA Consulting Group

1284 Jackson Avenue

Chipley, FL 32428

September 23, 2019

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Zone 1: Pensacola Street Crossing at Appleyard Drive (Signalized Intersection)

9/17/2019

Pedestrian/ Bicycle Count:

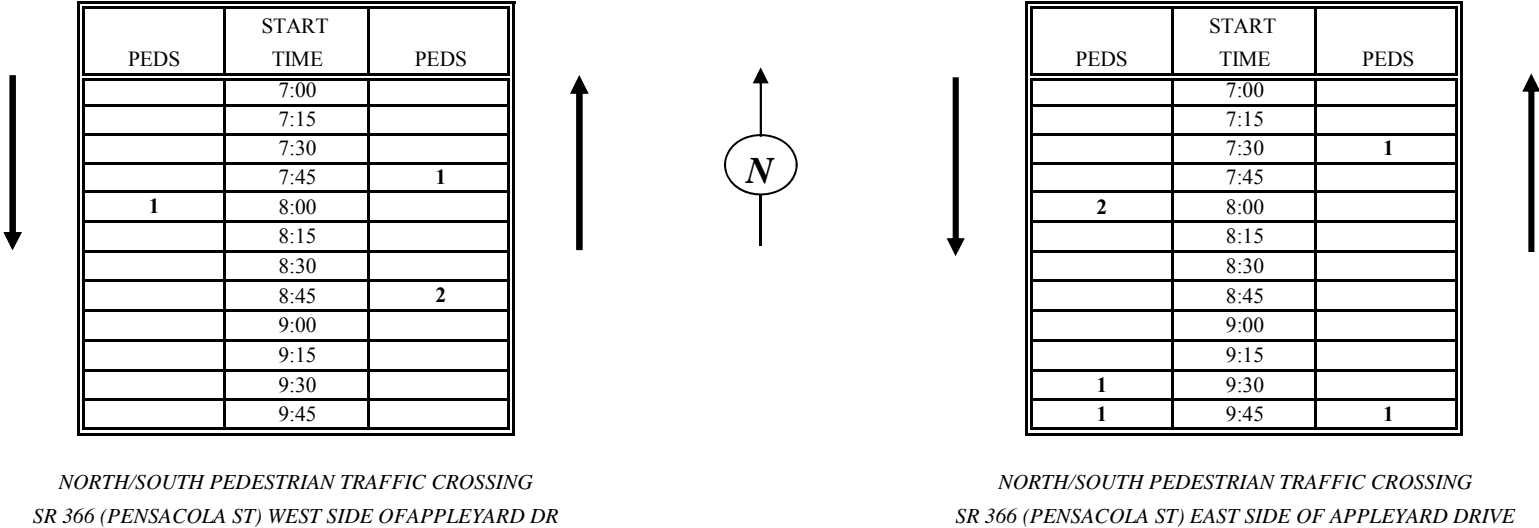
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11:00AM - 1:00PM

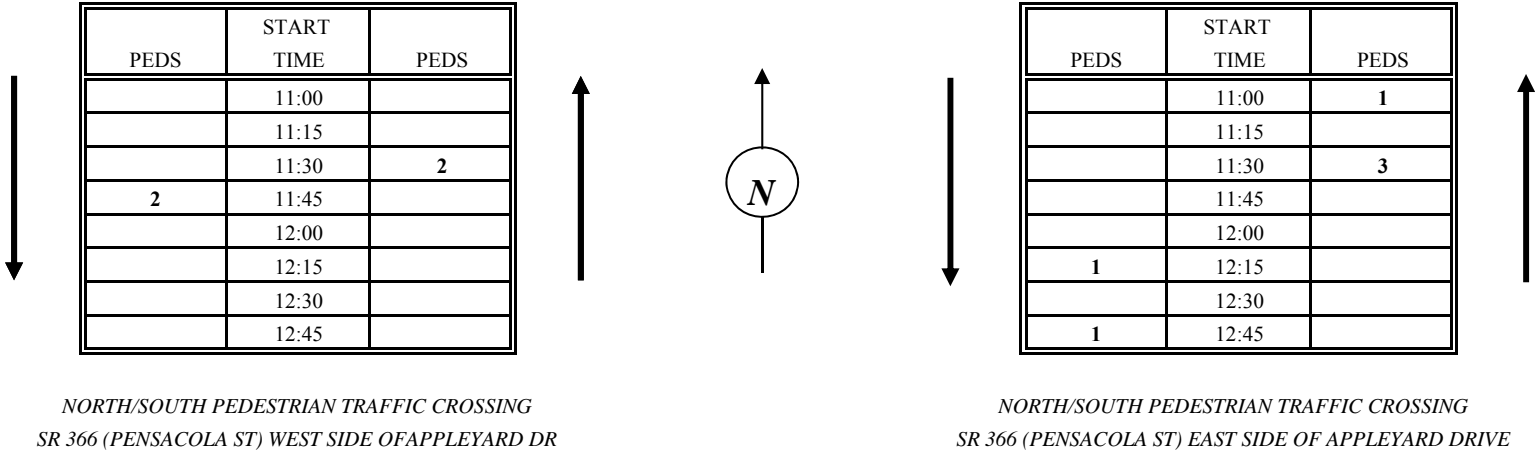
4:00PM - 7:00PM



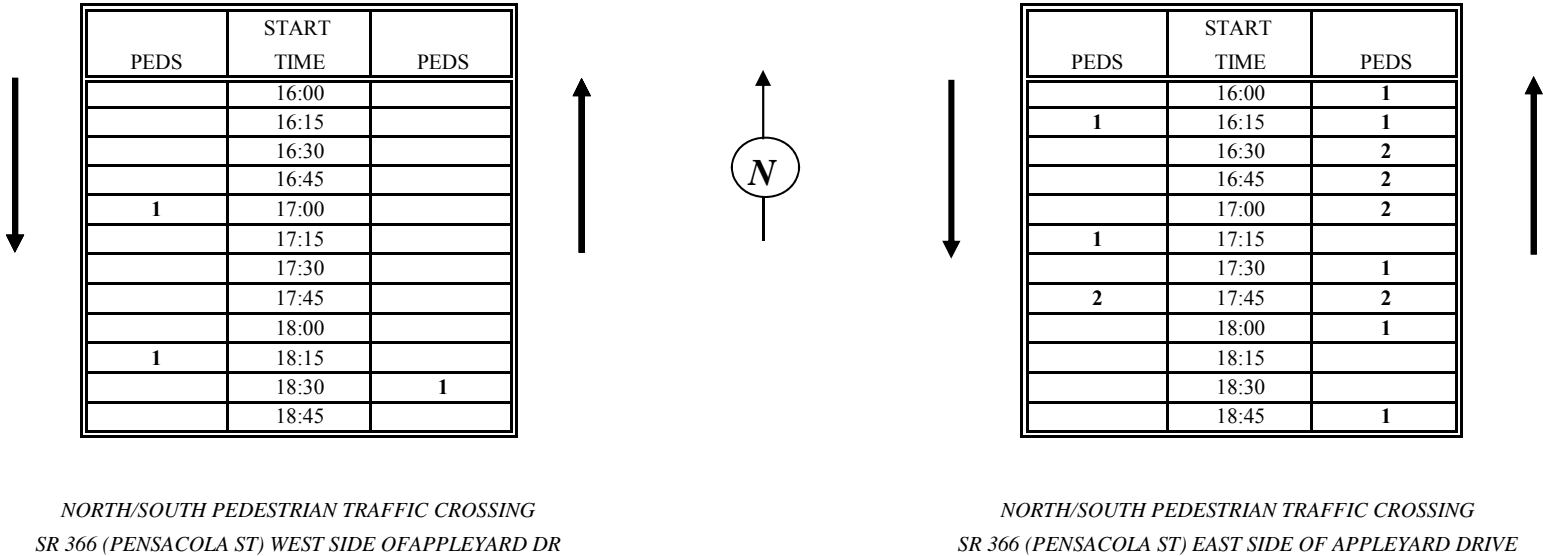
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Appleyard Drive
Leon County
Tuesday, September 17, 2019



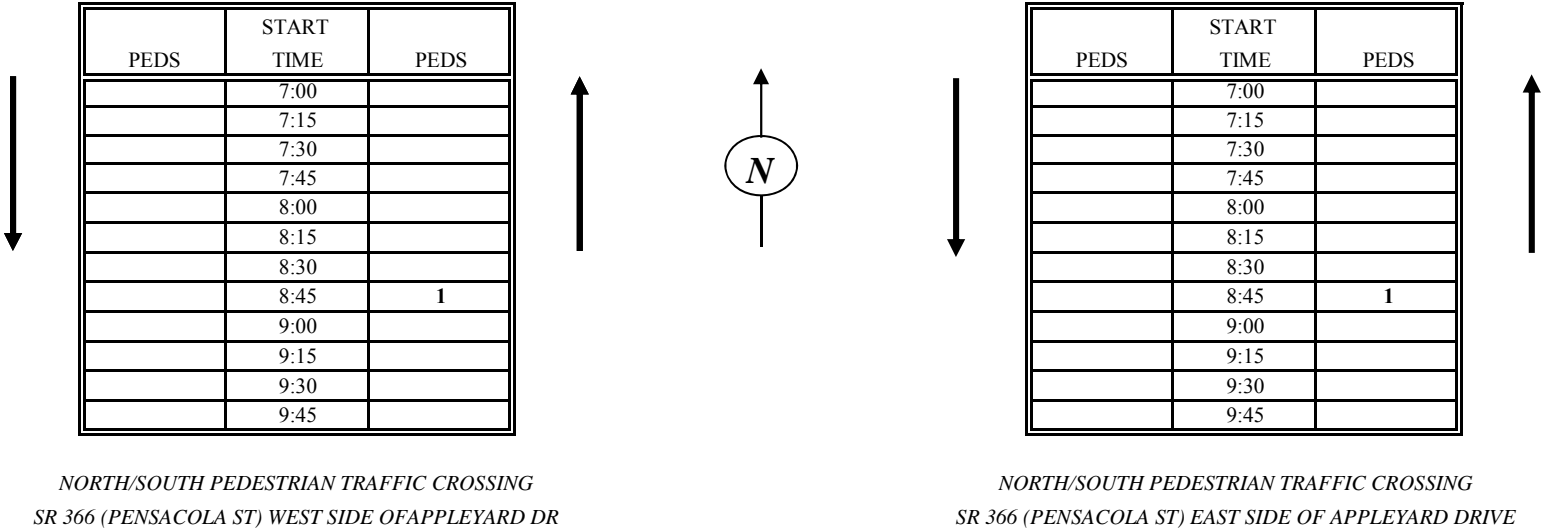
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Appleyard Drive
Leon County
Tuesday, September 17, 2019



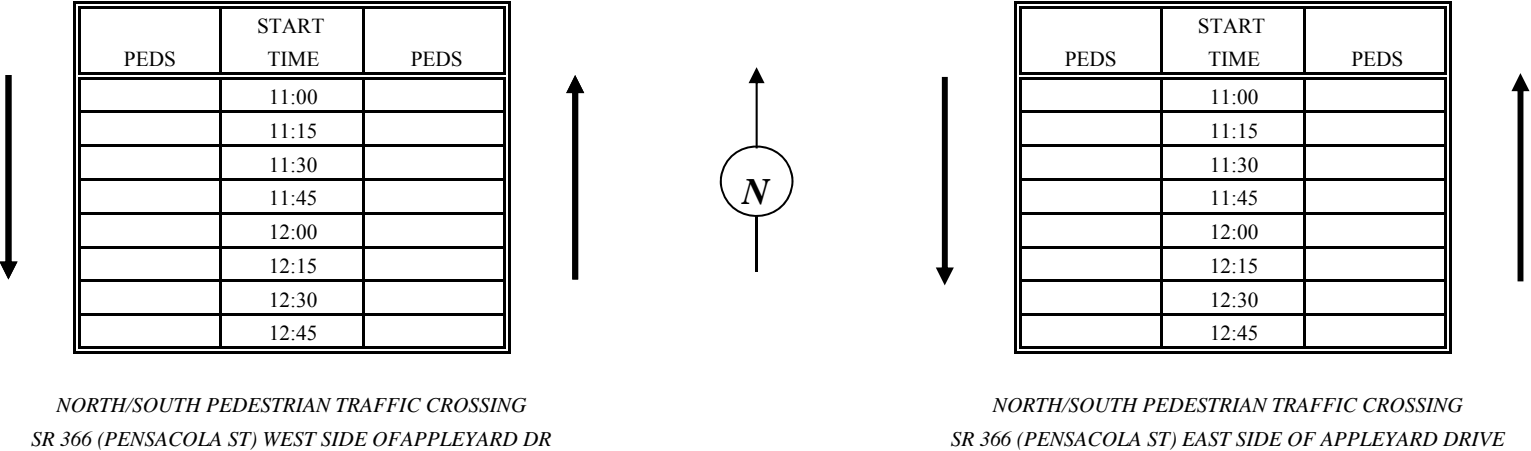
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Appleyard Drive
Leon County
Tuesday, September 17, 2019



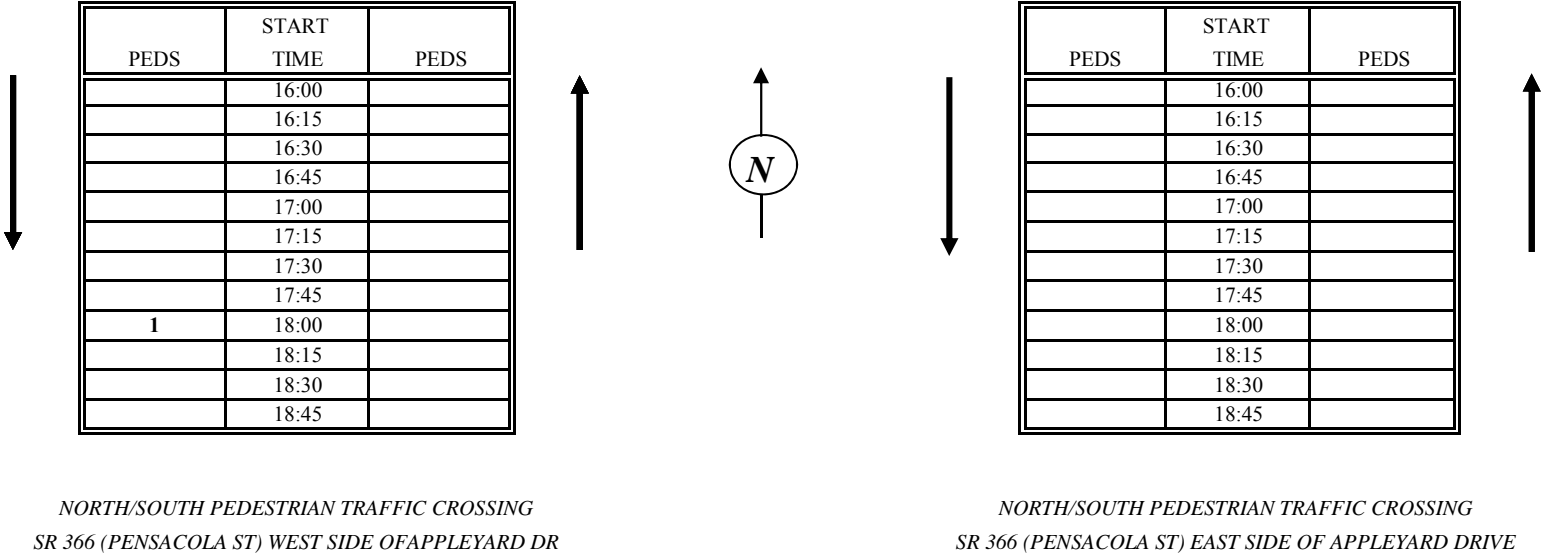
BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Appleyard Drive
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Appleyard Drive
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Appleyard Drive
Leon County
Tuesday, September 17, 2019



Zone 2: From east of Appleyard Drive to west of Cactus Street Crossings

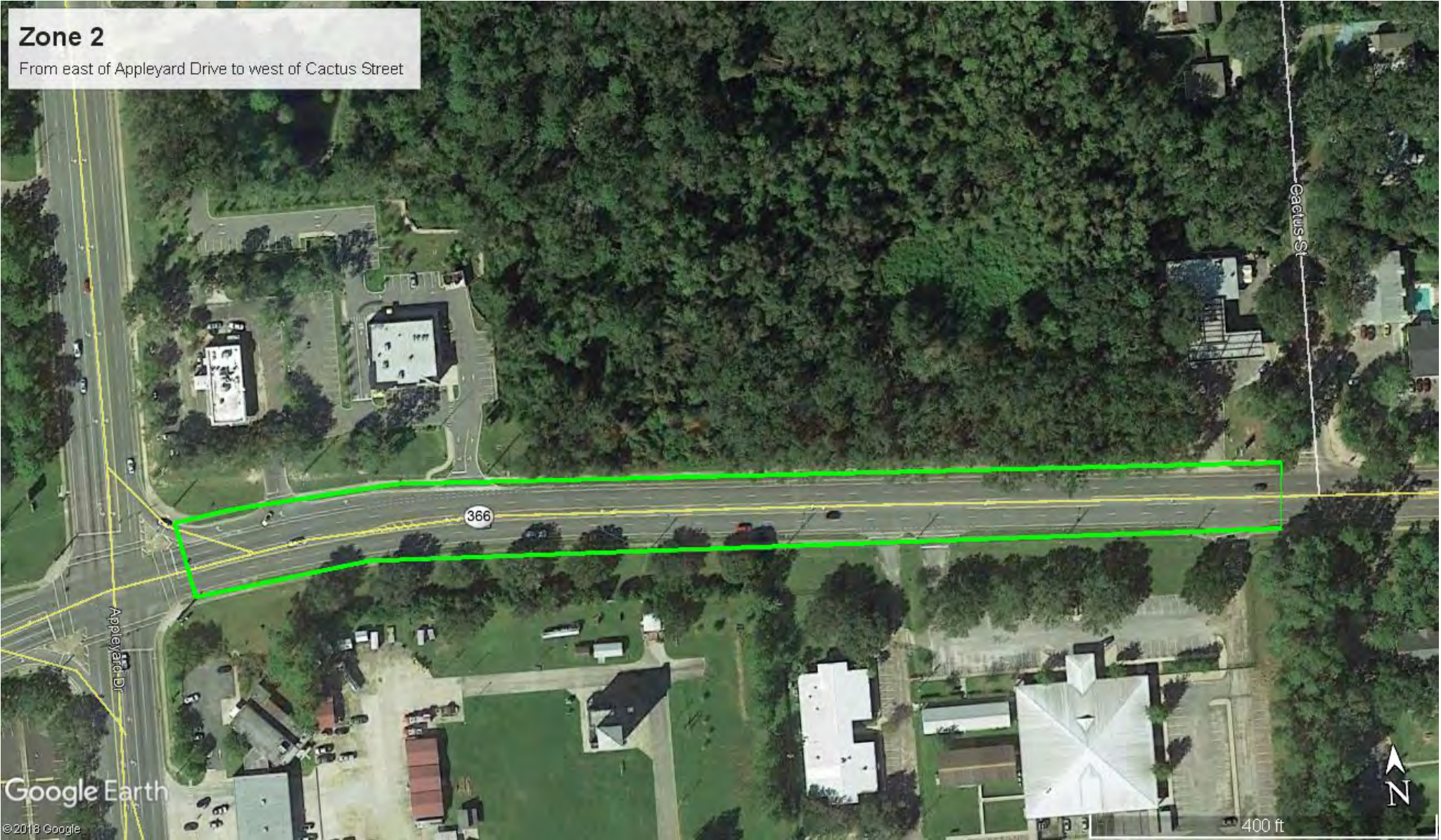
9/17/2019

Pedestrian/ Bicycle Count:

7:00AM - 10:00AM

11:00AM - 1:00PM

4:00PM - 7:00PM



PEDESTRIAN MOVEMENTS
Zone 2: From east of Appleyard Drive to west of Catus Street
 Leon County
 Tuesday, September 17, 2019



PEDS	START TIME	PEDS
1	7:00	1
1	7:15	2
	7:30	1
	7:45	
	8:00	1
1	8:15	
	8:30	
	8:45	
1	9:00	
	9:15	3
2	9:30	
	9:45	1

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*



PEDS	START TIME	PEDS
2	11:00	
1	11:15	
	11:30	
	11:45	
	12:00	
	12:15	
1	12:30	
	12:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*




PEDS	START TIME	PEDS
	16:00	
	16:15	
	16:30	
	16:45	
	17:00	
	17:15	
	17:30	1
	17:45	
	18:00	
	18:15	1
	18:30	
2	18:45	2

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

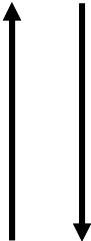


BICYCLE MOVEMENTS
Zone 2: From east of Appleyard Drive to west of Catus Street
Leon County
Tuesday, September 17, 2019



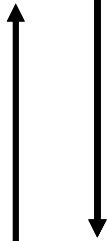
PEDS	START TIME	PEDS
	7:00	
	7:15	
	7:30	
	7:45	
	8:00	
	8:15	
	8:30	
	8:45	
	9:00	
	9:15	
	9:30	
	9:45	

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)



PEDS	START TIME	PEDS
	11:00	
	11:15	
	11:30	
	11:45	
	12:00	
	12:15	
	12:30	
	12:45	

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)



PEDS	START TIME	PEDS
	16:00	
	16:15	
	16:30	
	16:45	
	17:00	
	17:15	
	17:30	
	17:45	
	18:00	
	18:15	
	18:30	
	18:45	

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)



**Zone 3: From Cactus Street to Dupree Street Crossings
(Excluding Dupree Street)**

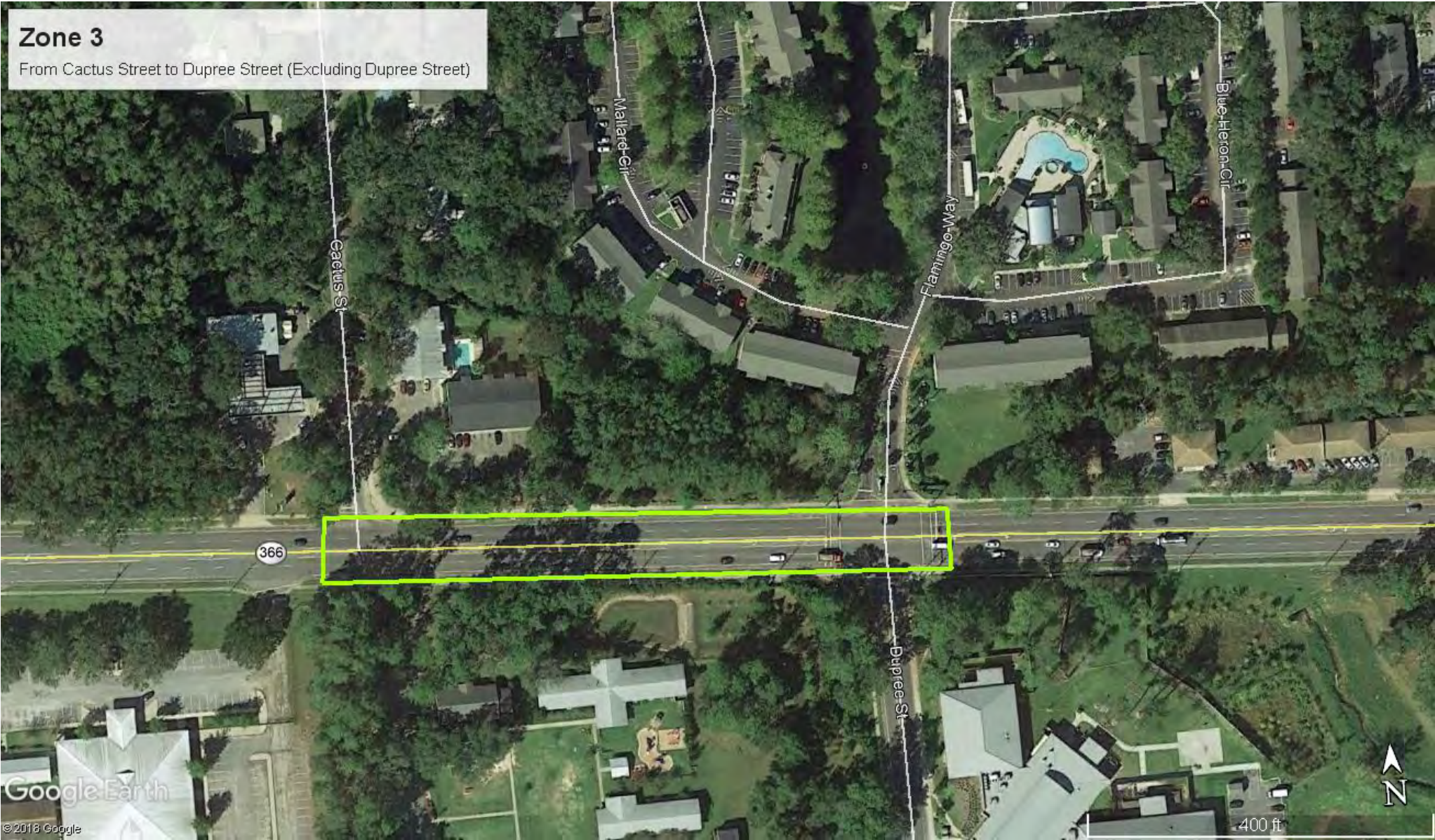
9/17/2019

Pedestrian/ Bicycle Count:


7:00AM - 10:00AM

11:00AM - 1:00PM

4:00PM - 7:00PM





PEDESTRIAN MOVEMENTS
Zone 3: From Cactus Street to Dupree Street
 Leon County
 Tuesday, September 17, 2019





PEDS	START TIME	PEDS
	7:00	2
2	7:15	6
3	7:30	2
	7:45	
2	8:00	1
	8:15	
	8:30	1
	8:45	4
2	9:00	4
2	9:15	1
3	9:30	2
	9:45	1

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

PEDS	START TIME	PEDS
	11:00	2
	11:15	1
2	11:30	2
1	11:45	4
2	12:00	3
	12:15	1
2	12:30	1
	12:45	2


*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

PEDS	START TIME	PEDS
2	16:00	1
	16:15	
7	16:30	
2	16:45	3
	17:00	3
4	17:15	4
1	17:30	1
1	17:45	
	18:00	
1	18:15	4
2	18:30	1
3	18:45	



*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

BICYCLE MOVEMENTS
Zone 3: From Cactus Street to Dupree Street
Leon County
Tuesday, September 17, 2019





PEDS	START TIME	PEDS
	7:00	
	7:15	
	7:30	
	7:45	
	8:00	
	8:15	
	8:30	
	8:45	
	9:00	
	9:15	
	9:30	
	9:45	

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)




PEDS	START TIME	PEDS
	11:00	
	11:15	
	11:30	
	11:45	
	12:00	
	12:15	
	12:30	
	12:45	1

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)



PEDS	START TIME	PEDS
	16:00	
	16:15	
	16:30	
	16:45	
	17:00	
2	17:15	
	17:30	
	17:45	
	18:00	1
	18:15	
	18:30	
	18:45	



NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)

Zone 3: Pensacola Street Crossings at Dupree Street (Signalized Intersection)

9/17/2019

Pedestrian/ Bicycle Count:

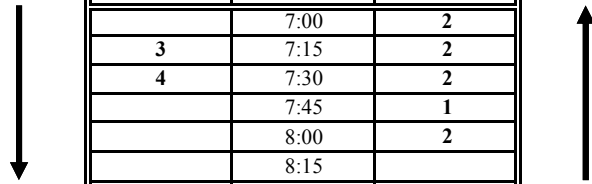
7:00AM - 10:00AM

11:00AM - 1:00PM

4:00PM - 7:00PM

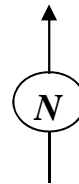
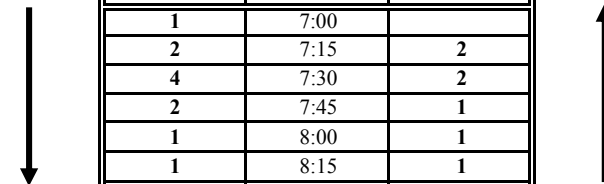


PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Dupree Street
 Leon County
 Tuesday, September 17, 2019



PEDS	START TIME	PEDS
	7:00	2
3	7:15	2
4	7:30	2
	7:45	1
	8:00	2
	8:15	
	8:30	
1	8:45	
	9:00	
	9:15	
	9:30	
	9:45	

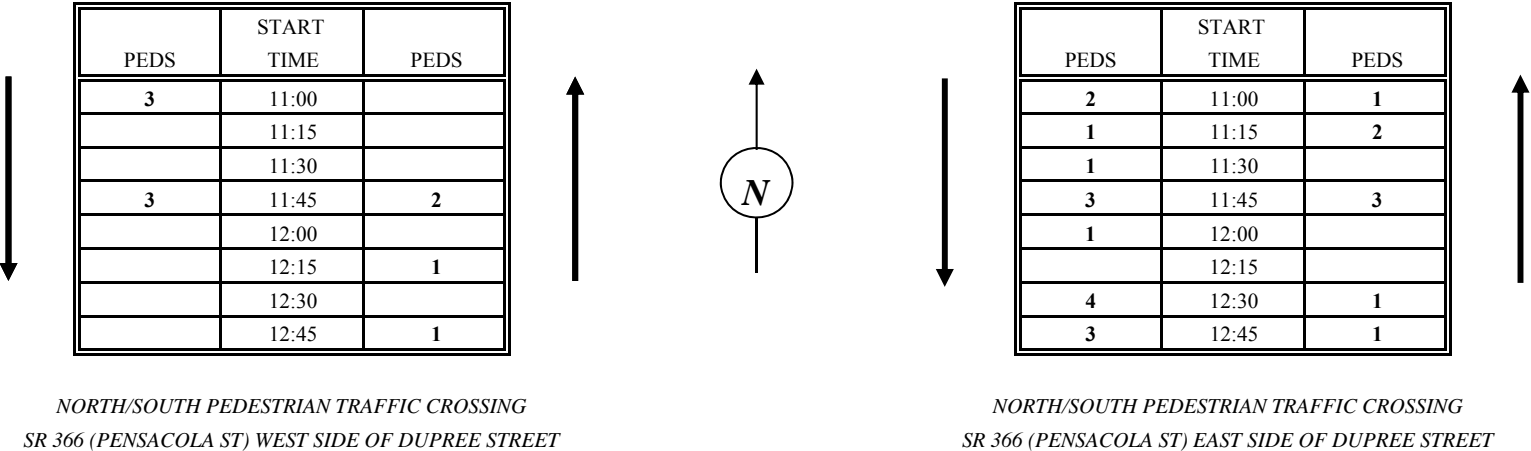
*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST) WEST SIDE OF DUPREE STREET*

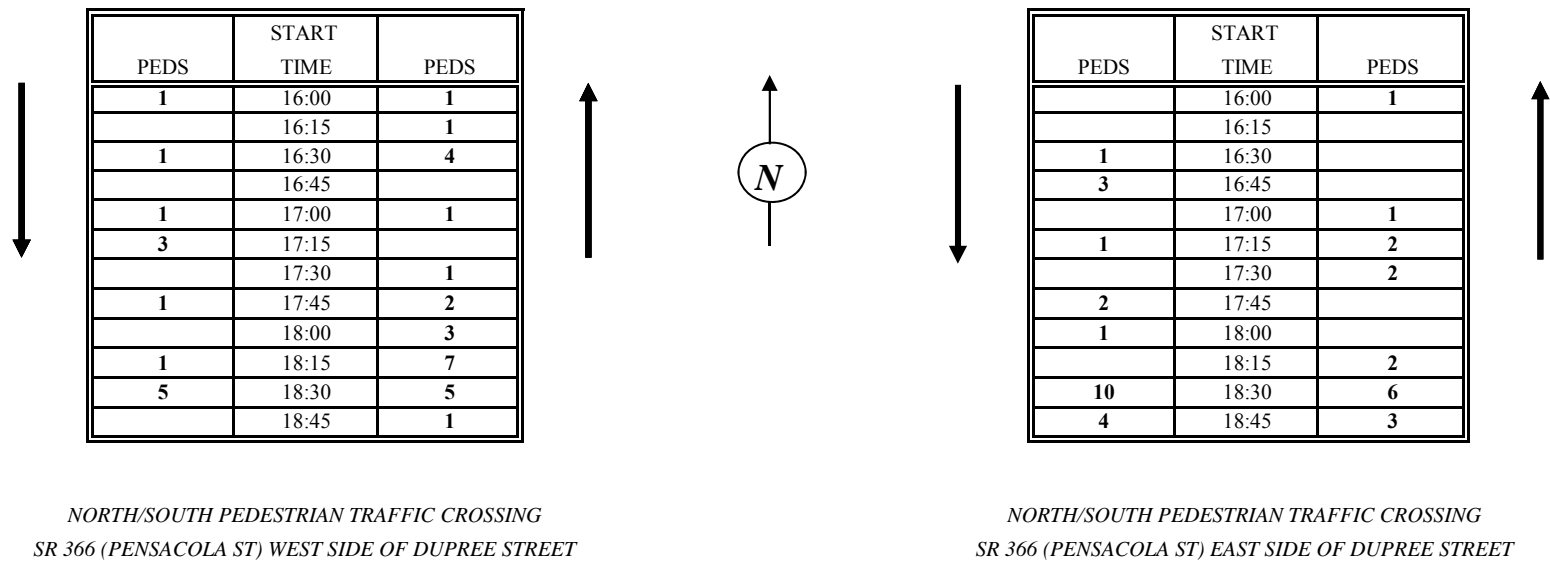
PEDS	START TIME	PEDS
1	7:00	
2	7:15	2
4	7:30	2
2	7:45	1
1	8:00	1
1	8:15	1
2	8:30	1
2	8:45	3
	9:00	
	9:15	
	9:30	
	9:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST) EAST SIDE OF DUPREE STREET*

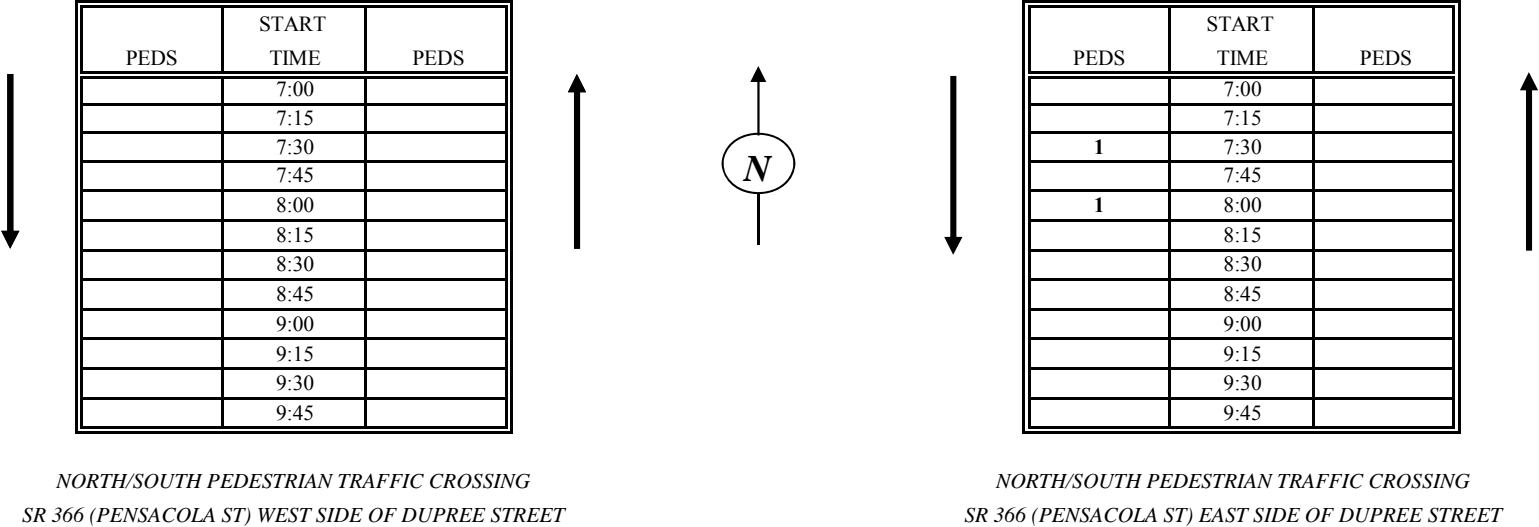
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Dupree Street
Leon County
Tuesday, September 17, 2019



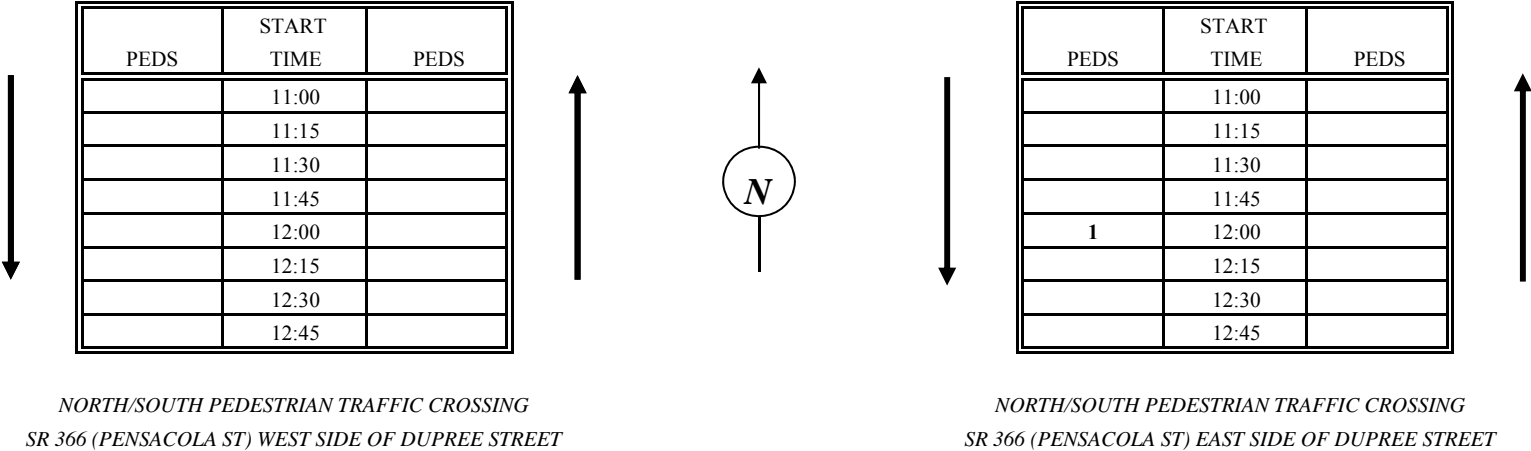
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Dupree Street
 Leon County
 Tuesday, September 17, 2019



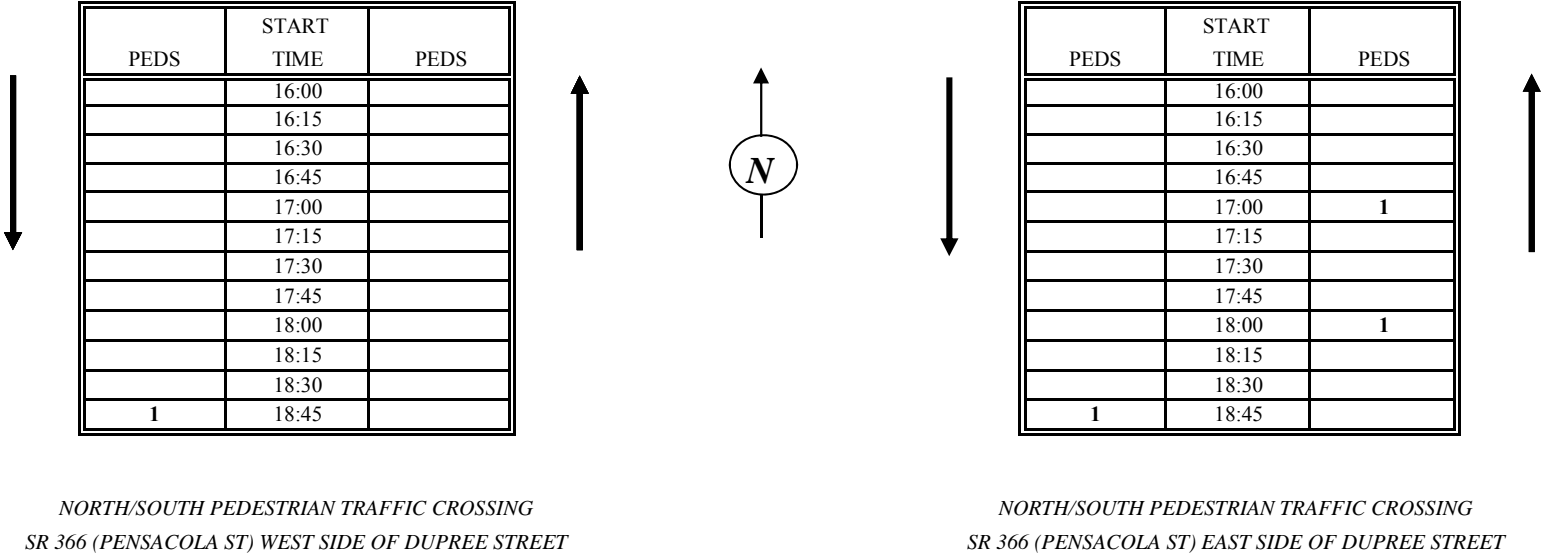
BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Dupree Street
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Dupree Street
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Dupree Street
Leon County
Tuesday, September 17, 2019



Zone 4: From east of Dupree Street to west of Mabry Street Crossings

9/17/2019

Pedestrian/ Bicycle Count:


7:00AM - 10:00AM

11:00AM - 1:00PM

4:00PM - 7:00PM





PEDESTRIAN MOVEMENTS
Zone 4: From east of Dupree Street to west of Mabry Street
 Leon County
 Tuesday, September 17, 2019





PEDS	START TIME	PEDS
1	7:00	2
1	7:15	1
2	7:30	1
1	7:45	1
	8:00	2
1	8:15	3
3	8:30	3
8	8:45	5
2	9:00	1
2	9:15	1
2	9:30	
2	9:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*





PEDS	START TIME	PEDS
1	11:00	2
	11:15	1
3	11:30	
2	11:45	2
1	12:00	3
3	12:15	
1	12:30	
4	12:45	1

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

PEDS	START TIME	PEDS
2	16:00	1
1	16:15	1
	16:30	1
1	16:45	
	17:00	2
1	17:15	2
3	17:30	2
1	17:45	
7	18:00	5
1	18:15	4
	18:30	
4	18:45	4




*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

BICYCLE MOVEMENTS

Zone 4: From east of Dupree Street to west of Mabry Street



Leon County

Tuesday, September 17, 2019





PEDS	START TIME	PEDS
	7:00	
	7:15	
	7:30	
	7:45	
	8:00	1
	8:15	1
	8:30	
	8:45	
	9:00	
	9:15	
	9:30	
	9:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)*

PEDS	START TIME	PEDS
	11:00	
1	11:15	
	11:30	
	11:45	
	12:00	
	12:15	
	12:30	
	12:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)*

PEDS	START TIME	PEDS
	16:00	
	16:15	
	16:30	
	16:45	
	17:00	
	17:15	
	17:30	
	17:45	
	18:00	
	18:15	
	18:30	
	18:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)*

**Zone 5: From Mabry Street to White Drive Crossings
(Excluding White Drive)**

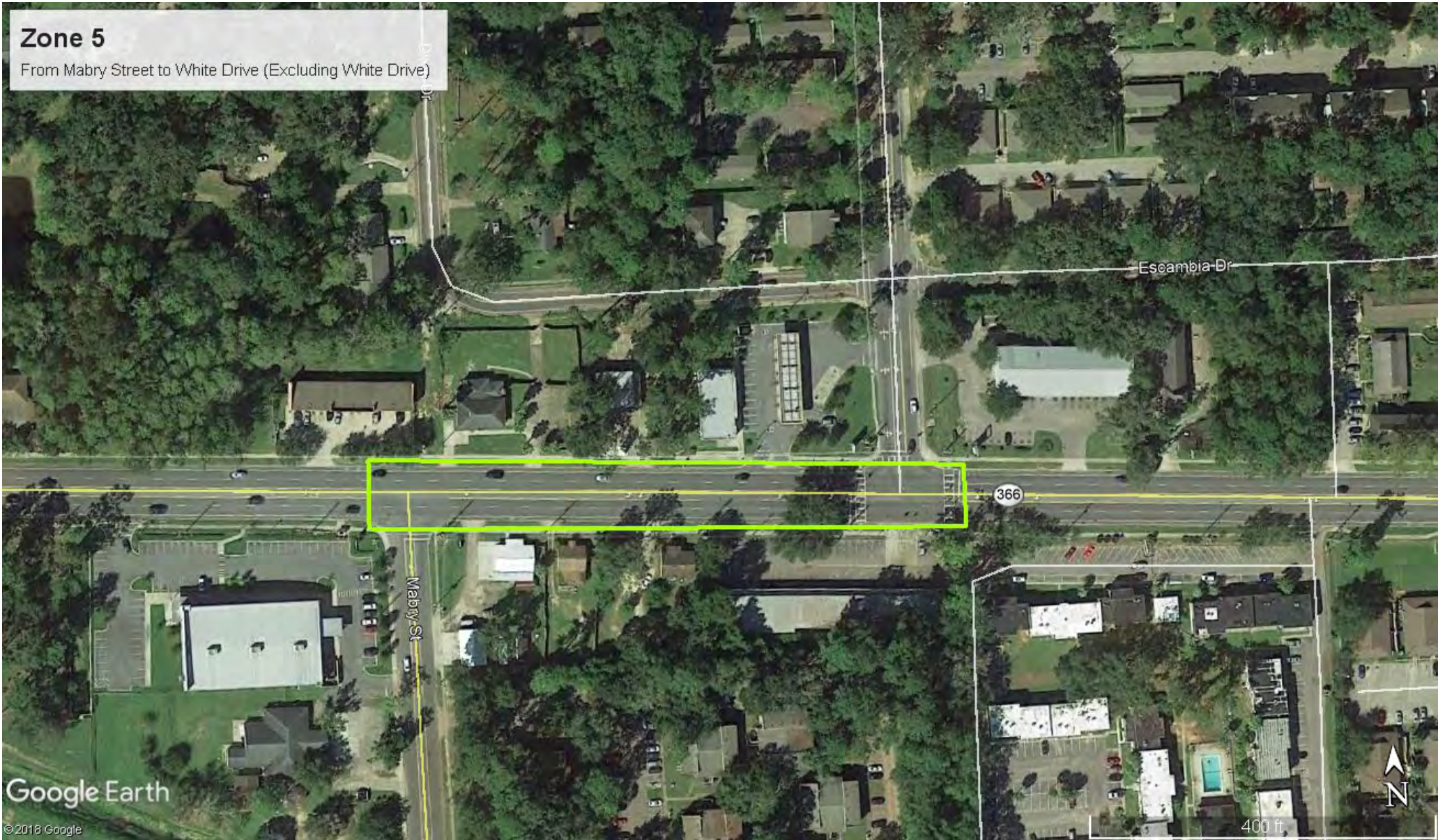
9/17/2019

Pedestrian/ Bicycle Count:


7:00AM - 10:00AM

11:00AM - 1:00PM



4:00PM - 7:00PM



PEDESTRIAN MOVEMENTS
Zone 5: From Mabry Street to White Drive
 Leon County
 Tuesday, September 17, 2019





PEDS	START TIME	PEDS
	7:00	
1	7:15	
2	7:30	2
1	7:45	2
3	8:00	3
	8:15	3
1	8:30	1
	8:45	
	9:00	1
1	9:15	
	9:30	1
2	9:45	


*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

PEDS	START TIME	PEDS
2	11:00	1
1	11:15	
1	11:30	1
1	11:45	
	12:00	
	12:15	
	12:30	1
2	12:45	6

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

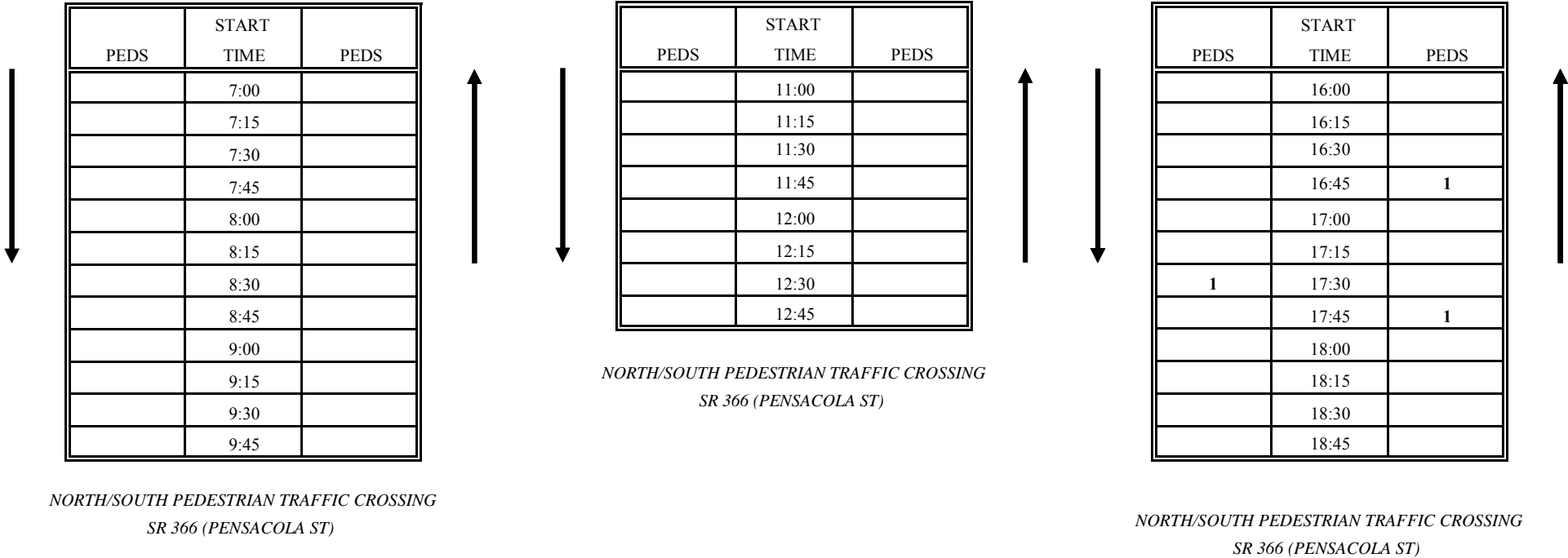



PEDS	START TIME	PEDS
	16:00	3
1	16:15	1
1	16:30	1
1	16:45	
1	17:00	
2	17:15	7
	17:30	2
3	17:45	1
2	18:00	3
1	18:15	
1	18:30	1
2	18:45	3



*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

BICYCLE MOVEMENTS
Zone 5: From Mabry Street to White Drive
Leon County
Tuesday, September 17, 2019



Zone 5: Pensacola Street Crossings at White Drive (Signalized Intersection)

9/17/2019

Pedestrian/ Bicycle Count:

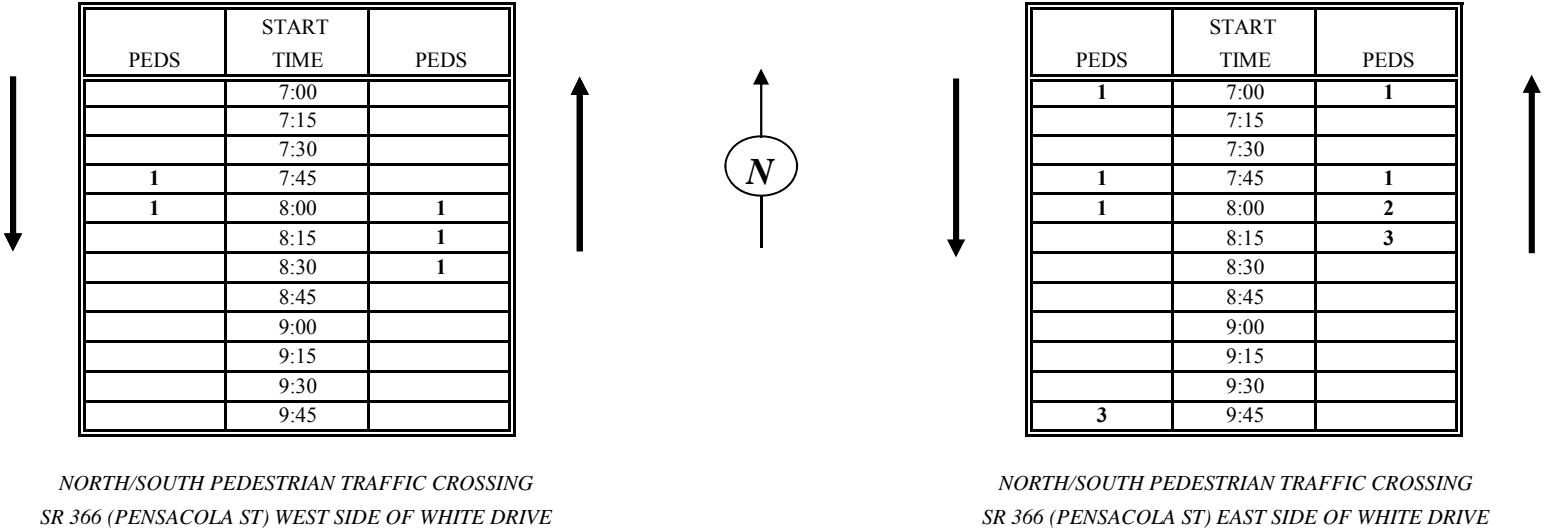
7:00AM - 10:00AM

11:00AM - 1:00PM

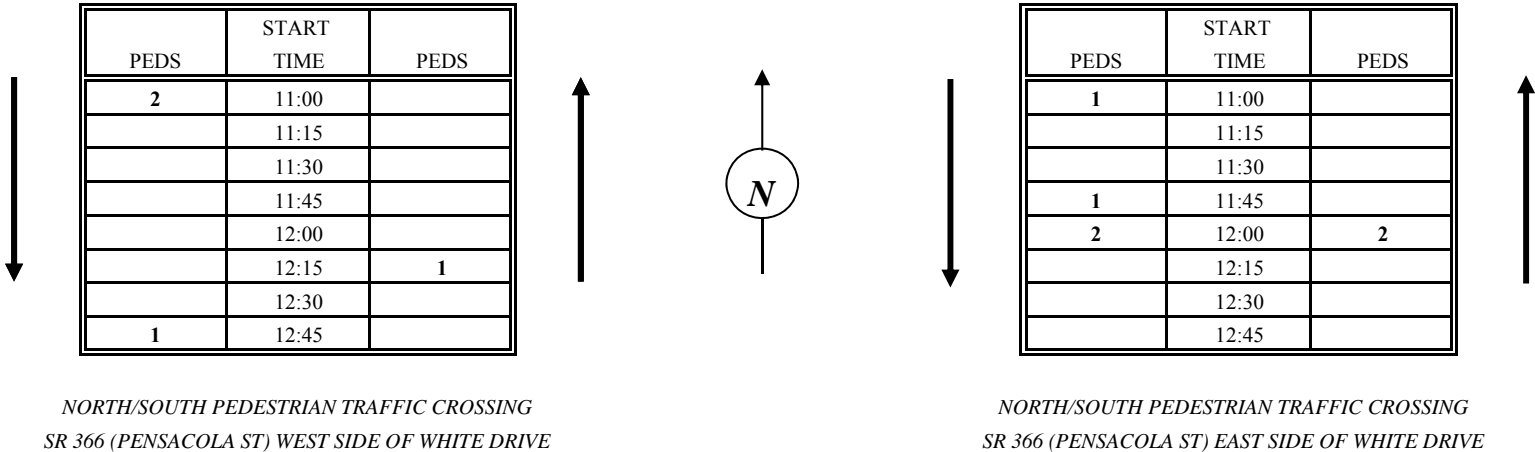
4:00PM - 7:00PM



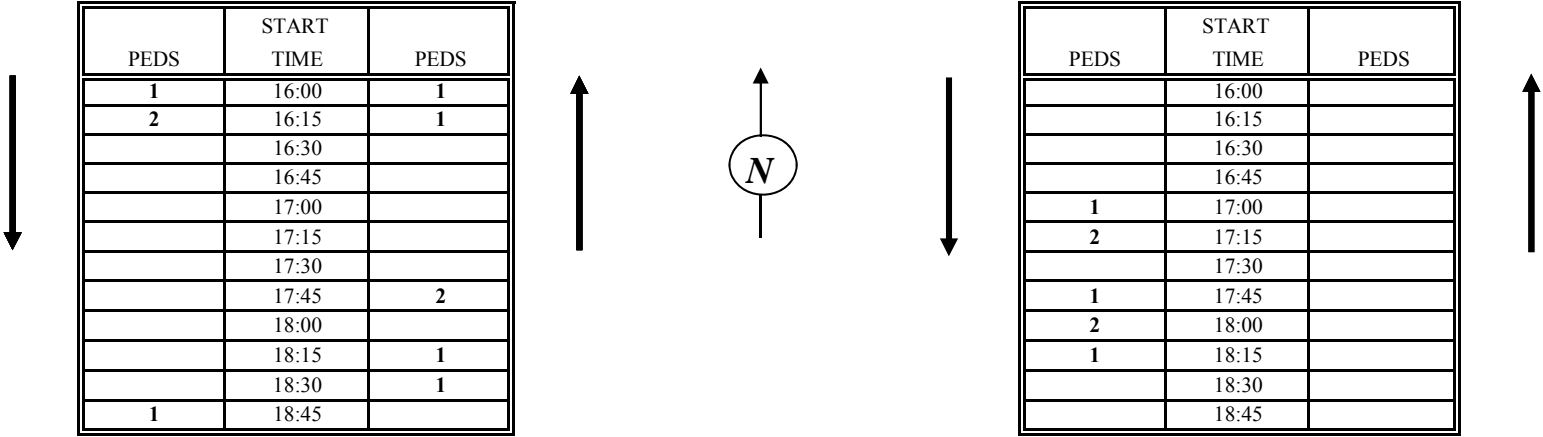
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at White Drive
Leon County
Tuesday, September 17, 2019



PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at White Drive
Leon County
Tuesday, September 17, 2019



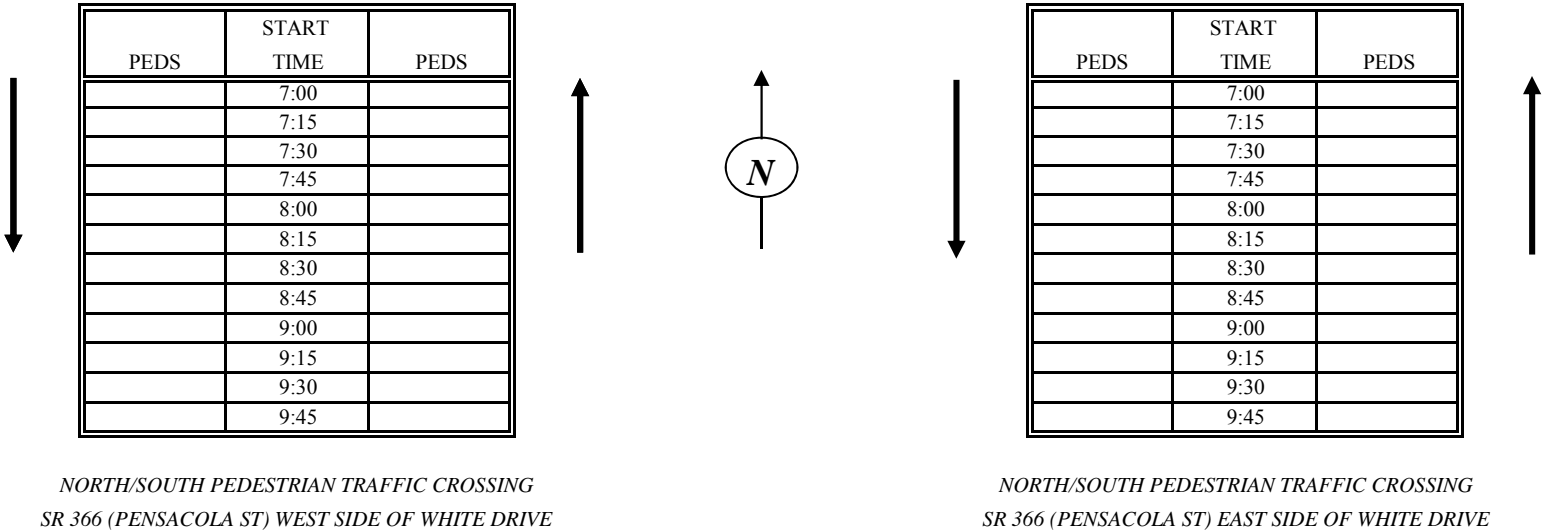
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at White Drive
Leon County
Tuesday, September 17, 2019



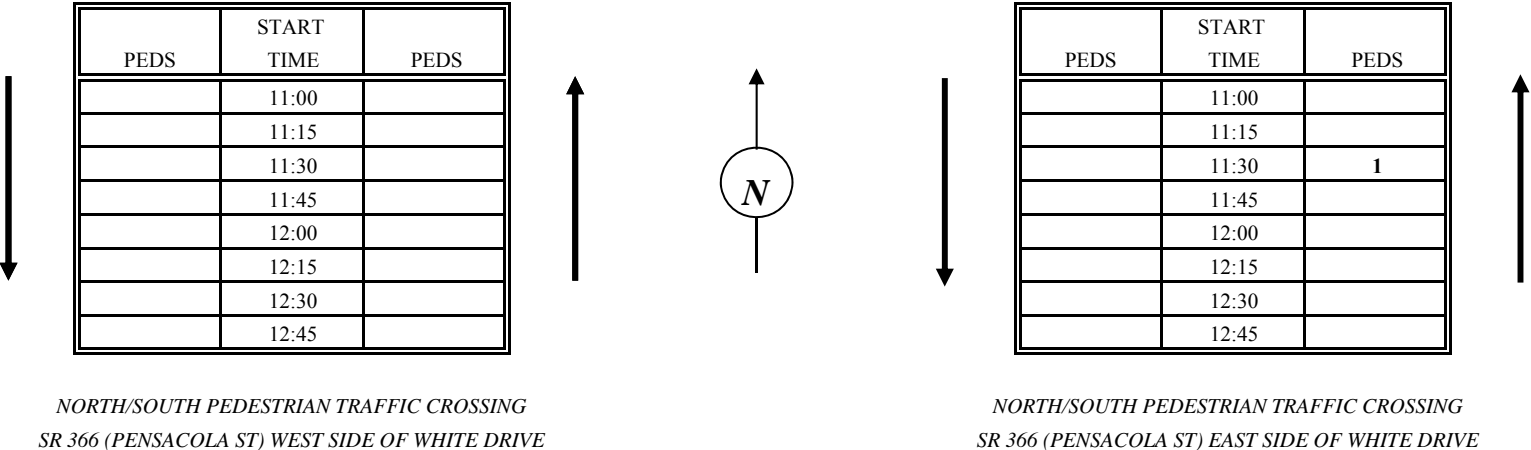
NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST) WEST SIDE OF WHITE DRIVE

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST) EAST SIDE OF WHITE DRIVE

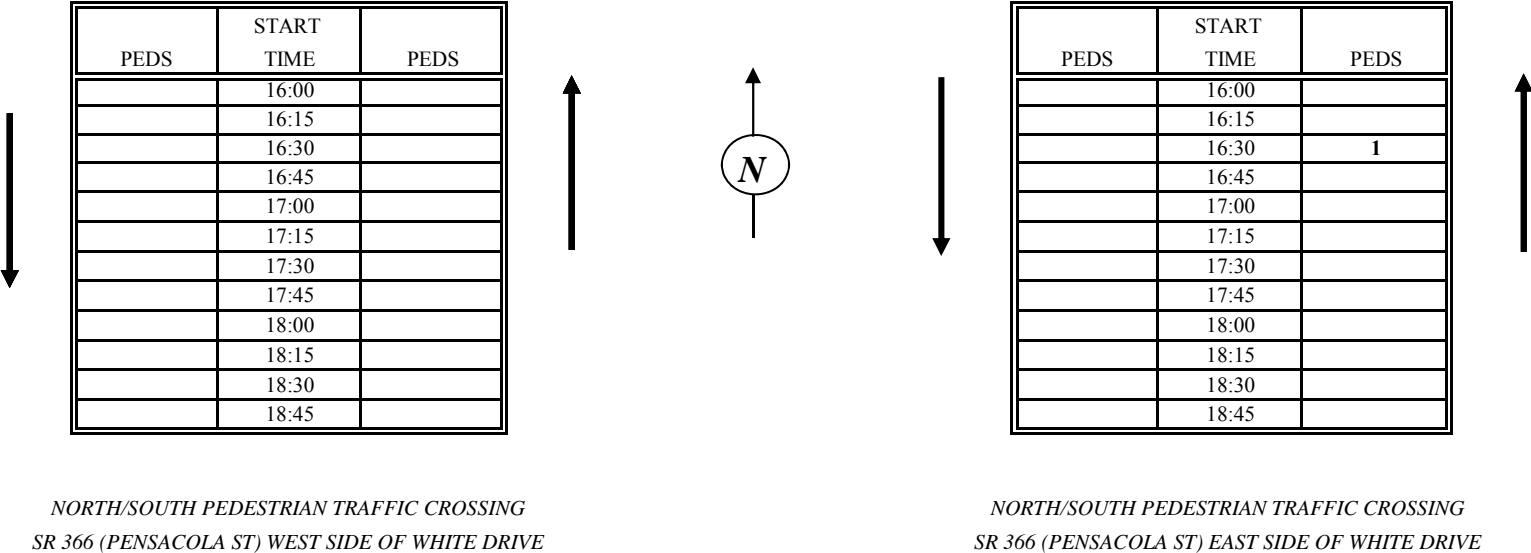
BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at White Drive
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at White Drive
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at White Drive
Leon County
Tuesday, September 17, 2019



Zone 6: From east of White Drive to east of College Square Driveway Crossings

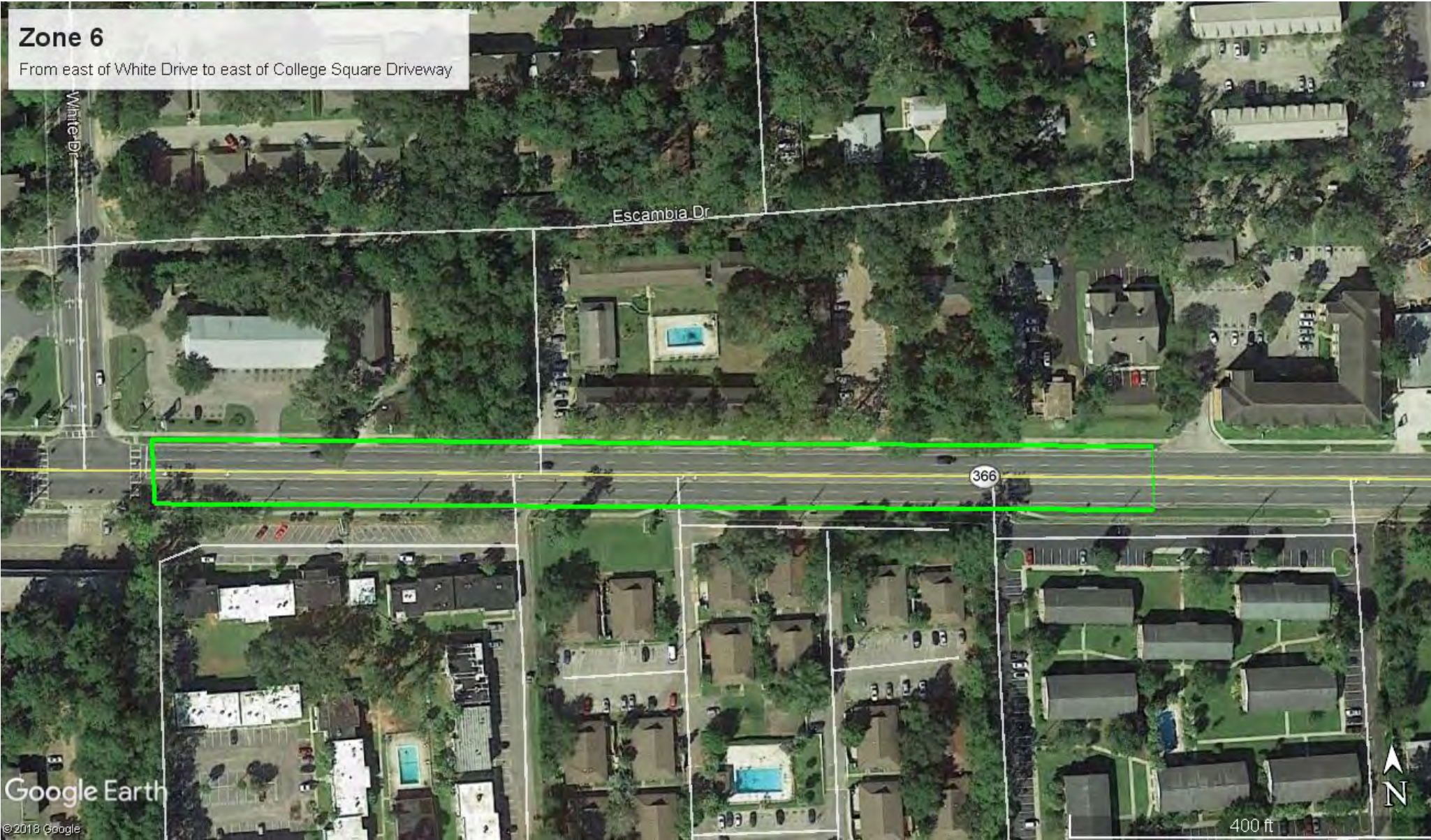
9/17/2019

Pedestrian/ Bicycle Count:


7:00AM - 10:00AM

11:00AM - 1:00PM

4:00PM - 7:00PM





PEDESTRIAN MOVEMENTS
Zone 6: From east of White Drive to east of College Square Driveway
 Leon County
 Tuesday, September 17, 2019





PEDS	START TIME	PEDS
1	7:00	2
2	7:15	
	7:30	
	7:45	1
	8:00	
2	8:15	1
	8:30	2
1	8:45	
1	9:00	
	9:15	
1	9:30	
1	9:45	1

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*





PEDS	START TIME	PEDS
1	11:00	1
	11:15	
	11:30	3
	11:45	
	12:00	
	12:15	
1	12:30	1
	12:45	2

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

PEDS	START TIME	PEDS
1	16:00	1
1	16:15	1
1	16:30	
2	16:45	
1	17:00	
1	17:15	1
	17:30	1
2	17:45	
	18:00	1
4	18:15	1
3	18:30	
4	18:45	



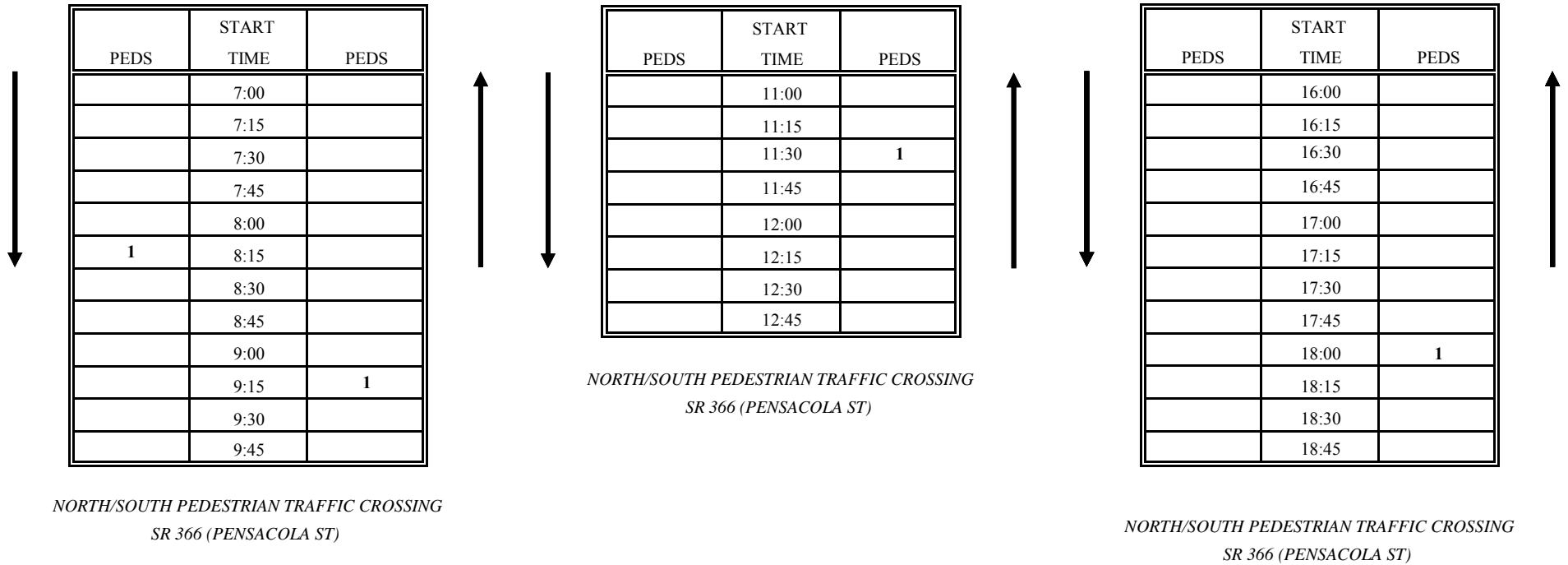
*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

BICYCLE MOVEMENTS

Zone 6: From east of White Drive to east of College Square Driveway

Leon County

Tuesday, September 17, 2019



**Zone 7: From College Square Driveway to Ausley Road Crossings
(Excluding Ausley Road)**

9/17/2019

Pedestrian/ Bicycle Count:


7:00AM - 10:00AM

11:00AM - 1:00PM

4:00PM - 7:00PM





PEDESTRIAN MOVEMENTS
Zone 7: From College Square Driveway to Ausley Road
 Leon County
 Tuesday, September 17, 2019





PEDS	START TIME	PEDS
	7:00	
	7:15	1
	7:30	2
	7:45	
	8:00	
	8:15	
	8:30	
	8:45	
	9:00	
	9:15	
1	9:30	
	9:45	1

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)





PEDS	START TIME	PEDS
3	11:00	1
1	11:15	1
	11:30	
1	11:45	
	12:00	
	12:15	1
	12:30	
4	12:45	3

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)

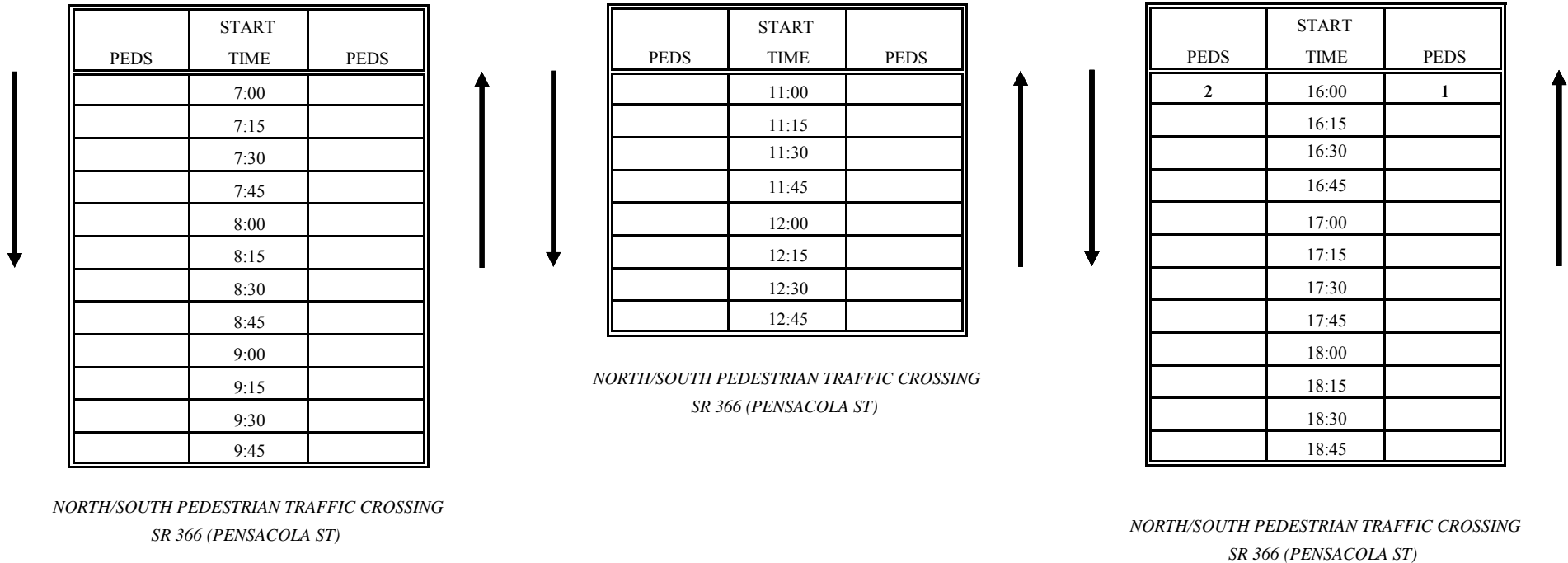



PEDS	START TIME	PEDS
3	16:00	3
3	16:15	
	16:30	
	16:45	2
	17:00	
3	17:15	
	17:30	1
1	17:45	1
	18:00	
	18:15	
2	18:30	3
	18:45	



NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)

BICYCLE MOVEMENTS
Zone 7: From College Square Driveway to Ausley Road
Leon County
Tuesday, September 17, 2019



Zone 7: Pensacola Street Crossing at Ausley Road (Signalized Intersection)

9/17/2019

Pedestrian/ Bicycle Count:

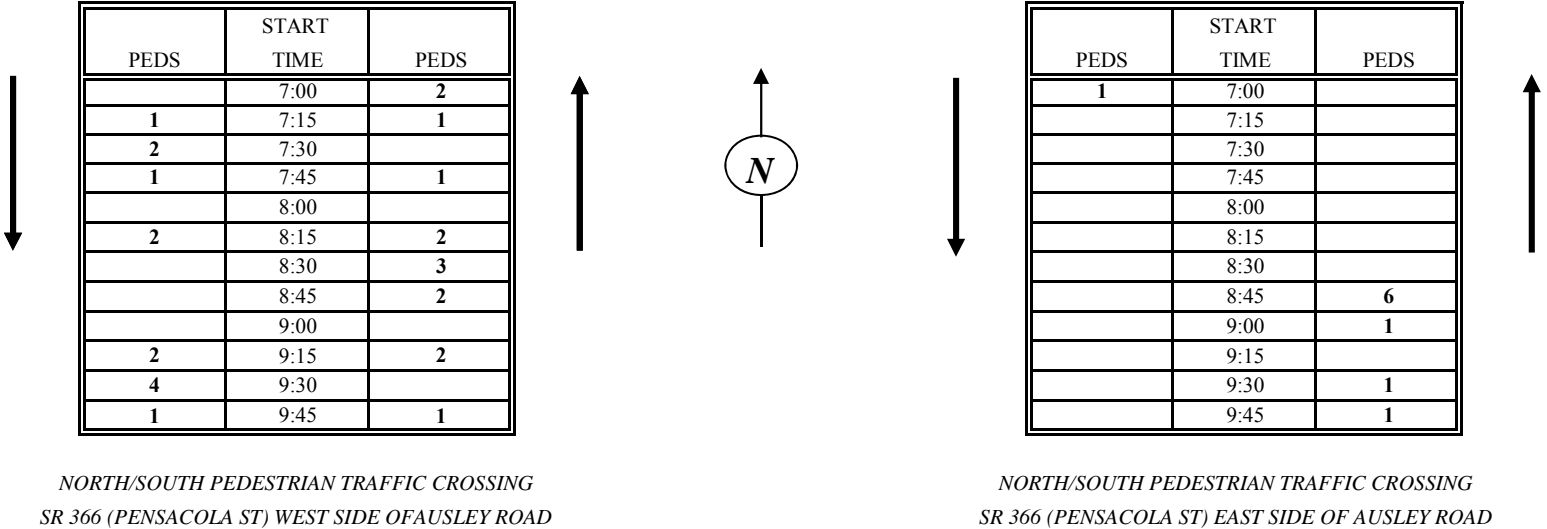
7:00AM - 10:00AM

11:00AM - 1:00PM

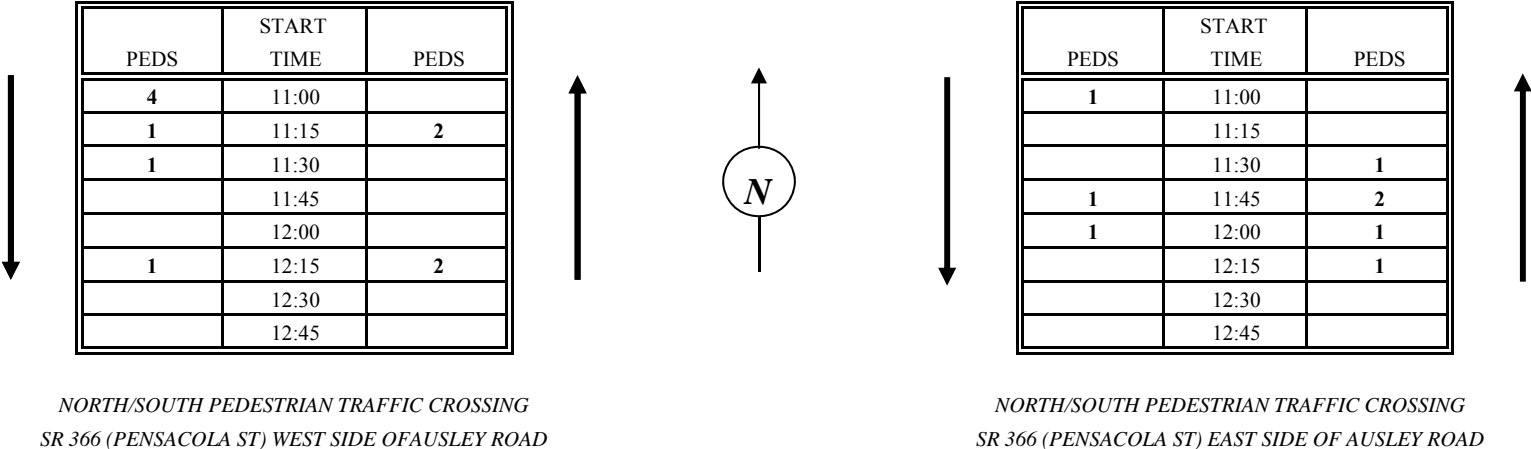
4:00PM - 7:00PM



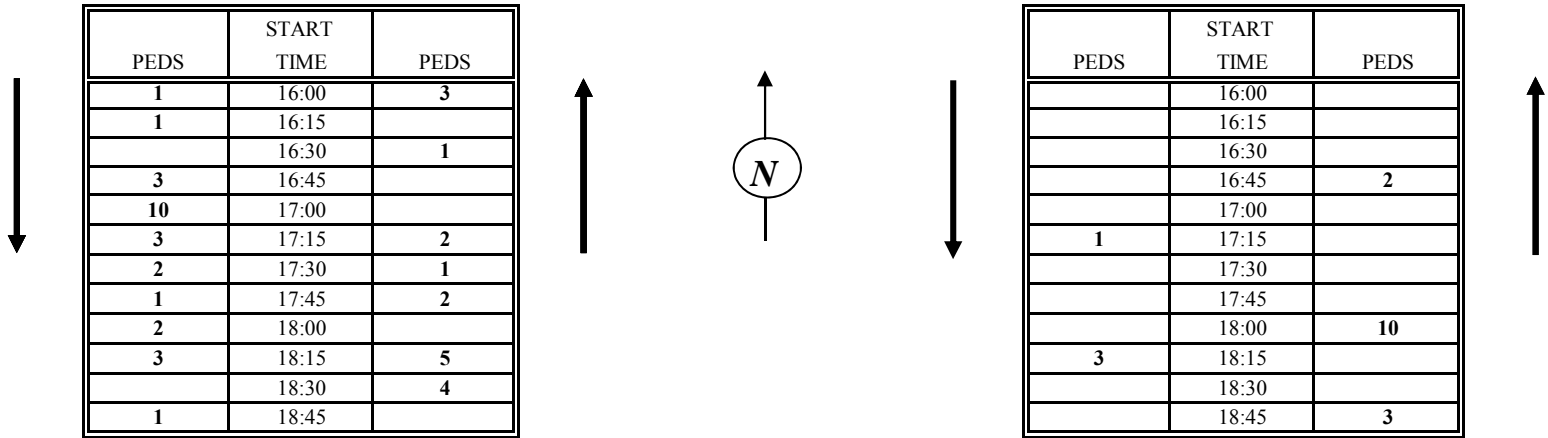
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Ausley Road
Leon County
Tuesday, September 17, 2019



PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Ausley Road
Leon County
Tuesday, September 17, 2019



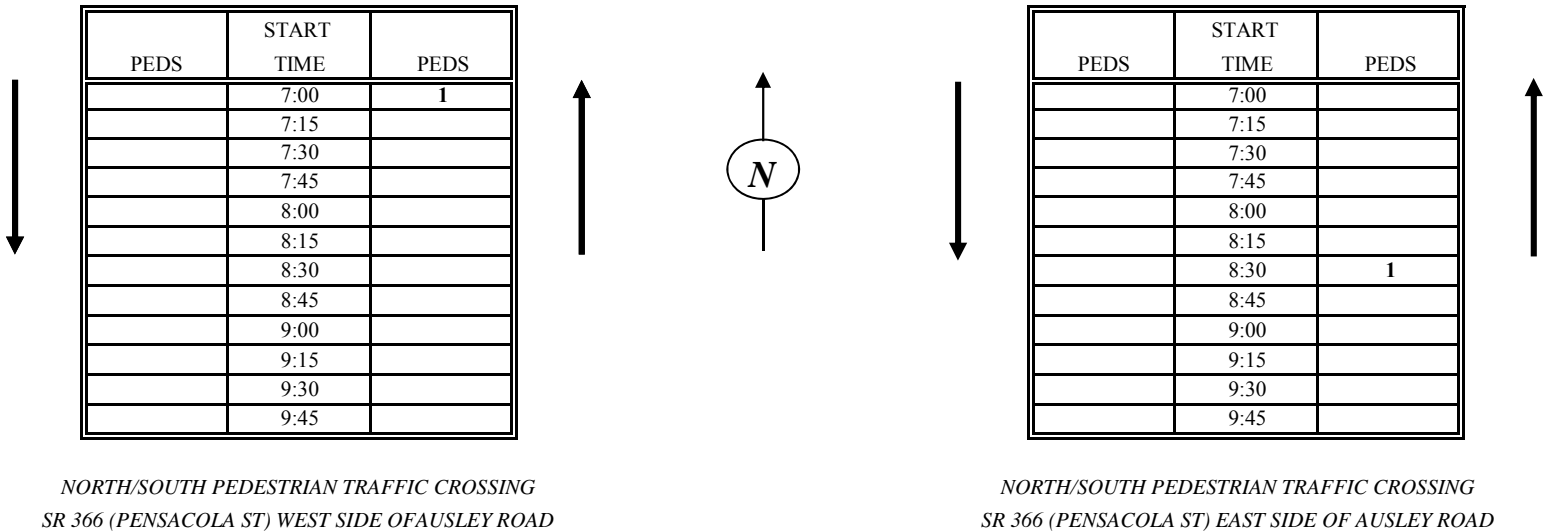
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Ausley Road
Leon County
Tuesday, September 17, 2019



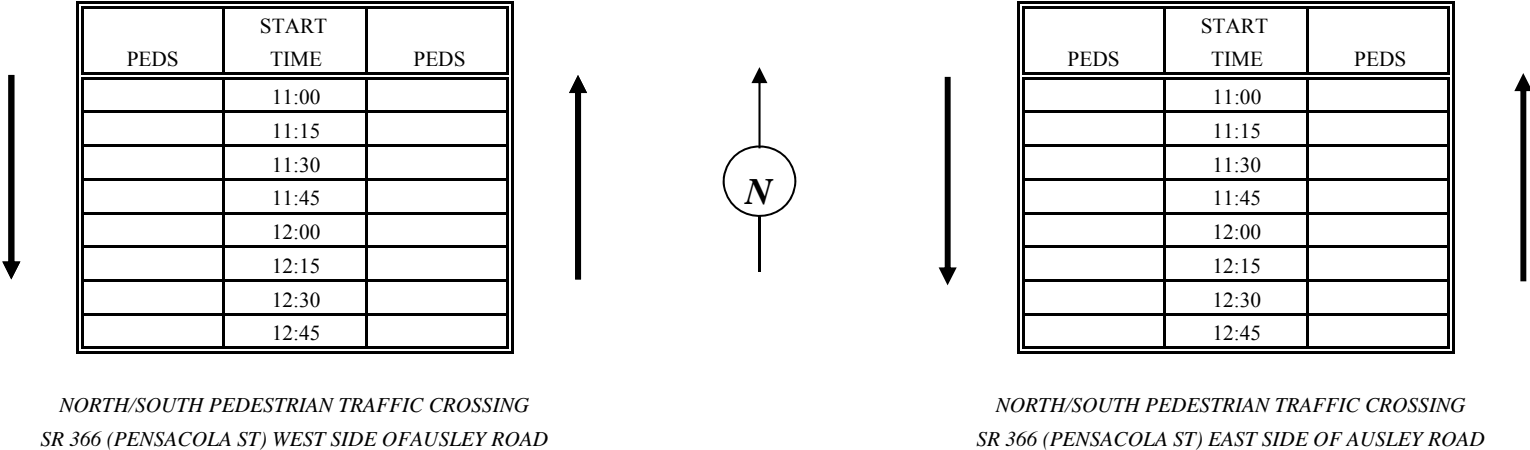
NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST) WEST SIDE OF AUSLEY ROAD

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST) EAST SIDE OF AUSLEY ROAD

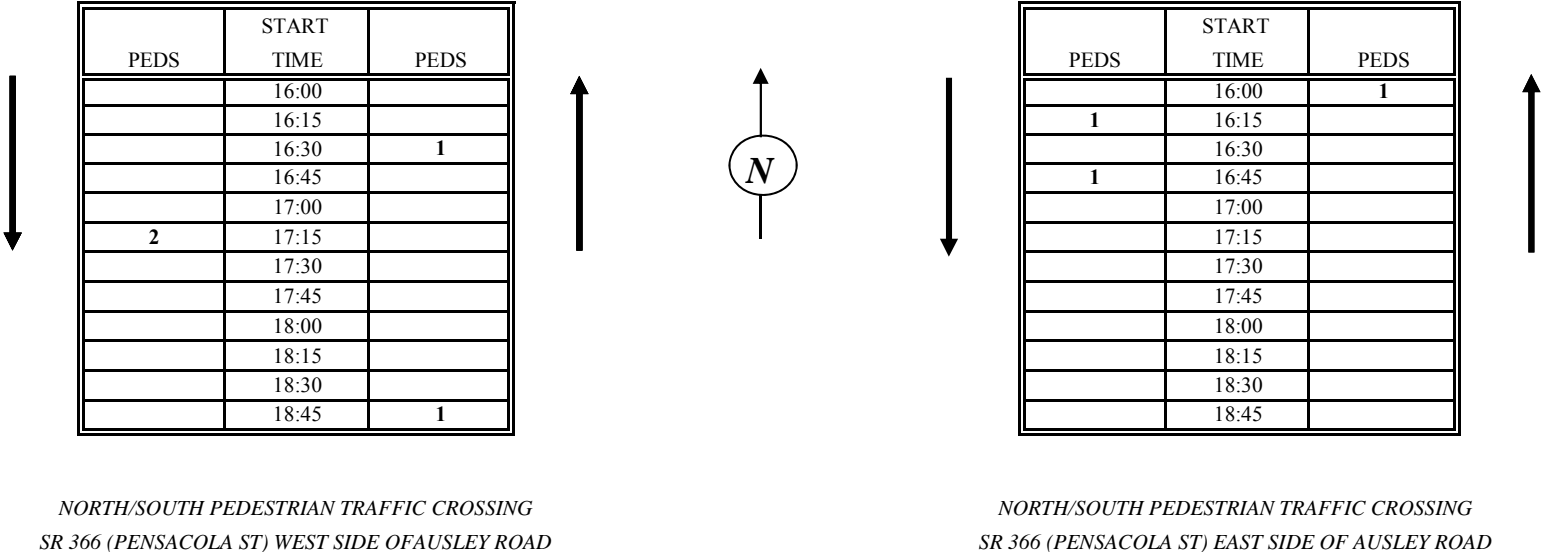
BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Ausley Road
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Ausley Road
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Ausley Road
Leon County
Tuesday, September 17, 2019



**Zone 8: From east of Ausley Road to Ocala Road Crossings
(Excluding Ocala Road)**

9/17/2019

Pedestrian/ Bicycle Count:

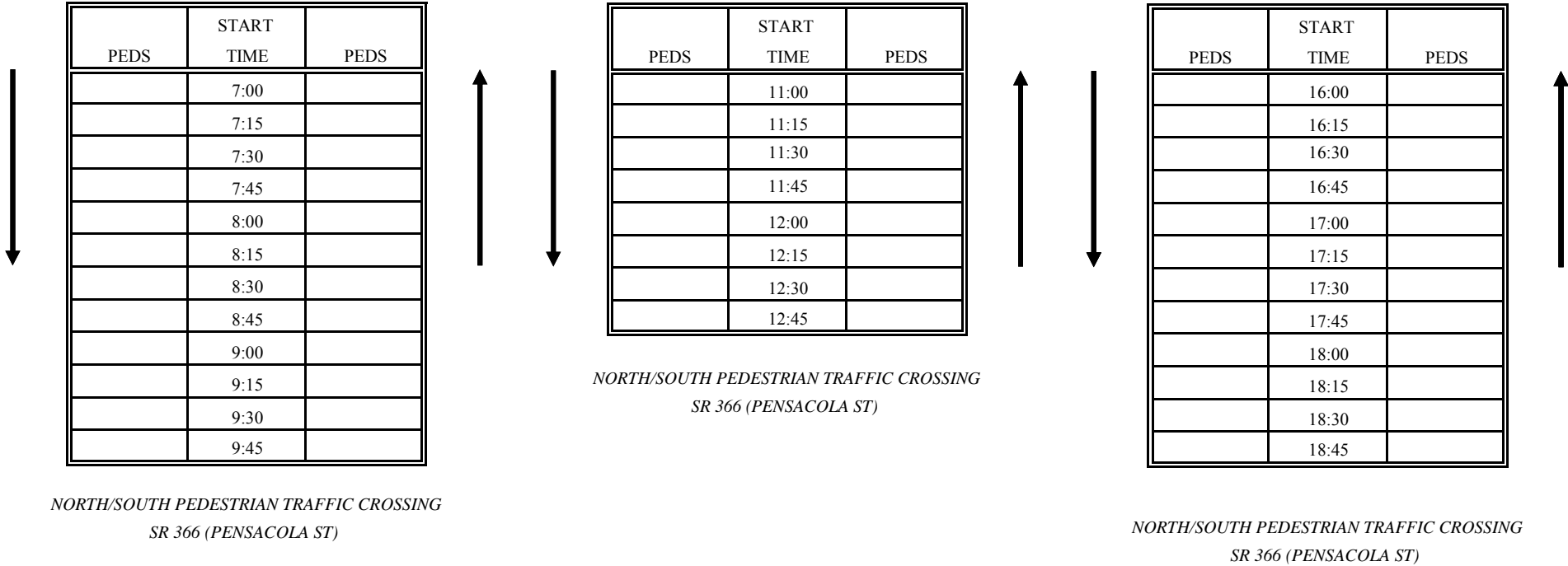
7:00AM - 10:00AM

11:00AM - 1:00PM


4:00PM - 7:00PM



PEDESTRIAN MOVEMENTS
Zone 8: From east of Ausley Road to Ocala Road
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Zone 8: From east of Ausley Road to Ocala Road
 Leon County
 Tuesday, September 17, 2019



PEDS	START TIME	PEDS
	7:00	
	7:15	
	7:30	
	7:45	
	8:00	
	8:15	
	8:30	
	8:45	
	9:00	
	9:15	
	9:30	
	9:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*



PEDS	START TIME	PEDS
	11:00	
	11:15	
	11:30	
	11:45	
	12:00	
	12:15	
	12:30	
	12:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*



PEDS	START TIME	PEDS
	16:00	
	16:15	
	16:30	
	16:45	
	17:00	
	17:15	
	17:30	
	17:45	
	18:00	
	18:15	
	18:30	
	18:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*



Zone 8: Pensacola Street Crossing at Ocala Road (Signalized Intersection)

9/17/2019

Pedestrian/ Bicycle Count:

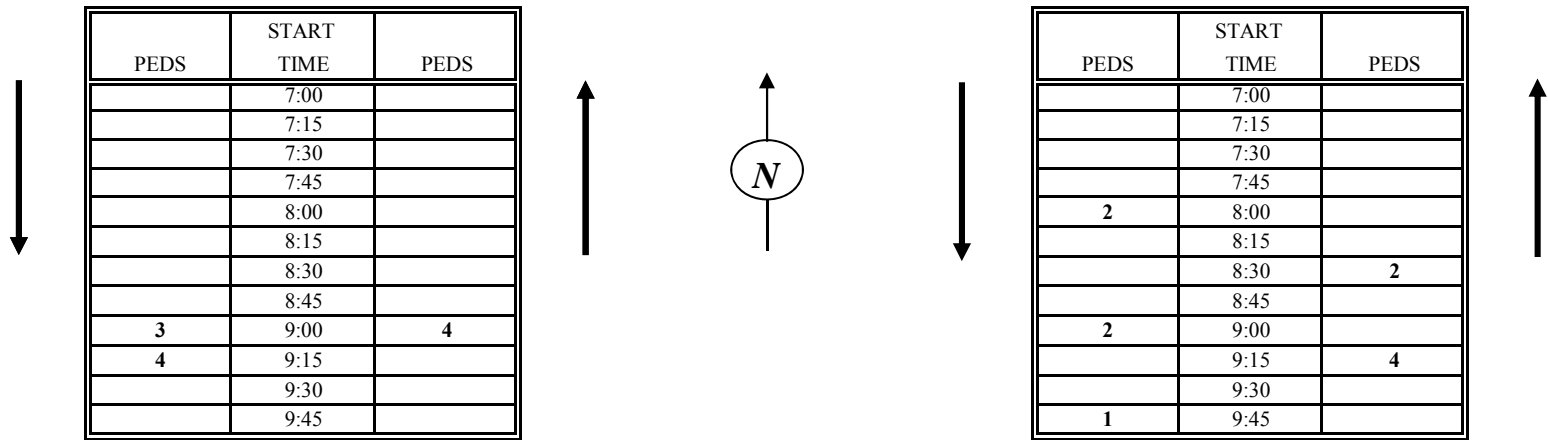
7:00AM - 10:00AM

11:00AM - 1:00PM

4:00PM - 7:00PM



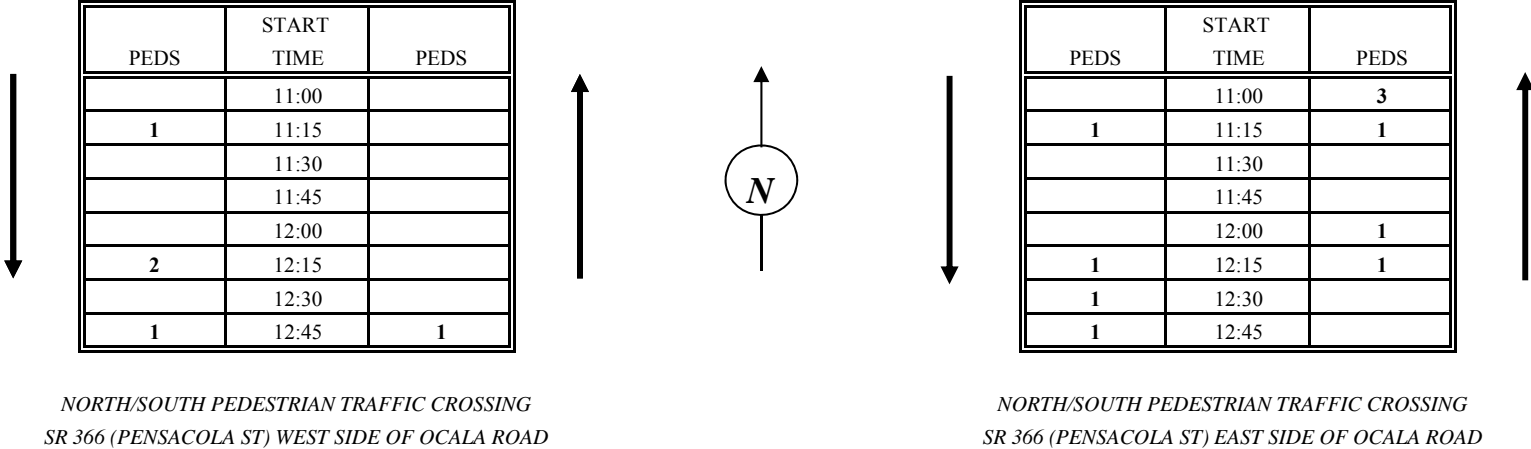
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Ocala Road
Leon County
Tuesday, September 17, 2019



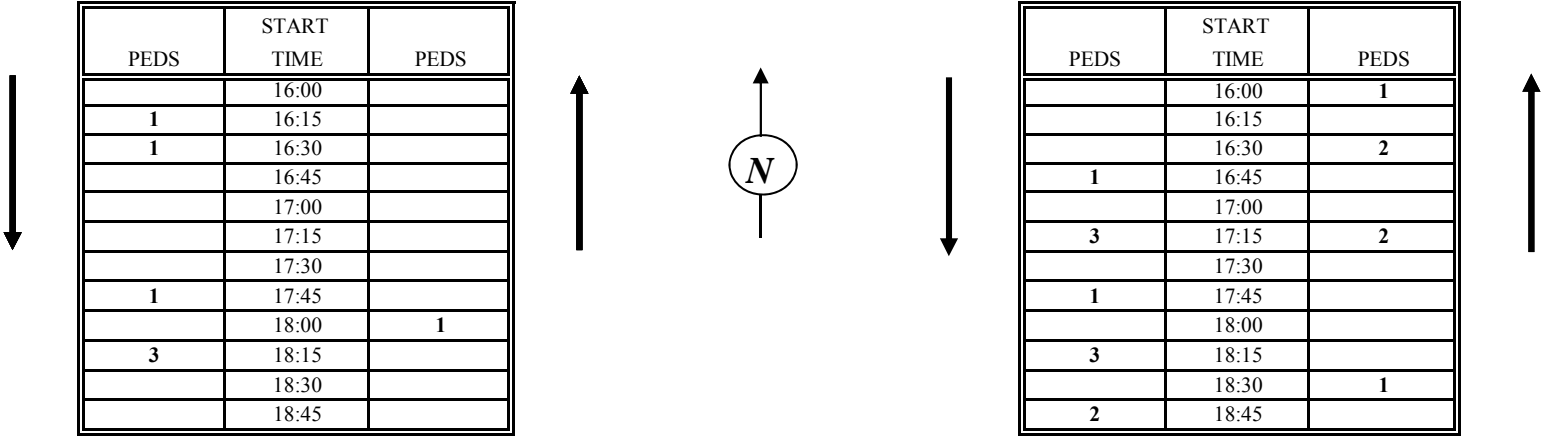
NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST) WEST SIDE OF OCALA ROAD

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST) EAST SIDE OF OCALA ROAD

PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Ocala Road
Leon County
Tuesday, September 17, 2019



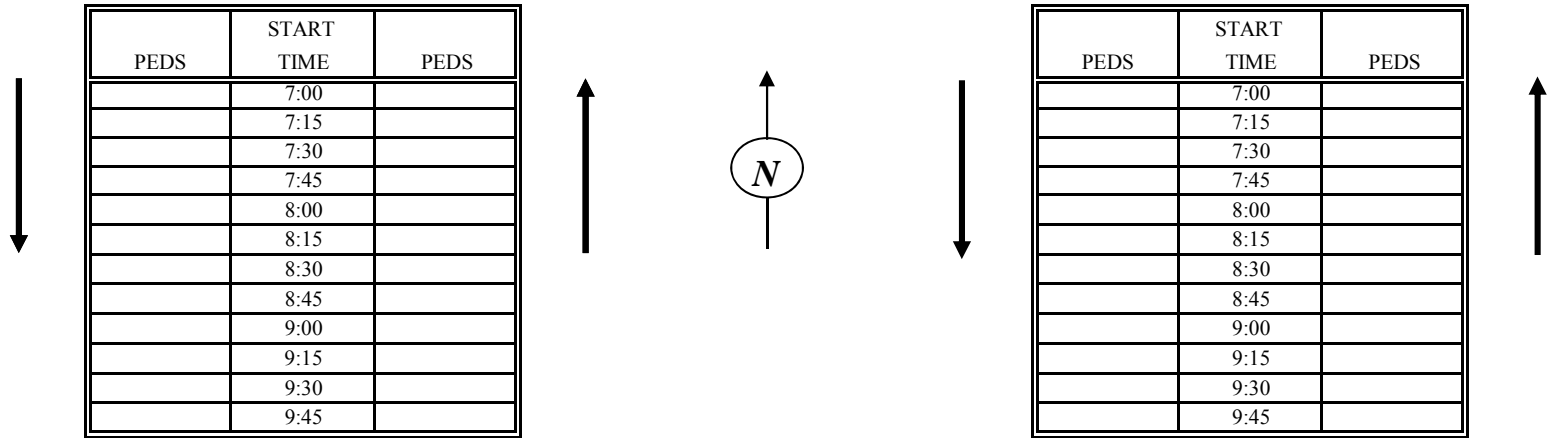
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Ocala Road
Leon County
Tuesday, September 17, 2019



NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST) WEST SIDE OF OCALA ROAD

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST) EAST SIDE OF OCALA ROAD

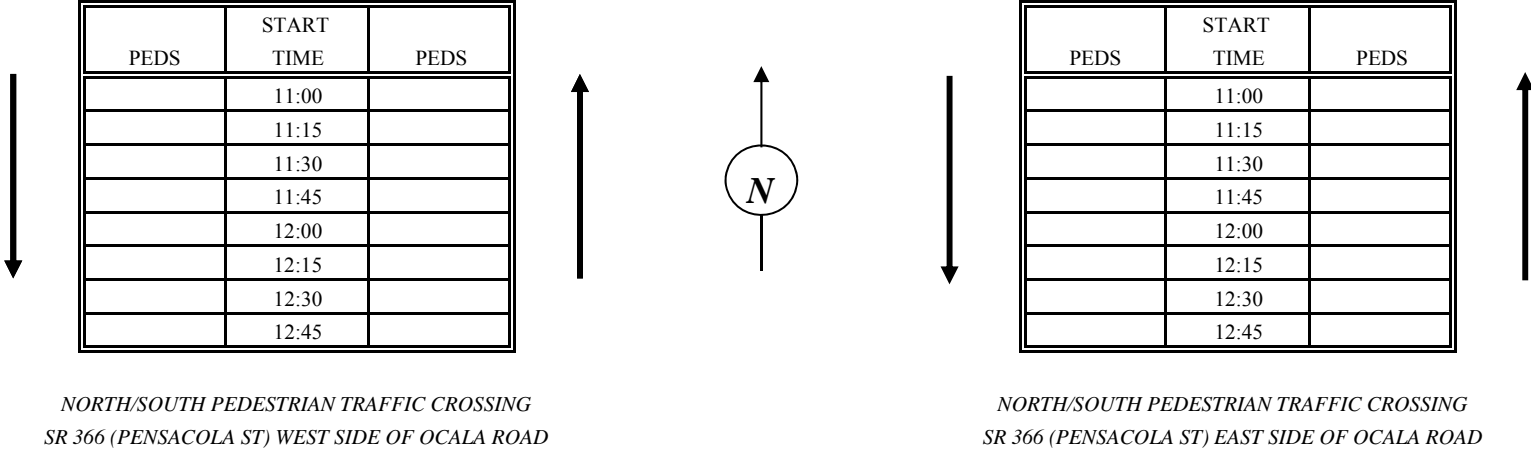
BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Ocala Road
Leon County
Tuesday, September 17, 2019



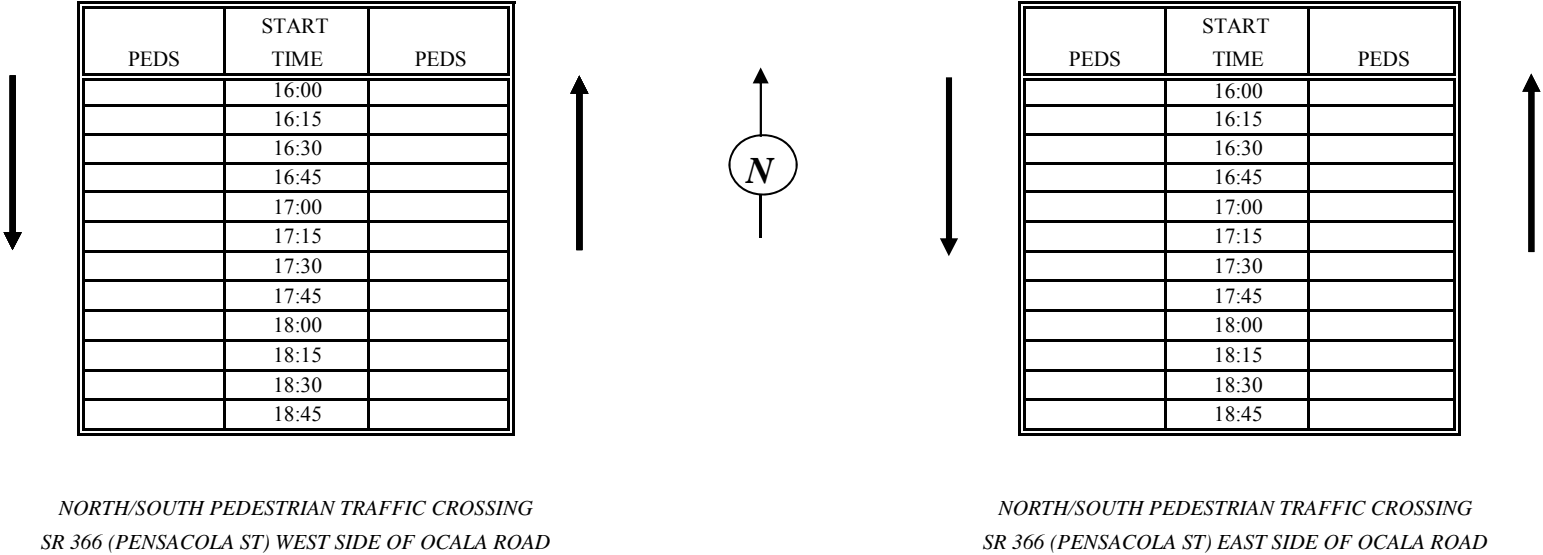
NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST) WEST SIDE OF OCALA ROAD

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST) EAST SIDE OF OCALA ROAD

BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Ocala Road
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Ocala Road
Leon County
Tuesday, September 17, 2019



**Zone 9: From east of Ocala Road to Lipona Road Crossings
(Excluding Lipona Road)**

9/17/2019

Pedestrian/ Bicycle Count:


7:00AM - 10:00AM

11:00AM - 1:00PM

4:00PM - 7:00PM





PEDESTRIAN MOVEMENTS
Zone 9: From east of Ocala Road to Lipona Road
 Leon County
 Tuesday, September 17, 2019





PEDS	START TIME	PEDS
	7:00	
	7:15	
	7:30	
	7:45	1
	8:00	
	8:15	
	8:30	
	8:45	
	9:00	
	9:15	
	9:30	
1	9:45	1

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*





PEDS	START TIME	PEDS
1	11:00	1
1	11:15	
	11:30	
	11:45	
	12:00	1
	12:15	
	12:30	
1	12:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*





PEDS	START TIME	PEDS
1	16:00	1
	16:15	
	16:30	
	16:45	
1	17:00	
	17:15	
	17:30	
	17:45	
	18:00	
	18:15	
3	18:30	2
	18:45	1




*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

BICYCLE MOVEMENTS
Zone 9: From east of Ocala Road to Lipona Road
 Leon County
 Tuesday, September 17, 2019



PEDS	START TIME	PEDS
	7:00	
	7:15	
	7:30	
	7:45	
	8:00	
	8:15	
	8:30	
	8:45	
	9:00	
	9:15	
	9:30	
	9:45	




*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*




PEDS	START TIME	PEDS
	11:00	
	11:15	
	11:30	
	11:45	
	12:00	
	12:15	
	12:30	
	12:45	



*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*



PEDS	START TIME	PEDS
	16:00	
	16:15	
	16:30	
	16:45	
	17:00	
	17:15	
	17:30	
	17:45	
	18:00	
	18:15	
	18:30	
	18:45	



*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

Zone 9: Pensacola Street Crossing at Lipona Road (Signalized Intersection)

9/17/2019

Pedestrian/ Bicycle Count:

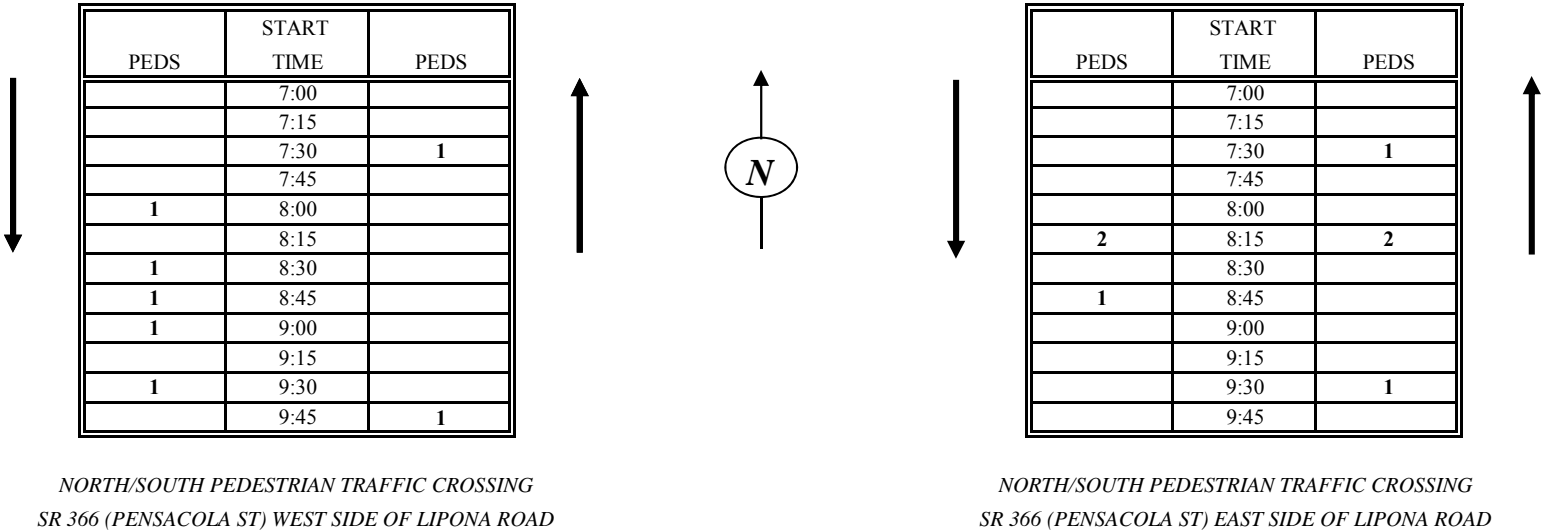
7:00AM - 10:00AM

11:00AM - 1:00PM

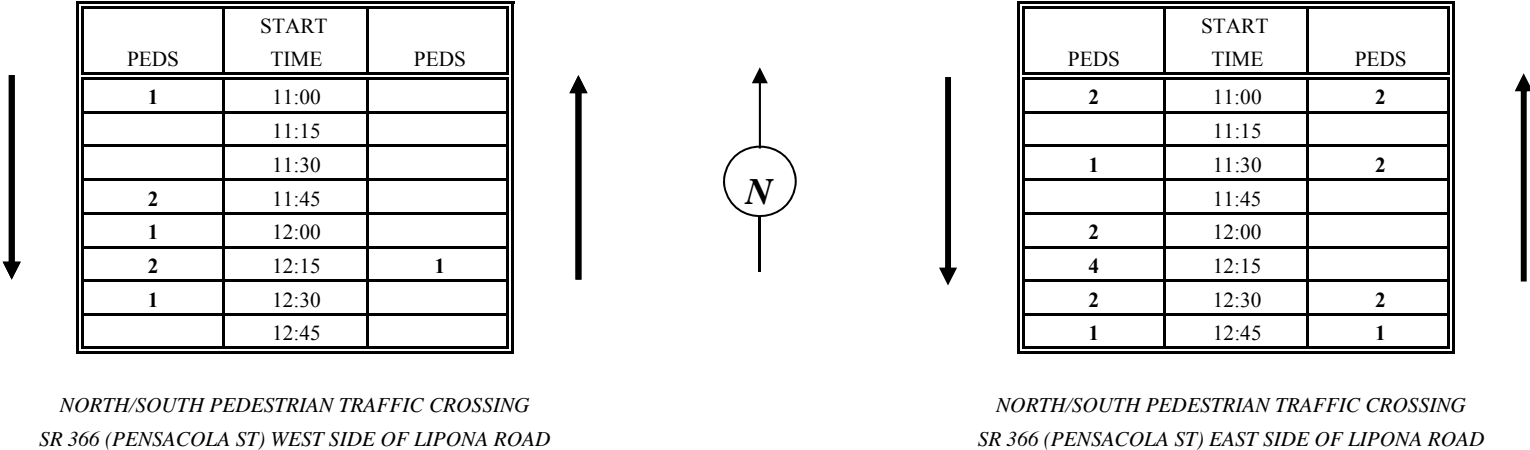
4:00PM - 7:00PM



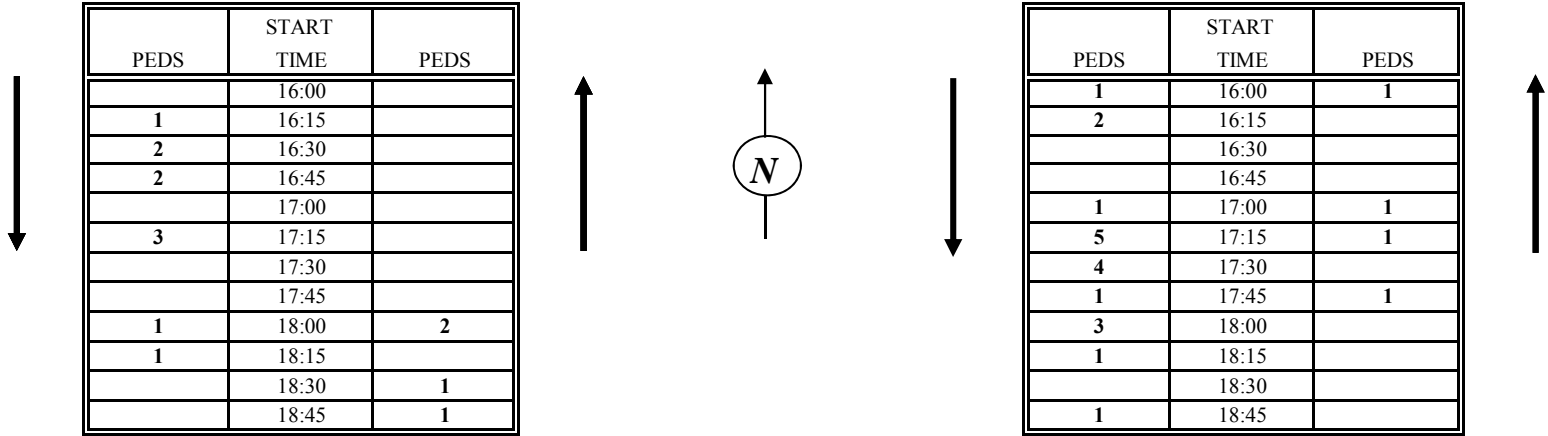
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Lipona Road
Leon County
Tuesday, September 17, 2019



PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Lipona Road
Leon County
Tuesday, September 17, 2019



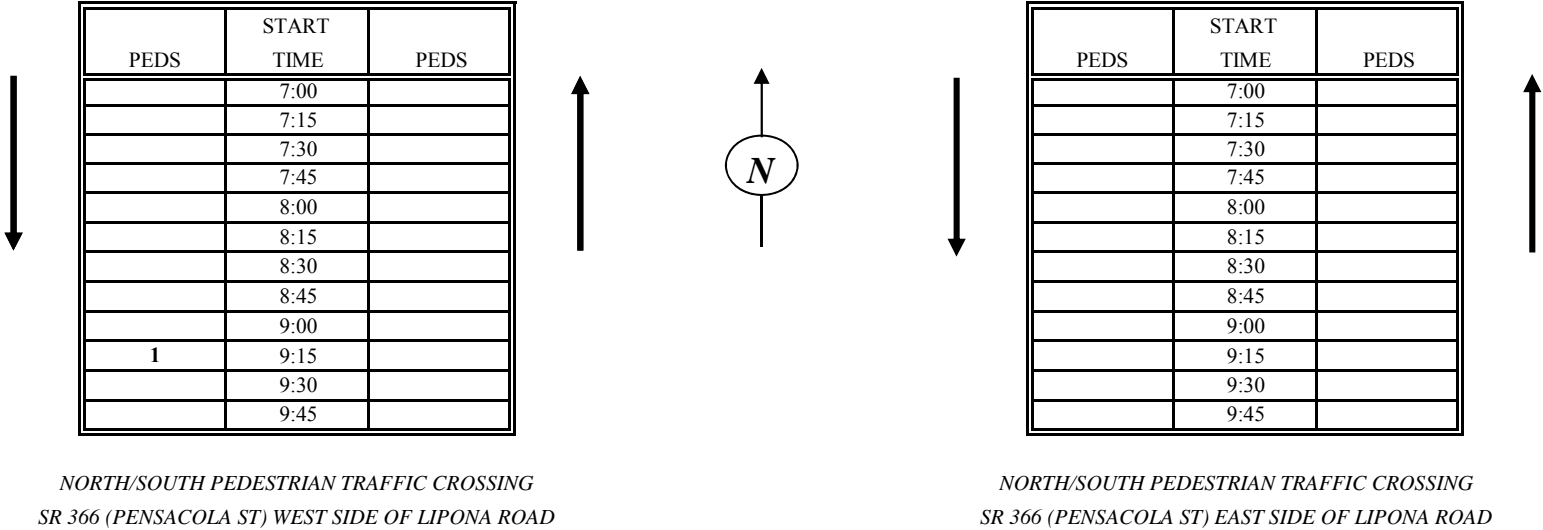
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Lipona Road
Leon County
Tuesday, September 17, 2019



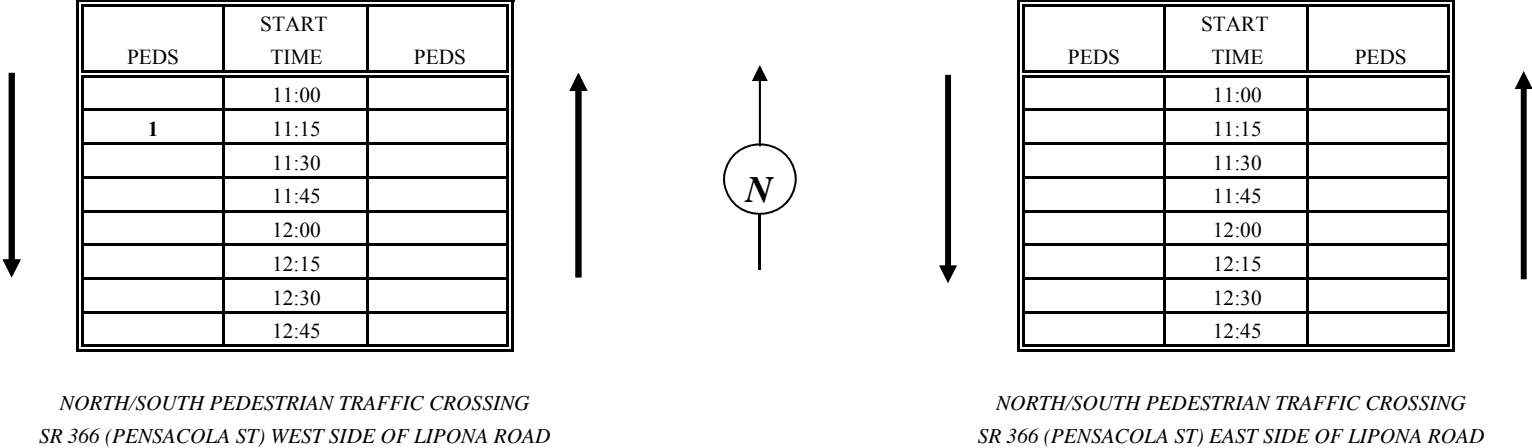
NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST) WEST SIDE OF LIPONA ROAD

NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST) EAST SIDE OF LIPONA ROAD

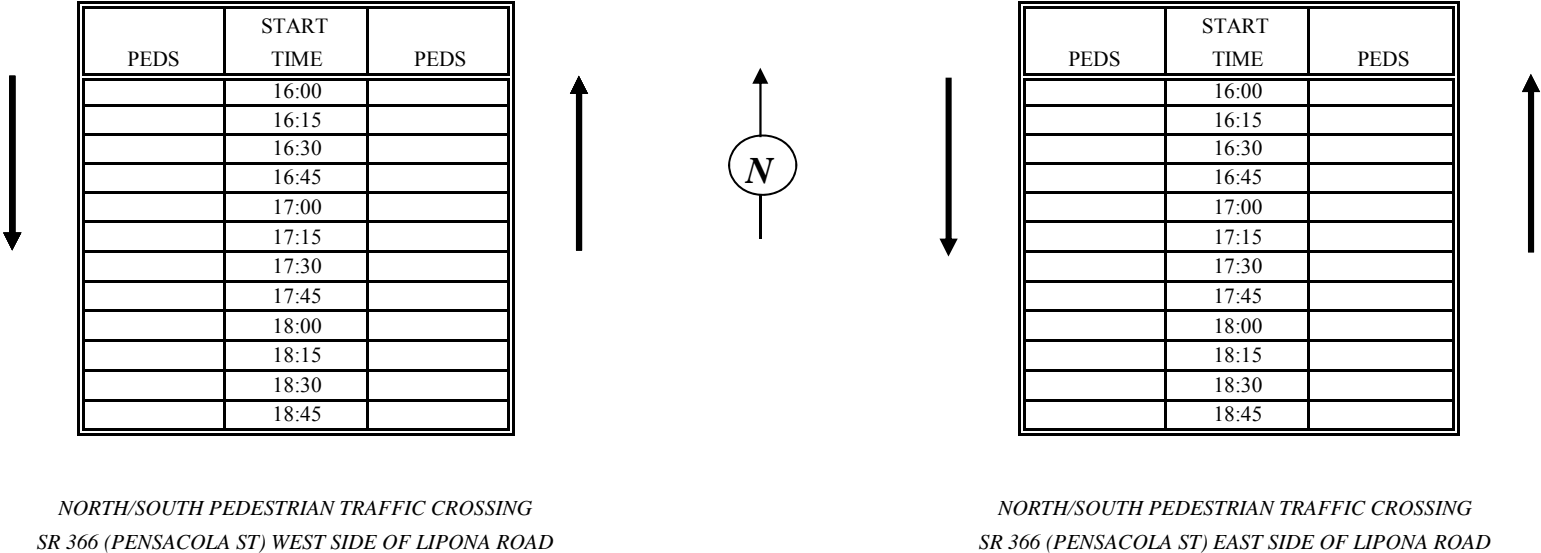
BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Lipona Road
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Lipona Road
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at Lipona Road
Leon County
Tuesday, September 17, 2019



Zone 10: From east of Lipona Road to Lovelace Drive

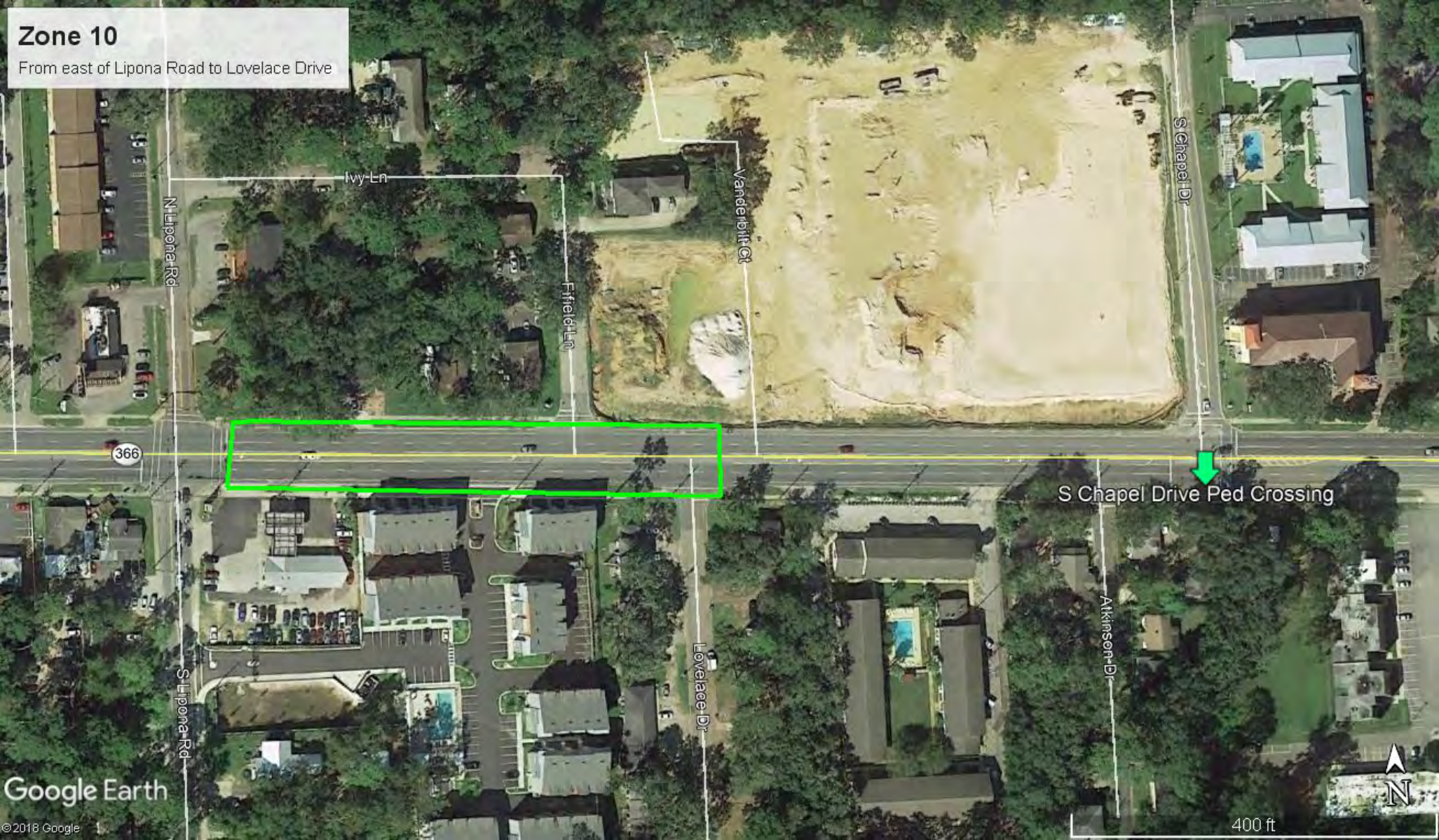
9/17/2019

Pedestrian/ Bicycle Count:


7:00AM - 10:00AM

11:00AM - 1:00PM

4:00PM - 7:00PM





PEDESTRIAN MOVEMENTS
Zone 10: From east of Lipona Road to Lovelace Drive
 Leon County
 Tuesday, September 17, 2019





PEDS	START TIME	PEDS
	7:00	
	7:15	
	7:30	
	7:45	1
1	8:00	
	8:15	
	8:30	
	8:45	
1	9:00	1
	9:15	
	9:30	
	9:45	2

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*





PEDS	START TIME	PEDS
	11:00	
	11:15	
	11:30	
	11:45	1
	12:00	
	12:15	
	12:30	
	12:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*





PEDS	START TIME	PEDS
	16:00	
	16:15	
	16:30	
	16:45	
1	17:00	3
1	17:15	1
	17:30	
	17:45	
	18:00	
	18:15	
	18:30	
	18:45	1




*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*


BICYCLE MOVEMENTS
Zone 10: From east of Lipona Road to Lovelace Drive
 Leon County
 Tuesday, September 17, 2019




PEDS	START TIME	PEDS
	7:00	
	7:15	
	7:30	
	7:45	
	8:00	
	8:15	
	8:30	
	8:45	
	9:00	
2	9:15	
	9:30	
	9:45	




*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*




PEDS	START TIME	PEDS
	11:00	
	11:15	
	11:30	
	11:45	
	12:00	
	12:15	
	12:30	
	12:45	



*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*



PEDS	START TIME	PEDS
	16:00	
	16:15	
1	16:30	
	16:45	
	17:00	
	17:15	
	17:30	1
	17:45	
	18:00	
	18:15	
	18:30	
1	18:45	



*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

**Zone 11: From east of Lovelace Drive to S Chapel Drive Crossing
(Excluding S Chapel Drive)**

9/17/2019

Pedestrian/ Bicycle Count:


7:00AM - 10:00AM

11:00AM - 1:00PM


4:00PM - 7:00PM




PEDESTRIAN MOVEMENTS
Zone 11: From east of Lovelace Drive to S Chapel Drive
 Leon County
 Tuesday, September 17, 2019




PEDS	START TIME	PEDS
	7:00	
	7:15	
	7:30	
	7:45	
	8:00	
	8:15	
	8:30	
	8:45	
	9:00	
	9:15	
	9:30	
	9:45	




*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*




PEDS	START TIME	PEDS
	11:00	
	11:15	
	11:30	
	11:45	
	12:00	
	12:15	
	12:30	
	12:45	



*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*




PEDS	START TIME	PEDS
	16:00	
	16:15	
	16:30	
	16:45	
	17:00	
	17:15	
	17:30	
	17:45	
	18:00	
	18:15	
	18:30	
	18:45	





*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

BICYCLE MOVEMENTS
Zone 11: From east of Lovelace Drive to S Chapel Drive
 Leon County
 Tuesday, September 17, 2019





PEDS	START TIME	PEDS
	7:00	
	7:15	
	7:30	
	7:45	
	8:00	
	8:15	
	8:30	
	8:45	
	9:00	
	9:15	
	9:30	
	9:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*





PEDS	START TIME	PEDS
	11:00	
	11:15	
	11:30	
	11:45	
	12:00	
	12:15	
	12:30	
	12:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

PEDS	START TIME	PEDS
	16:00	
	16:15	
	16:30	
	16:45	
	17:00	
	17:15	
	17:30	
	17:45	
	18:00	
	18:15	
	18:30	
	18:45	



*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
 SR 366 (PENSACOLA ST)*

Zone 11: Pensacola Street Crossing at S Chapel Drive

9/17/2019

Pedestrian/ Bicycle Count:

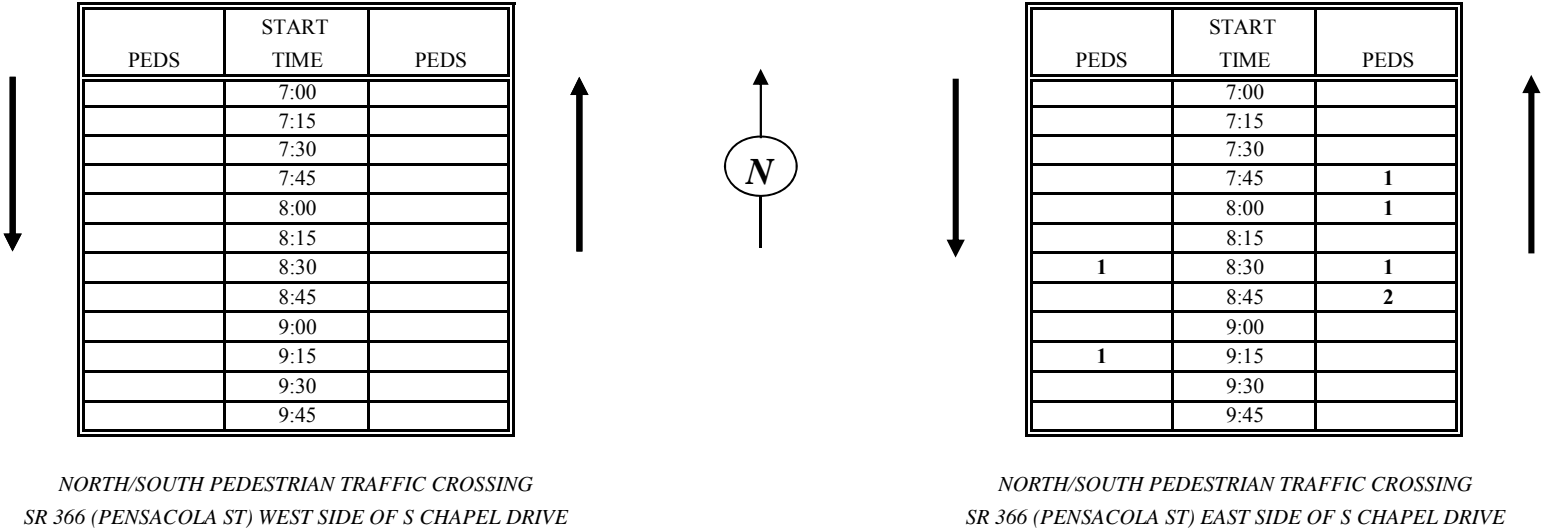
7:00AM - 10:00AM

11:00AM - 1:00PM

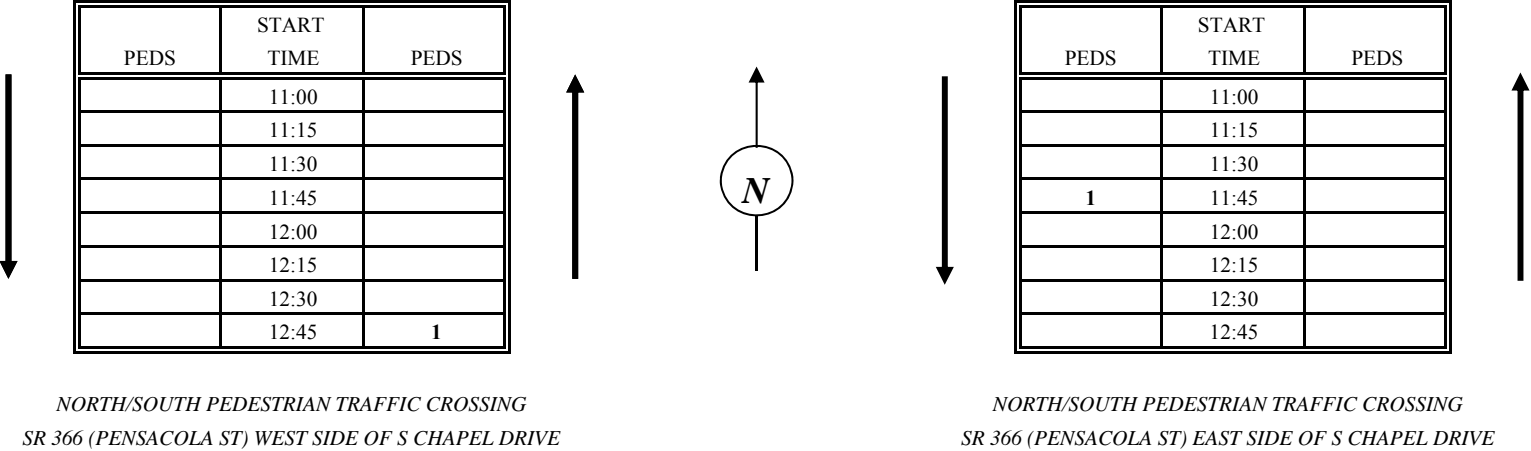
4:00PM - 7:00PM



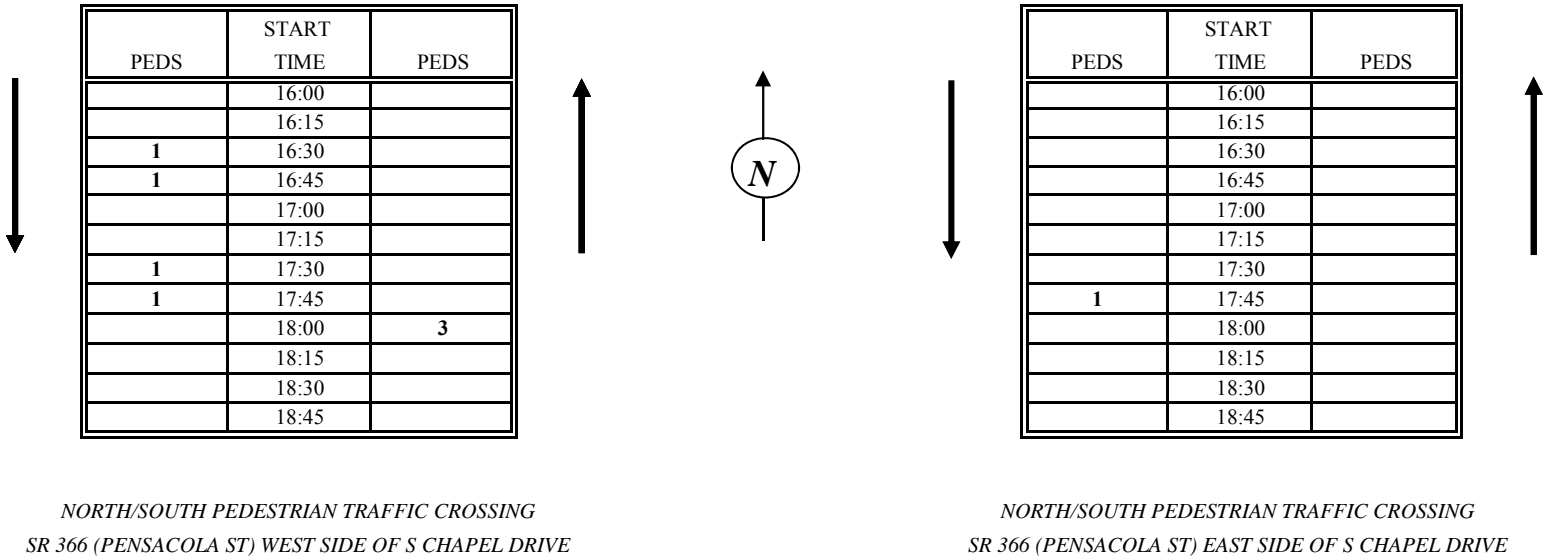
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at S Chapel Drive
Leon County
Tuesday, September 17, 2019



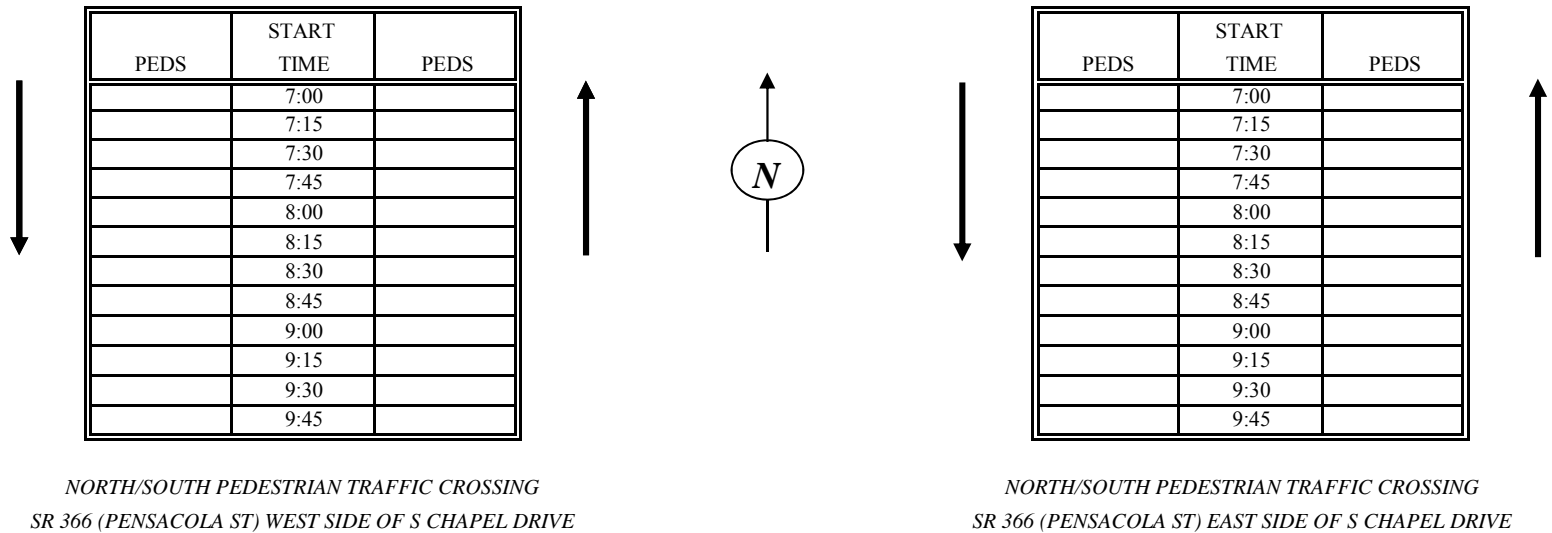
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at S Chapel Drive
Leon County
Tuesday, September 17, 2019



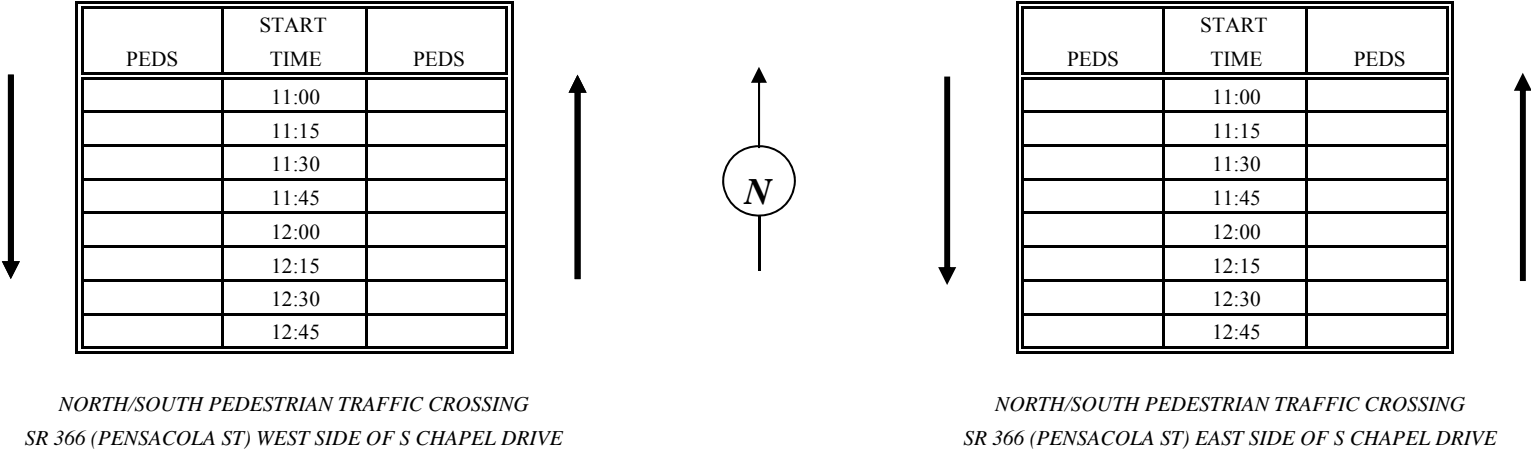
PEDESTRIAN MOVEMENTS
Intersection of SR 366 (Pensacola Street) at S Chapel Drive
Leon County
Tuesday, September 17, 2019



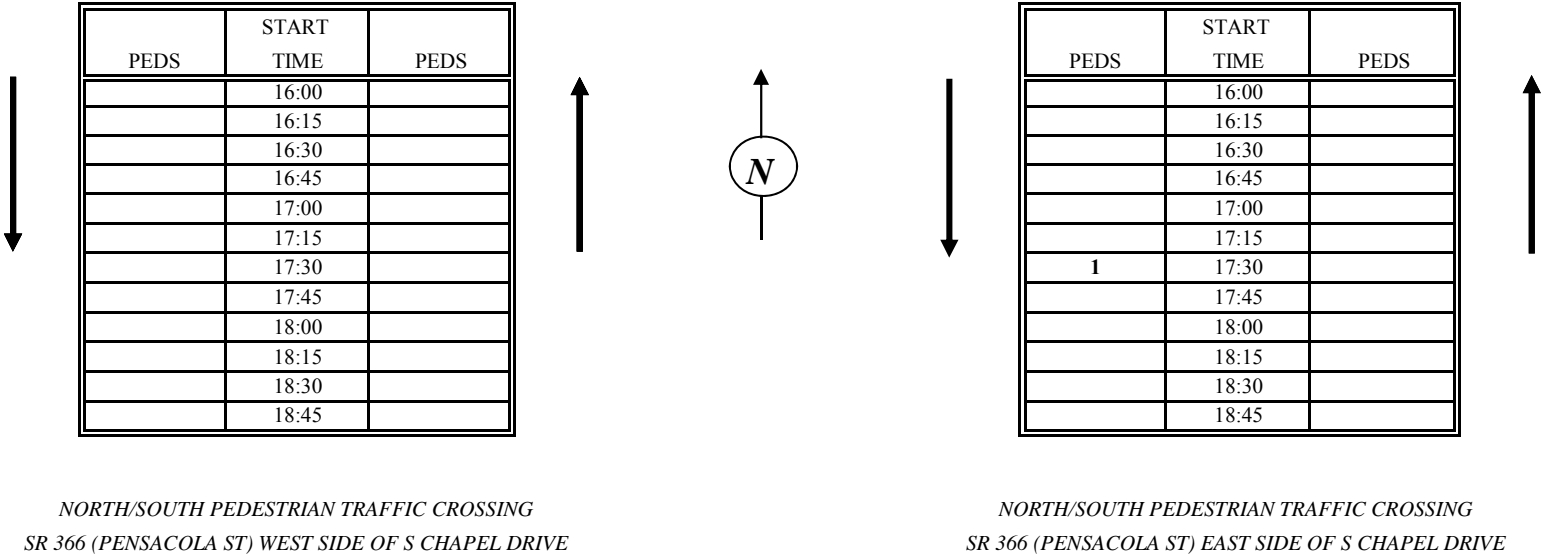
BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at S Chapel Drive
 Leon County
 Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at S Chapel Drive
Leon County
Tuesday, September 17, 2019



BICYCLE MOVEMENTS
Intersection of SR 366 (Pensacola Street) at S Chapel Drive
Leon County
Tuesday, September 17, 2019



**Zone 12: From east of S Chapel Drive to the beginning
of the Guardrail and Fences prior to Stadium Drive**

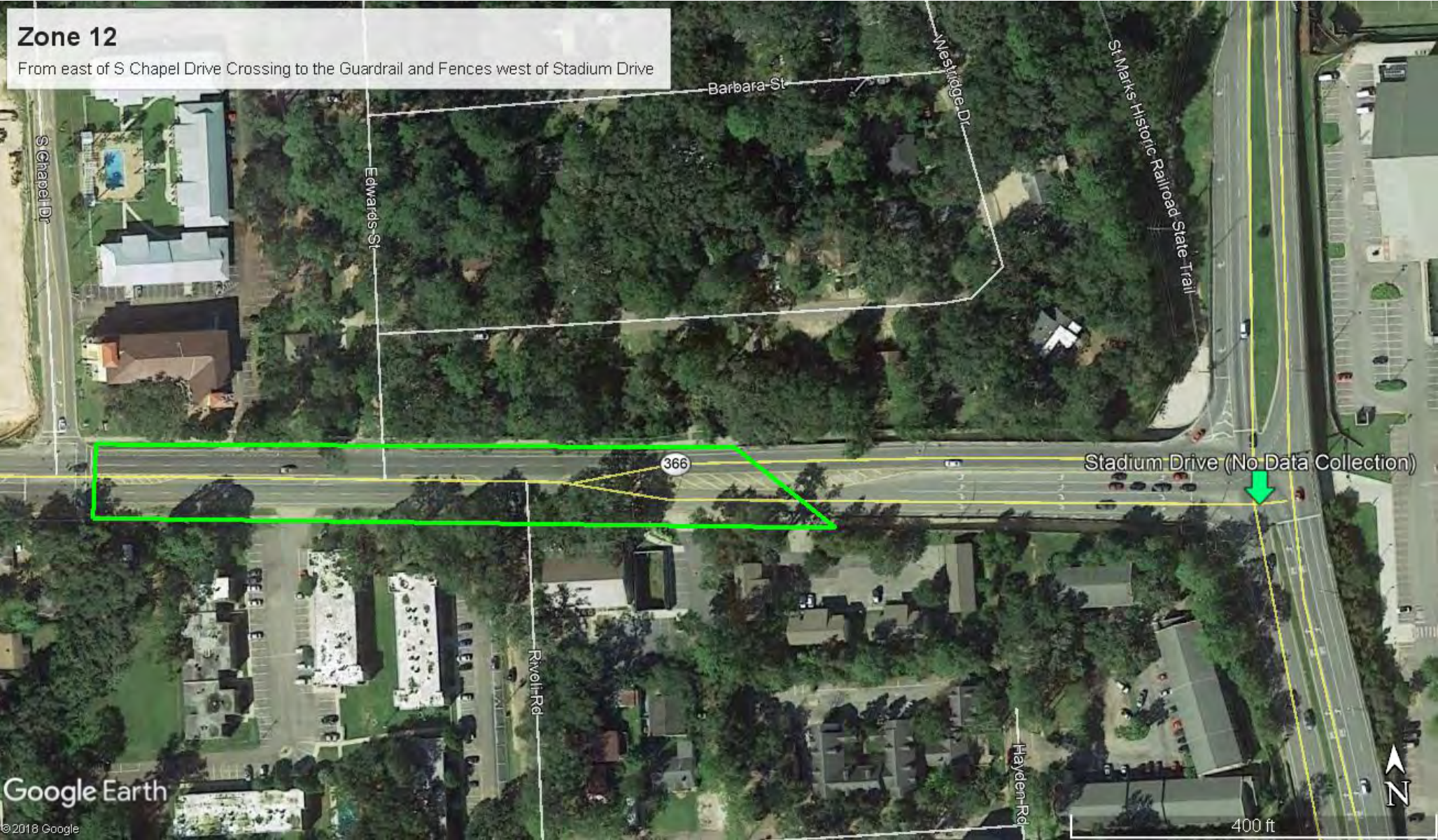
9/17/2019

Pedestrian/ Bicycle Count:

7:00AM - 10:00AM

11:00AM - 1:00PM

4:00PM - 7:00PM




PEDESTRIAN MOVEMENTS

Zone 12: From east of S Chapel Drive to the beginning of the Guardrail and Fences prior to Stadium Drive



Leon County

Tuesday, September 17, 2019





PEDS	START TIME	PEDS
	7:00	
	7:15	
	7:30	
	7:45	
	8:00	
	8:15	
	8:30	
	8:45	1
1	9:00	
	9:15	
	9:30	
	9:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)*





PEDS	START TIME	PEDS
	11:00	
	11:15	
	11:30	
	11:45	
	12:00	
	12:15	
	12:30	
	12:45	

*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)*

PEDS	START TIME	PEDS
	16:00	1
	16:15	
	16:30	
	16:45	
	17:00	
	17:15	1
	17:30	
	17:45	
	18:00	
	18:15	
	18:30	
	18:45	



*NORTH/SOUTH PEDESTRIAN TRAFFIC CROSSING
SR 366 (PENSACOLA ST)*

APPENDIX B

Cost Estimates for Safety Project

ENGINEER'S ESTIMATE

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 3

FINANCIAL PROJECT ID # :		111111-1-11-11
PROJECT DESCRIPTION:	SR 366 (West Pensacola Street) Roadway Safety - from Appleyard Drive to Stadium Drive	
PAY ITEM SPEC YEAR:	January 2021	
SUBMITTAL TYPE:	PD&E Estimate	
COUNTY:	Leon	
DATE:	April 19, 2021	
ENGINEERING CONSULTANT FIRM:	JMT, Inc.	
CONTACT NAME:	Sergio Quevedo, P.E.	
PHONE NUMBER:	(813) 868-6511	
FILE VERSION:	EE_11-16_Rev31	
PAGE NUMBER:	1 of 5	

COMPONENT GROUPS

100 - STRUCTURES	NOT USED	
200 - ROADWAY		\$58,846.95
300 - SIGNING & PAVEMENT MARKINGS		\$58,338.02
400 - LIGHTING		\$62,461.40
500 - SIGNALIZATION		\$223,494.96
550 - ITS	NOT USED	
600 - LANDSCAPE / PERIPHERALS	NOT USED	
700 - UTILITIES	NOT USED	
800 - ARCHITECTURAL	NOT USED	
900 - MASS TRANSIT	NOT USED	
1000 - INVALID & OTHER ITEMS	NOT USED	
COMPONENT SUB-TOTAL		\$403,141.33
(102-1) MOT (Maintenance of Traffic)	10%	\$40,314.13
SUB-TOTAL		\$443,455.46
(101-1) MOB (Mobilization)	10%	\$44,345.55
SUB-TOTAL		\$487,801.01
PU (Project Unknowns)	10%	\$48,780.10
SUB-TOTAL		\$536,581.11
(999-25) Initial Contingency (Do Not Bid)		
PROJECT GRAND TOTAL		\$536,581.11

NOTES:

ENGINEER'S ESTIMATE

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 3

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_11-16_Rev31
PAGE NUMBER:	2 of 5

[illegible]

ENGINEER'S ESTIMATE

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_11-16_Rev31
PAGE NUMBER:	4 of 5

[illegible]

ENGINEER'S ESTIMATE

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 3

FINANCIAL PROJECT ID:

111111-1-11-11

FILE VERSION:

EE_11-16_Rev31

PAGE NUMBER:

5 of 5

[illegible]

APPENDIX C

Benefit-Cost Analysis for Safety Project



Benefit-Cost Analysis

District: **Three**

County: **55 - Leon**

Date Prepared: **04/20/21**

Location: **SR 366**

Section : **55090000**

Beg. Milepost : **0.921**

End Milepost : **2.794**

Rdway Type: **4 - 5 Lanes Urban UnDivided**

Control Element: **Other (describe in box below)**

Benefit-Cost of all proposed improvements

ANNUAL COST OF IMPROVEMENTS

Type	Cost	Service Life	Capital Recovery Factor	Total
ROW		15	0.0899	\$ -
P.E.C.E.I.	\$ 107,316.22	15	0.0899	\$ 9,647.73
Structure		15	0.0899	\$ -
Roadway	\$ 536,581.11	15	0.0899	\$ 48,238.64
Drainage		15	0.0899	\$ -
Signal		15	0.0899	\$ -
Other		15	0.0899	\$ -
Sub-Total	\$ 643,897.33			\$ 57,886.37
Annual Cost =				\$ 57,886.37

Total number of crashes = 1322
 # of correctable crashes, PC = 597
 # of years of crash data, YD = 5
 PC/YD = 119.40
 Crash reduction factor, CRF = 14.16%
 CRF x (PC/YD) = 16.90
 Cost per crash, CPC = \$ 107,908.00
 Benefit = \$ 1,824,012

Primary crash reduction factor (%):

See Summary Sheet

Additional crash reduction factor:

Additional crash reduction factor:

BENEFIT/COST RATIO

$$\frac{\text{Benefit}}{\text{Cost}} = \frac{\$1,824,012.09}{\$57,886.37} = \mathbf{31.51}$$

Prepared by: **Lori Palaio**

Crash Type Improvement

Left Turn	Replace all existing left turn signal heads with 4-section heads with flashing arrows and protected only operating when a conflicting pedestrian call is received														
Ped/Bike	Install a mid-block crossing with a raised median island and RRFB														
Nighttime	Upgrade the intersection lighting														
Sum															
	1	7696	16.2	0.162	0.162	173	5	34.6	28.026	5.6052	\$	107,908.00	\$	604,845.92	10
	2	9024	47.4	0.474	0.474	17	5	3.4	8.058	1.6116	\$	107,908.00	\$	173,904.53	15
	3	4462	11.9	0.119	0.119	407	5	81.4	48.433	9.6866	\$	107,908.00	\$	1,045,261.63	15
						597				16.9034					

Year	CRF x (PC/YD)	Cost per Crash	(P/F,I,y) Factor	Present Value	L
1	16.9	\$107,908.00	1.0400	\$1,896,591.01	15
2	16.9	\$107,908.00	0.5302	\$966,896.69	
3	16.9	\$107,908.00	0.3603	\$657,059.37	
4	16.9	\$107,908.00	0.2755	\$502,414.25	
5	16.9	\$107,908.00	0.2246	\$409,590.71	
6	16.9	\$107,908.00	0.1908	\$347,951.50	
7	16.9	\$107,908.00	0.1666	\$303,819.29	
8	16.9	\$107,908.00	0.1485	\$270,811.31	
9	16.9	\$107,908.00	0.1345	\$245,280.28	
10	16.9	\$107,908.00	0.1233	\$224,855.45	
11	16.9	\$107,908.00	0.1141	\$208,077.92	
12	16.9	\$107,908.00	0.1066	\$194,400.58	
13	16.9	\$107,908.00	0.1001	\$182,546.88	
14	16.9	\$107,908.00	0.0947	\$172,699.20	
15	16.9	\$107,908.00	0.0899	\$163,945.70	

Total Present Value	
Benefit	\$6,746,940.15
Cost	\$643,897.33
Net Present Value	\$6,103,042.82