City of Deltona

Chairman
Tom Burbank

Vice-Chairman
Noble Olasimbo

Members:

Victor Ramos

Wendy Hickey

Adam Walosik

Herb Zischkau

Staff Liaison
Chris Bowley, AICP

PLANNING & ZONING BOARD MEETING
WEDNESDAY, JULY 16, 2014
7:00 P.M.
CITY HALL COMMISSION CHAMBERS
2345 PROVIDENCE BOULEVARD
DELTONA, FLORIDA 32725

AGENDA

1. **CALL TO ORDER:**
2. **ROLL CALL:**
3. **APPROVAL OF MINUTES: June 18, 2014**
4. **PUBLIC COMMENTS:**
5. **OLD BUSINESS:**
6. **NEW BUSINESS:**

   A. RZ14-003, BPUD Rezoning for 148.13+/- acres of the Deltona Activity Center. (Ordinance No. 17-2014).

   B. CU14-003, Conditional Use to allow a house of worship with a maximum of 210 fixed seats, located in an RE-1 zoning district. (Resolution No. 2014-08).
7. **MEMBER COMMENTS:**
8. **ADJOURNMENT:**

NOTE: If any person decides to appeal any decision made by the Planning & Zoning Board with respect to any matter considered at this meeting or hearing, he/she will need a record of the proceedings, and for such purpose he/she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based (F.S. 286.0105).
Individuals with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk at least three (3) working days in advance of the meeting date and time at (386) 878-8100.

Deltona Municipal Complex, 2345 Providence Blvd., Deltona, FL 32725
(386) 878-8100; FAX: (386) 878-8501
City Webpage: www.deltonafl.gov

CITY OF DELTONA, FLORIDA
PLANNING & ZONING BOARD MEETING
WEDNESDAY, JUNE 18, 2014

A Regular Meeting of the Deltona Planning and Zoning Board was held on June 18, 2014, in the City's Commission Chambers located at 2345 Providence Boulevard, Deltona, Florida.

1. CALL TO ORDER:

The meeting was called to order at 7:00 p.m. by Chairman Burbank.

2. ROLL CALL:

Chairman	Tom Burbank	Present
Member-Secretary	Noble Olasimbo	Present
Member	Victor Ramos	Present
Member	Wendy Hickey	Present
Member	Adam Walosik	Present
Member	Herb Zischkau	Present

Also present: Planning & Development Director, Chris Bowley, AICP; City Attorney, Becky Vose, Esq.; Administrative Assistant, Kathrine Kyp.

3. APPROVAL OF MINUTES:

A. Minutes:

1. Meeting – May 21, 2014.

Motion by Member Ramos, seconded by Member Olasimbo to adopt the minutes of the Planning & Zoning Board Meeting of May 21, 2014, as presented.

Motion carried unanimously.

4. PUBLIC COMMENTS: None

5. OLD BUSINESS: None

6. NEW BUSINESS:

A. Election of Officer for Vice-Chairman.

Chairman Burbank asked for nominations for the position of Vice-Chairman. Member Walosik nominated Member Olasimbo for Vice-Chairman. There were no further nominations for Vice-Chairman and nominations were closed. The motion carried unanimously.

Chairman Burbank asked for nominations for the position of Secretary. Member Ramos nominated Member Hickey for Secretary. There were no further nominations for Secretary and

nominations were closed. The motion carried unanimously.

B. Ordinance No. 15-2014, Changeable Copy Signs for Houses of Worship.

Mr. Bowley provided the Board with information regarding the proposed amendment to the Sign Code (Code) to allow for electronic changeable copy signs for Houses of Worship. He stated that the City has received requests to allow Houses of Worship to have the most current signage technology. Mr. Bowley explained that criteria will be placed within the Code that limits the number, orientation, land use types, location of sign placement, and evening hour illumination to respect the residential character of area neighborhoods.

Member Zischkau asked Mr. Bowley what the minimum classification of the road that changeable copy signs will be permitted upon. Mr. Bowley replied major and minor arterial roadways.

Chairman Burbank and Mr. Bowley discussed the ability to have the Houses of Worship request the electronic changeable copy signs through the conditional use or variance process. Mr. Bowley responded that they were considered; however, the limitation to arterial roadways and the need to prove hardship addressed those issues.

Motion by Member Olasimbo, seconded by Member Hickey, to recommend that the City Commission approve Ordinance No. 15-2014, an amendment to allow electronic changeable copy signs for Houses of Worship.

Motion carries unanimously.

C. Amendment to the Official Zoning Map (Ordinance No. 05-2014) for the Promenade at Deltona Site.

Mr. Bowley provided information to the Board regarding the rezoning of portions of the Pell property and the Leahy tract that would become the Promenade at Deltona. He discussed access points on Howland Blvd. and SR 415, easements, and current and future utilities.

Member Zischkau asked Mr. Bowley if the right-in/right-out was on Howland Blvd. and who is the property owner of the land at the lighted intersection on Howland Blvd? Mr. Bowley stated the property owner (Luthra) sold the land to Halifax Health and then deferred to the applicant and Engineer of Record for the application, regarding site access.

Rodney Honeycutt, 3700 S. Washington Avenue, Titusville, Florida, discussed access and stated the property does not have access to the adjacent property until the land is developed and only then would there be a cross access easement.

Member Walosik asked if the adjacent property has been platted and if not, how soon? Mr. Bowley stated that the property has completed a rezoning and an Overall Development Plan but the owner of the property has not platted the property. Member Walosik then stated if the property had been platted, a paper right-of-way could then be used to construct a connection. Mr. Bowley

stated that the proposed cross-access easement would be privately controlled by a property owners association.

Member Olasimbo asked why the intersection of Doyle Rd. and SR 415 intersection was not included in the evaluation when a 5 mile-radius was noted in the analysis. Mr. Bowley replied that since improvements have already been designed, permitted and built for the Doyle Rd. and SR 415 intersection by FDOT, it was presumed that FDOT has already accommodated for the additional capacity on the regional roadway network with a 4-lane divided facility with mast-arms.

Chairman Burbank and Mr. Bowley discussed access from the Tractor Supply site, access points for the subject site, and whether staff will require that Tractor Supply provide potential access to the subject property. Mr. Bowley explained that when the parent tract is developed, staff would require internal circulation, so that it protects the capacity of SR 415.

Chairman Burbank opened up to public comments.

Patricia Ungerelli, 3541 Tabb Drive Deltona, Fl 32725 asked the Board about the map on the public notice mail out she received. Chairman Burbank referred to her to discuss with staff after the meeting.

Motion by Member Hickey, seconded by Member Zischkau, to recommend that the City Commission approve, Ordinance No. 05-2014, Amendment to the Official Zoning Map.

Motion carries unanimously

7. DISCUSSION:

A. By the Board: None.

B. By the City Attorney: None.

C. By Planning & Development Staff: None.

8. ADJOURNMENT:

There being no further business, the meeting adjourned at 7:37 p.m.

ATTEST: **Tom Burbank, CHAIRMAN**

Kathrine Kyp, RECORDING SECRETARY

AGENDA MEMO

TO: Planning and Zoning Board **AGENDA DATE:** July 1, 2014

FROM: Chris Bowley, AICP, Director
Planning and Development Services **AGENDA ITEM:** **6-A**

SUBJECT: RZ14-003, BPUD Rezoning for 148.13+/- acres of the Deltona Activity Center. (Ordinance No. 17-2014)

LOCATION: 148.13+/- acres of property in the Deltona Activity Center, northeast of the Howland Blvd/SR 472 and Interstate 4 interchange.

BACKGROUND: The City has received an application to amend the Official Zoning Map from Agriculture and Industrial to Business Planned Unit Development (BPUD) for 148.13+/- acres of property situated in the Deltona Activity Center. Activity Center requirements necessitate the PUD zoning classification. The BPUD would allow for a wide mixture of uses such as medical offices, auto dealerships, hotels, assisted living facilities, restaurants, retail uses and more.

The rezoning application was originally proposed to be a Mixed Planned Unit Development (MPUD). However, the uses proposed did not really warrant a MPUD and were more suited to a Business Planned Unit Development (BPUD). The applicant did notify the City and did change the application from MPUD to BPUD.

In addition, the property was once associated with three antiquated plats. The plats and related rights of way were vacated by the City Commission in April of 2014 through three separate resolutions. The vacation events are not reflected as part of the final legal description of the property and the rights of way and related lot pattern appear on the staff report map series because Volusia County has not yet updated its GIS coverage.

The uses proposed for BPUD are extensive and include medical, general office, retail, and living facilities. While the diversity of uses and related intensity are appropriate for such a large tract located strategically at an interstate interchange, traffic needs to be appropriately managed. The attached staff report and supporting documents delve into transportation manners including potential traffic mitigation actions. Traffic mitigation has been contemplated for the Activity Center for many years. Traffic planning has led to several suggested conditions for approval. The overall intent of the conditions is to allow development but still maintain the functionality of the City's transportation network.

The property does abut residential areas to the east – Arbor Ridge and Timbercrest subdivisions. Therefore, land use compatibility is a major component of this rezoning request. City staff and the applicant have proposed various methods of which to afford protection to the abutting neighborhoods. Conditions and Development Agreement provisions have been suggested to ensure land use compatibility.

For more information concerning this proposal including detailed graphics, public service analysis, etc., see the attached staff report.

ORIGINATING DEPARTMENT: Department of Planning & Development Services

REVIEWED BY: Reviewed by Ron A. Paradise, Assistant Director, Planning & Development Services

PRESENTED BY: Presented by Scott McGrath, Planner II, Planning & Development Services

STAFF RECOMENDATION: That the Planning and Zoning Board recommend that the City Commission adopt Ordinance No. 17-2014, amending the Official Zoning Map from Agriculture and Industrial to BPUD subject to the conditions outlined in the staff report.

POTENTIAL MOTION: **"I hereby make a motion to recommend that the City Commission approve Ordinance No. 17-2014, subject to the conditions proposed by City staff."**

ATTACHMENTS:

RZ14-003 Staff Report
Ordinance No. 17-2014
Development Agreement as suggested by staff (underline/strike through)
Traffic Impact Analysis prepared for the applicant by GMB
Review of GMB Traffic Impact Analysis by City consultant DRMP
Four (4) maps of transportation mitigation projects

CITY OF DELTONA

Memorandum

To: **Planning and Zoning Board**

From: **Chris Bowley, AICP**

Date: **June 4, 2014**

Re: **Project No. RZ14-003. Amendment to the Official Zoning Map for the property known as Halifax Crossings, located at the intersection of Graves Avenue and Howland Boulevard.**

I. SUMMARY OF APPLICATION:

APPLICANT: Zev Cohen & Associates
c/o Paul Momberger, RLA
300 interchange Blvd
Ormond Beach, FL 32174

Request: The City of Deltona has received an application from Zev Cohen & Associates, to rezone the subject property from Agriculture and Industrial to BPUD

A. SITE INFORMATION:

1. **Tax Parcel No.**: Numerous
2. **Property Addresses:** NA.
3. **Property Acreage:** ±148 acres.
4. **Property Location:** Located at the northeast corner of the Interstate 4/SR 472 - Howland Boulevard interchange north of the intersection of Graves Ave. and Howland Blvd. and west of the Arbor Ridge and Timbercrest subdivisions.
5. **Property Legal Description:**

Note: this description is generalized and does not reflect three City Commission plat/rights of way vacation resolutions approved in April of 2014.

The applicant will generate an up to date description by the July 16, 2014 Planning and Zoning meeting.

Davis Park 5th Addition subdivision, Map Book 18, Page 128: Lots 1 through 24 Block 1; Lots 1 through 48 Block 2; Lots 1 through 24 Block 10; Lots 1 through 48 Block 9; Lots 1 through 48 Block 8; Lots 6 through 48 Block 3; Lots 1 through 48 Block 4; Lots 1 through 48 Block 7; Lots 1 through 24 Block 5 and Lots 1 through 24 Block 6, 5th Addition, Davis park according to the map or plat thereof recorded in Map Book 18 Page 147 Public Records of Volusia County, Florida

Davis Park 3rd Addition subdivision Map Book 18 Page 117: A portion of Lot 1 and Lots 4 through 23 Block 5 Less and accept the right of way for Graves Ave.; Lots 1 through 46 Block 4 Less and except the right of way for Graves Ave. Lots 1 through 4, less and except the right of way of Graves Ave, and Lots 42 through 46 Block 7; Lots 24 through 37 Block 3; Lots 1 through 12 and Lots 35 through 46 Block 8, 3rd Addition, Davis Park, according to the map or plat thereof recorded in Map Book 18 Page 117 of the public records of Volusia County, Florida

Yourlando Farms and Groves subdivision, Map Book 10, Pages 227 - 228: Lots 40, 47, and 48; and Lots 55, 56 and 63 lying north of the right of way of SR 472; Lots 41 and 46 lying north of SR 472 and east of SR 400; Lots 32 through 39, Yourlando Farms and Groves according to the map or plat thereof recorded in Map Book 10 Pages 227 and 228, Public Records of Volusia County, Florida

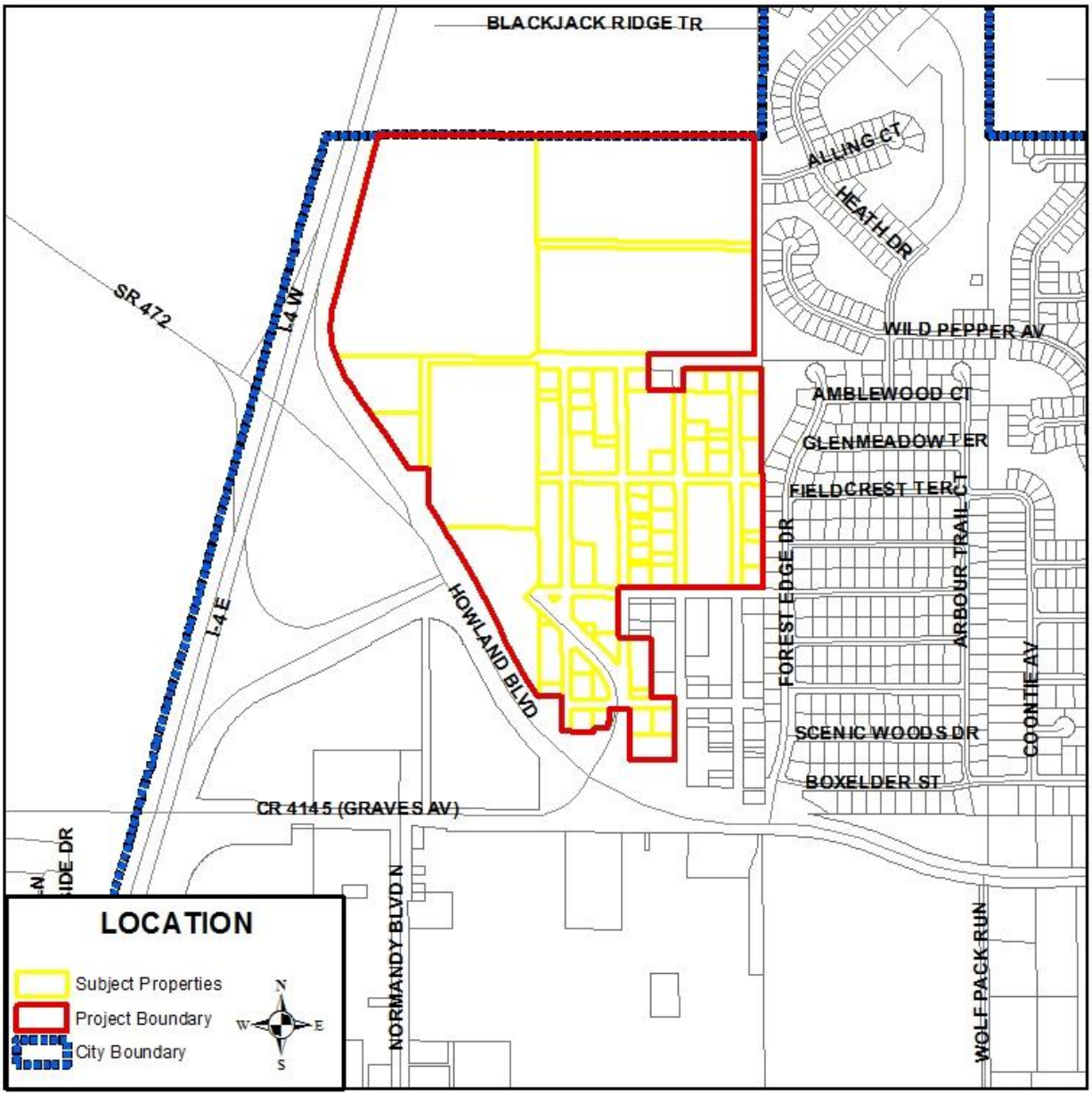


Figure 1: Location map

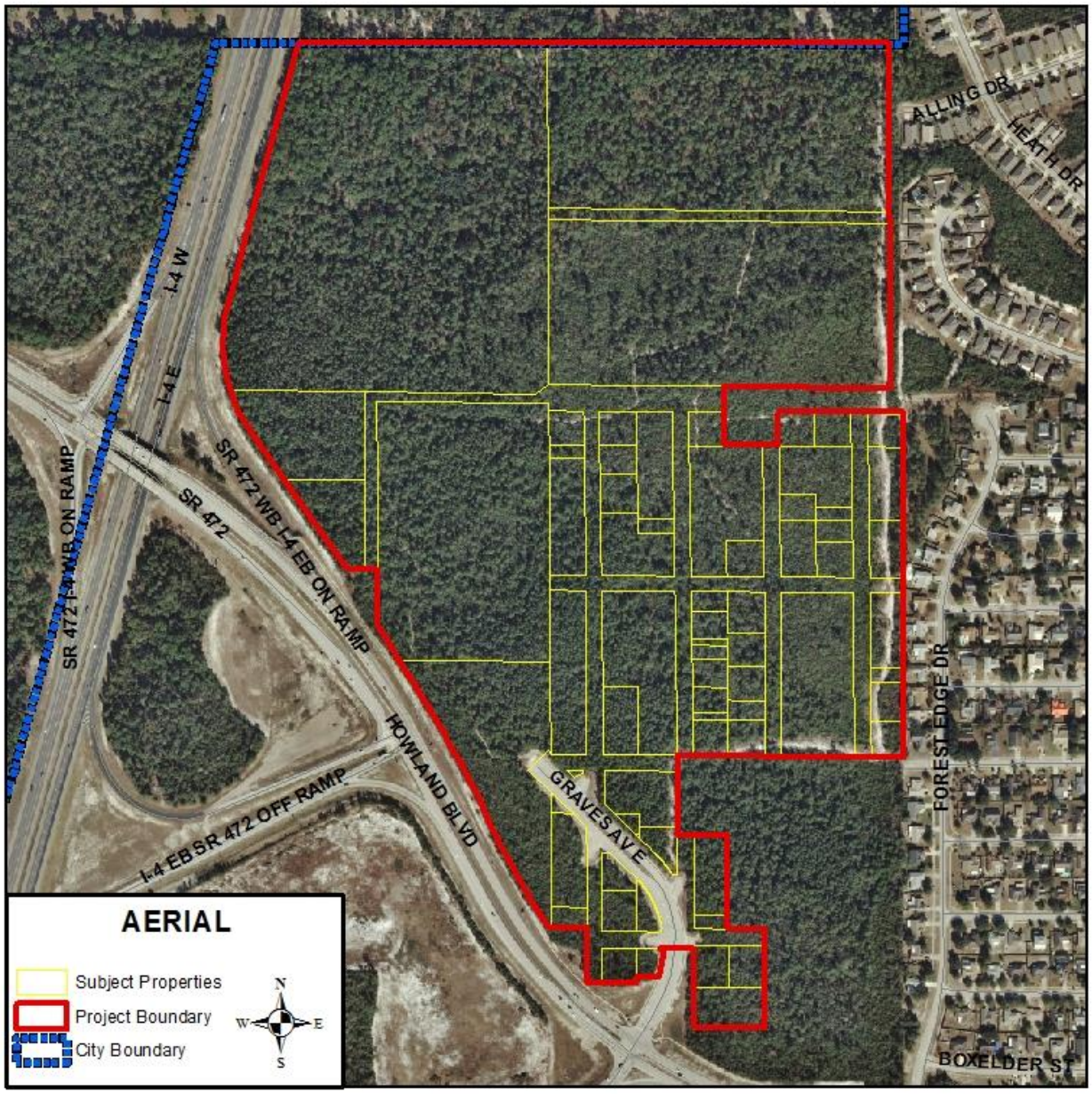


Figure 2: Aerial Photo

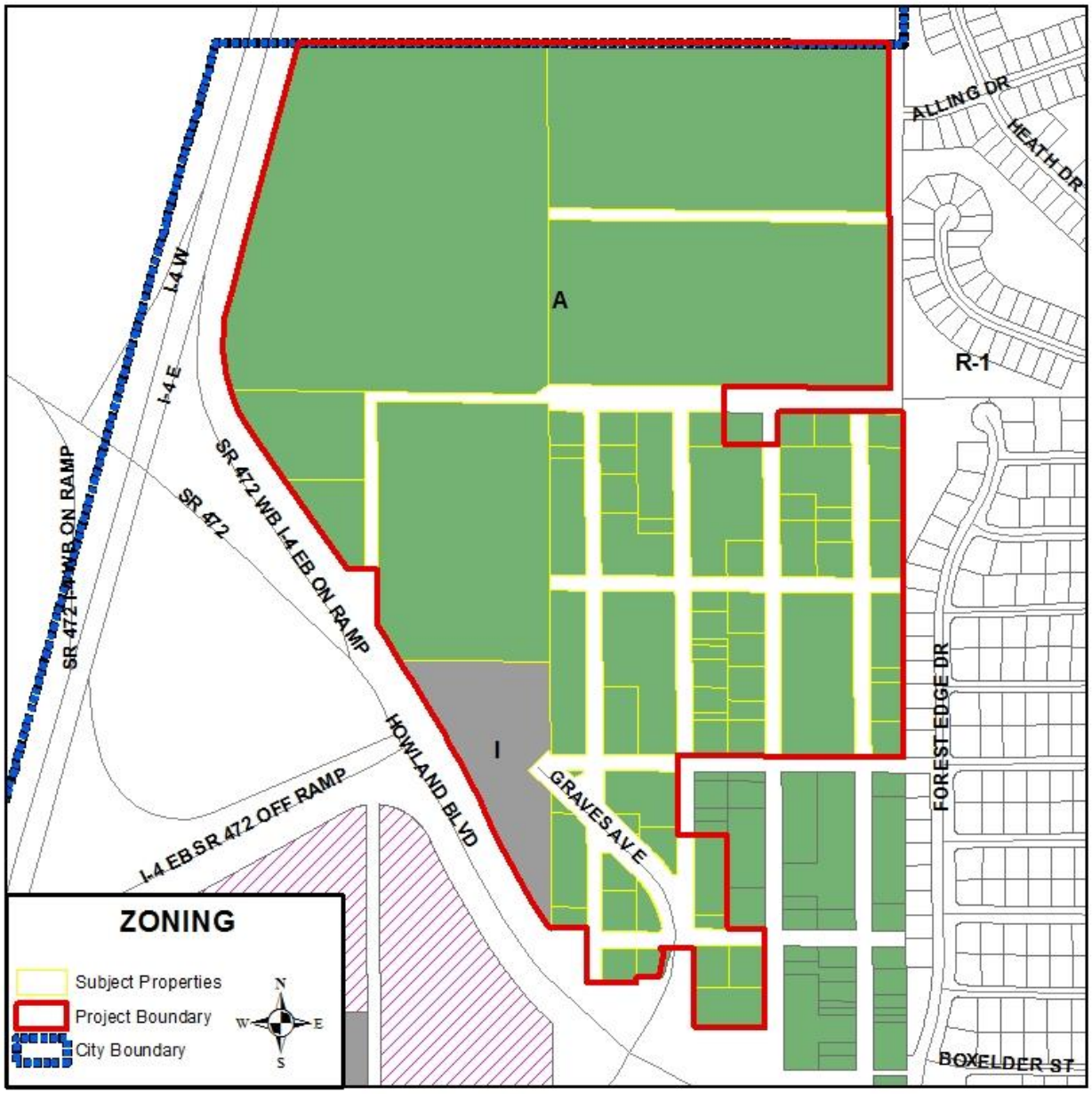


Figure 3: Existing Zoning

B. Existing Zoning:

1. Subject Property:
Existing: Agriculture and Industrial
Requested: BPUD

2. Adjacent Properties
North: Volusia County
South: BPUD

East: R-1
West: Volusia County

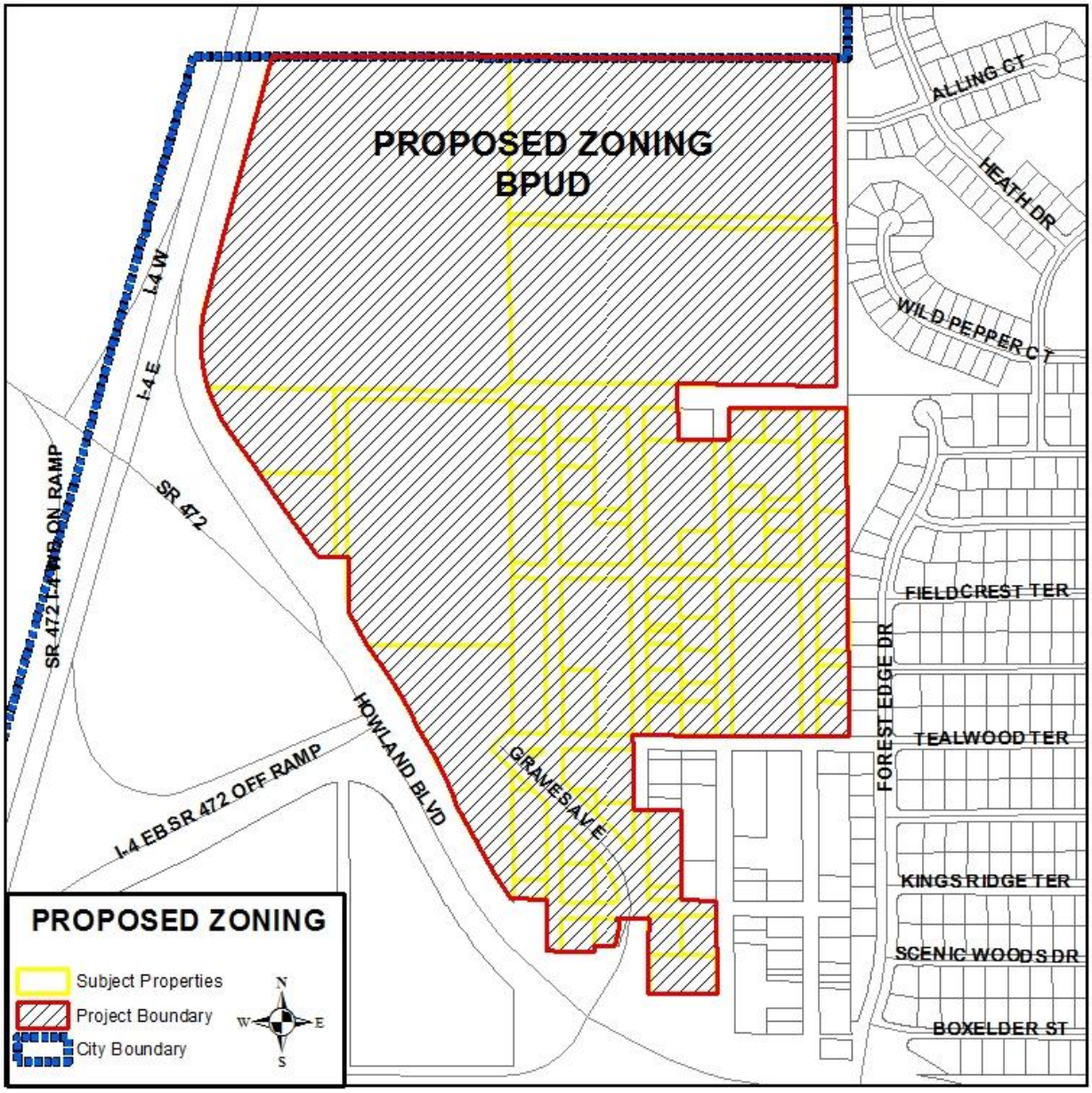


Figure 4: Proposed Zoning

C. Proposed Zoning:

Business Planned Unit Development (BPUD) The purpose and intent of the planned unit development is to provide for integrated developments, which are consistent with the Comprehensive Plan, so as to promote the orderly development of compatible land uses. Further, it is intended that a proposed development be sensitive to existing adjacent and future land uses, the natural environment and the impact upon supporting public infrastructure. A BPUD may consist of uses found within the commercial zoning classifications contained within Chapter 110 of the City's Land Development Code and uses consistent with the Comprehensive Plan.

D. Back Ground

The proposed property to be rezoned is in the northern portion of the area known as the Deltona Activity Center. The Activity Center concept dates back to the early 1990's when the County designated an approximately 1800 acre area, including the subject land, on both sides of Interstate 4 with the Activity Center moniker on the County Future Land Use Map. The Activity Center eventually evolved into an area-wide Development of Regional Impact or DRI, but after years of inactivity the City of Deltona DRI, Development Order expired. However, the Activity Center is still managed under a local plan appended to the Future Land Use Element of the City Comprehensive Plan.

As has been stated, before development can take place, the properties must be rezoned utilizing the PUD process. The applicant has applied to rezone approximately 148 acres from Agriculture and Industrial to BPUD, allowing for a wide mixture of uses such as medical offices, auto dealerships, hotels, assisted living facilities, restaurants, retail uses and more.

E. Support Information

Public Facilities

a. Potable Water: to be supplied by Volusia County Deltona North Franchise
b. Sanitary Sewer: to be supplied by Volusia County Deltona North Franchise
c. Fire Protection: City Fire Station 65
d. Law Enforcement: Volusia County Sheriff's Office (VCSO)
e. Electricity: Duke Energy (FKA Progress Energy)

F. **Matters for Consideration** – Section 110-1101, Code of City Ordinances, states that the City shall consider the following matters when reviewing applications for amendments to the Official Zoning Map:

1. **Whether it is consistent with all adopted elements of the Comprehensive Plan.**
   The City is underserved by commercial uses and there is a significant land use imbalance between residential and non-residential land uses. To respond to this situation, the Comprehensive Plan contains policies that encourage a diversification of land uses within the City. The rezoning of the subject property is meant to allow for large scale regional commercial and institutional development, meeting the original intent of the Activity Center. There is recognition that there is a living facility aspect of this application. However, according to the Comprehensive Plan (Policy FLU1-8.4) such living facilities may be compatible within commercial areas/developments. Therefore, the proposed rezoning would be consistent with the Comprehensive Plan if the suggested recommendations by City staff are implemented.

2. **Its impact upon the environment or natural resources.**
   The property is largely undeveloped. The natural condition of the site can be described as sand pine scrub and long leaf pine sandhill vegetative communities. The property is managed for timber production and is taxed at an agricultural rate for silviculture. Portions of both the sand pine scrub area and long leaf pine areas have been timbered. The timbered area is dominated by early successional scrub vegetation such as saw palmetto and sand live oak. The soils on site are sandy, well drained and classed predominately as Orsino, Astutula, and Paola Fine Sands.

   According to the February 2014 FEMA flood zone maps; two small portions of the subject property are located within the 100 year floodplain. These depressional areas are likely a result of karstic geological activity. Topography on the site is undulating. Typically for large scale development projects level areas are preferred. Therefore, to facilitate development, there will be extensive cut and fill activity occurring on the property.

   The site is ±148 acres and may be used as habitat for small and large animals, such raccoons, deer, and wild pigs. The most probable listed species that could use the site include gopher tortoises and/or scrub jays. Gopher tortoise burrows were observed by City staff during a recent field visit. The site will need to be appropriately surveyed for tortoises to determine population density and burrow location. Tortoises within the development will have to be relocated following State procedures. The property will also need to be surveyed for scrub jays. If jays are noted on site, permits from the U.S. Fish and Wildlife Service will be required. All permits to address listed species protection will be required by the City during the site plan review process.

3. **Its impact upon the economy of any affected area.**
   The proposed impact of the development upon the local economy, if built as depicted in the application material, will be tremendous for the City. The BPUD would create a wide range of jobs from service employment opportunities to high paying medical professional jobs. Also, such development would help diversify the City tax base.

4. **Notwithstanding the provisions of Article XIV of the Land Development Code, Ordinance No. 92-25 [Chapter 86, Code of Ordinances] as it may be amended from time to time, its impact upon necessary governmental services such as schools, sewage disposal, potable water, drainage, fire and police protection, solid waste or transportation systems.**

   a. **Schools:** The Volusia County School Board staff has indicated that this rezoning will not affect local schools.

   b. **Sewage Disposal:** The site will be served by the Volusia County Deltona North system and the County has indicated that there is capacity to serve the project.

   c. **Potable Water:** The site will be served by the Volusia County Deltona North system and the County has indicated that there is capacity to serve the project.

   d. **Drainage:** All site related stormwater runoff will be managed on-site and all stormwater management facilities will be constructed in accordance with the necessary requirements of the City's Land Development Code and other permitting agencies.

   e. **Transportation Systems:**

      The area to be rezoned is a relatively large area (almost 150 acres) and the development program proposed is intensive. Under the proposed Development Agreement, an applicant suggested floor area ratio (FAR) of 0.55 would yield in excess of 3 million square feet of floor space, facilitating various development formats including office, retail commercial and medical. Known as the Activity Center, a wide range of urban, mostly non-residential uses have been contemplated for the subject property and surrounding area for decades.

      With the land use types and related intensities planned for the Activity Center, the Activity Center, after development, will be a very desirable destination. Expressed in more certain terms, traffic will increase. An increase of traffic should not be viewed as a negative if there are safeguards, including infrastructure improvements, afforded to ensure a safe and efficient flow of traffic. With this concept in mind, protecting the function of the traffic network is even more needed in this instance because the area proposed to be rezoned is located near a major interstate interchange – I-4 and SR 472. The I-4/SR 472 interchange is a critical City resource. The interchange allows a flow of people and goods to and from the City. If the function of the interchange is compromised, the result will be reduced mobility which would deleteriously impact City economic competitiveness and quality of life.

As per the City Land Development Code, the applicant was required to generate a traffic impact analysis (TIA). The applicant's TIA was prepared by the consulting firm GMB. The GMB TIA was reviewed by City staff as well as a consultant that is experienced in traffic engineering matters. The firm used by the City to review the GMB work was DRMP.

The applicant's TIA revealed the project in the build out year of 2025 would generate 17,415 daily trips. This is a significant volume of traffic. However, the 17,415 trips were predicated on a development program consisting of about 1,183,300 square feet of hospital, medical office, sit-down restaurant and general office uses. The development program used to assess the traffic impacts of the project did not account for various traffic intensive uses that are proposed within the Development Agreement including big box retail, uses with drive through facilities (i.e. fast food), and various institutional activities. The TIA square footage assumption results an intensity equivalent of 0.183 FAR which is far less than the proposed 0.55 FAR illustrated within the proposed Development Agreement. Basically, the traffic amount indicated by the applicant's TIA is considerably underrepresented based on the intensity proposed via the Development Agreement.

The GMB work also has indicated that the project should be phased. The first phase would extend to the year 2020 and would generate 13,567 trips and phase II, or build out, would occur in 2025 with the remaining 3848 trips being realized. Again, the phasing approach illustrated in the TIA is not part of the applicant's Development Agreement.

The TIA phasing approach and development intensity inconsistency is an attempt to facilitate a significant level of traffic on the City transportation network without having to engage in significant transportation mitigation activities. The TIA indicates that State law (Chapter 163 F.S.) basically does not require a development to address pre-existing deficiencies. The most up to date version of Chapter 163 F.S. does allow local governments flexibility with regard to traffic concurrency but local governments still have the ability to implement traffic level of service standards. Mobility in the City is of critical importance and is why the City still implements level of service standards for roadways within the City. The LOS approach represents a yardstick of sorts of which to gauge mobility within the City and is a tool to manage land use. The LOS thresholds are also used to facilitate appropriate capital investments in City infrastructure. Finally, safe, efficient and effective mobility within the City falls under the basic health, safety and welfare mission of any unit of government including the City of Deltona. Therefore, the City, through the land development process, including rezoning, has the ability (and obligation) to ensure that mobility is addressed, at minimum, in a safe manner that makes the most efficient use of public infrastructure.

As has been stated, the applicant's TIA suggest that the City should allow over 13,000 trip ends to the City network without any mitigation including developer oriented contributions. It is highly unlikely the existing City road network in the vicinity, including the interchange, could function with the addition of over 13,000 trip ends added to the network without the need for some traffic management improvements. Therefore, City staff directed its consultant, DRMP, as part of the GMB TIA review, to generate a list of roadway improvement strategies to address traffic impacts. The DRMP roadway improvement strategies include upgrading the Graves Ave./Howland Blvd. intersection. This intersection represents the main entrance to the development. All land to the west is part of the Interstate 4 limited access envelope and is not eligible for driveways. Improvements to the Graves/Howland intersection include the addition of westbound left turn storage to remove turning traffic from the travel lanes, and an additional eastbound through lane on Howland Blvd. to increase capacity. The intent of the suggested Graves Ave./Howland Blvd. improvements is to basically protect the flow characteristics of the intersection. Suggested improvements to the Catalina Blvd./Howland Blvd. intersection consist of the addition of a southbound right turn lane on Catalina Blvd. to serve the high volume of vehicles in this movement. Out of City jurisdiction improvements to the SR 472/MLK intersection are also mentioned. For more information on the DRMP review of the GMB TIA, including potential improvements, see the attached comments from DRMP. Also, City staff has created a map series that depicts the location of the DRMP suggested improvements.

The above mentioned traffic improvement strategies identified through the traffic analysis work of both the applicant and the City will require that the City, State, and County work with the applicant to afford appropriate traffic mitigation including off-site improvements. An important note to make is that traffic mitigation, especially in the vicinity of the project is not only in the public interest but the interest of the developer. If access to the site becomes a challenge and traffic leading to the project is snarled, the viability of the development will be jeopardized. Another incentive for the developer/applicant to provide appropriate traffic mitigation is to ensure that traffic impact fee obligations are used to better manage impacts of the project more locally versus the impact fee payments incrementally collected by the City and County that are distributed City wide or in the case of the County used anywhere within the requisite impact fee zone. (The County impact fee zone of which the City is located includes much of south west Volusia and extends well east of the community of Osteen.)

Of course from the prospective of the developer, providing upfront improvements that are impact fee credit eligible requires an infusion of resources which will only be realized as those credits are used as the property is developed. On the other hand, such a commitment from the developer/applicant would ensure that there is incentive to following through with the development plan and the proposal does

not represent a mere speculative positioning of the property via entitlement approval.

Traffic is a major component of this request and with that theme in mind, the following actions need to occur:

1) The entire project should be associated with a trip cap. In the absence of any other data, the trip cap should be the GMB assumed 17,415 trips.
2) To help implement the trip cap, there needs to be a land use/trip equivalency matrix formulated. The equivalency matrix will provide a level of flexibility with regard to what type of land uses are eventually developed on the site but still comply with the overall trip cap. The equivalency matrix should be formulated by the applicant to allow a range of land use types that comports with the applicant's development vision. However, land use mixtures needs to be consistent with the City Comprehensive Plan.
3) The project needs to be phased and certain traffic mitigation activities, including off-site improvements need to be linked to the phasing schedule. The phasing schedule should be benchmarked by trip end attainment. The applicant should be responsible for proposing a phasing schedule with mitigation benchmarks.
4) All traffic improvements that are programed to the phases need to be in place before any City development reviews are initiated by the City. For example, if an application is made for site review without requisite improvements in place, the application will be considered inconsistent with, at minimum, Chapter 86 (Concurrency Management) of the City Land Development Code.
5) Traffic monitoring and modeling needs to occur every five (5) years, regardless if any development occurs within in the BPUD, to ensure that the traffic assumptions in place when development approval was granted are still applicable to the contemporary transportation environment.

5. Any changes in circumstances or conditions affecting the area.

Commercial development is beginning to take place in the Activity Center. In addition, in the late spring of 2014, the City Commission did vacate some antiquated plats which unencumbered the property proposed to be rezoned from previous plat requirements (i.e. dedicated rights of way).

6. Any mistakes in the original classification.

No known mistakes in the original classification.

7. Its effect upon the public health, welfare, safety or morals.

Business and commercial growth have been long standing goals of the City. The benefits of such growth including tax base diversification, more readily accessible shopping and entertainment venues, and expanded employment opportunity seem to consistently resonate through the community. However, those pro-business

growth sentiments, the yearning for tax base diversification and jobs by the constituent base can be seriously tested when there is a business development planned near residential areas. This dynamic is very common in the City of Deltona where the most dominate land use is residential. However, new business development as it relates to existing residential development, need not be a contentious issue when framed by some basic parameters: 1) Business growth and development within the present City limits is generally a good thing. 2) Residential areas deserve protection. The reconciliation of these two parameters is considered land use compatibility and land use compatibility is a major cornerstone of the City Comprehensive Plan and implementing ordinances (i.e. Land Development Code).

Land use compatibility can be effectuated in numerous ways; however, for the greatest effect all or a combination of these tools should be employed.

1) Limitation of density/intensity
2) Limitation of uses on a parcel
3) Strategic location of uses on a parcel
4) Buffers, setbacks and open space
5) Traffic management
6) Aesthetic controls

With these strategies in mind, City staff suggests that the project be conditioned. The following list of conditions have been proposed by the applicant and/or are suggested by City staff will be implemented as part of the existing or updated of the Development Agreement and the Master Development Plan (MDP). Attached will be a Development Agreement presented in an underline and strike through format illustrating changes proposed by staff.

1) City staff as illustrated under the "Transportation Systems" section of this report has suggested that a trip cap be implemented. The trip cap will limit overall project intensity. However, the 0.55 FAR proposed by the applicant will remain. What this means is that an individual development may be developed at a relatively high intensity but other developments in the project will be less intense.
2) The project, as proposed, has an expansive list of uses. For a site of this size and strategic location (i.e. near a major interstate interchange), a wide range of uses is appropriate. However, some uses have been suggested by staff to be deleted or combined with other uses. Perhaps the most notable recommended deletion is the proposed big box home improvement store format. The logic behind the elimination of the big box home improvement store was to promote more land use harmony with the residential land uses located to the east. Big box stores tend to be associated with extensive activity like high

customer/traffic volumes and frequent deliveries. These uses also tend to operate long hours.

3) Land use intensity gradation on the project property should be terraced from west to east with the most intensive land uses located near the interstate and less intensive uses being earmarked for the eastern section of the property.
4) Buffers will need to comply with Section 110-808 of the City Land Development Code. However, staff and the applicant are suggesting that there be a minimum of a 40 foot landscape buffer afforded to the abutting Tinbercrest/Arbor Ridge residential areas. In order to comply with Section 110-808 the residential areas to the north located in unincorporated Volusia County will also need to be afforded a 40 foot buffer. In addition, as designed on the applicant's MDP, a large retention area is proposed for the east side of the property which will enhance buffering. The BPUD will be required to set aside 20% of the site for common open space (Sec 110-319(k)(3)). Also to manage the open space a property owners association will need to be established. The open space requirement is especially important because a portion of this property could be developed for residential oriented uses such as assisted living facilities. The open space can be used to enhance the aesthetics of the development which is important since it is a gateway project.
5) Traffic management as it relates to the City transportation network has been discussed elsewhere in this report. However, there will be no vehicular access to the project through adjacent neighborhoods except for emergency access as may be deemed appropriate by the City public safety offices (police/fire). However, there should be pedestrian and bike access to the project to facilitate convenient multi-modal travel options for the Arbor Ridge and Timbercrest neighborhoods to access the goods and services provided by the project.
6) The applicant has pledged to implement architectural controls and has indicated that the City Urban Design Pattern Book will be used to guide the physiognomy of the built environment. In addition, all signs shall comport with Chapter 102 of the City Land Development Code.

Therefore, with the proposed changes to the Development Agreement that capture the above referenced compatibility parameters and the appropriate management of traffic (including applicant developed off-site traffic improvements) would create a condition where the project would not conflict with the public health, welfare, safety and morals of the City.

CONCLUSION/STAFF RECOMMENDATION

The proposed rezoning helps to diversify the local development pattern, and hopefully facilitate actual development of the property in a manner that will provide goods, services and jobs for the City. However, the development of the property needs to occur in a manner that minimizes the impacts to City infrastructure, complies with City Code requirements, and is compatible with existing land uses.

Staff recommends approval of Ordinance 17-2014 rezoning the 148+ acres of the Activity Center from Agriculture and Industrial to BPUD subject to the following conditions:

1) The Development Agreement and Master Development Plan be revised to integrate the traffic management provisions as illustrated below:

    a) The development will be limited to 17,415 trips.
    b) By the first City Commission hearing the applicant needs to generate an equivalency matrix, consistent with the Comprehensive Plan to implement the trip cap.
    c) By the first City Commission meeting the applicant generate a phasing/traffic mitigation plan.
    d) All traffic improvements that are programed to the phases need to be in place before any City development reviews are initiated by the City.
    e) The applicant will be responsible for monitoring and modeling at five (5) year intervals that complies with acceptable transportation planning methodology.

2) The Development Agreement be revised to include the compatibility parameters as indicated elsewhere in this staff report and in the attached underline and strike through changes in the attached Development Agreement.

ORDINANCE NO. 17-2014

AN ORDINANCE OF THE CITY OF DELTONA, FLORIDA, AMENDING THE OFFICIAL ZONING MAP PURSUANT TO CHAPTER 110, SECTION 1101 OF THE CITY CODE OF ORDINANCES FOR PROPERTY TOTALING APPROXIMATELY ±148.13 ACRES LOCATED NORTH OF HOWLAND BLVD./SR 472 AND EAST OF INTERSTATE 4 IN THE DELTONA ACTIVITY CENTER; PROVIDING FOR SEVERABILITY; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City has received an application to amend the zoning for a 148.13+/- acre portion of the Activity Center from Agriculture and Industrial to Business Planned Unit Development (BPUD); and

WHEREAS, the City of Deltona, Florida, and its Land Planning Agency have complied with the requirements of Municipal Home Rule Powers Act, sections 166.011 et seq., Florida Statutes, in considering the proposed BPUD amendment; and

WHEREAS, after said public hearing, the City Commission of the City of Deltona, Florida, has determined that the BPUD zoning is consistent with the Comprehensive Plan of the City of Deltona, Florida.

NOW, THEREFORE, BE IT ENACTED BY THE CITY COMMISSION OF THE CITY OF DELTONA, VOLUSIA COUNTY, FLORIDA, AS FOLLOWS:

SECTION 1. Located in the City of Deltona, Florida, The Halifax Crossing zoning is hereby amended BPUD for the following property: Davis Park 5th Addition subdivision, Map Book 18, Page 128: Lots 1 through 24 Block 1; Lots 1 through 48 Block 2; Lots 1 through 24 Block 10; Lots 1 through 48 Block 9; Lots 1 through 48 Block 8; Lots 6 through 48 Block 3; Lots 1 through 48 Block 4; Lots 1 through 48 Block 7; Lots 1 through 24 Block 5 and Lots 1 through 24 Block 6, 5th Addition, Davis Park according to the map or plat thereof recorded in

Map Book 18, Page 147, Public Records of Volusia County, Florida; and Davis Park 3rd Addition subdivision Map Book 18, Page 117: a portion of Lot 1 and Lots 4 through 23 Block 5 less and accept the right of way for Graves Ave.; Lots 1 through 46 Block 4 less and except the right of way for Graves Ave. Lots 1 through 4, less and except the right of way of Graves Ave, and Lots 42 through 46 Block 7; Lots 24 through 37 Block 3; Lots 1 through 12 and Lots 35 through 46 Block 8, 3rd Addition, Davis Park, according to the map or plat thereof recorded in Map Book 18, Page 117, of the Public Records of Volusia County, Florida; and Yourlando Farms and Groves subdivision, Map Book 10, Pages 227 - 228: Lots 40, 47, and 48; and Lots 55, 56 and 63 lying north of the right of way of State Road 472; Lots 41 and 46 lying north of State Road 472 and east of State Road 400; Lots 32 through 39, Yourlando Farms and Groves according to the map or plat thereof recorded in Map Book 10, Pages 227 and 228, Public Records of Volusia County, Florida.

SECTION 2. This Ordinance is adopted in conformity with and pursuant to the Comprehensive Plan of the City of Deltona, the Local Government Planning and Land Development Act, Sections 163.161 et. Seq., Florida Statutes, and the Municipal Home Rule Powers Act, Sections 166.011 et. seq., Florida Statutes.

SECTION 3. Conflicts. Any and all Ordinances or parts of Ordinances in conflict herewith are hereby repealed.

SECTION 4. Severability. If any provision of this Ordinance or the application thereof to any person or circumstance is held invalid, the invalidity shall not affect other provisions or applications of the Ordinance which can be given effect without the invalid

provision or application, and to this end the provisions of this Ordinance are declared severable.

SECTION 5. Effective Date. This Ordinance shall become effective immediately upon its final passage and adoption.

ADOPTED BY THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA THIS _____ DAY OF_____ 2014.

FIRST READING: _____

ADVERTISED: _____

SECOND READING: _____

BY: _____
JOHN C. MASIARCZYK, SR., MAYOR

ATTEST:

_____
JOYCE RAFTERY, CMC, CITY CLERK

Approved as to form and legality
for use and reliance by the
City of Deltona, Florida

_____
GRETCHEN R. H. VOSE, ESQ., CITY ATTORNEY

DEVELOPER'S AGREEMENT

THIS AGREEMENT entered into and made as of the ___ day of _____, 2014, by and between the **CITY OF DELTONA, FLORIDA,** (hereinafter referred to as the **"City"**), and TRAFALGAR HOLDINGS, LLC (hereinafter referred to as the **"Owner/Developer"**).

W I T N E S S E T H

WHEREAS, the Owner/Developer warrants that it holds legal title to the property described in Paragraph 2 below and that the holders of any and all liens and encumbrances affecting such property will subordinate their interests to this Agreement; and

WHEREAS, the Owner/Developer desires to facilitate the orderly development of the subject property, in compliance with the laws and regulations of the City and of other governmental authorities, and the Owner/Developer desires to ensure that its development is compatible with other properties in the area and planned traffic patterns; and

WHEREAS, it is the purpose of this Agreement to clearly set forth the understanding and agreement of the parties concerning the matters contained herein; and

WHEREAS, the Owner/Developer has sought the City's approval for plans to develop its property, and the City Commission of the City of Deltona has approved a Master Development Plan ("MDP") contemporaneously with the approval of this Agreement, subject to the covenants and restrictions offered by the Owner/Developer and contained herein. A copy of the MDP is attached hereto as Exhibit "B".

NOW THEREFORE, in consideration of the mutual covenants and agreements contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. <u>Incorporation.</u> The recitals herein contained are true and correct and are incorporated

herein by reference.

2. <u>Ownership.</u> The Owner/Developer represents that it is the present owner of the following described property (hereinafter referred to as the "Subject Property"):

See legal description attached hereto as Exhibit "A"

3. <u>Title Opinion/Certification.</u> The Owner/Developer will provide to the City, in advance of the City's execution of this Agreement, a title opinion of an attorney licensed in the State of Florida, or a certification by an abstractor or title company authorized to do business in the State of Florida, showing marketable title to the Subject Property to be in the name of the Owner/Developer and showing all liens, mortgages, and other encumbrances not satisfied or released of record.

4. <u>Subordination/Joinder.</u> Unless otherwise agreed to by the City, all liens, mortgages, and other encumbrances not satisfied or released of record, must be subordinated to the terms of this Agreement or the lienholder must join in this Agreement. It shall be the responsibility of the Owner/Developer to promptly obtain the said subordination or joinder, in form and substance acceptable to the City Attorney, prior to the City's execution of the Agreement.

5. <u>~~Mass Transportation Programs and~~ Internal Roadway Improvements.</u> The road(s) depicted on the MDP attached hereto shall be dedicated to the public through the platting process. The City of Deltona shall not be required to accept such roadways, and any related infrastructure, until such time as construction of the roads have been completed and the City of Deltona determines that the construction was completed in conformity with all applicable regulations. In addition, the Owner/Developer shall provide an ingress/egress easement to the parcel of property which is surrounded by the Subject Property but which is not owned by the Owner/Developer and which is otherwise not subject to this Agreement.

6. Development Conditions.

1. Minimum lot area: 0.50 acres

2. Minimum lot width: 100 ft.

3. Minimum building set backs:

   a. Front yard: 35 ft.

   b. Rear yard: 10 ft. / ~~35~~ 40 ft. if abutting residential

   c. Side yard: 10 ft. / ~~35~~ 40 ft. if abutting residential

~~4. Maximum FAR: 0.55~~

4. Maximum density/intensity: 20 units per acre/0.55 FAR

5. Maximum building coverage: 35%

6. Maximum impervious surface: ~~75%~~ 70%

7. Maximum building height (excluding towers and antennae): ~~100~~ 75 ft.

8. Landscape buffer requirements: ~~Per MDP (attached as Exhibit "B")~~ Consistent with Section 110-808; however a 40 ft. landscape buffer will be afforded to abutting residential areas.

~~9. Perimeter building setbacks: Per MDP (attached as Exhibit "B")~~

9. Minimum building separation: 10 ft.

10. Project common open space requirements: ~~25% (+/-31.7 acres) for entire site.~~ 20% of the entire site.

11. Off-street parking requirements: ~~At the time of site plan review for individual lots, the applicants for such site plan approvals shall be entitled to submit a parking analysis to justify a reduction in off-street parking. If such analysis justifies a reduction, the City's DRC may reduce the required off-street parking without the need for a variance.~~ Consistent with Section 110-828 and

Section 110-829 of the City Code, as it may be amended from time to time.

13. Signage: ~~In addition to all other signs which are permitted on the Subject Property, one large venue electronic message sign of up to 685 square feet per side on a pylon of up to 80 feet in height may be permitted on the +/- 31 acre site located generally at the northwest corner of the Subject Property, notwithstanding the type of uses located on that site. The electronic message sign is in addition to all other signage that would be permitted on the site pursuant to the City's land development code.~~ Consistent with Chapter 102 of the City Code, as it may be amended from time to time.

7. Architectural Controls. A common architectural theme shall be established by harmoniously coordinating the general appearance of all buildings and accessory structures and should, to the extent practicable, be designed consistent with the City of Deltona's Urban Design Pattern Book and Urban Design Master Plan, as it may be updated from time to time, to provide visual compatibility and functional continuity with other adjacent developments within the Activity Center. For purposes herein, general appearance includes, but is not limited to, exterior wall finishes, construction materials, roof styles, slopes, architectural details and ornamentation. The following general requirements shall apply to development on the Subject Property:

a. All structures shall complement one another and shall convey a sense of quality and permanence.

b. Exterior walls facing ~~the~~ public rights-of-way shall be constructed of finished materials such as stucco, natural brick or stone, finished concrete, wood or concrete fiberboard, or other similar material on all sides.

c. All amenities, accessory structures and signage shall be consistent with the overall

theme of the project.

d. All drive-~~thru~~ through canopies shall be compatible with the architectural design of the principle structure.

e. All service areas and mechanical equipment visible from ~~the~~ public rights-of-way (ground or roof) including, but not limited to, air conditioning condensers, heating units, electric meters, satellite dishes, irrigation pumps, ice machines and dispensers, outdoor vending machines, and propane tanks, displays and refilling areas and other mechanicals, shall be screened using architectural features consistent with the structure, or landscaping of sufficient density and maturity at planting to provide opaque screening.

f. Loading docks shall be located away from the street and screened from public view.

Architectural elevations shall be submitted with the Preliminary Plat and Final Site Plan application and the Development Review Committee (DRC) shall determine compliance before issuing a ~~d~~Development ~~o~~Order.

8. Environmental and Tree Preservation. The property contains habitat that may be suitable for scrub jays and gopher tortoises. As part of the site plan review process, the property shall be surveyed to determine the presence and/or population density of jays and tortoises. If tortoises are found to inhabit a development area then the removal and location shall be required in lieu of a 'take' consistent with all permitting requirements. If scrub jays are noted on site, then any modification of that habitat shall be permitted consistent with the requirements of the U.S. Fish and Wildlife Service. ~~The trees on the Subject Property are predominantly sand pines (pinus clausa) which are deemed by the City to be nuisance trees, and it is the desire of the City to have as many of the sand pines removed from the site as possible. The Subject Property has a naturally undulating~~

~~topography which will necessitate mass clearing and grading in order to make large scale, coordinated and efficient development feasible on the Subject Property. Accordingly, in order to promote responsible development, the Owner/Developer will be permitted to clear the Subject Property without the requirement for establishing tree preservation areas. The mass clearing is consistent with the adjacent areas that are within the City's "activity center" which were previously mass cleared without a requirement for tree preservation, in light of the similarly undesirable condition of the trees on those sites. Notwithstanding that mass clearing and grading will be conducted on the Subject Property, Specimen and Historic trees will be preserved in accordance with the City's land development code. Mitigation for protected tree species removed may be provided either with tree plantings on site or by monetary reimbursement, and otherwise shall be accomplished in accordance with the City' land development code. Sand pines (pinus clausa) shall not be required to be mitigated for when removed, and shall not be considered a protected tree species for the purpose of calculating tree preservation or mitigation.~~ Tree protection shall be in accordance with Chapter 98 of the City Code as it may be amended from time to time. Tree protection areas and habitat protection set aside land may coincide with buffer yards and other open space acreage. All stromwater shall be managed by a master stormwater system that is permitted by the City, the St. Johns River Water Management District, etc. Irrigation wells are not permitted and water efficient best management practices are encouraged.

9. Permitted Uses. The uses permitted on the Subject Property are those uses set forth in the use list attached hereto as Exhibit "C". ~~If any proposed use is not expressly listed in the attached use list, such use may be allowed if the City's DRC determines that the proposed use is substantially similar to any of the expressly listed uses in the attached Exhibit "C".~~ Consistent with

the City Future Land Use Map, more intensive permitted uses (business and medical) shall be located towards the Interstate 4/Howland Blvd. corridors. Less intensive uses (living facilities and office) shall be sited in the eastern sections of the property.

10. Property Owners Association. The charter and by-laws of any property owners association which ~~may~~ will be formed for the Subject Property, and any deed restrictions related thereto, shall be furnished to the City of Deltona ~~at the time of creation~~ and recorded before a Certificate of Occupancy is issued for the first development project on land covered by this BPUD Development Agreement. The property owner association shall, at minimum be responsible for maintaining the common open space. The applicant shall be responsible for establishing the POA and recording said information in the Public Records of Volusia County, Florida. Also, the applicant shall bear and pay all costs for recording all of the aforementioned documents.

The City of Deltona will have no responsibility for the enforcement of said agreements or deed restrictions entered into between owners or occupiers of the Subject Property.

11. Enforcement. In the event that enforcement of this Agreement by the City becomes necessary, and the City is successful in such enforcement, the Owner/Developer shall be responsible for all costs and expenses, including attorneys' fees whether or not litigation is necessary and if necessary, both at trial and on appeal, incurred in enforcing or ensuring compliance with the terms and conditions of this Agreement which costs, expenses and fees shall also be a lien upon the Subject Property superior to all others. Should this Agreement require the payment of any monies to the City the recording of this Agreement shall constitute a lien upon the property for said monies, until said are paid, in addition to such other obligations as this agreement may impose upon the Subject Property and the Owner/Developer. Interest on unpaid overdue sums shall accrue at the rate of

eighteen percent (18%) compound annually or at the maximum rate allowed by law.

12. **Compliance**. The Owner/Developer agrees that it, and its successors and assigns, will abide by the provisions of this Agreement, the City's Comprehensive Plan, and the City's Land Development Code, including but not limited to, the site plan regulations of the City as amended from time to time, which are incorporated herein by reference and such subsequent amendments hereto as may be applicable. Further, all required improvements, including landscaping, shall be continuously maintained by the Owner/Developer, or its successors and assigns, in accordance with the City's Land Development Code. The City may, without prejudice to any other legal or equitable right or remedy it may have, withhold permits, certificates of occupancy or approvals, etc. ~~and may terminate sewer and/or water services to the subject property~~ should the Owner/Developer fail to comply with the terms of this Agreement.

13. **Utility Easements**. The Owner/Developer shall provide to the City or the County, as applicable, such easements and other legal documentation, in form mutually acceptable to the City/County Attorney and the Owner/Developer, as the City/County may deem reasonably necessary or appropriate for the installation and maintenance of the utility and other services, including but not limited to, sewer, potable water, and reclaimed water services, electric, cable, fire protection and telecommunications.

14. **Concurrency and Vested Rights**. The Owner/Developer acknowledges and agrees that prior to the issuance of any building permit(s) for the Subject Property, the Owner/Developer must have received and be in the possession of a valid unexpired Certificate of Capacity. The Certificate of Capacity verifies the reservation of infrastructure capacity sufficient to permit development pursuant to the approved site plan for the Subject Property without causing a reduction

in the levels of service adopted in the City's ~~c~~Comprehensive ~~p~~Plan. The Certificate of Capacity shall be effective for a term as defined in the Land Development Code. Neither this Developer's Agreement nor the site plan approved shall create or result in a vested right or rights to develop the Subject Property without a current and valid Certificate of Capacity.

15. **Transportation.** Traffic generated from the overall project is hereby capped at 17,415 daily trips notwithstanding the 0.55 FAR intensity allowance. A schedule of trip entitlements shall be maintained by the City in a concurrency management system and the applicant and/or individual developments shall be responsible for paying for peer review to verify trip generation characteristics from individual developments. In addition, the following land use/trip equivalency matrix shall be used to help allocate trips (responsibility of the applicant):

Insert Matrix

Traffic mitigation will be required to support the project as needed to develop each phase and prior to the issuance of a building permit per phase. The project shall be phased with phases linked to trip thresholds and appropriate mitigation measures (applicant to generate a phasing plan and mitigation measures). The improvements identified in the City staff report and support documents would be considered the minimum needed to protect the function of the City transportation network. Finally, monitoring and modeling of traffic conditions needs to occur every five (5) years, regardless if there has been any development within the project. The applicant will be responsible for paying for independent peer review of the monitoring and modeling reports. Public transportation and other multimodal methods shall be accommodated on the site that area consistent with City Codes.

16. Access. Access to the property, internal and external, shall comply with City Codes. No access to the property from Howland Blvd./SR 472 shall be allowed westward of the Graves Ave./Howland Blvd. intersection in keeping with the Interstate 4 limited access right of way.

In addition, there shall be two (2) emergency vehicular access points provided to the residential neighborhood at the Tealwood Terrace and Alling Drive rights of way that are no more than 20 feet wide. To encourage multi-model transportation the applicant shall construct a bicycle and pedestrian access to the Timbercrest and Arbor Ridge neighborhoods at the terminus of the Tealwood Terrace and Alling Drive rights of way.

17. **Notices.** Where notice is herein required to be given, it shall be by certified mail return receipt requested, addressee only, hand delivery or couriered. Said notice shall be sent to the following, as applicable:

OWNER/DEVELOPER'S REPRESENTATIVES:

CITY'S REPRESENTATIVES:

~~Chris Bowley, AICP, Director, Planning &Developmental Services~~
Joyce Raftery, City Clerk
City of Deltona
2345 Providence Boulevard
Deltona, Florida, 32725

Gretchen R. H. (Becky) Vose, City Attorney
City of Deltona
2345 Providence Boulevard
Deltona, Florida 32725

Should any party identified above change, it shall be said party's obligation to notify the remaining parties of the change in a fashion as is required for notices herein. It shall be the Owner/Developer's obligation to identify its lender(s) to all parties in a fashion as is required for notices herein.

18. **Captions.** The captions used herein are for convenience only and shall not be relied upon in construing this Agreement.

19. **Binding Effect.** This Agreement shall run with the land, shall be binding upon

and inure to the benefit of the Owner/Developer and its assigns and successors in interest, and the City and its assigns and successors in interest. The Owner/Developer agrees to pay the cost of recording this document in the Public Records of Volusia County, Florida, and shall reimburse the City for the preparation of this Agreement in such amount to be determined by the City. This Agreement does not, and is not intended to, prevent or impede the City from exercising its legislative authority as the same may affect the Subject Property.

20. **Severability.** If any part of this Developer's Agreement is found invalid or unenforceable in any court, such invalidity or unenforceability shall not affect the other parts of this Developer's Agreement, if the rights and obligations of the parties contained herein are not materially prejudiced and if the intentions of the parties can be affected. To that end, this Developer's Agreement is declared severable.

Remainder of this page intentionally left blank.

IN WITNESS WHEREOF, the Owner/Developer and the City have executed this Agreement as of the day and year first above written.

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:

OWNER/DEVELOPER

BY:

_____
Signature of Witness # 1

_____
Signature

_____
Print or type name

_____
Print or type name

AS:

_____
Signature of Witness #2

_____
Print or type

_____
Print or Type Name

ATTEST:

_____
Signature

_____
Print or Type Name

AS:

_____

Mailing Address: _____
_____
_____

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____day of _____, 201____, by _____, and _____, respectively, of _____, who is/are personally known to me or who has/have produced _____ as identification and who did not (did) take an oath.

_____
Signature

(Notary Stamp)

_____
Print or type name

ACCEPTED FOR THE CITY OF DELTONA

By:

_____

~~CHRIS BOWLEY, AICP, Director, Development Services~~
Joyce Raftery, City Clerk

Date: _____

Mailing Address: City of Deltona
2345 Providence Boulevard
Deltona, Florida, 32725

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____day of _____, 201___, by ~~CHRIS BOWLEY AICP, Director, Department of Development Services~~ Joyce Raftery, City Clerk of the City of Deltona, Florida, who is personally known to me and acknowledges executing the same freely and voluntarily under authority vested in him.

_____
Signature of Notary

(Notary Stamp)

_____
Print or type name

This instrument approved by:
Gretchen R. H. Vose, City Attorney
as to form and legality for use and
reliance by the City of Deltona.

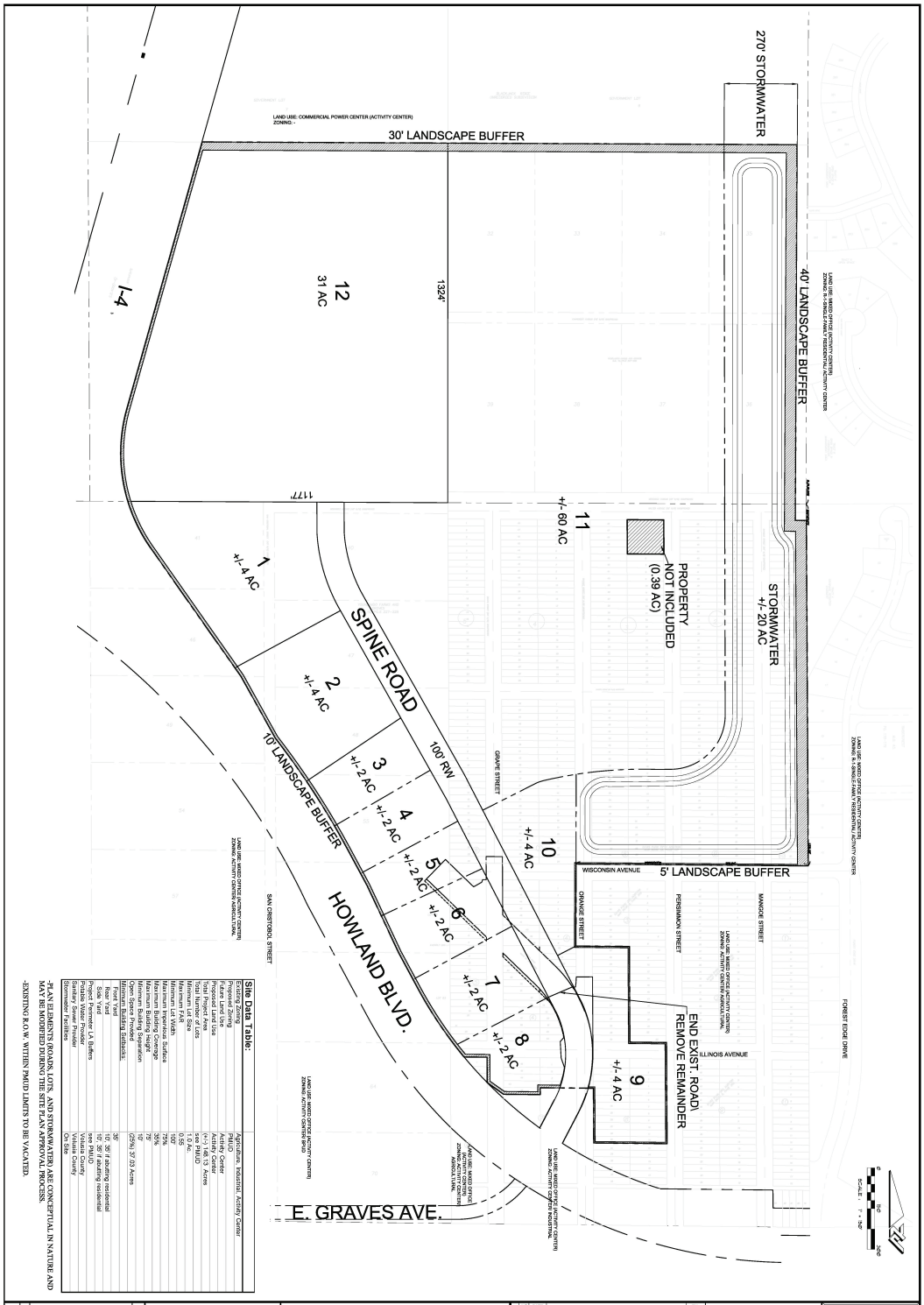
This instrument prepared by:
City of Deltona
Department of Planning & Development Services
2345 Providence Boulevard
Deltona, Florida 32725

EXHIBIT “A”

LEGAL DESCRIPTION

EXHIBIT "B"

MASTER DEVELOPMENT PLAN



ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
AND ENVIRONMENTAL
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

PROJECT NO: 12185 | DRAFTED BY: AKS
ISSUE DATE: 12-24-2013 | CHECKED BY: SCH
DESIGNED BY: PM/SH | DRAWING FILE: 12185_MDP
XREFS: 12185EURV
XREFS: 12185TB

FILE LOCATION =

PAUL MONBERGER, BLA
LICENSE NO. LA0001807
SHEET 1 OF 1

I-4/ HOWLAND PMUD

MASTER DEVELOPMENT PLAN

DELTONA FLORIDA

NO.	DATE	BY

REVISIONS

ORMOND BEACH
1200 INTERCHANGE BLVD., STE. #C, ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2305

ST. AUGUSTINE
4475 U.S. 1 S, PLAZA II STE #101, ST. AUGUSTINE, FL 32086
(904) 797-1510 FAX (904) 797-4159

AMELIA ISLAND
1911 ATLANTIC AVE., STE 102-D, FERNANDINA BCH., FL 32034
(904) 491-5458 FAX (904) 797-4159

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EXHIBIT "C"

PERMITTED USES

1. Adult family-care home
2. Antique shops.
3. Art, dance, modeling and music schools.
4. Artist studios.
5. Assisted living facility
6. Automobile body and repair shops associated with car dealerships.
7. Automobile new parts, equipment and accessories; sales only.
8. Automobile rental agencies associated with car dealerships.
9. Automobile sales, new and used.
10. Automobile service stations, type A and C; permitted only on building sites with not less than 150 feet frontage on all abutting streets.
11. Bakeries, retail (including preparation of products for sale on the premises.)
12. Banks and other financial businesses.
13. Barber and beauty shop.
14. Bicycle stores.
15. Bowling alleys.
16. Bus stations.
17. Catering services.
18. Cigar stores ~~(retail only).~~
19. Confectionery and ice cream stores.
20. Conservatories.
21. Convenience stores.
22. Cultural, historical, and art centers and museums.
23. Day care centers.
24. Dental offices, clinics and laboratories.
25. Diagnostic imaging centers.
26. Drug and sundry stores.
27. Dry cleaning establishments.

28. Electronic sales.
29. Essential utility services.
30. Excavations only for stormwater retention ponds, subject to applicable permitting requirements.
31. Exempt excavations.
32. Fire stations.
33. Florist shops.
34. Funeral homes.
35. Furniture stores.
36. General, professional and business offices.
37. Grocery stores ~~with or without meat sales~~.
38. Hardware stores (retail only).
39. Hospitals.
40. Houses of worship ancillary to primary uses.
41. Interior decorating, costuming, draperies.
42. Jewelry stores, watch repairs.
~~43. Lawn equipment sales and service.~~
44. Libraries.
45. Medical offices and clinics.
46. Motels and hotels.
47. Non-profit membership and charitable organizations.
~~48. Off-street parking areas.~~
49. Paint stores.
50. Pest exterminators.
51. Pet stores.
52. Photograph galleries.
53. Physical fitness centers.
~~54. Plumbing fixture shops (retail only).~~
55. Police and sheriff stations.
56. Printing and engraving, including photostatting and publishing.
57. Professional or trade schools related to permitted uses

58. Publicly owned parks and recreational areas.
59. Radio and television broadcasting stations (Related towers or antennae must be consistent with Chapter 82 of the City Code).
60. Restaurants, types A and B.
~~61. Retail building material sales, such as Home Depot® or Lowes®.~~
62. Non "big box" ~~R~~retail sales and services.
63. Schools, parochial or private.
64. Surgery centers.
65. Tailor shops.
66. Taxicab stands.
67. Theaters.
68. Travel agencies.
69. Utility offices.
70. Veterinary clinics without outside kennels, runs, etc.

ENGINEERS AND PLANNERS

Traffic Impact Analysis

Halifax Crossings BPUD

CITY OF DELTONA, FLOIRDA

PREPARED BY:

GMB ENGINEERS & PLANNERS, INC.
2602 E. Livingston Street
Orlando, FL 32803
Phone: 407-898-5424
Fax: 407-898-5425

MAY 2014

GMB PROJECT # 14-017.01

GMB ENGINEERS & PLANNERS, INC.

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INTRODUCTION

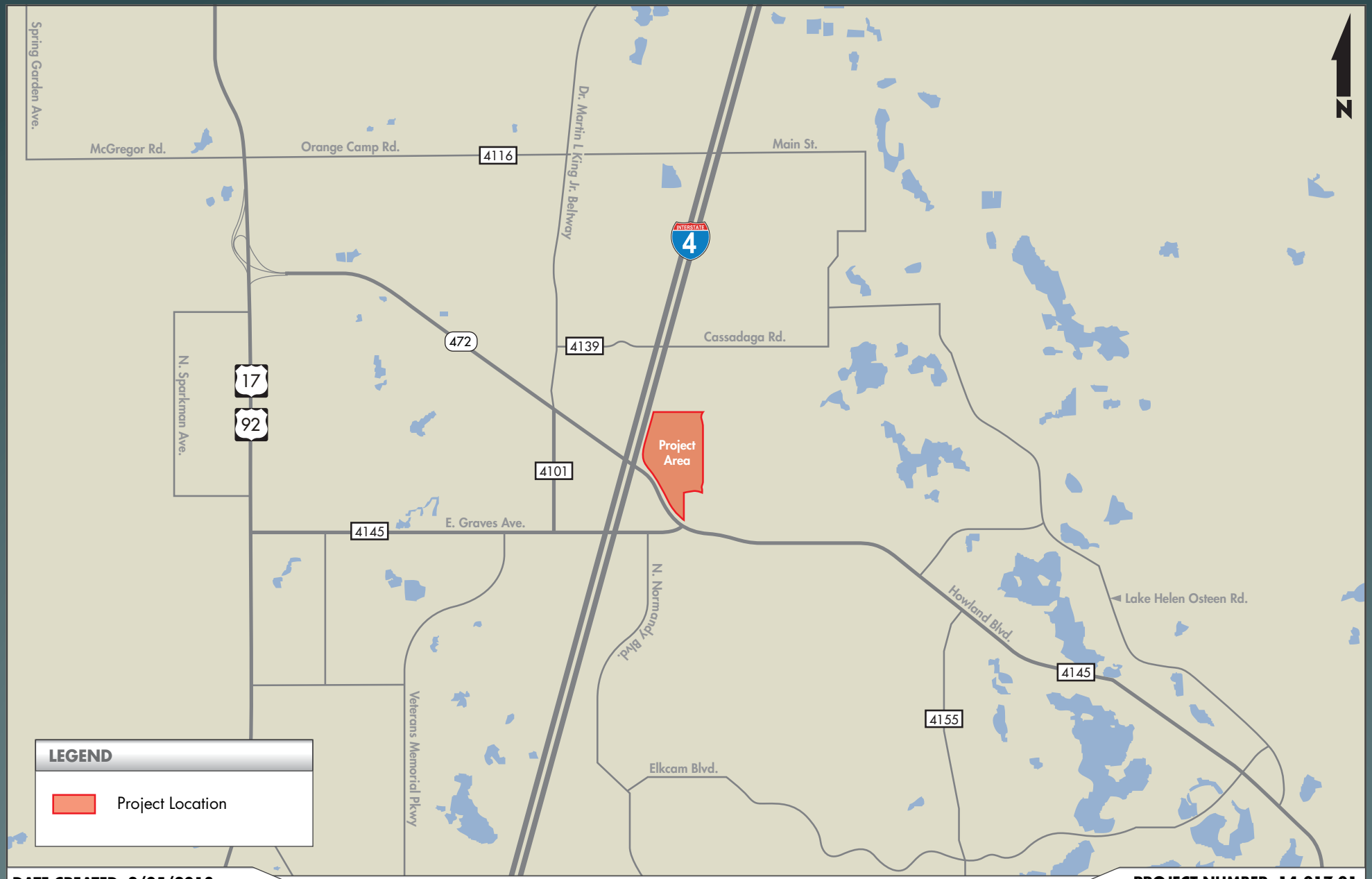
The purpose of this report is to document the traffic impacts created by the Halifax Crossings BPUD, to be located in the City of Deltona, FL. The project site is geographically located northwest corner of the intersection of State Road 472/Howland Boulevard and East Graves Avenue. Access to this project will be via one (1) full access at the intersection of Howland Boulevard at East Graves Avenue. Figure 1 illustrates the project location and access.

The Halifax Crossings BPUD is proposed to be developed in two (2) phases, where the developer is seeking concurrency for Phase-I only at this time. Analysis for Build-Out of this project is included in this report for informational purposes only. Table 1 depicts all phases for this project:

Table 1 - Halifax Crossings BPUD Development Phases

Phase	Phase-I (2020)	Phase-II (2025)	Build-Out (2025)
Hospital	300 KSF	-	300 KSF
Medical Office	120 KSF	-	120 KSF
Restaurant	350 Seats	-	350 Seats
Office	200 KSF	550 KSF	750 KSF

The procedures taken in this report were developed based on the methodology submitted, and the guidelines established in the Volusia County Traffic Impact Analysis (TIA) Guidelines (Adopted November 24, 2009). (See Appendix "A" for the submitted methodology, response to comments and Volusia County TIA Guidelines).



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Halifax Crossings BPUD

FIGURE 1
Project Location Map

EXISTING CONDITIONS

The following section documents the existing traffic conditions in the vicinity of the project. Furthermore, the relationships of the proposed project site to the study area roadways and intersections are also discussed below.

STUDY AREA

Consistent with the Volusia County Traffic Impact Analysis (TIA) Guidelines (Adopted November 24, 2009), the impact area was identified as follows:

- For projects that generate more than 300 two-way peak hour external trips, analysis shall be conducted for roadways where the project's traffic consumes more than (5%) of the facility's two-way peak hour maximum service volume (MSV). In addition, all Volusia County's Critical and Near-Critical Roadway segments within five (5) mile radius of the project shall be considered in the primary impact area.

Based on the criteria for study impact area, the following intersections were analyzed:

1. SR 472 at MLK (W. Volusia Bltwy)
2. SR 472 at I-4 SB Ramps
3. Howland Blvd at I-4 NB Ramps
4. Howland Blvd at E. Graves Ave
5. Howland Blvd at Wolf Pack Run
6. Howland Blvd at Catalina Blvd
7. Howland Blvd at Providence Blvd
8. Howland Blvd at Elkcam Blvd
9. E. Graves Ave at Normandy Blvd
10. E. Graves Ave at MLK (Kentuky Ave)
11. E. Graves Ave at Veterans Memorial Pkwy
12. MLK (W. Volusia Bltwy) at Cassadaga Rd
13. Normandy Blvd at Elkcam Blvd

In addition, Table 2 depicts the study area roadways based on the criteria for study impact area:

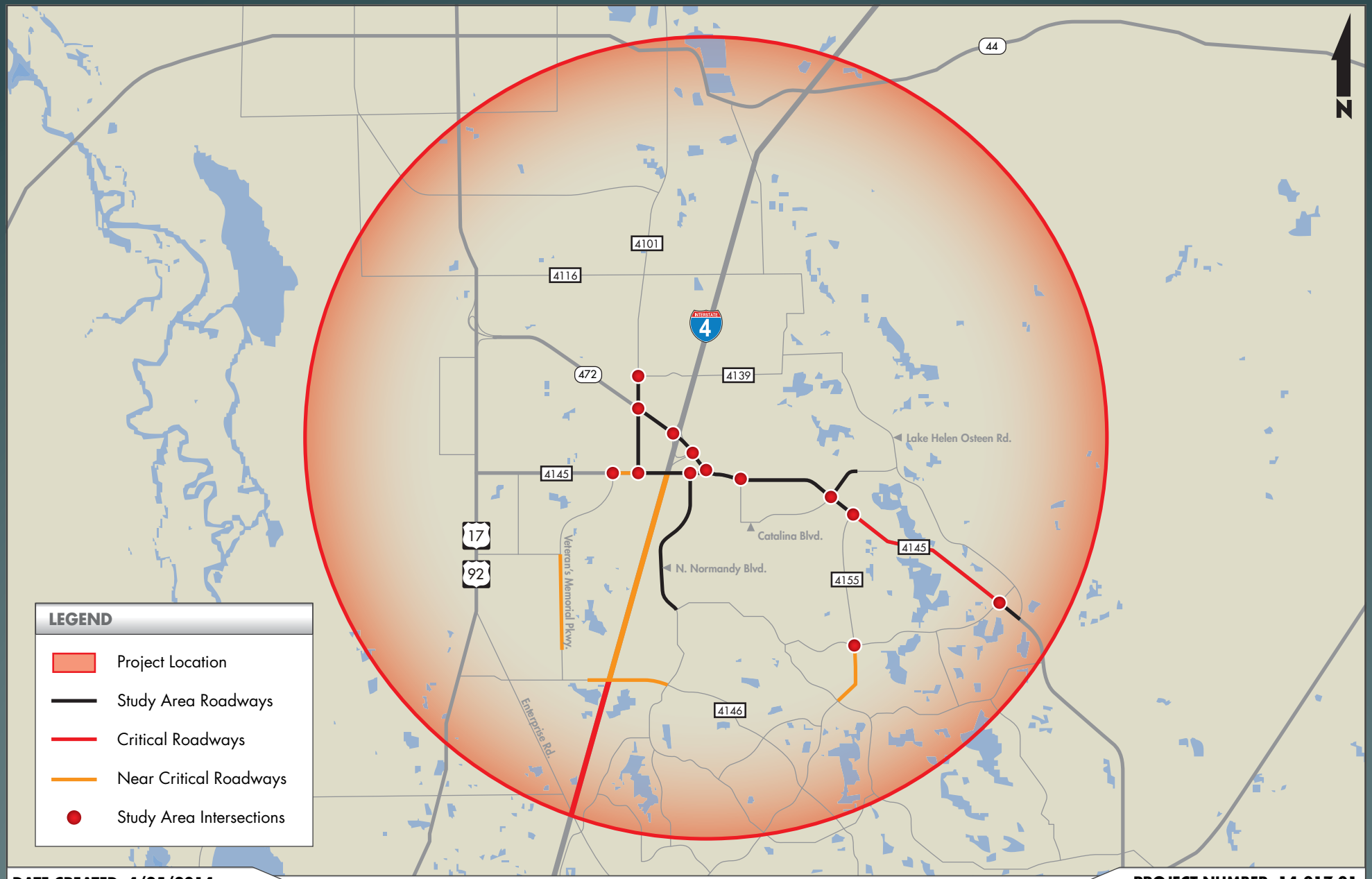
Table 2 - Study Area Roadways

Roadway	From / To	Critical / Near Critical
I-4	Dirksen Dr. to Saxon Blvd.	Critical
	Saxon Blvd. to SR 472	Near Critical
	SR 472 to Orange Camp Rd.	Near Critical
SR 472	MLK Blvd to I-4 (end of state road)	
Catalina Blvd	Howland Blvd. to Sixma Rd.	
Graves Av / CR 4145	Veteran's Memorial Pkwy. to Kentucky Ave.	Near Critical
	Kentucky Ave. to Howland Blvd.	
Howland Blvd	I-4/SR 472 to Project Entrance / E. Graves Ave	
	Project Entrance / E. Graves Ave to Wolf Pack Run	
	Wolf Pack Run to Catalina Blvd.	
	Catalina Blvd. to Providence Blvd.	
	Providence Blvd. to Elkcam Blvd.	Critical
	Elkcam Blvd. to Lake Helen-Osteen Rd.	
Normandy Blvd	Graves (old Howland) to Rhode Island Ave	
	Rhode Island Ave to Elkcam Blvd.	
Providence Blvd.	Elkcam Blvd. to Ft Smith Blvd.	Critical
Saxon Blvd.	VMP to FDOT Park & Ride	Near Critical
	FDOT Park & Ride to I-4	Near Critical
	I-4 to Finland Dr.	Near Critical
	Finland Dr. to Normandy Blvd.	Near Critical
W. Volusia Bltwy (MLK)	Cassadaga Rd. to SR 472	
	SR 472 to Graves Ave	
W. Volusia Bltwy (VMP)	Rhode Island Ave. to Harley Strickland Blvd.	Near Critical

Study area roadways and intersections are illustrated in Figure 2.

EXISTING TRAFFIC COUNTS

GMB Engineers & Planners assembled the necessary traffic counts for the intersections identified in the study area. The existing AM peak hour (7:00-9:00) & PM peak hour (4:00-6:00) traffic volumes were conducted during the month of February 2014.



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Halifax Crossings BPUD

FIGURE 2
Study Area Roadways & Intersections

The existing AM & PM peak hour volumes were then adjusted by the Volusia Countywide seasonal factor. Roadway counts, intersection turning movement counts, Seasonal Factor, & Synopsis Reports can be found in Appendix "B".

EXISTING ROADWAY CONDITIONS

GMB Engineers & Planners conducted an assessment to determine the existing level of service of the study roadways. The level of service (LOS) of a given roadway is related to prevailing traffic volumes and to capacity, which is defined as the maximum number of vehicles that can pass through a roadway section during a specified period of time. The capacity of a roadway is determined by a number of factors including composition of traffic (cars, buses, and trucks); roadway alignment; width and number of lanes; posted travel speeds and other variables.

The level of service for each of the study roadways were determined based on the Volusia County 2013 Average Annual Daily Traffic & Historical Counts. A comparison of the roadway traffic volumes were made against the roadway capacities to determine the existing level of service. The existing roadway capacity analysis was performed for all roadways within the study area as shown in Table 3. The existing AM & PM peak hour traffic was obtained by from seasonally adjusted intersections field turning movement counts. For the roadway segments with no field counts, AM peak traffic was obtained from the FDOT Florida Traffic Online (2013) synopsis reports, and the PM peak traffic was obtained from multiplying the AADT obtained from the Volusia County 2013 Average Annual Daily Traffic & Historical Counts with the standard K factor (K=0.09).

Table 3
Halifax Crossings BPUD
Existing AM & PM Peak Hour Roadway Analysis

Roadway	Station #	No. of Lanes	Critical / Near-Critical	Level of Service		Two Way AM PKHR		Two Way PM PKHR	
				Adopted LOS	Adjusted MSV	Two-way Traffic	LOS	Two-way Traffic	LOS
I-4									
Dirksen Dr. to Saxon Blvd.	9906	6	Critical	C	8,370	8,368	C	8,676	D
Saxon Blvd. to SR 472	1003	6	Near Critical	C	8,370	6,333	C	7,965	C
SR 472 to Orange Camp Rd.	485	6	Near Critical	C	8,370	5,576	C	6,930	C
SR 472									
MLK Blvd to I-4 (end of state road)	535	4		D	3,580	2,262	C	2,160	C
Catalina Blvd									
Howland Blvd. to Sixma Rd.	DLT-20.02	2		E	1,020	957	D	1,006	E
Graves Av / CR 4145									
Veteran's Memorial Pkwy. to Kentucky Ave.	775	2	Near Critical	E	1,620	1,200	C	1,528	C
Kentucky Ave. to Howland Blvd.	900	2		E	1,620	952	C	1,066	C
Howland Blvd									
I-4/SR 472 to Project Entrance / E. Graves Ave	901	4		E	3,410	2,233	C	2,237	C
Project Entrance / E. Graves Ave to Wolf Pack Run	901	4		E	3,410	2,771	C	2,925	C
Wolf Pack Run to Catalina Blvd	903	4		E	3,410	2,348	C	2,443	C
Catalina Blvd. to Providence Blvd.	905	4		E	3,410	1,713	C	2,139	C
Providence Blvd. to Elkcam Blvd.	906	2	Critical	E	1,230	1,223	D	1,834	F
Elkcam Blvd. to Lake Helen-Osteen Rd.	908	4		E	3,410	1,039	C	1,191	C
Normandy Blvd									
Graves (old Howland) to Rhode Island Ave.	DLT-105	2		E	1,230	712	C	648	C
Rhode Island Ave. to Elkcam Blvd.	DLT-105	4		E	2,740	694	C	627	C
Providence Blvd.									
Elkcam Blvd. to Ft Smith Blvd.	1541	2	Near Critical	E	1,020	865	D	1,176	F
Saxon Blvd.									
VMP to FDOT Park & Ride	1674	4	Near Critical	E	4,280	1,565	C	3,270	C
FDOT Park & Ride to I-4	1685	4	Near Critical	E	3,410	1,565	C	3,280	D
I-4 to Finland Dr.	1675	4	Near Critical	E	3,410	2,832	C	3,098	C
Finland Dr. to Normandy Blvd.	1676	4	Near Critical	E	3,410	2,546	C	2,924	C
W. Volusia Bltwy (Dr MLK Jr)									
Cassadaga Rd. to SR 472	1940	2		E	1,540	902	C	1,135	C
SR 472 to Graves Ave	1030	2		E	1,540	684	C	951	C
W. Volusia Bltwy (Veteran's Memorial)									
Rhode Island Ave. to Harley Strickland Blvd.	1901	2	Near Critical	E	1,540	978	C	1,620	F

Source: *May-14*
GMB Engineers & Planners, Inc.
Year 2013 City of Deltona Traffic Count Report
Volusia County 2013 Average Annual Daily Traffic & Histroical Counts
FDOT Florida Traffic Online (2013)

The analysis shown in Table 3 concludes that all study area roadways exhibit traffic volumes lower than their respective roadway LOS service volume for existing conditions with the exception the following roadway segments:

PM peak hour:

- I-4 from Dirksen Dr. to Saxon Blvd.
- Howland Blvd. from Providence Blvd. to Elkcam Blvd.
- Providence Blvd. from Elkcam Blvd. to Ft. Smith Blvd.
- W. Volusia Bltwy (VMP) from Rhode Island Ave. to Harley Strickland Blvd.

It should be noted that the abovementioned deficient roadway segments are operating below their adopted level of service without the traffic generated from the Halifax Crossings BPUD.

EXISTING INTERSECTION CONDITIONS

The study area intersections were evaluated using the methodology outlined in the Highway Capacity Manual and using SYNCHRO (v9). The existing intersection analyses is based on turning movement data collected in the month of February 2014, during the AM (7:00-9:00) and PM (4:00-6:00) peak hour periods. Furthermore, the existing intersection signal timings were obtained from Volusia County (see Appendix "C"). Table 4 provides a summary of the existing intersection analysis, including intersection delay and LOS:

Table 4 - YR 2014 Existing Intersection Analysis

YR 2014 Intersection Analysis					
Intersection	Control	AM peak hour		PM peak hour	
		LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
SR 472 at MLK (W. Volusia Bltwy)	Signal	D	48.5	E	67.8
SR 472 at I-4 SB Ramps	Signal	C	22.5	C	22.2
Howland Blvd at I-4 NB Ramps	Signal	C	20.1	D	47.6
Howland Blvd at E. Graves Ave	Signal	B	19.2	D	51.0
Howland Blvd at Wolf Pack Run	Signal	C	20.0	B	16.9
Howland Blvd at Catalina Blvd	Signal	E	55.1	D	37.6
Howland Blvd at Providence Blvd	Signal	D	42.4	F	139.0
Howland Blvd at Elkcam Blvd	Signal	C	24.8	C	28.1
E. Graves Ave at Normandy Blvd	Signal	B	13.0	B	14.0
E. Graves Ave at MLK (Kentucky Ave)	Signal	C	25.6	D	35.1
E. Graves Ave at Veterans Memorial Pkwy	Signal	B	16.4	B	19.5
MLK (W. Volusia Bltwy) at Cassadaga Rd	Stop	C	23.3	C	22.8
Normandy Blvd at Elkcam Blvd	Signal	B	19.3	B	13.0

As shown in Table 4, all study area intersections operate at the allowable LOS "E" or better for the existing conditions with the exception of the intersection of Howland Blvd at Providence Blvd, which is operating below acceptable LOS in the PM peak hour condition. SYNCHRO summary sheets can be found in Appendix "D", and the intersections analysis summary can be found in Appendix "E".

FUTURE CONDITIONS

This section of the report identifies the anticipated conditions for the study area roadways as a result of the project created traffic. As documented previously in this report, the analysis year for the proposed development is YR 2020 for Phase I and YR 2025 for the build-out of the development. The site traffic for the proposed development was added to the future background traffic volumes in order to assess the total operating conditions of the study area roadways.

PROGRAMMED ROADWAY IMPROVEMENTS

GMB Engineers and Planners have conducted a review of the relevant Work Programs and Capitol Improvement Programs in order to define the programmed improvements within the study area. Based on that review, no programmed improvements are expected to take place within the study area.

Deltona Village:

GMB Engineers & Planners reviewed the improvements set to be implemented by the Deltona Village development. The Deltona Village development is located southeast and southwest corners of the intersection of Howland Boulevard and Graves Avenue. The review concluded that the Deltona Village will provide an additional south-eastbound right-turn lane at the intersection of Howland Boulevard and Graves Avenue. This improvement will be incorporated in the future year analysis since the Deltona Village development has a build-out year of 2013.

BACKGROUND TRAFFIC

The background traffic was developed based on the existing traffic volumes and annual traffic counts obtained from the Volusia County 2013 AADT Traffic & Historical Counts. Using a historical trends analysis, the roadway and intersection volumes were grown at their respective rate per year to reflect future conditions. Based on the build-out year as well as conversations with the City of Deltona Staff, a minimum of 1.0% annual growth rate was assumed for roadways exhibiting a growth rate lower than 1.0% or when accurate historical traffic volumes were not available. The historical growth rate trends can be found in Appendix "F".

TRIP GENERATION

The project traffic volumes for the proposed development were generated using the trip generation rates/equations outlined in the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition). Phase I (YR 2020) of the project is expected to generate a total of 12,260 daily trips, 1,012 AM peak hour trip (764 inbound and 248 outbound) and 931 PM peak hour trips (263 inbound and 668 outbound). The trip generation summary for Phase-I can be found in Table 5. The Internal Capture volumes worksheets for the peak hour trips can be found in Appendix "G".

TRIP DISTRIBUTION AND ASSIGNMENT

The distribution of project traffic was based on the Central Florida Regional Planning Model (CFRPM) (v5.1) modeling results. The project distribution was verified for reasonability against existing roadway volumes and surrounding land use characteristics. The project distribution model plot can be found in Appendix "H".

Table 5

Halifax Crossings BPUD

Phase I - Trip Generation Summary

AM Peak

Land Use	ITE Code	Size / Units		Daily Total	AM Peak Hour Total	AM Peak Hour Enter	AM Peak Hour Exit	Internal Capture Total Daily	Internal Capture AM Peak Hour Total	Internal Capture AM Peak Hour Enter	Internal Capture AM Peak Hour Exit	Passerby Capture* Total Daily	Passerby Capture* AM Peak Hour Total	Passerby Capture* AM Peak Hour Enter	Passerby Capture* AM Peak Hour Exit	External "New" Trips Total Daily	External "New" Trips AM Peak Hour Total	External "New" Trips AM Peak Hour Enter	External "New" Trips AM Peak Hour Exit
Hospital	610	300	KSF	4,997	356	224	132	0	0	0	0	0	0	0	0	4,997	356	224	132
Medical Office	720	120	KSF	4,656	287	227	60	283	21	10	11	0	0	0	0	4,373	266	217	49
Restaurant	932	350	Seats	1,691	165	86	79	274	28	14	14	467	59	31	28	949	78	41	37
Office	710	200	KSF	2,223	333	293	40	283	21	11	10	0	0	0	0	1,940	312	282	30
Total				**13,567**	**1,140**	**829**	**311**	**840**	**70**	**35**	**35**	**468**	**59**	**31**	**29**	**12,260**	**1,012**	**764**	**248**

PM Peak

Land Use	ITE Code	Size / Units		Daily Total	PM Peak Hour Total	PM Peak Hour Enter	PM Peak Hour Exit	Internal Capture Total Daily	Internal Capture PM Peak Hour Total	Internal Capture PM Peak Hour Enter	Internal Capture PM Peak Hour Exit	Passerby Capture* Total Daily	Passerby Capture* PM Peak Hour Total	Passerby Capture* PM Peak Hour Enter	Passerby Capture* PM Peak Hour Exit	External "New" Trips Total Daily	External "New" Trips PM Peak Hour Total	External "New" Trips PM Peak Hour Enter	External "New" Trips PM Peak Hour Exit
Hospital	610	300	KSF	4,997	279	106	173	0	0	0	0	0	0	0	0	4,997	279	106	173
Medical Office	720	120	KSF	4,656	343	96	247	283	31	18	13	0	0	0	0	4,373	312	78	234
Restaurant	932	350	Seats	1,691	144	82	62	274	26	14	12	467	51	29	22	949	67	39	28
Office	710	200	KSF	2,223	303	52	251	283	31	12	19	0	0	0	0	1,940	272	40	232
Total				**13,567**	**1,069**	**335**	**733**	**840**	**88**	**44**	**44**	**467**	**51**	**29**	**22**	**12,260**	**931**	**263**	**668**

Sources: *May-14*

GMB Engineers & Planners, Inc.

Institute of Transportation (ITE) Trip Generation Manual 9th Edition.

* Passer-by Capture rate was obtained from the latest ITE Trip Generation Handbook

PHASE-I: YR 2020 Traffic Conditions (Concurrency Request)

YR 2020 ROADWAY CAPACITY ANALYSIS

The future capacity analysis for the study area roadways for the project build-out can be found in Tables 6 and 7 for the AM and PM peak hours, respectively. The analysis concludes that all study area roadways exhibit traffic volumes lower than their respective maximum service volumes with the exception of the following roadway segments:

AM peak hour:

- I-4 from Dirksen Dr. to Saxon Blvd.
- Catalina Blvd. from Howland Blvd. to Sixma Rd.
- Howland Blvd. from Providence Blvd. to Elkcam Blvd.

PM peak hour:

- I-4 from Dirksen Dr. to Saxon Blvd.
- I-4 from Saxon Blvd to SR 472
- I-4 from SR 472 to Orange Camp Rd
- Catalina Blvd. from Howland Blvd. to Sixma Rd.
- Graves Ave. from Veteran's Memorial Pkwy to Kentucky Ave.
- Howland Blvd. from Providence Blvd. to Elkcam Blvd.
- Providence Blvd. from Elkcam Blvd. to Ft. Smith Blvd.
- Saxon Blvd. from FDOT Park & Ride to I-4
- W. Volusia Bltwy (VMP) from Rhode Island Ave. to Harley Strickland Blvd.

It should be noted that the deficient roadway segments listed above operating below their respective maximum service volumes for the YR 2020, are deficient either in the existing conditions or due to background traffic growth, without adding the Halifax Crossings BPUD project trips.

Table 6
Halifax Crossings BPUD
Phase I - Future (YR 2020) AM Peak Hour Roadway Analysis

Roadway	No. of Lanes	Critical / Near-Critical	Level of Service: Adopted LOS	Level of Service: Adjusted MSV	Existing AM PK	Growth Rate	Background Traffic: AM PK Total	Background Traffic: LOS	Background Deficincey? Y/N	YR 2020 Project Traffic: Project Trips	YR 2020 Project Traffic: Project Dis%	Total Traffic	LOS	Project Deficincey? Y/N
I-4														
Dirksen Dr. to Saxon Blvd.	6	Critical	C	8,370	8,368 **	1.0%	8,870	D	Yes	56	5.46%	8,926	D	No
Saxon Blvd. to SR 472	6	Near Critical	C	8,370	6,333 **	4.3%	7,968	C	No	81	8.03%	8,049	C	No
SR 472 to Orange Camp Rd.	6	Near Critical	C	8,370	5,576 **	4.3%	7,015	C	No	62	6.19%	7,077	C	No
SR 472														
MLK Blvd to I-4 (end of state road)	4		D	3,580	2,262	1.0%	2,398	C	No	360	35.63%	2,758	C	No
Catalina Blvd														
Howland Blvd. to Sixma Rd.	2		E	1,020	957 *	1.1%	1,020	F	Yes	64	6.33%	1,084	F	No
Graves Av / CR 4145														
Veteran's Memorial Pkwy. to Kentucky Ave.	2	Near Critical	E	1,620	1,200	1.0%	1,272	C	No	119	11.79%	1,391	C	No
Kentucky Ave. to Howland Blvd.	2		E	1,620	952	1.0%	1,009	C	No	379	37.43%	1,388	C	No
Howland Blvd														
I-4/SR 472 to Project Entrance / E. Graves Ave	4		E	3,410	2,233	1.0%	2,366	C	No	360	35.63%	2,726	C	No
Project Entrance / E. Graves Ave to Wolf Pack Run	4		E	3,410	2,771	1.0%	2,938	C	No	273	26.95%	3,211	C	No
Wolf Pack Run to Catalina Blvd	4		E	3,410	2,348	1.0%	2,489	C	No	257	25.38%	2,746	C	No
Catalina Blvd. to Providence Blvd.	4		E	3,410	1,713	1.0%	1,816	C	No	152	15.09%	1,968	C	No
Providence Blvd. to Elkcam Blvd.	2	Critical	E	1,230	1,223	1.7%	1,347	F	Yes	91	9.05%	1,438	F	No
Elkcam Blvd. to Lake Helen-Osteen Rd.	4		E	3,410	1,039	1.0%	1,101	C	No	56	5.55%	1,157	C	No
Normandy Blvd														
Graves (old Howland) to Rhode Island Ave.	2		E	1,230	712 *	1.0%	755	C	No	175	17.22%	930	C	No
Rhode Island Ave. to Elkcam Blvd.	4		E	2,740	694 *	1.0%	736	C	No	160	15.78%	896	C	No
Providence Blvd.														
Elkcam Blvd. to Ft Smith Blvd.	2	Near Critical	E	1,020	865	1.0%	916	D	No	51	5.04%	967	E	No
Saxon Blvd.														
VMP to FDOT Park & Ride	4	Near Critical	E	4,280	1,565 **	1.0%	1,658	C	No	32	3.08%	1,690	C	No
FDOT Park & Ride to I-4	4	Near Critical	E	3,410	1,565 **	1.0%	1,658	C	No	28	2.74%	1,686	C	No
I-4 to Finland Dr.	4	Near Critical	E	3,410	2,832	1.0%	3,002	C	No	40	3.96%	3,042	C	No
Finland Dr. to Normandy Blvd.	4	Near Critical	E	3,410	2,546	1.0%	2,699	C	No	38	3.76%	2,737	C	No
W. Volusia Bltwy (Dr MLK Jr)														
Cassadaga Rd. to SR 472	2		E	1,540	902	1.0%	956	C	No	93	9.16%	1,049	C	No
SR 472 to Graves Ave	2		E	1,540	684	1.0%	725	C	No	73	7.16%	798	C	No
W. Volusia Bltwy (Veteran's Memorial)														
Rhode Island Ave. to Harley Strickland Blvd.	2	Near Critical	E	1,540	978	4.4%	1,236	C	No	46	4.55%	1,282	C	No

Source:
GMB Engineers & Planners, Inc.
Year 2013 City of Deltona Traffic Count Report
FDOT Florida Traffic Online (2013)

May-14

Notes:
Existing AM peak traffic volumes are obtained from the turning movements counts conducted by GMB during the month of February & April 2014.
* AM peak traffic volumes obtained from the Year 2013 City of Deltona Raw Traffic Counts
** AM peak traffic volumes obtained from the FDOT Traffic Online (2013) Synopsis Reports

Table 7
Halifax Crossings BPUD
Phase I - Future (YR 2020) PM Peak Hour Roadway Analysis

Roadway	No. of Lanes	Critical / Near-Critical	Level of Service Adopted LOS	Level of Service Adjusted MSV	Existing PM PK Two Way		Growth Rate	Background Traffic Background Total	Background Traffic LOS	Background Deficincey? Y/N	YR 2020 Project Traffic Project Trips	YR 2020 Project Traffic Project Dis%	Total Traffic	LOS	Project Deficincey? Y/N
I-4															
Dirksen Dr. to Saxon Blvd.	6	Critical	C	8,370	8,676	*	1.0%	9,283	D	Yes	50	5.46%	9,333	D	No
Saxon Blvd. to SR 472	6	Near Critical	C	8,370	7,965	*	4.3%	10,362	E	Yes	75	8.03%	10,437	E	No
SR 472 to Orange Camp Rd.	6	Near Critical	C	8,370	6,930	*	4.3%	9,016	D	Yes	57	6.19%	9,073	D	No
SR 472															
MLK Blvd to I-4 (end of state road)	4		D	3,580	2,160	*	1.0%	2,311	C	No	332	35.63%	2,643	C	No
Catalina Blvd															
Howland Blvd. to Sixma Rd.	2		E	1,020	1,006	**	1.1%	1,084	F	Yes	59	6.33%	1,143	F	No
Graves Av / CR 4145															
Veteran's Memorial Pkwy. to Kentucky Ave.	2	Near Critical	E	1,620	1,528		1.0%	1,635	F	Yes	110	11.79%	1,745	F	No
Kentucky Ave. to Howland Blvd.	2		E	1,620	1,066		1.0%	1,141	C	No	348	37.43%	1,489	C	No
Howland Blvd															
I-4/SR 472 to Project Entrance / E. Graves Ave	4		E	3,410	2,237		1.0%	2,394	C	No	332	35.63%	2,726	C	No
Project Entrance / E. Graves Ave to Wolf Pack Run	4		E	3,410	2,925		1.0%	3,130	C	No	251	26.95%	3,381	D	No
Wolf Pack Run to Catalina Blvd	4		E	3,410	2,443		1.0%	2,614	C	No	237	25.38%	2,851	C	No
Catalina Blvd. to Providence Blvd.	4		E	3,410	2,139		1.0%	2,289	C	No	141	15.09%	2,430	C	No
Providence Blvd. to Elkcam Blvd.	2	Critical	E	1,230	1,834		1.7%	2,052	F	Yes	84	9.05%	2,136	F	No
Elkcam Blvd. to Lake Helen-Osteen Rd.	4		E	3,410	1,191		1.0%	1,274	C	No	52	5.55%	1,326	C	No
Normandy Blvd															
Graves (old Howland) to Rhode Island Ave.	2		E	1,230	648	**	1.0%	693	C	No	160	17.22%	853	C	No
Rhode Island Ave. to Elkcam Blvd.	4		E	2,740	627	**	1.0%	671	C	No	146	15.78%	817	C	No
Providence Blvd.															
Elkcam Blvd. to Ft Smith Blvd.	2	Near Critical	E	1,020	1,176	*	1.0%	1,259	F	Yes	47	5.04%	1,306	F	No
Saxon Blvd.															
VMP to FDOT Park & Ride	4	Near Critical	E	4,280	3,270	*	1.0%	3,499	C	No	29	3.08%	3,528	C	No
FDOT Park & Ride to I-4	4	Near Critical	E	3,410	3,280	*	1.0%	3,509	F	Yes	25	2.74%	3,534	F	No
I-4 to Finland Dr.	4	Near Critical	E	3,410	3,098		1.0%	3,315	D	No	36	3.96%	3,351	D	No
Finland Dr. to Normandy Blvd.	4	Near Critical	E	3,410	2,924		1.0%	3,129	C	No	35	3.76%	3,164	C	No
W. Volusia Bltwy (Dr MLK Jr)															
Cassadaga Rd. to SR 472	2		E	1,540	1,135		1.0%	1,214	C	No	85	9.16%	1,299	C	No
SR 472 to Graves Ave	2		E	1,540	951		1.0%	1,018	C	No	67	7.16%	1,085	C	No
W. Volusia Bltwy (Veteran's Memorial)															
Rhode Island Ave. to Harley Strickland Blvd.	2	Near Critical	E	1,540	1,620		4.4%	2,119	F	Yes	42	4.55%	2,161	F	No

Source:
GMB Engineers & Planners, Inc.
Year 2013 City of Deltona Traffic Count Report
Volusia County 2013 Average Annual Daily Traffic & Histroical Counts
FDOT Florida Traffic Online (2013)

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Notes:
Existing PM peak traffic volumes are obtained from the turning movements counts conducted by GMB during the month of February 2014.
*Two-way PM peak hour traffic was calculated by multiplying AADT obtained from the Volusia County 2013 Average Annual Daily Traffic & Histroical Counts by Standard K factor (K=0.09)
** Standard K factor Values for City roadways were calculated from the Year 2013 City of Deltona Traffic Count Report

YR 2020 INTERSECTION CONDITIONS

The study area intersections were evaluated with the addition of project traffic in order to quantify the impacts created by the proposed development. The intersections were grown at their respective rate per year and project traffic was added to reflect YR 2020 future conditions for both the AM and PM peak hours. The intersection analysis summary can be found in Appendix "E" of this report. Table 8 summarizes the results of the intersection capacity analysis:

Table 8 - YR 2020 Intersection Analysis

Phase-I YR 2020 Intersections Analysis					
Intersection	Control	AM peak hour		PM peak hour	
		LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
SR 472 at MLK (W. Volusia Bltwy)	Signal	E	78.1	E	70.2
SR 472 at I-4 SB Ramps	Signal	D	36.1	C	26.4
Howland at I-4 NB Ramps	Signal	E	56.0	D	51.5
Howland Blvd at E. Graves Ave	Signal	E	70.5*	E	78.7*
Howland Blvd at Wolf Pack Run	Signal	C	22.0	B	18.5
Howland Blvd at Catalina Blvd	Signal	E	78.5*	D	49.0
Howland Blvd at Providence Blvd	Signal	E	55.2	F	150.2
Howland Blvd at Elkcam Blvd	Signal	C	24.3	C	28.6
E. Graves Ave at Normandy Blvd	Signal	B	14.3	B	18.4
E. Graves Ave at MLK (Kentucky Ave)	Signal	C	28.3	D	35.3
E. Graves Ave at Veterans Memorial Pkwy	Signal	B	19.7	C	27.4
MLK (W. Volusia Bltwy) at Cassadaga Rd	Stop	C	24.3	D	26.4
Normandy Blvd at Elkcam Blvd	Signal	C	21.8	B	12.8

* Optimized Split Time

As shown in Table 9, all study area intersections are anticipated to operate at the allowable LOS "E" or better for the for the YR 2020 with the exception of the intersection of Howland Blvd at Providence Blvd, which is operating below acceptable LOS for the PM peak hour. It should be noted that during the PM peak hour, the intersection of Howland Blvd at Providence Blvd is operating below allowable LOS in the existing conditions, without the project generated from the Halifax Crossings

BPUD. Based on the Florida legislation found in Chapter No. 2011-139 (H.B. 7207), effective June 2, 2011, the identified deficient roadways and intersections are considered a pre-existing transportation deficiency. Therefore, consistent with this legislation, the proposed development should not be required to contribute towards the cost of elimination the pre-existing deficiency. Also, it should be noted that since the build-out year is 2020, it is reasonable to assume that the signal timings will be modified to accommodate future conditions. However to provide conservative analysis, the existing signal timings provided by Volusia County were utilized for future conditions analysis. A copy of the Signal Timings & SYNCHRO summary sheets can be found in Appendix "C" &"D", respectively.

Note: The following section is shown for informational purposes only.

BUILD-OUT: YR 2025 TRAFFIC CONDITIONS

As previously mentioned, the future (YR 2025) build-out analysis is being presented within this report for informational purposes only, as the development is seeking concurrency for only Phase I at this time.

STUDY AREA

The study area will increase compared to Phase I study area, due to the increase in project development, and hence increase in the trip generation. Table 9 depicts the study area roadways Consistent with the Volusia County guidelines:

Table 9 - YR 2025 Study Area Roadways

Roadway	From / To	Critical / Near Critical
I-4	Dirksen Dr. to Saxon Blvd.	Critical
	Saxon Blvd. to SR 472	Near Critical
	SR 472 to Orange Camp Rd	Near Critical
SR 472	MLK Blvd to I-4 (end of state road)	
Catalina Blvd	Howland Blvd. to Sixma Rd.	
Graves Av / CR 4145	Veteran's Memorial Pkwy. to Kentucky Ave.	Critical
	Kentucky Ave. to Howland Blvd.	
Howland Blvd	I-4/SR 472 to Project Entrance / E. Graves Ave	
	Project Entrance / E. Graves Ave to Wolf Pack Run	
	Wolf Pack Run to Catalina Blvd.	
	Catalina Blvd. to Providence Blvd.	
	Providence Blvd. to Elkcam Blvd.	Critical
	Elkcam Blvd. to Lake Helen-Osteen Rd.	Critical
Normandy Blvd	Graves (old Howland) to Rhode Island Ave	
	Rhode Island Ave to Elkcam Blvd.	
	Elkcam Blvd. to Saxon Blvd.	
Providence Blvd.	Howland Blvd. to Elkcam Blvd.	
	Elkcam Blvd. to Ft Smith Blvd.	Critical
Saxon Blvd.	VMP to FDOT Park & Ride	Near Critical
	FDOT Park & Ride to I-4	Near Critical
	I-4 to Finland Dr.	Near Critical
	Finland Dr. to Normandy Blvd.	Near Critical

W. Volusia Bltwy (MLK)	Orange Camp Rd. to Cassadaga Rd.	
	Cassadaga Rd. to SR 472	
	SR 472 to Graves Ave	
W. Volusia Bltwy (VMP)	Graves Ave. to Rhode Island Ave.	
	Rhode Island Ave. to Harley Strickland Blvd.	Near Critical

TRIP GENERATION

The project traffic volumes for the proposed development were generated using the trip generation rates/equations outlined in the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition). The build-out (YR 2025) of the development is expected to generate a total of 15,783 daily trips, 1,628 AM peak hour trip (1,310 inbound and 318 outbound) and 1,525 PM peak hour trips (356 inbound and 1,168 outbound). The trip generation summary for the build-out can be found in Table 10.

YR 2025 ROADWAY CAPACITY ANALYSIS

The future capacity analysis for the study area roadways for the project build-out can be found in Tables 11 and 12 for the AM and PM peak hours, respectively. The analysis concludes that all study area roadways exhibit traffic volumes lower than their respective maximum roadway capacities with the exception of the following roadway segments:

AM peak hour:

- I-4 from Dirksen Dr. to Saxon Blvd.
- I-4 from Saxon Blvd to SR 472
- Catalina Blvd. from Howland Blvd. to Sixma Rd.
- Graves Ave. from Kentucky Ave. Howland Blvd.
- Howland Blvd. from Project Entrance to Wolfpack Run
- Howland Blvd. from Providence Blvd. to Elkcam Blvd.
- Providence Blvd from Elkcam Blvd. to Ft. Smith Blvd.

- W. Volusia Bltwy (VMP) from Graves Ave. to Rhode Island Ave.
- W. Volusia Bltwy (VMP) from Rhode Island Ave. to Harley Strickland Blvd.

PM peak hour:

- I-4 from Dirksen Dr. to Saxon Blvd.
- I-4 from Saxon Blvd. to SR 472
- I-4 from SR 472 to Orange Camp Rd.
- Catalina Blvd. from Howland Blvd. to Sixma Rd.
- Graves Ave. from Veteran's Memorial Pkwy to Kentucky Ave.
- Graves Ave. from Kentucky Ave. Howland Blvd.
- Howland Blvd. from Providence Blvd. to Elkcam Blvd.
- Providence Blvd. from Elkcam Blvd. to Ft. Smith Blvd.
- Saxon Blvd. from FDOT Park & Ride to I-4
- W. Volusia Bltwy from Graves Ave. to Rhode Island Ave.
- W. Volusia Bltwy (VMP) from Rhode Island Ave. to Harley Strickland Blvd.

Table 10

Halifax Crossings BPUD

Build Out - Trip Generation Summary

AM Peak

Land Use	ITE Code	Size / Units	Daily Total	AM Peak Hour Total	AM Peak Hour Enter	AM Peak Hour Exit	Internal Capture Total Daily	Internal Capture AM Peak Hour Total	Internal Capture AM Peak Hour Enter	Internal Capture AM Peak Hour Exit	Passerby Capture* Total Daily	Passerby Capture* AM Peak Hour Total	Passerby Capture* AM Peak Hour Enter	Passerby Capture* AM Peak Hour Exit	External "New" Trips Total Daily	External "New" Trips AM Peak Hour Total	External "New" Trips AM Peak Hour Enter	External "New" Trips AM Peak Hour Exit
Hospital	610	300 KSF	4,997	356	224	132	0	0	0	0	0	0	0	0	4,997	356	224	132
Medical Office	720	120 KSF	4,656	287	227	60	445	26	15	11	0	0	0	0	4,211	261	212	49
Restaurant	932	350 Seats	1,691	165	86	79	274	28	14	14	467	59	31	28	949	78	41	37
Office	710	750 KSF	6,071	959	844	115	445	26	11	15	0	0	0	0	5,626	933	833	100
Total			**17,415**	**1,766**	**1,380**	**386**	**1,164**	**80**	**40**	**40**	**468**	**59**	**31**	**29**	**15,783**	**1,628**	**1,310**	**318**

PM Peak

Land Use	ITE Code	Size / Units	Daily Total	PM Peak Hour Total	PM Peak Hour Enter	PM Peak Hour Exit	Internal Capture Total Daily	Internal Capture PM Peak Hour Total	Internal Capture PM Peak Hour Enter	Internal Capture PM Peak Hour Exit	Passerby Capture* Total Daily	Passerby Capture* PM Peak Hour Total	Passerby Capture* PM Peak Hour Enter	Passerby Capture* PM Peak Hour Exit	External "New" Trips Total Daily	External "New" Trips PM Peak Hour Total	External "New" Trips PM Peak Hour Enter	External "New" Trips PM Peak Hour Exit
Hospital	610	300 KSF	4,997	279	106	173	0	0	0	0	0	0	0	0	4,997	279	106	173
Medical Office	720	120 KSF	4,656	343	96	247	445	42	18	24	0	0	0	0	4,211	301	78	223
Restaurant	932	350 Seats	1,691	144	82	62	274	26	14	12	467	51	29	22	949	67	39	28
Office	710	750 KSF	6,071	919	156	763	445	42	23	19	0	0	0	0	5,626	877	133	744
Total			**17,415**	**1,685**	**440**	**1,245**	**1,164**	**110**	**55**	**55**	**467**	**51**	**29**	**22**	**15,783**	**1,525**	**356**	**1,168**

Sources: *May-14*

GMB Engineers & Planners, Inc.

Institute of Transportation (ITE) Trip Generation Manual 9th Edition.

* Passer-by Capture rate was obtained from the latest ITE Trip Generation Handbook

Table 11
Halifax Crossings BPUD
Build-Out - Future (YR 2025) AM Peak Hour Roadway Analysis

Roadway	No. of Lanes	Critical / Near-Critical	Level of Service Adopted LOS	Level of Service Adjusted MSV	Existing AM PK	Growth Rate	Background Traffic AM PK Total	Background Traffic LOS	Background Deficincey? Y/N	YR 2025 Project Traffic Project Trips	YR 2025 Project Traffic Project Dis%	Total Traffic	LOS	Project Deficincey? Y/N
I-4														
Dirksen Dr. to Saxon Blvd.	6	Critical	C	8,370	8,368	1.00%	9,289	D	Yes	89	5.46%	9,378	D	No
Saxon Blvd. to SR 472	6	Near Critical	C	8,370	6,333	4.30%	9,329	D	Yes	131	8.03%	9,460	D	No
SR 472 to Orange Camp Rd.	6	Near Critical	C	8,370	5,576	4.30%	8,214	C	No	101	6.19%	8,315	C	No
SR 472														
MLK Blvd to I-4 (end of state road)	4		D	3,580	2,262	1.00%	2,511	C	No	580	35.63%	3,091	C	No
Catalina Blvd														
Howland Blvd. to Sixma Rd.	2		E	1,020	957	1.00%	1,062	F	Yes	103	6.33%	1,165	F	No
Graves Av / CR 4145														
Veteran's Memorial Pkwy. to Kentucky Ave.	2	Near Critical	E	& 12	1,200	1.00%	1,332	C	No	191	11.79%	1,523	C	No
Kentucky Ave. to Howland Blvd.	2		E	1,620	952	1.00%	1,056	C	No	609	37.43%	1,665	F	Yes
Howland Blvd														
I-4/SR 472 to Project Entrance / E. Graves Ave	4		E	3,410	2,233	1.00%	2,478	C	No	580	35.63%	3,058	C	No
Project Entrance / E. Graves Ave to Wolf Pack Run	4		E	3,410	2,771	1.00%	3,076	C	No	439	26.95%	3,515	F	Yes
Wolf Pack Run to Catalina Blvd	4		E	3,410	2,348	1.00%	2,607	C	No	413	25.38%	3,020	C	No
Catalina Blvd. to Providence Blvd.	4		E	3,410	1,713	1.00%	1,901	C	No	246	15.09%	2,147	C	No
Providence Blvd. to Elkcam Blvd.	2	Critical	E	1,230	1,223	1.70%	1,451	F	Yes	148	9.05%	1,599	F	No
Elkcam Blvd. to Lake Helen-Osteen Rd.	4		E	3,410	1,039	1.00%	1,153	C	No	91	5.55%	1,244	C	No
Normandy Blvd														
Graves (old Howland) to Rhode Island Ave.	2		E	1,230	712	1.00%	790	C	No	281	17.22%	1,071	C	No
Rhode Island Ave. to Elkcam Blvd.	4		E	2,740	694	1.00%	770	C	No	257	15.78%	1,027	C	No
Elkcam Blvd. to Saxon Blvd.	4		E	2,740	591	1.00%	656	C	No	204	12.50%	860	C	No
Providence Blvd.														
Howland Blvd. to Elkcam Blvd.	2		E	1,270	553	1.00%	614	D	No	98	6.03%	712	D	No
Elkcam Blvd. to Ft Smith Blvd.	2	Near Critical	E	1,020	865	1.00%	960	D	No	82	5.04%	1,042	F	Yes
Saxon Blvd.														
VMP to FDOT Park & Ride	4	Near Critical	E	4,280	1,565	1.00%	1,737	C	No	50	3.08%	1,787	C	No
FDOT Park & Ride to I-4	4	Near Critical	E	3,410	1,565	1.00%	1,737	C	No	45	2.74%	1,782	C	No
I-4 to Finland Dr.	4	Near Critical	E	3,410	2,832	1.00%	3,144	C	No	65	3.96%	3,209	C	No
Finland Dr. to Normandy Blvd.	4	Near Critical	E	3,410	2,546	1.00%	2,826	C	No	61	3.76%	2,887	C	No
W. Volusia Bltwy (Dr MLK Jr)														
Orange Camp Rd. to Cassadaga Rd.	2		E	1,540	825	1.00%	915	C	No	115	7.07%	1,030	C	No
Cassadaga Rd. to SR 472	2		E	1,540	902	1.00%	1,001	C	No	149	9.16%	1,150	C	No
SR 472 to Graves Ave	2		E	1,540	684	1.00%	759	C	No	117	7.16%	876	C	No
W. Volusia Bltwy (Veteran's Memorial)														
Graves Ave. to Rhode Island Ave.	2		E	1,620	1,112	3.80%	1,576	D	No	113	6.95%	1,689	F	Yes
Rhode Island Ave. to Harley Strickland Blvd.	2	Near Critical	E	1,540	978	4.40%	1,451	D	No	74	4.55%	1,525	D	No

Source:
GMB Engineers & Planners, Inc.
Year 2013 City of Deltona Traffic Count Report
FDOT Florida Traffic Online (2013)

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Table 12
Halifax Crossings BPUD
Build-Out - Future (YR 2025) PM Peak Hour Roadway Analysis

Roadway	No. of Lanes	Critical / Near-Critical	Level of Service Adopted LOS	Level of Service Adjusted MSV	Existing PM PK Two Way	Growth Rate	Background Traffic Background Total	Background Traffic LOS	Background Deficincey? Y/N	YR 2025 Project Traffic Project Trips	YR 2025 Project Traffic Project Dis%	Total Traffic	LOS	Project Deficincey? Y/N
I-4														
Dirksen Dr. to Saxon Blvd.	6	Critical	C	8,370	8,676	1.00%	9,197	D	Yes	83	5.46%	9,280	D	No
Saxon Blvd. to SR 472	6	Near Critical	C	8,370	7,965	4.30%	10,020	D	Yes	123	8.03%	10,143	E	No
SR 472 to Orange Camp Rd.	6	Near Critical	C	8,370	6,930	4.30%	8,718	D	Yes	94	6.19%	8,812	D	No
SR 472														
MLK Blvd to I-4 (end of state road)	4		D	3,580	2,160	1.00%	2,290	C	No	543	35.63%	2,833	C	No
Catalina Blvd														
Howland Blvd. to Sixma Rd.	2		E	1,020	1,006	1.00%	1,067	F	Yes	97	6.33%	1,164	F	No
Graves Av / CR 4145														
Veteran's Memorial Pkwy. to Kentucky Ave.	2	Near Critical	E	& 12	1,528	1.00%	1,620	F	Yes	180	11.79%	1,800	F	No
Kentucky Ave. to Howland Blvd.	2		E	1,620	1,066	1.00%	1,130	C	No	570	37.43%	1,700	F	Yes
Howland Blvd														
I-4/SR 472 to Project Entrance / E. Graves Ave	4		E	3,410	2,237	1.00%	2,371	C	No	543	35.63%	2,914	C	No
Project Entrance / E. Graves Ave to Wolf Pack Run	4		E	3,410	2,925	1.00%	3,101	C	No	411	26.95%	3,512	F	Yes
Wolf Pack Run to Catalina Blvd	4		E	3,410	2,443	1.00%	2,590	C	No	386	25.38%	2,976	C	No
Catalina Blvd. to Providence Blvd.	4		E	3,410	2,139	1.00%	2,267	C	No	230	15.09%	2,497	C	No
Providence Blvd. to Elkcam Blvd.	2	Critical	E	1,230	1,834	1.70%	2,021	F	Yes	138	9.05%	2,159	F	No
Elkcam Blvd. to Lake Helen-Osteen Rd.	4		E	3,410	1,191	1.00%	1,262	C	No	85	5.55%	1,347	C	No
Normandy Blvd														
Graves (old Howland) to Rhode Island Ave.	2		E	1,230	648	1.00%	687	C	No	262	17.22%	949	C	No
Rhode Island Ave. to Elkcam Blvd.	4		E	2,740	627	1.00%	665	C	No	240	15.78%	905	C	No
Elkcam Blvd. to Saxon Blvd.	4		E	2,740	678	1.00%	718	C	No	191	12.50%	909	C	No
Providence Blvd.														
Howland Blvd. to Elkcam Blvd.	2		E	1,270	1,016	1.00%	1,077	D	No	91	6.03%	1,168	D	No
Elkcam Blvd. to Ft Smith Blvd.	2	Near Critical	E	1,020	1,176	1.00%	1,247	F	Yes	77	5.04%	1,324	F	No
Saxon Blvd.														
VMP to FDOT Park & Ride	4	Near Critical	E	4,280	3,270	1.00%	3,466	C	No	47	3.08%	3,513	C	No
FDOT Park & Ride to I-4	4	Near Critical	E	3,410	3,280	1.00%	3,476	F	Yes	42	2.74%	3,518	F	No
I-4 to Finland Dr.	4	Near Critical	E	3,410	3,098	1.00%	3,284	D	No	60	3.96%	3,344	D	No
Finland Dr. to Normandy Blvd.	4	Near Critical	E	3,410	2,924	1.00%	3,100	C	No	57	3.76%	3,157	C	No
W. Volusia Bltwy (Dr MLK Jr)														
Orange Camp Rd. to Cassadaga Rd.	2		E	1,540	929	1.00%	985	C	No	108	7.07%	1,093	C	No
Cassadaga Rd. to SR 472	2		E	1,540	1,135	1.00%	1,203	C	No	140	9.16%	1,343	C	No
SR 472 to Graves Ave	2		E	1,540	951	1.00%	1,008	C	No	110	7.16%	1,118	C	No
W. Volusia Bltwy (Veteran's Memorial)														
Graves Ave. to Rhode Island Ave.	2		E	1,620	1,396	3.80%	1,714	F	Yes	106	6.95%	1,820	F	No
Rhode Island Ave. to Harley Strickland Blvd.	2	Near Critical	E	1,540	1,620	4.40%	2,048	F	Yes	69	4.55%	2,117	F	No

Source:
GMB Engineers & Planners, Inc.
Year 2013 City of Deltona Traffic Count Report
Volusia County 2013 Average Annual Daily Traffic & Histroical Counts
FDOT Florida Traffic Online (2013)

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CONCLUSION AND RECOMMENDATIONS

The final section of the report identifies the major conclusions and recommendations regarding the traffic impacts associated with the proposed Halifax Crossings BPUD. It is important to note that the development is only seeking concurrency for Phase I (YR 2020). However, a build-out analysis for YR 2025 was incorporated into this report to provide an indication of the potential future impacts.

CONCLUSION

EXISTING CONDITIONS

- The analysis concludes that all study area roadways exhibit traffic volumes lower than their respective roadway LOS service volume for the AM & PM peak hours for the existing conditions with the exception the following roadway segments:

  PM peak hour:

  - I-4 from Dirksen Dr. to Saxon Blvd.
  - Howland Blvd. from Providence Blvd. to Elkcam Blvd.
  - Providence Blvd. from Elkcam Blvd. to Ft. Smith Blvd.
  - W. Volusia Bltwy (VMP) from Rhode Island Ave. to Harley Strickland Blvd.

- For the existing conditions, all study area intersections operate at an acceptable level of service during both AM & PM peak hours, with the exception of the intersection of Howland Blvd at Providence Blvd which is operating below acceptable LOS "E" in the PM peak hour condition.

PHASE-I: FUTURE YR 2020 CONDITIONS

- The analysis concludes that all study area roadways exhibit traffic volumes lower than their respective maximum roadway capacities for the AM & PM peak hours for the YR 2020 with the exception of following roadway segments:

  AM peak hour:

  - I-4 from Dirksen Dr. to Saxon Blvd.
  - Catalina Blvd. from Howland Blvd. to Sixma Rd.
  - Howland Blvd. from Providence Blvd. to Elkcam Blvd.

  PM peak hour:

  - I-4 from Dirksen Dr. to Saxon Blvd.
  - I-4 from Saxon Blvd to SR 472
  - I-4 from SR 472 to Orange Camp Rd
  - Catalina Blvd. from Howland Blvd. to Sixma Rd.
  - Graves Ave. from Veteran's Memorial Pkwy to Kentucky Ave.
  - Howland Blvd. from Providence Blvd. to Elkcam Blvd.
  - Providence Blvd. from Elkcam Blvd. to Ft. Smith Blvd.
  - Saxon Blvd. from FDOT Park & Ride to I-4
  - W. Volusia Bltwy (VMP) from Rhode Island Ave. to Harley Strickland Blvd.

  The deficient roadway segments listed above operating below their respective maximum service volumes for the YR 2020, are deficient either in the existing conditions or due to background traffic growth, without adding the Halifax Crossings BPUD project trips. Based on the Florida legislation found in Chapter No. 2011-139 (H.B. 7207), effective June 2, 2011, the identified deficient roadways and intersections are considered a pre-existing transportation

deficiency. Therefore, consistent with this legislation, the proposed development should not be required to contribute towards the cost of elimination the pre-existing deficiency

- The analysis concludes that all study area intersections are anticipated to operate at an acceptable overall level of service for the YR 2020 during both AM & PM peak hours, with the exception of the intersection of Howland Blvd at Providence Blvd, which is operating below acceptable LOS "E" for the PM peak hour. It should be noted that the intersection of Howland Blvd at Providence Blvd is deficient in the YR 2014 existing conditions, without the addition of the Halifax Crossings BPUD project trips.

RECOMMENDATION:

Based on the above conclusions and recommendations, GMB respectfully requests traffic concurrency approval for Phase-I of the proposed Halifax Crossings BPUD.

Appendix "A"

Methodology, Correspondence and Volusia County TIA Guidelines

Hatem Aguib

From: Melissa Winsett <mwinsett@volusia.org>
Sent: Monday, April 21, 2014 11:05 AM
To: Chris Bowley; Karl Krichbaum
Cc: Hatem Aguib; Jon Cheney; Paul Momberger
Subject: Re: Methodology Response to Comments - Halifax Medical

Hello, Karl -

Thank you for your methodology responses. Please send us a copy of the final methodology for our records. Additionally, as an FYI, 2013 traffic counts are now on our website: http://www.volusia.org/services/public-works/traffic-engineering/

Sincerely,

Melissa K. Winsett
Transportation Planner III/Acting Traffic Engineering Supervisor
Transportation Planning, Engineering Studies, Development Review

Volusia County Traffic Engineering
123 W. Indiana Ave., Room 400
DeLand, FL 32720-4262

mwinsett@volusia.org
386-736-5968 x12322 (DeLand Area)
386-257-6000 x12322 (Daytona Area)
386-423-3300 x12322 (New Smyrna Area)

Fax 386-740-5242

>>> Karl Krichbaum <kkrichbaum@gmb.cc> 4/18/2014 3:50 PM >>>
Chris and Melissa,

Attached are the response to comments for the Methodology. Let me know if you have any questions or concerns. We plan to submit the TIA in the latter part of next week.

Thanks and have a great weekend

Karl

GMB ENGINEERS & PLANNERS, INC.

April 14, 2014

Chris Bowley, AICP
Director, Planning & Development Services
2345 Providence Boulevard
Deltona, Florida, 32725

RE: Response to Comments
Halifax Medical Center, Deltona
TIA Methodology Comments
GMB Project # 14-017.01

The following are GMB Engineers & Planners responses to comments received on the above-mentioned project:

Comments by: City of Deltona

Comment 1: The Volusia TPO traffic methodology should be used to underpin TIA.

Response: The Traffic Impact Analysis is based on the latest Volusia Traffic Impact Analysis Guidelines adopted by Volusia TPO and Volusia County.

Comment 2: The assumed development program does not comport with the proposed PUD Development Agreement (DA). For example, the DA allows an FAR of 0.55 which would yield over 3.5 million square feet of various uses including: office, institutional and a wide range of retail options such as big box home improvement stores. How will uses with drive through facilities be factored?

Response: Per discussions with the City of Deltona staff it is agreed that the current development plan will be retained.

Comment 3: Do not know how the phasing proposal will be consistent with the DA. Not sure the phasing concept is appropriate.

Response: Based on the development plan of Halifax Medical Center as well as conversations with the City of Deltona staff, the development phasing will be retained for the study.

Comment 4: The methodology assumes a growth rate of 1%. This is not consistent with the 2.5% growth rate of the City CIE.

GMB Orlando
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Orlando, FL 32803
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Fax: 407.898.5425

www.GMB.cc

Response: Based on the build out year of Halifax Medical Center as well as conversations with the City of Deltona staff, a minimum growth rate of 1% will be utilized.

Comment 5: The City will provide the Development Agreement for Deltona Village. The project featured over 1 million square feet of retail uses and does include an extensive fair share matrix for transportation improvements. Other uses will have to be linked to actual developed square footage or factored utilizing Comprehensive Plan entitlements.

Response: Per information provided by the County, an additional southeast right turn lane at Howland Boulevard and Graves Avenue will be included for the future condition analysis.

Comment 6: The traffic splits appear to be acceptable. However, why is Wolf Pack Run not included on the traffic split map? Should include this facility. In addition, comparing some of the roadway segments depicted on the split map with an aerial photo would be appropriate. Finally, please include the Eustace Av. corridor in this model.

Response: The Centroid distribution of 0.7% shown on the model plot represents the split for Wolf Pack Road. This roadway does not meet the significance requirements as set forth by the Volusia County Traffic Impact Analysis Guidelines. The Centroid distribution of 2.2% shown on the model plot represents the split for Eustace Avenue. The model interprets the traffic to utilize Catalina Boulevard rather than divert to Providence Boulevard. This roadway does not meet the significance requirements as set forth by the Volusia County Traffic Impact Analysis Guidelines.

Comment 7: Traffic counts in the City, depending on roadway status (County or City), are either prepared by the County or the City. The County counts are on the County webpage. The City counts were performed by GMB in 2013.

Response: City of Deltona roadway volumes were obtained from the Year 2013 City of Deltona Traffic Counts (May 2013). State & County roadway volumes were obtained from the latest Volusia County 2012 Average Annual Traffic & Historical Counts tables.

Comment 8: The City LOS on local roads is D and on T-fares, E.

Response: Noted

Comment 9: The TIA needs to identify needed improvements including intersection improvements to ensure network.

Response: Noted.

Comment 10: Protection of the function of the I-4/472 interchange is of critical importance. The TIA needs to address the protection of this critical resource.

Response: The I-4/472 interchange will be analyzed in the TIA.

Comment 11: There needs to be a fiscally appropriate method discussed/identified on how to finance needed improvements.

Response: The applicant will work with the City/County regarding mitigation of any identified improvement as a result from the impacts of the project.

Comments by: Volusia County Traffic Engineering
Dated: 04-01-14

Comment 1: Section 2: Please show or attach in the methodology the Critical/Near-Critical map that Volusia County Traffic Engineering provided to the applicant's traffic engineer.

Response: Noted.

Comment 2: Section 3: Add intersection of Veterans Memorial Pkwy & Graves Ave.

Response: The intersection will be included in the analysis.

Comment 3: Please refer to Volusia County 2012 AADT and LOS Standards for county and state roads. Counts and LOS standards can be found in the counts spreadsheet on the county website (Volusia.org/services/public-works/traffic engineering/) Related to this, please modify the Adopted LOS column and respective MSVs in Tables 1-a and 1-b accordingly. Also, please redo the significance percentages.

Response: Noted. Tables 1-a and 1-b will be revised based on the new Volusia County 2012 AADT and LOS tables.

Comment 4: Tables 1a and 1b: The MSV for Graves Av/CR4145 shows 3,040. This MSV is for a 4-lane divided roadway. Graves is 2-lane undivided. Please correct.

Response: Noted.

Comment 5: Tables 1a and 1b: Advisory: Please note the roadway classifications when computing the MSVs. According to the LOS handbook, non-state signalized roadway's capacities are reduced by 10%. For example, this was not reflected for Howland Blvd and Saxon Blvd.

Response: Noted.

Comment 6: Tables 1a and 1b: Provide an explanation regarding how the Adjustment Factor was derived. For each segment in table, please provide percent project trip generation.

Response: The Adjustment factors were based on the methodology provided in the 2012 FDOT Quality / Level of Service Handbook Tables. However, to provide conservative analysis the adjustment factors will be checked against the adjustment factors derived from the latest Volusia County 2012 AADT and LOS tables.

Comment 7: Tables 2a and 2b: Pass-by Capture for ITE 932 is 43%. Pass-by Capture % in table appears to be 40%. The Methodology should include worksheets for the Internal Capture volumes.

Response: Noted. The Internal Capture worksheets will be included.

Comment 8: The data for the AM Peak (Internal Capture, Passerby Capture and External Trips) appears to be a copy of the PM peak numbers.

Response: Noted. The AM Peak hour trip generation Internal Capture, Passerby Capture, & External Trips will be revised accordingly.

If you have any questions or concerns, please do not hesitate to contact me at (407) 898-5424.

Regards,

Karl Krichbaum
Project Manager
GMB Engineers & Planners, Inc.

GMB ENGINEERS AND PLANNERS, INC.

Halifax Medical Center

TRAFFIC IMPACT ANALYSIS METHODOLOGY
(February 28, 2014)

PURPOSE:

The purpose of this document is to outline the proposed methodology for the Concurrency Approval for the Halifax Medical Center per the requirements set forth by the City of Deltona & Volusia County. The following seven (7) section summarizes the project's Traffic Impact Analysis Methodology:

1- Site Location and Access
2- Primary Impact Area
3- Data Collection / Existing Conditions
4- Minimum Acceptable Level of Service
5- Development of Future Conditions
6- Trip Distribution
7- Assessment of Roadways / Intersections

SECTION 1: SITE LOCATION AND ACCESS

The proposed Halifax Medical Center will be located at the northwest corner of the intersection of State Road 472/Howland Boulevard and East Graves Avenue in the City of Deltona, Florida. Access to this project will be via one (1) full access at the intersection of Howland Boulevard at East Graves Avenue. See the attached figures for site location map and site plan.

SECTION 2: PRIMARY IMPACT AREA

The Project's study area limits are determined based on the Volusia County Traffic Impact Analysis (TIA) Guidelines (Adopted November 24, 2009). The guidelines specifies the study area to be identified as follows:

- For Projects generates more than 300 two-way peak hour external trips, analysis shall be conducted for roadways where the project's traffic consumes more than (5%) of the facility's two-way peak hour maximum service volume (MSV). In addition, all Volusia County's Critical and Near-Critical Roadway segments within five (5) mile radius of the project shall be considered in the primary impact area

It should be noted that the project is proposed to be developed in two (2) phases, where the developer is seeking concurrency for Phase-I only. Phase-II is shown for informational purposes only. The two (2) phases are proposed to be as follows:

Phase	Phase-I	Phase-II	Build-Out (Total)
Hospital	300 KSF	-	300 KSF
Medical Office	120 KSF	-	120 KSF
Restaurant	350 Seats	-	350 Seats
Office	200 KSF	550 KSF	750 KSF

Tables 1-a & 1-b demonstrate the test for significance conducted for both Phase I & Build-Out respectively.

SECTION 3: DATA COLLECTION / EXISTING CONDITIONS

Daily and PM peak hour traffic volumes will be assembled for the study roadway segments and intersections in order to establish existing traffic conditions. Roadway counts for all study roadways will be obtained from the latest data maintained by the City of Deltona, Volusia County, & FDOT. PM Peak hour turning movement counts will be collected from the field for a single weekday condition and will be provided in the report. The existing condition analysis will evaluate the current operational characteristics of the study roadways identified within the Primary Impact Area. For the purposes of this study, GMB proposes to monitor the roadway traffic volumes of the following locations:

Roadway	From / To	Critical / Near Critical
I-4	Dirksen Dr. to Saxon Blvd.	Critical
US 17/92	SR 15A (Taylor Rd.) to SR 472	Near Critical
	SR 472 to New York Ave.	Near Critical
	New York Ave. to Graves Ave.	Critical
	Graves Ave. to Rhode Island Ave.	Critical
	Rhode Island Ave. to Enterprise Rd.	Critical
SR 472	MLK Blvd to I-4 (end of state road)	
Graves Av / CR 4145	Veteran's Memorial Pkwy. to Kentucky Ave.	Critical
	Kentucky Ave. to Howland Blvd.	
Howland Blvd	I-4/SR 472 to Project Entrance / E. Graves Ave	
	Project Entrance / E. Graves Ave to Wolf Pack Run	
	Wolf Pack Run to Catalina Blvd.	
	Catalina Blvd. to Providence Blvd.	
	Providence Blvd. to Elkcam Blvd.	Critical
	Elkcam Blvd. to Lake Helen-Osteen Rd.	Critical
Normandy Blvd	Graves (old Howland) to Rhode Island Ave	
	Rhode Island Ave to Elkcam Blvd.	
Providence Blvd.	Elkcam Blvd. to Ft Smith Blvd.	Critical
Saxon Blvd.	VMP to FDOT Park & Ride	Near Critical
	FDOT Park & Ride to I-4	Near Critical
	I-4 to Finland Dr.	Critical
	Finland Dr. to Normandy Blvd.	Critical
W. Volusia Bltwy	Cassadaga Rd. to SR 472	

In addition, the following intersections are proposed to be analyzed in this study:

1. SR 472 at MLK (W. Volusia Bltwy)
2. SR 472 at I-4 SB Ramps
3. Howland at I-4 NB Ramps
4. Howland Blvd at E. Graves Ave
5. Howland Blvd at Wolf Pack Run
6. Howland Blvd at Catalina Blvd
7. Howland Blvd at Providence Blvd
8. Howland Blvd at Elkcam Blvd
9. E. Graves Ave at Normandy Blvd
10. E. Graves Ave at MLK (Kentuky Ave)
11. MLK (W. Volusia Bltwy) at Cassadaga Rd
12. Normandy Blvd at Elkcam Blvd

SECTION 4: MINIMUM ACCEPTABLE LEVEL OF SERVICE

The level of service capacities and adopted standards used in this concurrency evaluation for county roads will be consistent with the Volusia County Traffic Impact Analysis Guidelines Methodology. Similarly, level of service capacities and adopted standards for city roadways will be consistent with Policy T1-4.3 of the City of Deltona Transportation Element. All maximum service volumes will be obtained from the 2012 FDOT Quality/Level of Service Handbook Tables.

SECTION 5: DEVELOPMENT OF FUTURE CONDITIONS

The project is proposed to be evaluated for the existing year of 2014 and a future two phases (YR 2020 and YR 2025). The development of traffic conditions are to be developed by adding the background traffic (non-project) to the development traffic. The background traffic volumes are proposed to be generated for the years 2020 and 2025 by using historical traffic growth rates for the study roadways. It should be noted that in order to provide conservative analysis, a minimum of 1% growth rate will be utilized. During the build-out phase, project trips from phase I will be treated as background traffic along with the grown existing network background traffic. In addition, any approved or committed developments will be incorporated into this analysis as background traffic. GMB is respectfully requesting that the approved and committed development programs be provided by the City of Deltona as part of the pre-application process.

The project traffic volumes for the proposed development will be generated using the trip generation rates/equations outlined in the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition). Tables 2-a & 2-b demonstrates the proposed trip generation for this project. The total traffic volumes to be evaluated as part of this traffic study will be the sum of the background and project traffic volumes.

SECTION 6: TRIP DISTRIBUTION

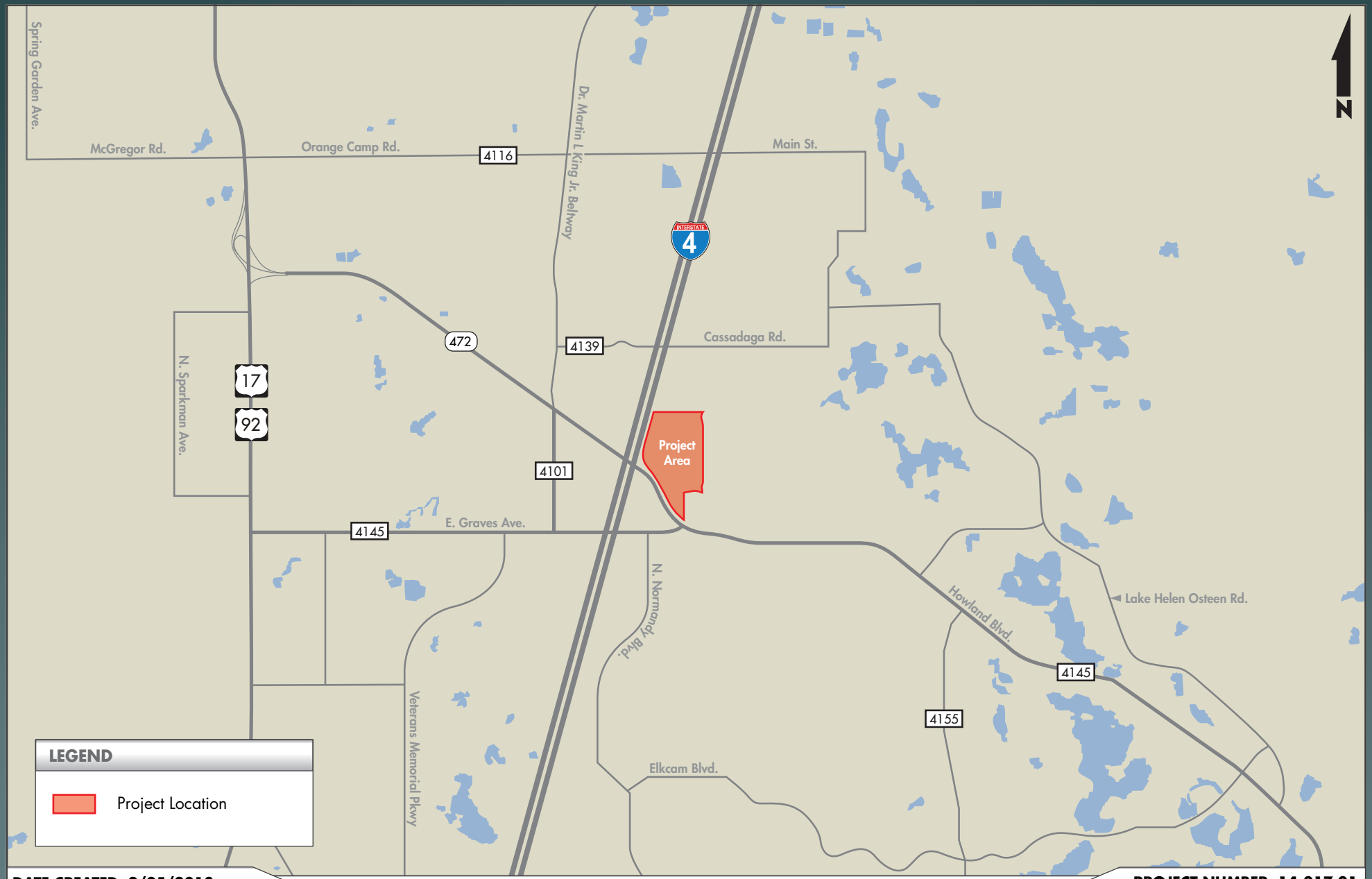
The project traffic trip distribution will be established using the latest Central Florida Regional Planning Model (v5.1) utilizing the existing and committed network. See attached the model plot for the future YR 2025 project distribution.

SECTION 7: TRANSPORTATION ASSESSMENT

As a result of the trip generation, trip distribution, and trip assignment previously mentioned, GMB Engineers & Planners will evaluate the adjacent transportation system to determine the necessary improvements and timing requirements to accommodate the project for the existing YR 2014, Phase I YR 2020, & Build-Out YR 2025 traffic conditions. The assessment of roadway conditions will be conducted for the PM peak hour and daily conditions. In addition, GMB Engineers & Planners will determine the necessary Mitigation Plan, if any is required to accommodate the project.

Attachments:

Figure 1 – Site Location Map
Table 1 (a & b) – Roadway Significance
Table 2 (a & b) – Trip Generation Summary
Central Florida Regional Planning Model (CFRPM) Model Plot
Site Plan



DATE CREATED: 2/05/2013

PROJECT NUMBER: 14-017.01

Halifax Medical Center

FIGURE 1

Project Location Map

Table 1-a
Halifax Medical Center
Phase I - Test for Significance Project Impact (5%) - With Critical & Near Critical Roads

PM PEAK HOUR

Roadway	No. of Lanes	Critical / Near-Critical	Adopted LOS	LOS MSV	Adj. Factor	Adjusted MSV	Project Trips	Significance %
I-4								
Dirksen Dr. to Saxon Blvd.	6	Critical	E	11,100	1.00	11,100	50	0.45%
Saxon Blvd. to SR 472	6		E	11,100	1.00	11,100	14	0.13%
SR 472 to Orange Camp Rd.	6		E	11,100	1.00	11,100	43	0.39%
US 17/92								
SR 15A (Taylor Rd.) to SR 472	6	Near Critical	E	5,390	1.00	5,390	97	1.80%
SR 472 to New York Ave.	4	Near Critical	E	3,580	1.00	3,580	13	0.36%
New York Ave. to Graves Ave.	4	Critical	E	3,580	1.00	3,580	8	0.22%
Graves Ave. to Rhode Island Ave.	4	Critical	E	3,580	1.00	3,580	7	0.20%
Rhode Island Ave. to Enterprise Rd.	4	Critical	E	3,580	1.00	3,580	11	0.31%
SR 472								
US 17/92 to CR 4101/MLK Blvd	4		E	6,530	1.00	6,530	129	1.98%
MLK Blvd to I-4 (end of state road)	4		E	6,530	1.00	6,530	330	5.05%
Cassadaga Rd.								
W. Volusia Bltwy. to Macy Ave.	2		E	1,410	0.72	1,015	17	1.67%
Catalina Blvd.								
Howland Blvd. to Sixma Rd.	2		E	1,410	0.90	1,269	58	4.57%
Elkcam Blvd.								
Normandy Blvd. to Ft. Smith Blvd	2		E	1,410	0.72	1,015	14	1.38%
Montecito Ave. to Howland Blvd.	2		E	1,410	0.72	1,015	0	0.00%
Howland Blvd. to Lake Helen-Osteen	2		E	1,410	0.86	1,206	14	1.16%
Graves Av / CR 4145								
Veteran's Memorial Pkwy. to Kentucky Ave.	2	Critical	E	3,040	0.95	2,873	110	3.83%
Kentucky Ave. to Howland Blvd.	2		E	3,040	0.95	2,873	346	12.04%
Howland Blvd								
I-4/SR 472 to Project Entrance / E. Graves Ave	4		E	3,580	0.95	3,383	330	9.75%
Project Entrance / E. Graves Ave to Wolf Pack Run	4		E	3,580	0.90	3,222	249	7.73%
Wolf Pack Run to Catalina Blvd	4		E	3,580	0.90	3,222	235	7.29%
Catalina Blvd. to Providence Blvd.	4		E	3,580	0.90	3,222	139	4.31%
Providence Blvd. to Elkcam Blvd.	2	Critical	E	1,600	0.72	1,152	83	7.20%
Elkcam Blvd. to Lake Helen-Osteen Rd.	4	Critical	E	3,580	0.90	3,222	51	1.42%
Normandy Blvd								
Graves (old Howland) to Rhode Island Ave.	2		E	1,600	0.95	1,512	160	10.58%
Rhode Island Ave. to Elkcam Blvd.	4		E	3,040	0.90	2,736	146	5.34%
Elkcam Blvd. to Saxon Blvd.	4		E	3,040	0.90	2,736	115	4.20%
Providence Blvd.								
Howland Blvd. to Elkcam Blvd.	2		E	1,410	0.95	1,332	56	4.20%
Elkcam Blvd. to Ft Smith Blvd.	2	Critical	E	1,410	0.76	1,066	47	4.41%
Saxon Blvd.								
VMP to FDOT Park & Ride	4	Near Critical	E	3,580	0.90	3,222	29	0.90%
FDOT Park & Ride to I-4	4	Near Critical	E	3,580	0.90	3,222	25	0.78%
I-4 to Finland Dr.	4	Critical	E	3,580	0.90	3,222	36	1.12%
Finland Dr. to Normandy Blvd.	4	Critical	E	3,580	0.90	3,222	35	1.09%
W. Volusia Bltwy (Dr MLK Jr)								
Orange Camp Rd. to Cassadaga Rd.	2		E	1,600	0.90	1,440	65	4.51%
Cassadaga Rd. to SR 472	2		E	1,600	0.90	1,440	85	5.90%
SR 472 to Graves Ave	2		E	1,600	0.90	1,440	67	4.65%
W. Volusia Bltwy (Veteran's Memorial)								
Graves Ave. to Rhode Island Ave.	2		E	1,600	0.95	1,512	64	4.23%

Source:
GMB Engineers & Planners, Inc.

Table 1-b
Halifax Medical Center
Build Out - Test for Significance Project Impact (5%) - With Critical & Near Critical Roads

PM PEAK HOUR

Roadway	No. of Lanes	Critical / Near-Critical	Adopted LOS	LOS MSV	Adj. Factor	Adjusted MSV	Project Trips	Significance %
I-4								
Dirksen Dr. to Saxon Blvd.	6	Critical	E	11,100	1.00	11,100	82	0.74%
Saxon Blvd. to SR 472	6		E	11,100	1.00	11,100	22	0.20%
SR 472 to Orange Camp Rd.	6		E	11,100	1.00	11,100	69	0.62%
US 17/92								
SR 15A (Taylor Rd.) to SR 472	6	Near Critical	E	5,390	1.00	5,390	158	2.93%
SR 472 to New York Ave.	4	Near Critical	E	3,580	1.00	3,580	21	0.59%
New York Ave. to Graves Ave.	4	Critical	E	3,580	1.00	3,580	14	0.39%
Graves Ave. to Rhode Island Ave.	4	Critical	E	3,580	1.00	3,580	10	0.28%
Rhode Island Ave. to Enterprise Rd.	4	Critical	E	3,580	1.00	3,580	17	0.47%
SR 472								
US 17/92 to CR 4101/MLK Blvd	4		E	6,530	1.00	6,530	207	3.17%
MLK Blvd to I-4 (end of state road)	4		E	6,530	1.00	6,530	532	8.15%
Cassadaga Rd.								
W. Volusia Bltwy. to Macy Ave.	2		E	1,410	0.72	1,015	27	2.66%
Catalina Blvd.								
Howland Blvd. to Sixma Rd.	2		E	1,410	0.90	1,269	95	7.49%
Sixma Rd. to Lake Helen-Osteen Rd.	2		E	1,410	0.72	1,015	80	7.88%
Elkcam Blvd.								
Normandy Blvd. to Ft. Smith Blvd	2		E	1,410	0.72	1,015	22	2.17%
Montecito Ave. to Howland Blvd.	2		E	1,410	0.72	1,015	0	0.00%
Howland Blvd. to Lake Helen-Osteen	2		E	1,410	0.86	1,206	22	1.82%
Graves Av / CR 4145								
US 17/92 to Leavitt Ave.	2		E	1,410	0.95	1,332	21	1.58%
Leavitt Ave. to Veteran's Memorial Pkwy	2		E	1,410	0.72	1,015	67	6.60%
Veteran's Memorial Pkwy. to Kentucky Ave.	2	Critical	E	3,040	0.95	2,873	176	6.13%
Kentucky Ave. to Howland Blvd.	2		E	3,040	0.95	2,873	559	19.46%
Howland Blvd								
I-4/SR 472 to Project Entrance / E. Graves Ave	4		E	3,580	0.95	3,383	532	15.73%
Project Entrance / E. Graves Ave to Wolf Pack Run	4		E	3,580	0.90	3,222	403	12.51%
Wolf Pack Run to Catalina Blvd	4		E	3,580	0.90	3,222	379	11.76%
Catalina Blvd. to Providence Blvd.	4		E	3,580	0.90	3,222	225	6.98%
Providence Blvd. to Elkcam Blvd.	2	Critical	E	1,600	0.72	1,152	135	11.72%
Elkcam Blvd. to Lake Helen-Osteen Rd.	4	Critical	E	3,580	0.90	3,222	83	2.32%
Normandy Blvd								
Graves (old Howland) to Rhode Island Ave.	2		E	1,600	0.95	1,512	258	17.06%
Rhode Island Ave. to Elkcam Blvd.	4		E	3,040	0.90	2,736	236	8.63%
Elkcam Blvd. to Saxon Blvd.	4		E	3,040	0.90	2,736	186	6.80%
Providence Blvd.								
Howland Blvd. to Elkcam Blvd.	2		E	1,410	0.95	1,332	90	6.75%
Elkcam Blvd. to Ft Smith Blvd.	2	Critical	E	1,410	0.76	1,066	75	7.04%
Ft Smith Blvd. to Tivoli Dr.	4		E	3,040	0.90	2,736	17	0.62%
Rhode Island Ave.								
US 17/92 to Veteran's Memorial Pkwy.	2		E	1,600	0.72	1,152	10	0.87%
Saxon Blvd.								
VMP to FDOT Park & Ride	4	Near Critical	E	3,580	0.90	3,222	46	1.43%
FDOT Park & Ride to I-4	4	Near Critical	E	3,580	0.90	3,222	41	1.27%
I-4 to Finland Dr.	4	Critical	E	3,580	0.90	3,222	59	1.83%
Finland Dr. to Normandy Blvd.	4	Critical	E	3,580	0.90	3,222	56	1.74%
Normandy Blvd. to Tivoli Dr.	4		E	3,580	0.90	3,222	48	1.49%
W. Volusia Bltwy (Dr MLK Jr)								
Taylor Rd. to Orange Camp Rd.	2		E	1,600	0.90	1,440	48	3.33%
Orange Camp Rd. to Cassadaga Rd.	2		E	1,600	0.90	1,440	106	7.36%
Cassadaga Rd. to SR 472	2		E	1,600	0.90	1,440	137	9.51%
SR 472 to Graves Ave	2		E	1,600	0.90	1,440	107	7.43%
W. Volusia Bltwy (Veteran's Memorial)								
Graves Ave. to Rhode Island Ave.	2		E	1,600	0.95	1,512	104	6.88%
Rhode Island Ave. to Harley Strickland Blvd.	2		E	1,600	0.90	1,440	67	4.65%

Source:
GMB Engineers & Planners, Inc.

Table 2-a
Halifax Commons / Crossings
Phase I - Trip Generation Summary

PM Peak

Land Use	ITE Code	Size	/ Units	Daily Total	PM Peak Hour Total	PM Peak Hour Enter	PM Peak Hour Exit	Internal Capture Total Daily	Internal Capture PM Peak Hour Total	Internal Capture PM Peak Hour Enter	Internal Capture PM Peak Hour Exit	Passerby Capture* Total Daily	Passerby Capture* PM Peak Hour Total	Passerby Capture* PM Peak Hour Enter	Passerby Capture* PM Peak Hour Exit	External "New" Trips Total Daily	External "New" Trips PM Peak Hour Total	External "New" Trips PM Peak Hour Enter	External "New" Trips PM Peak Hour Exit
Hospital	610	300	KSF	4,997	279	106	173	0	0	0	0	0	0	0	0	4,997	279	106	173
Medical Office	720	120	KSF	4,656	343	96	247	407	32	16	16	0	0	0	0	4,249	311	80	231
Restaurant	932	350	Seats	1,691	144	82	62	271	21	11	11	676	58	33	25	743	64	38	26
Office	710	200	KSF	2,223	303	52	251	407	32	16	16	0	0	0	0	1,816	271	35	235
Total				**13,567**	**1,069**	**335**	**733**	**1,086**	**86**	**43**	**43**	**676**	**58**	**33**	**25**	**11,806**	**926**	**260**	**666**

AM Peak

Land Use	ITE Code	Size	/ Units	Daily Total	AM Peak Hour Total	AM Peak Hour Enter	AM Peak Hour Exit	Internal Capture Total Daily	Internal Capture AM Peak Hour Total	Internal Capture AM Peak Hour Enter	Internal Capture AM Peak Hour Exit	Passerby Capture* Total Daily	Passerby Capture* AM Peak Hour Total	Passerby Capture* AM Peak Hour Enter	Passerby Capture* AM Peak Hour Exit	External "New" Trips Total Daily	External "New" Trips AM Peak Hour Total	External "New" Trips AM Peak Hour Enter	External "New" Trips AM Peak Hour Exit
Hospital	610	300	KSF	4,997	356	224	132	0	0	0	0	0	0	0	0	4,997	356	224	132
Medical Office	720	120	KSF	4,656	287	227	60	407	32	16	16	0	0	0	0	4,249	255	211	44
Restaurant	932	350	Seats	1,691	165	86	79	271	21	11	11	676	58	30	28	743	85	45	40
Office	710	200	KSF	2,223	333	293	40	407	32	16	16	0	0	0	0	1,816	301	277	24
Total				**13,567**	**1,140**	**829**	**311**	**1,086**	**86**	**43**	**43**	**676**	**58**	**31**	**28**	**11,806**	**997**	**757**	**240**

Sources:

GMB Engineers & Planners, Inc.

Institute of Transportation (ITE) Trip Generation Manual 9th Edition.

* Passer-by Capture rate was obtained from the latest ITE Trip Generation Handbook

Table 2-b
Halifax Commons / Crossings
Build Out - Trip Generation Summary

PM Peak

Land Use	ITE Code	Size	/ Units	Daily Total	PM Peak Hour Total	PM Peak Hour Enter	PM Peak Hour Exit	Internal Capture Total Daily	Internal Capture PM Peak Hour Total	Internal Capture PM Peak Hour Enter	Internal Capture PM Peak Hour Exit	Passerby Capture* Total Daily	Passerby Capture* PM Peak Hour Total	Passerby Capture* PM Peak Hour Enter	Passerby Capture* PM Peak Hour Exit	External "New" Trips Total Daily	External "New" Trips PM Peak Hour Total	External "New" Trips PM Peak Hour Enter	External "New" Trips PM Peak Hour Exit
Hospital	610	300	KSF	4,997	279	106	173	0	0	0	0	0	0	0	0	4,997	279	106	173
Medical Office	720	120	KSF	4,656	343	96	247	522	51	25	25	0	0	0	0	4,134	293	71	222
Restaurant	932	350	Seats	1,691	144	82	62	348	34	17	17	676	58	33	25	666	52	32	20
Office	710	750	KSF	6,071	919	156	763	522	51	25	25	0	0	0	0	5,548	868	131	737
Total				**17,415**	**1,685**	**440**	**1,245**	**1,394**	**135**	**67**	**67**	**676**	**58**	**33**	**25**	**15,346**	**1,493**	**340**	**1,153**

AM Peak

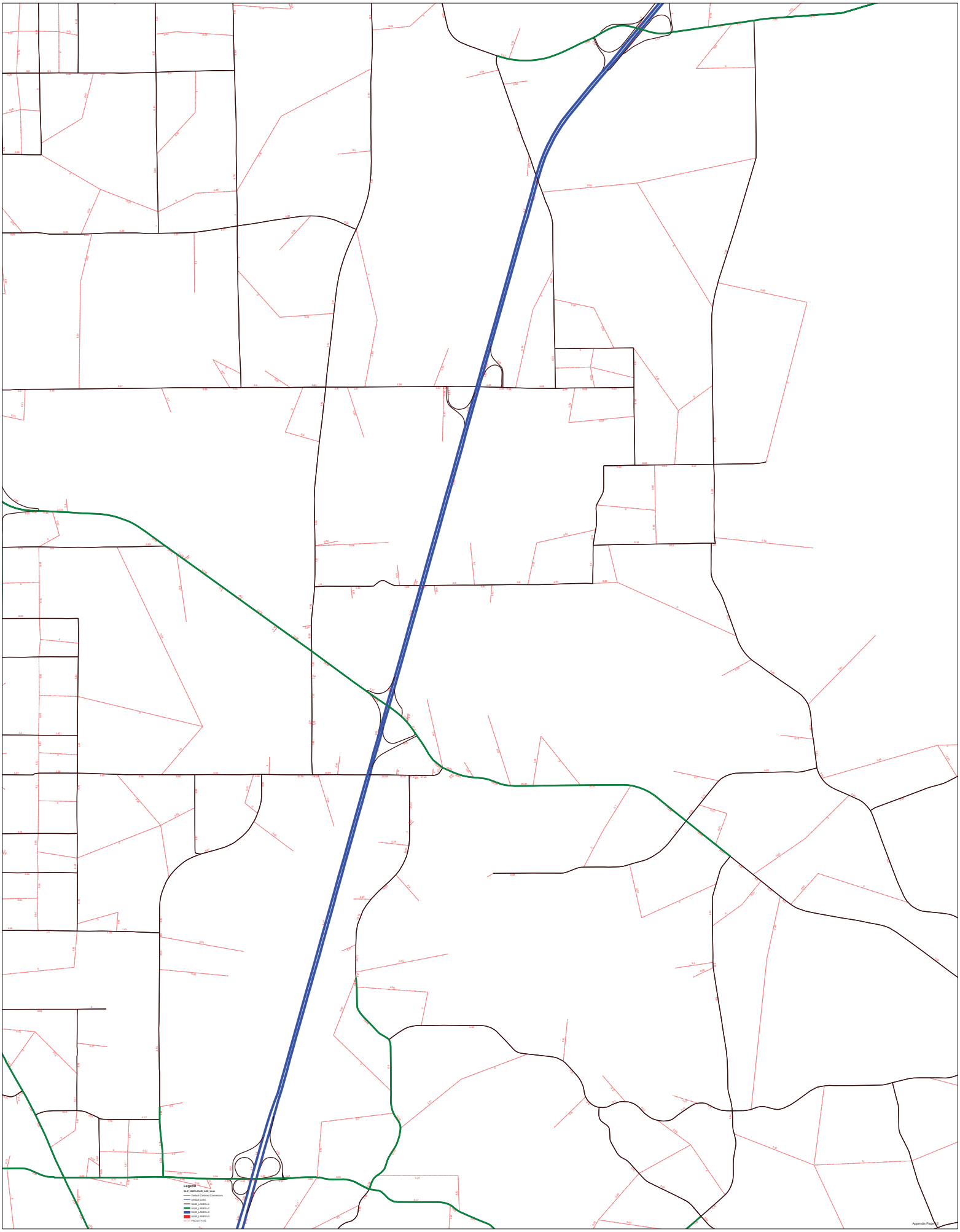
Land Use	ITE Code	Size	/ Units	Daily Total	AM Peak Hour Total	AM Peak Hour Enter	AM Peak Hour Exit	Internal Capture Total Daily	Internal Capture AM Peak Hour Total	Internal Capture AM Peak Hour Enter	Internal Capture AM Peak Hour Exit	Passerby Capture* Total Daily	Passerby Capture* AM Peak Hour Total	Passerby Capture* AM Peak Hour Enter	Passerby Capture* AM Peak Hour Exit	External "New" Trips Total Daily	External "New" Trips AM Peak Hour Total	External "New" Trips AM Peak Hour Enter	External "New" Trips AM Peak Hour Exit
Hospital	610	300	KSF	4,997	356	224	132	0	0	0	0	0	0	0	0	4,997	356	224	132
Medical Office	720	120	KSF	4,656	287	227	60	522	51	25	25	0	0	0	0	4,134	236	201	35
Restaurant	932	350	Seats	1,691	165	86	79	348	34	17	17	676	58	30	28	666	73	39	34
Office	710	750	KSF	6,071	959	844	115	522	51	25	25	0	0	0	0	5,548	909	819	90
Total				**17,415**	**1,766**	**1,380**	**386**	**1,394**	**135**	**68**	**68**	**676**	**58**	**31**	**28**	**15,346**	**1,574**	**1,283**	**291**

Sources:

GMB Engineers & Planners, Inc.

Internal Capture trips were based on the output sheets from the FDOT T.I.P.S.

* Passer-by Capture rate was obtained from the latest ITE Trip Generation Handbook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Default Links
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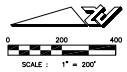
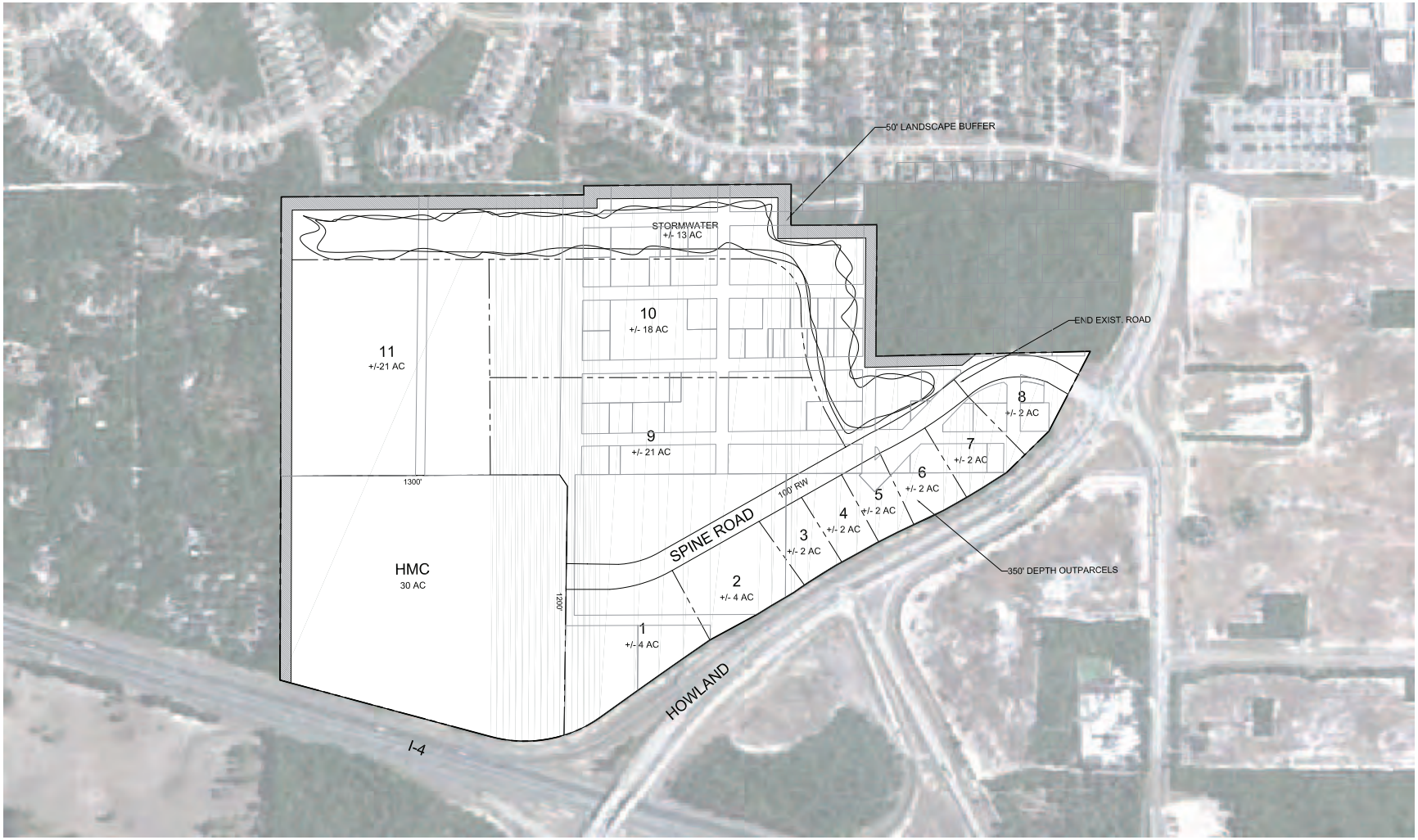
FACILITY=A3





NOTE: EASTERN ACCESS TO HMC LOT WILL BE PROVIDED WHEN OTHER INTERNAL ROADS ARE BUILT.

Howland/ I-4

Deltona, Florida

NOVEMBER 18, 2013
ZC 13111

ZEV COHEN
& ASSOCIATES, INC.
300 Interchange Blvd., Ormond Beach, FL. 32174
(386) 677-2482 FAX (386) 677-2505
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ENVIRONMENTAL SERVICES TRANSPORTATION
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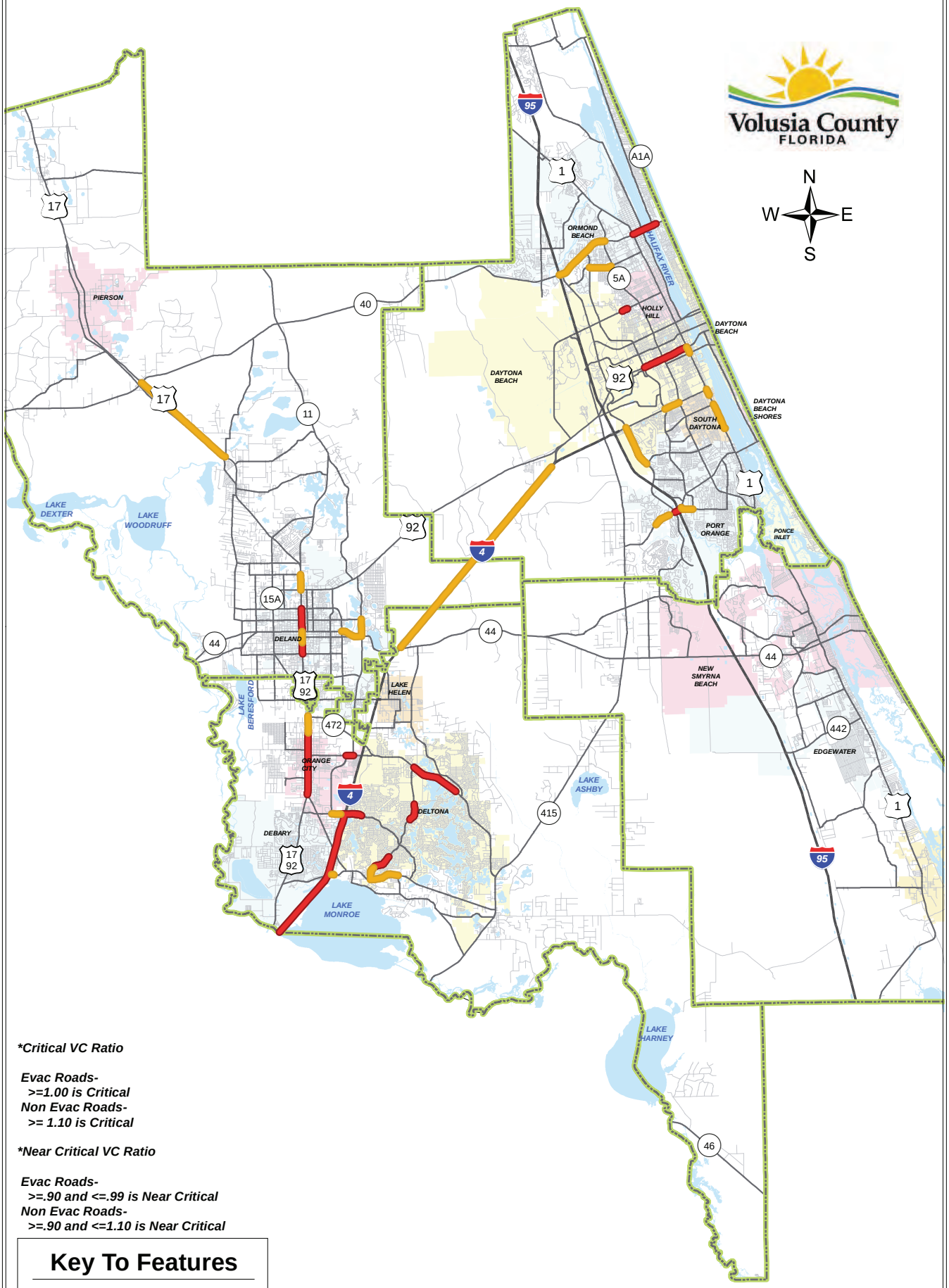
EXHIBIT "E"

Level of Service 2011
Critical / Near Critical* State and County Roadways



*Critical VC Ratio

Evac Roads-
>=1.00 is Critical
Non Evac Roads-
>= 1.10 is Critical

*Near Critical VC Ratio

Evac Roads-
>=.90 and <=.99 is Near Critical
Non Evac Roads-
>=.90 and <=1.10 is Near Critical

Key To Features

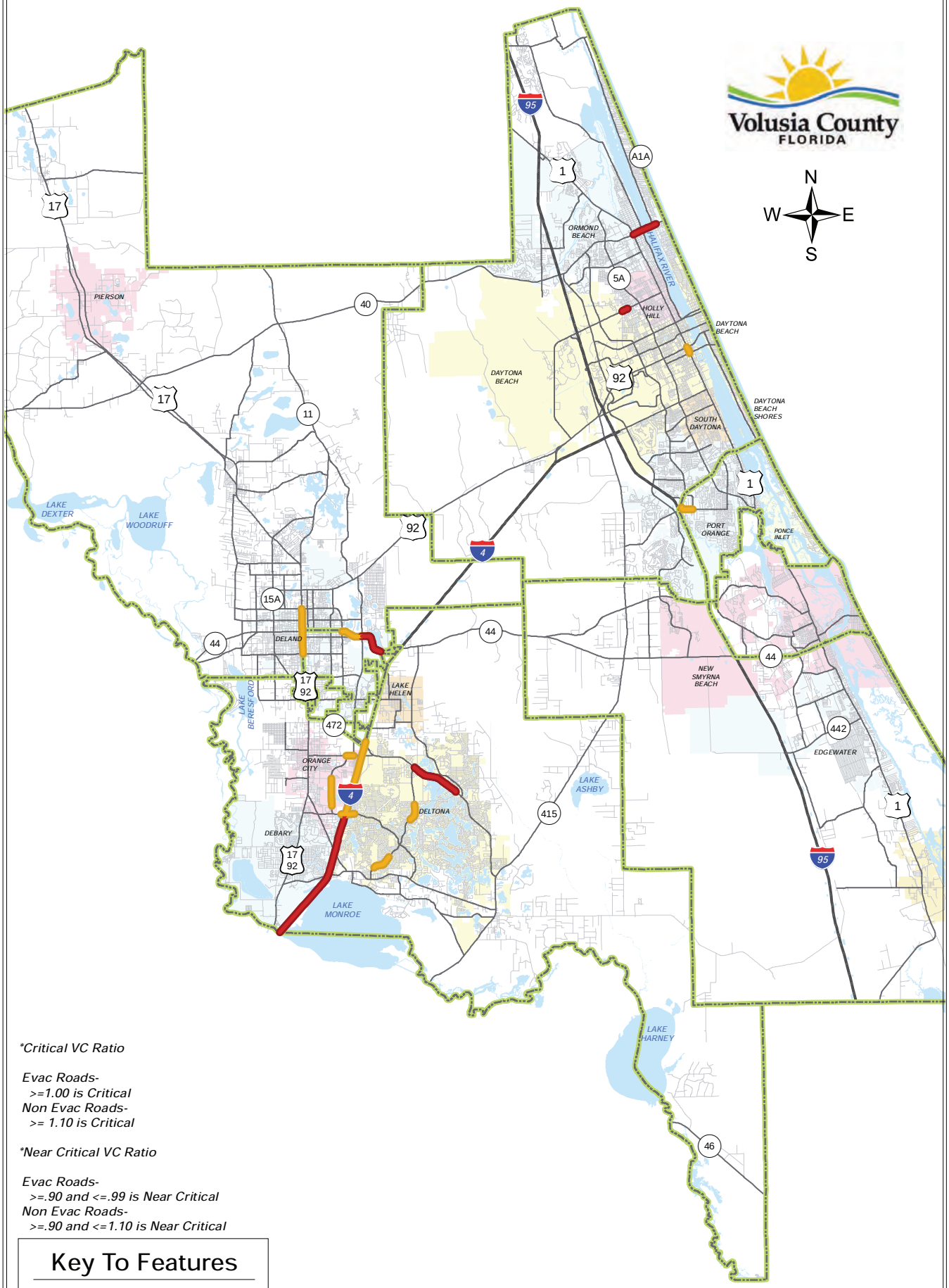
- Critical
- Near Critical
- Impact Fee Zones

 Date: 6/12/12

Revised Methodology Documents:

- Critical / Near-Critical Map
- Test for Significance Tables

Level of Service 2013
Critical / Near Critical* State and County Roadways



*Critical VC Ratio

Evac Roads-
>=1.00 is Critical
Non Evac Roads-
>= 1.10 is Critical

*Near Critical VC Ratio

Evac Roads-
>=.90 and <=.99 is Near Critical
Non Evac Roads-
>=.90 and <=1.10 is Near Critical

Key To Features

- Critical
- Near Critical
- Impact Fee Zones

 Date: 4/24/14

Table 1-a
Halifax Crossings BPUD
Phase I - Test for Significance Project Impact (5%) - With Critical & Near Critical Roads

PM PEAK HOUR

Roadway	No. of Lanes	Critical / Near-Critical	Adopted LOS	LOS MSV	Adjusted MSV	Project Trips	Significance %
I-4							
Dirksen Dr. to Saxon Blvd.	6	Critical	C	8,370	8,370	50	0.60%
Saxon Blvd. to SR 472	6		C	8,370	8,370	14	0.17%
SR 472 to Orange Camp Rd.	6		C	8,370	8,370	43	0.51%
SR 472							
US 17/92 to CR 4101/MLK Blvd	4		D	5,900	5,900	129	2.19%
MLK Blvd to I-4 (end of state road)	4		D	3,580	3,580	332	9.27%
Cassadaga Rd.							
W. Volusia Bltwy. to Macy Ave.	2		E	1,410	1,020	17	1.67%
Catalina Blvd.							
Howland Blvd. to Sixma Rd.	2		E	1,410	1,020	59	5.78%
Sixma Rd. to Lake Helen-Osteen Rd.	2		E	1,410	1,020	50	4.90%
Elkcam Blvd.							
Normandy Blvd. to Ft. Smith Blvd	2		E	1,410	1,020	14	1.37%
Montecito Ave. to Howland Blvd.	2		E	1,410	1,020	0	0.00%
Howland Blvd. to Lake Helen-Osteen	2		E	1,410	1,330	14	1.05%
Graves Av / CR 4145							
Leavitt Ave. to Veteran's Memorial Pkwy	2		E	1,410	1,020	42	4.12%
Veteran's Memorial Pkwy. to Kentucky Ave.	2	Critical	E	1,600	1,620	110	6.79%
Kentucky Ave. to Howland Blvd.	2		E	1,600	1,620	348	21.48%
Howland Blvd							
I-4/SR 472 to Project Entrance / E. Graves Ave	4		E	3,580	3,410	332	9.74%
Project Entrance / E. Graves Ave to Wolf Pack Run	4		E	3,580	3,410	251	7.36%
Wolf Pack Run to Catalina Blvd	4		E	3,580	3,410	237	6.95%
Catalina Blvd. to Providence Blvd.	4		E	3,580	3,410	141	4.13%
Providence Blvd. to Elkcam Blvd.	2	Critical	E	1,600	1,230	84	6.83%
Elkcam Blvd. to Lake Helen-Osteen Rd.	4		E	3,580	3,410	52	1.45%
Normandy Blvd							
Graves (old Howland) to Rhode Island Ave.	2		E	1,600	1,230	160	13.01%
Rhode Island Ave. to Elkcam Blvd.	4		E	3,040	2,740	146	5.33%
Elkcam Blvd. to Saxon Blvd.	4		E	3,040	2,740	117	4.27%
Providence Blvd.							
Howland Blvd. to Elkcam Blvd.	2		E	1,410	1,270	56	4.41%
Elkcam Blvd. to Ft Smith Blvd.	2	Critical	E	1,410	1,020	47	4.61%
Saxon Blvd.							
VMP to FDOT Park & Ride	4	Near Critical	E	3,580	4,280	29	0.68%
FDOT Park & Ride to I-4	4	Near Critical	E	3,580	3,410	25	0.73%
I-4 to Finland Dr.	4	Critical	E	3,580	3,410	36	1.06%
Finland Dr. to Normandy Blvd.	4	Critical	E	3,580	3,410	35	1.03%
W. Volusia Bltwy (Dr MLK Jr)							
Orange Camp Rd. to Cassadaga Rd.	2		E	1,600	1,540	66	4.29%
Cassadaga Rd. to SR 472	2		E	1,600	1,540	85	5.52%
SR 472 to Graves Ave	2		E	1,600	1,540	67	4.35%
W. Volusia Bltwy (Veteran's Memorial)							
Graves Ave. to Rhode Island Ave.	2		E	1,600	1,620	64	3.95%
Rhode Island Ave. to Harley Strickland Blvd.	2	Near Critical	E	1,600	1,536	42	2.73%

Source: *May-14*
GMB Engineers & Planners, Inc.

Table 1-b
Halifax Crossings BPUD
Build Out - Test for Significance Project Impact (5%) - With Critical & Near Critical Roads

PM PEAK HOUR

Roadway	No. of Lanes	Critical / Near-Critical	Adopted LOS	LOS MSV	Adjusted MSV	Project Trips	Significance %
I-4							
Dirksen Dr. to Saxon Blvd.	6	Critical	C	8,370	8,370	83	0.99%
Saxon Blvd. to SR 472	6		C	8,370	8,370	22	0.26%
SR 472 to Orange Camp Rd.	6		C	8,370	8,370	69	0.82%
SR 472							
US 17/92 to CR 4101/MLK Blvd	4		D	5,900	5,900	212	3.59%
MLK Blvd to I-4 (end of state road)	4		D	3,580	3,580	543	15.17%
Cassadaga Rd.							
W. Volusia Bltwy. to Macy Ave.	2		E	1,410	1,020	27	2.65%
Catalina Blvd.							
Howland Blvd. to Sixma Rd.	2		E	1,410	1,020	97	9.51%
Sixma Rd. to Lake Helen-Osteen Rd.	2		E	1,410	1,020	82	8.04%
Elkcam Blvd.							
Normandy Blvd. to Ft. Smith Blvd	2		E	1,410	1,020	22	2.16%
Montecito Ave. to Howland Blvd.	2		E	1,410	1,020	0	0.00%
Howland Blvd. to Lake Helen-Osteen	2		E	1,410	1,330	22	1.65%
Graves Av / CR 4145							
US 17/92 to Leavitt Ave.	2		E	1,410	1,330	21	1.58%
Leavitt Ave. to Veteran's Memorial Pkwy	2		E	1,410	1,020	69	6.76%
Veteran's Memorial Pkwy. to Kentucky Ave.	2	Critical	E	1,600	1,620	180	11.11%
Kentucky Ave. to Howland Blvd.	2		E	1,600	1,620	570	35.19%
Howland Blvd							
I-4/SR 472 to Project Entrance / E. Graves Ave	4		E	3,580	3,410	543	15.92%
Project Entrance / E. Graves Ave to Wolf Pack Run	4		E	3,580	3,410	411	12.05%
Wolf Pack Run to Catalina Blvd	4		E	3,580	3,410	386	11.32%
Catalina Blvd. to Providence Blvd.	4		E	3,580	3,410	230	6.74%
Providence Blvd. to Elkcam Blvd.	2	Critical	E	1,600	1,230	138	11.22%
Elkcam Blvd. to Lake Helen-Osteen Rd.	4		E	3,580	3,410	85	2.37%
Normandy Blvd							
Graves (old Howland) to Rhode Island Ave.	2		E	1,600	1,230	262	21.30%
Rhode Island Ave. to Elkcam Blvd.	4		E	3,040	2,740	240	8.76%
Elkcam Blvd. to Saxon Blvd.	4		E	3,040	2,740	191	6.97%
Providence Blvd.							
Howland Blvd. to Elkcam Blvd.	2		E	1,410	1,270	91	7.17%
Elkcam Blvd. to Ft Smith Blvd.	2	Critical	E	1,410	1,020	77	7.55%
Ft Smith Blvd. to Tivoli Dr.	4		E	3,040	2,740	17	0.62%
Rhode Island Ave.							
US 17/92 to Veteran's Memorial Pkwy.	2		E	1,600	1,230	11	0.89%
Saxon Blvd.							
VMP to FDOT Park & Ride	4	Near Critical	E	3,580	4,280	47	1.10%
FDOT Park & Ride to I-4	4	Near Critical	E	3,580	3,410	42	1.23%
I-4 to Finland Dr.	4	Critical	E	3,580	3,410	60	1.76%
Finland Dr. to Normandy Blvd.	4	Critical	E	3,580	3,410	57	1.67%
Normandy Blvd. to Tivoli Dr.	4		E	3,580	3,410	48	1.41%
W. Volusia Bltwy (Dr MLK Jr)							
Taylor Rd. to Orange Camp Rd.	2		E	1,600	1,540	49	3.18%
Orange Camp Rd. to Cassadaga Rd.	2		E	1,600	1,540	108	7.01%
Cassadaga Rd. to SR 472	2		E	1,600	1,540	140	9.09%
SR 472 to Graves Ave	2		E	1,600	1,540	110	7.14%
W. Volusia Bltwy (Veteran's Memorial)							
Graves Ave. to Rhode Island Ave.	2		E	1,600	1,620	106	6.54%
Rhode Island Ave. to Harley Strickland Blvd.	2		E	1,600	1,540	69	4.48%

Source: *May-14*
GMB Engineers & Planners, Inc.

TRANSPORTATION IMPACT ANALYSIS (TIA) Guidelines

Methodology

For
Development Applications

Requiring a TIA
in Volusia County, Florida

TIA Guidelines

As adopted on November 24, 2009

(***The Volusia Transportation Organization (VTPO) was formally known as the Volusia County Metropolitan Planning Organization (VCMPO). The name change was effective July 1, 2010.)***

Preface

The Volusia Transportation Planning Organization (VTPO) is responsible for the planning and programming of federal and state transportation funds within the metropolitan planning area. As part of an ongoing effort to provide a forum that facilitates cooperation and coordination, the TPO has worked with public and private sector transportation professionals to develop a uniform methodology for assessing the transportation impacts of proposed development. The Transportation Impact Analysis (TIA) Guidelines Methodology was adopted by the Volusia TPO Board in May 2007.

The Volusia Transportation Planning Organization applauds its members and business partners for working together to develop a reasonable and consistent methodology for use by local governments and the development community. Efforts such as this incorporate smart growth principles and demonstrate the benefits of partnering.

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PURPOSE AND APPLICABILITY

A Transportation Impact Analysis (**TIA**) will be required for developments generating 1,000 or more two-way daily external trips on a weekday or 100 or more peak hour two-way external trips. Developments generating less than 1,000 two-way daily external trips or 100 peak hour two-way external trips may also be required to submit a **TIA** if determined necessary by the City/County Development Review Committee (**DRC**). The **TIA** must be provided at the first submission of the right of way Use Permit, rezoning, special exception, variance, Overall Development Plan, or the Final Site Plan stage of the development. Comprehensive plan land use amendments need to follow State of Florida Department of Community Affair requirements.

A **TIA** is conducted in order to evaluate the transportation systems' ability to accommodate the additional traffic generated by the proposed development. If the TIA determines that the Level of Service (**LOS**) of the impacted roadway(s) is deficient, potential mitigation strategies and improvements to the transportation system will be required.

Concurrency is evaluated during the **TIA** process to determine the entire project's impact on the thoroughfare system and to discuss potential mitigation measures at the beginning of the development process. Successful evaluation of ***preliminary concurrency*** as part of the **TIA** does not guarantee that ***final concurrency*** will be met at the time of the Development Order (**DO**) application, since ***final concurrency*** is granted at the time of the **DO** application. Larger projects that consist of several phases sometimes take years to complete the acquisition of a **DO** for all phases. During that time frame, new road conditions or problems could surface that would require additional analysis and possible mitigation.

The developer and the professional engineer should note that the City/County Traffic Engineer (**CTE**) reserves the right to request additional information, data or study after review of the Methodology Memorandum (**MM**) or the **TIA**. An itemized written response to the **MM** or **TIA** comments will be required from a professional engineer prior to any approvals.

Any reference to the "City/County" in these guidelines shall mean an incorporated city or Volusia County, its consultants, contractors, or employees, as applicable.

Review Schedule

The review schedule for a **TIA** methodology or **TIA** shall be in accordance with the applicable section of the City/County Zoning Ordinance or Land Development Code (**LDC**).

Failure on the part of the applicant to adhere to the applicable schedule may result in the City/County requiring updates or revisions to the analysis because of changing background conditions. If, after following the review process, the information submitted is not adequate for City/County staff to develop conditions of development approval, staff shall prepare a recommendation for denial of the development for insufficiency of supporting information.

1. METHODOLOGY STATEMENT

Prior to conducting any study, a written methodology statement shall be prepared by the applicant and submitted for review and approval by the **CTE**. The purpose of the methodology statement is to establish agreed upon methodologies and assumptions prior to the start of the study, corresponding to the issues outlined in the following sections. The methodology statement shall be prepared using the guidelines provided in the following paragraphs. The methodology statement will be first reviewed by the **CTE** or duly designated representative, if necessary, through a methodology meeting (or correspondence) with the applicant's consultant. The **CTE** may require the inclusion of proposed or anticipated traffic signals in the future year condition that may not exist in the "existing condition". The applicant's consultant will then revise the statement based upon agreed upon methodologies. The applicant shall ensure the consultant does not prepare a traffic study without an approved methodology statement signed by the **CTE** or their designee. The methodology agreements shall be valid to govern submittal of the **TIA** for a period of 6 months. In some sections, these **TIA** Guidelines identify optional ways to undertake elements of the analysis, and the methods to actually be applied should be agreed upon in the methodology process.

2. REPORT FORMAT

The **TIA** report will follow the presentation order, graphics, and appendices as outlined below:

TIA Report Format

Four printed copies of the TIA and one electronic version of the **TIA** (including all plans graphs, figures, diagrams, etc. in a .pdf format) must be submitted to the City/County Land Development Manager (**LDM**) for review. Include on the electronic version in separate file folders all computer files, which could include (but not limited to) the Central Florida Regional Planning Model (**CFRPM**) and all capacity analyses files. The **TIA** must have a title page which will include the development name and project number assigned by the **LDM**, the developer's name, company, address and phone number, the professional engineer's name, company, address and phone number and the **TIA** preparation date. A table of contents shall be provided which lists the figures, tables, chapters and appendices. Each page of the report body and appendices must be numbered. Submit a completed TIA Submission Checklist with the TIA report.

Certification by the Professional Engineer

A certification page shall be provided in the **TIA** which must include the professional engineer's signature, seal, current registration number in the State of Florida and a statement that the professional engineer is trained in traffic engineering and was responsible for and in charge of the **TIA** preparation.

3. IMPACTED ROADWAYS/INTERSECTIONS

For purposes of this section, the term "**Major Roadways**" may include all existing collector and above-classified roadways per the latest, adopted **Volusia Transportation Planning Organization (TPO)** Federal Functional Classification Map, and those scheduled for construction within the first **3** years in the latest adopted Volusia County 5-Year Capital Improvement Program, adopted Volusia County MPO's Transportation Improvement Plan (**TIP**) and/or adopted local jurisdiction's Capital Improvement Element (**CIE**) and major roads under construction by a non-governmental party (e.g., built by developers).

Impacted roadways and intersections that must be studied in the **TIA** shall include:

a) The major roadway segment(s) to which the site has direct connections, or to which the site has most direct access via local/non-major streets (if the site has no direct connection to major roadways),

b) Major roadways on which the two-way peak-hour project traffic which meet the following thresholds:
   1) If the project generates **less than 100 two-way peak hour external trips** – the **TIA** shall include an analysis of all roadways where the project's peak hour trips consume **one percent (1%)** or more of a roadway's 2-way peak hour generalized service volume based on the adopted LOS and the committed number of lanes;
   2) If the project generates **between 100 to no more than 300 two-way peak hour external trips** – the **TIA** shall include an analysis of all roadways where the project's peak hour trips consume **three percent (3%)** or more of a roadway's 2-way peak hour generalized service volume based on the adopted LOS and the committed number of lanes;
   3) If the project generates **300 or more two-way peak hour external trips** – the **TIA** shall include an analysis of all roadways where the project's peak hour trips consume **five percent (5%)** or more of a roadway's 2-way peak hour generalized service volume based on the adopted LOS and the committed number of lanes.

c) To determine whether the development will impact critical and near-critical roads in a ***de-minimus*** nature and are not being analyzed by the threshold values above, major roadways that are designated on the most recent **Volusia County Critical and Near-Critical Roadway List** and within the following travel distance (via the major roads) shall be checked:
   - Residential, office, commercial, industrial, institutional – 5.0 miles
   - Recreation, local parks – 1.5 miles
   - Convenience stores – 1.0 miles
   - Other uses – 5.0 miles

d) Major intersections (all signalized intersections and unsignalized intersections of major roadways that cross another major roadway) that are part of the impacted threshold roadways.

e) The intersection(s) of the major roadways with the non-major roads that provide access for 50 or more peak-hour development trips to or from the site (two-way total) to the major road network,

For purposes of determining if peak hour development traffic consumes the threshold values of the existing service volume of a road, the allowable capacity in the annual **Volusia County Traffic Counts and LOS for Volusia County Roadways**, which is based upon the generalized roadway service volumes from the Generalized Service Volumes tables of the Florida DOT's current Q/LOS Handbook shall be used. If a question arises regarding the 2-way peak hour service volume of a roadway, coordination with the appropriate local jurisdiction that is responsible for designating the **LOS** standard and document any difference between jurisdictional agencies.

The **TIA** will also include an evaluation of the traffic circulation at the development entrances in relation to the adjacent intersections and internally within the site. This assessment must include the vehicular stacking and storage provided for site plans at the entrance driveways in advance of any parking stalls or driveway aisles. An evaluation of alternate modes of transportation such as mass transit, bicycles, sidewalks for pedestrians, etc, must also be included. VOTRAN's **Transit Development Guidelines** shall be included in review of alternative modes.

Further, an assessment of the potential for traffic generated by the proposed development to increase traffic through established neighborhoods, and potential mitigative measures if appropriate, shall be included.

4. ANALYSIS SCENARIOS

a) **Existing scenario** is defined as the analysis of existing traffic on the existing network. The existing network includes all existing roads, major roads under construction by a non-governmental party, plus all improvements for which construction contracts have been executed by government agencies at the time the proposed transportation methodology statement is initially submitted.

b) **Future scenario** is defined as the analysis of existing traffic, plus background traffic (derived from growth rates, vested trips, or combination of both), plus the project's traffic placed on the existing network, plus all improvements funded for construction within the first ***three*** years of the local jurisdiction's adopted **CIE** and/or adopted Volusia TPO's **TIP**. If there is a conflict between the local jurisdictions's **CIE** and the Volusia TPO's **TIP**, the local jurisdiction's **CIE** will be the controlling document for roadways not using state or federal funds.

   [It should be noted that improvements funded for construction in the **CIE** or **TIP** may be relied upon for purposes of identifying solutions to future road operating conditions; however, the local jurisdiction may include years two (2) and three (3) in any proportionate-share computation that might be required for the proposed development. Refer to the local jurisdictions proportionate fair share ordinance to determine how many years are eligible.]

   If signalization is proposed as a mitigation measure, Florida DOT signal warrant summary worksheets shall be provided for the location(s) proposed for signalization. If a multi-way stop is proposed as a mitigation measure, then a Volusia County multi-way stop sign warrant summary worksheet shall be provided for the location(s) proposed.

c) **Future scenario with mitigation** is defined as analysis of the **Future Scenario** with the inclusion of any other improvements that are required for mitigation. This analysis scenario will be required only if mitigation is required as the result of the future scenario analysis.

d) **Alternative Mode Analysis**. If the development is located in a present or future urbanized area, as determined by the **CTE**, an evaluation of present and programmed bike, pedestrian and transit mobility options is necessary. A system assessment of sidewalks, bikeways and existing transit routes should be documented. The site plan should also address how walking, bicycling and transit ridership will be encouraged through one or more of the following:

- Safe, adequately lit and well maintained pathways
- Shelters along sidewalks
- Bicycle Parking facilities
- Identifiable crosswalks
- Transit bus stops & transit stop amenities (i.e., bench, bus shelter, etc.)
- Phased traffic signals to accommodate pedestrian movements
- Removal of natural and/or built barriers that discourage walking
- Compliance with American's with Disabilities Act requirements
- Buffering between vehicular areas and sidewalks
- Linkage to existing or future walkway and/or bikeway network and transit route
- Implementation of the VOTRAN's **Transit Development Guidelines**

5. GENERAL ANALYSIS REQUIREMENTS AND SOFTWARE

A.M. and P.M. peak hour analysis will be undertaken for all locations in the study network for residential and office developments. For other developments a determination of either the A.M. or P.M. peak hour analysis, or both, will be made by the **CTE** during the methodology process.

a. Level of Service (**LOS**) will be analyzed for all site-access intersections and the major road segments and intersections included in the network defined by the **IMPACTED ROADWAYS/INTERSECTIONS** Section. In addition, for all site access intersections where left-turns are greater than 25 vehicles in the peak hour, a left-turn lane shall be constructed and a turn-lane length analysis shall be conducted.
b. Road analysis sections shall be developed based on acceptable engineering and planning practices as set forth in the Highway Capacity Manual (**HCM**) and the **FDOT Q/LOS Manual**. **LOS** will be evaluated on the basis of entire analysis sections.
c. All analysis shall be undertaken for conditions during the 100th highest hour of the year.
d. The use of the FDOT's 2-way peak hour generalized tables is permitted as an initial screening tool. If failure is estimated, then more detailed analysis may be undertaken using the procedures described below:

    1) For unsignalized intersections, the latest version of Highway Capacity Software (**HCS**) is the preferred software for analyzing delay and **LOS**.
    2) For signalized intersections, the latest version of **HCS** or **Synchro** software using the **HCS** methodology is required.
    3) Use the **FDOT**'s **ARTPLAN** (interrupted flow road segment analysis), **HIGHPLAN** (uninterrupted flow roads (those with more than two-mile signal spacing)), **FREEPLAN**, and/or **HCS** depending on the characteristics of the study roadway for road link analysis. This should be discussed at the methodology stage. Refer to **FDOT's Site Impact Handbook** and **FDOT's Q/LOS** software website for further

guidance.

4) The hard copy of the summary sheets and electronic files of the software inputs and results must be provided.
5) Other analysis software may be required to address situations not addressed by the above provisions, or if requested by the applicant and approved by the **CTE** during the methodology step.
6) If any analysis software is used as an alternative to the FDOT's 2-way peak hour generalized tables, detailed analysis of all signalized intersections within the analysis section is required.
7) The following data shall be field verified and provided in the report including, but not limited to:
   (a) Class of roadway (interrupted or uninterrupted)
   (b) Road Maintaining Agency
   (c) Area type
   (d) LOS standard of the appropriate local jurisdiction
   (e) Geometry, including lane widths and turn-lane lengths
   (f) Heavy vehicle factor (i.e., percentage trucks)
   (g) Directional factor (D Factor, not to be less than 0.52 for the future conditions analysis)
   (h) Peak-hour factor (PHF, not to exceed 0.95 for the future conditions analysis)
   (i) Values of the above parameters should be estimated in the future conditions analysis to reflect unconstrained demand conditions.
   Signal density
   (j) Existing signal timing and phasing can be obtained from the County Traffic Engineering Division (or applicable City Engineering Division). The existing signal timing, including its maximum and minimum settings, shall be used for the initial analysis of future conditions. Any signal timing changes outside of the existing minimum and maximum setting may be presented for County approval (or applicable City approval) as part of the mitigation strategy.
   (k) Analysis section lengths shall be as defined in Volusia County/Volusia TPO annual level of service spreadsheet. If any portion of the analysis section falls within the five-mile travel distance, then the entire analysis section shall be analyzed.

6. TRIP GENERATION

Each traffic impact study will list all project land uses, applicable Institute of Transportation Engineers (**ITE**) land use code, building size(s) and/or dwelling units. The trips from/to the site shall be estimated using the trip generation rates or equations in the latest edition of **ITE's** manual ***Trip Generation.*** Other rates may be required by the **CTE**, or may be used if requested by the applicant and approved by the **CTE**. Use of other rates must be requested during the methodology step. If the petitioner can provide evidence of a prior use on the site, the **TIA** shall address the net increase in trips associated with the proposed land use. If the site was dormant during collection of the traffic count data the analysis is based upon, then the "prior vested" portion of the development traffic must be added as "background" traffic.

If a site specific trip generation study of the same type or similar land use should be proposed by the applicant, then the applicant will need to analyze a minimum of three (3) separate similar land use

sites approved by the **CTE**. The survey data will be collected for at least a continuous seventy-two (72) hour period between Monday 6:00 p.m. and Friday at 6:00 a.m., or as otherwise determined by the **CTE**. Legal holidays or other days specified by the **CTE** will be excluded. Selection of other trip generation study times will be made when it is determined by the **CTE** that collection of the data between the above times will not result in a reasonable estimation of the trip generation characteristics of the proposed land use. The data will include the following:

- Summary of traffic count data by fifteen (15) minute increments
- Average daily volume during a.m. and p.m. peak hours of the adjacent street
- The accuracy of the traffic counts will be verified by performing manual counts and comparing them to machine counts twice daily, once in the a.m. and once in the p.m. for each day of the traffic counts
- All data will be subject to review and acceptance. This review will be based on currently accepted traffic engineering principals

7. INTERNAL CAPTURE

The use of an internal capture factor will be allowed for certain types and sizes of mixed-use developments. Internal capture is allowed per the **ITE** acceptable methodologies. Allowable sources for internal capture rates are identified below; however, in no case will an internal capture of more than 20 percent (20%) of the gross project trip ends (or the internal capture rates or equations contained in the most recent version of **ITE's** manual ***Trip Generation***) be allowed, unless the **CTE** accepts a higher internal-capture percentage based on verifiable documentation (e.g. field studies of comparable sites).

a. The internal capture rate from a previous traffic impact analysis of a similar land use approved by the **CTE**.
b. The internal capture rates or equations contained in the most recent version of the **ITE *Trip Generation Handbook***.
c. A site specific capture study of the same type or similar development approved by the City/County. Such a site specific study will be conducted at three (3) separate similar land use sites. The survey data will be collected for at least a two consecutive hour period each day for three (3) days between Tuesday at 12:00 p.m. and Thursday at 8:00 p.m., or as otherwise determined by the **CTE**. Legal holidays or other days specified by the City/County will be excluded. Selection of other internal capture study times will be made when it is determined by the **CTE** that collection of the data between the above times will not result in a reasonable estimation of the internal capture characteristics of the proposed project.

   The data will include a summary of internal capture data by fifteen (15) minutes increments during the peak hours of the adjacent street. All data will be subject to review and acceptance by the City/County. This review will be based on currently accepted traffic engineering principals.

8. PASSER-BY CAPTURE

The total gross external trips of the project traffic may be reduced by a passer-by factor to account for the project traffic that is already traveling on the adjacent roadway. Passer-by rates are developed for commercial development only. Passer-by estimation shall be based on the **ITE** methodologies or other methodologies that may be approved by **CTE**. The total passer-by capture shall not exceed 14 percent (14%) of the total background traffic on the adjacent roadway. In analysis of the site-access intersections with major roads, the passer-by trips shall be included and separately identified (i.e., evaluated based on the full passer-by, not the reduced passer-by to ensure driveways are designed correctly).

The passer-by capture percentage shall be computed as the sum of the number of trips entering plus exiting the site land uses claimed as captured divided by the number of background trips passing by the site on major roads directly abutting or passing through the site.

9. DISTRIBUTION & TRAFFIC ASSIGNMENT

The latest adopted base year Central Florida Regional Planning Model (**CFRPM**) is acceptable in determining the trip distribution percentages and number of trips assigned per roadway segment assignments. The model will reflect the roadway network as identified in the **Impacted Roadways/Intersections** and the **Analysis Scenarios** sections. The results of the model will be reviewed by City/County to ensure the existing and future travel patterns are reasonably simulated. Manual trip distribution and assignment may also be acceptable as long as it is reviewed and accepted by **CTE** and logically replicates the existing and future travel patterns. A map showing the traffic-percent distribution (out to 5%), total background and project traffic assignments and intersection movements will be provided. The traffic-percent distribution must be shown on all critical hurricane roadways.

10. TRAFFIC COUNTS

Approved FDOT or City/County-maintained counts may be used if they are less than one year old in high growth areas. New counts will be requested if there are recent improvements to the transportation system that may cause significant traffic pattern changes. Counts more than one year old will not be acceptable unless otherwise approved by **CTE**.

New traffic volume counts shall be conducted based on acceptable engineering standards, and shall include the classification of heavy vehicles. Provide segment traffic counts, by direction, for a minimum of forty-eight (48) consecutive hours between 12:00 p.m. Monday and 12:00 p.m. Friday. Legal holidays or other days as specified by the **CTE** shall be excluded. Friday, weekend, or holiday counts may be required for land uses active on weekends, as determined by the **CTE**. The data should include a summary of traffic volumes by direction in fifteen (15) minute increments. The a.m., p.m. and other peak hours should be identified as well as the peak hour-to-daily traffic ratio and peak hour directional split. The average daily traffic counts will be adjusted to annual average daily traffic (**AADT**) using appropriate FDOT seasonal adjustment factors and truck axle adjustment factors. The peak hour segment volume will be determined by applying the approved K-factor for that segment to the **AADT** volume. All data will be subject to review and acceptance.

Prior to approval of the methodology statement, other peak-season adjustment factors or adjustment methodologies that may result in different peak-season adjustment factors may be requested at the

discretion of the **CTE**.

Provide intersection turning movement counts (**TMC**) where it is deemed necessary by the **CTE**. These **TMC**'s shall be made on one (1) typical weekday (Tuesday, Wednesday or Thursday) from 7:00 a.m. to 9:00 a.m., 4:00 p.m. to 6:00 p.m., or as otherwise specified. Legal holidays or other days, as specified by the **CTE**, shall be excluded. Friday, weekend, or holiday counts may be required for land uses active on weekends, as determined by the **CTE**. The data should include a summary of traffic volumes in fifteen (15) minute increments, with a.m., p.m., and other peak hours being identified. All data will be subject to review and acceptance.

Mid-segment tube counts should be checked against turning-movement counts at near-by intersections. Generally, the mid-segment machine counts and turning-movement counts should not be significantly different unless the difference can logically be explained.

11. BACKGROUND TRAFFIC GROWTH/FUTURE TRAFFIC

The existing traffic counts shall be increased by a growth factor provided by the **CTE** up to the project's build-out date, which shall be reasonably specified, to account for increases in existing traffic due to other approved and pending, but not-yet-built, developments. The build-out date shall be provided by the developer/applicant. Background traffic-growth rates and background traffic may be based on the most recently approved **City/County Concurrency Management Program's Annual Report** (or a local jurisdiction's vested trip database) and will be provided by the **CTE**, **TE** staff member or local jurisdiction. Under no circumstances is a negative growth rate allowed. Minimum annual growth rates in all cases shall be two percent, unless otherwise approved by the **CTE**.

12. LOS STANDARDS

a.) The **LOS** standards for all major road segments shall be consistent with the letter standards per the **FDOT** on SIS State Roads.

b.) The **LOS** standards for all major road segments shall be consistent with the letter standards per the local jurisdictions adopted Comprehensive Plan on non-SIS State Roads and the County's latest standard on County Thoroughfare Roads per the adopted Comprehensive Plan (unless the local jurisdiction has adopted a higher **LOS** standard).

c.) On major roadway corridors, the minor street **LOS** standard may be less than adopted to ensure the major corridor **LOS** standard is acceptable, unless otherwise approved by the **CTE**.

d.) The overall intersection **LOS** standard is the same as the segment standard. Where different segment **LOS** standards apply to different legs of the intersection, the overall intersection **LOS** standard will be the ***lowes***t crossing road standards. For example, between LOS E and LOS D the lowest crossing standard would be LOS E.

13. PHASED DEVELOPMENTS

Developments with build-out dates more than five years in the future shall be analyzed in five-year phases. Developments which are contemplated to be phased should undertake transportation analyses that assess the total impacts of the full anticipated development levels for the entire "parent" tract. A parent tract is a tract of land that was or will be subdivided after October 29, 1976, for sale to separate individuals. The mitigation requirement for each phase of the development will then be pro-rated in proportion to the magnitude of the net external peak-hour trips generated by that phase. In lieu of pro-rating the complete parent tract, the local government may instead recommend that projects be subject to phasing and Monitoring & Modeling requirements to ensure that the impacts of the development are occurring as expected. If concurrency approval for only one phase is secured, then payment or construction of needed mitigative improvements associated with that phase only will be required. The TIA supporting concurrency approval for the subsequent phases will remain valid through the horizon year of the TIA, but the cost of the mitigation requirement will be indexed to the year in which the mitigation improvements or payments are made, using the cost indexing procedures of Volusia County's (or applicable City's) transportation impact fee ordinance.

In the event a transportation concurrency certificate of capacity for a parent tract expires, an updated TIA will be undertaken for the entire parent parcel development as a part of the subsequent parcel concurrency review. To establish the mitigation requirement for the unapproved phases, the mitigation requirement for the total parent tract, as updated, will be reduced by the mitigation already provided for by the previously approved phases (indexed to current value). The difference will then be allocated to the remaining unapproved portions of the site in proportion to the net external trips generated by each remaining phase.

14. MITIGATION OF IMPACTS

If a major roadway segment is below its adopted **LOS** standard, then the developer shall propose a solution to mitigate the transportation impacts of the proposed site. The following options are provided to developers for mitigation of transportation impacts:

Restore to adopted standard – Identify an improvement at an impacted location that restores level of service to the adopted standard for the "future year with development traffic" condition.

Equal mitigation (Same location) – Identify improvements that offset the impacts of a development at impacted locations. Each improvement shall, at a minimum, result in no degradation in the delay per vehicle on each lane group at deficient intersections and/or travel speed along deficient roadways (on segments that use speed as criteria for the **LOS** standards) that existed (considering background growth and committed roadways) prior to addition of the development traffic. Impacts on such facilities shall require construction of all necessary improvements to correct the deficient condition in accordance with the **TIA** guidelines.

Equal mitigation improvements will be deemed acceptable if capacity is added (through the addition of general purpose through-lanes, auxiliary turn-lanes, and/or signal phasing or timing changes that are accepted by the City/County) that restores or improves the delay and **V/C** ratio to the level it was in the "**base scenario**." The "**base scenario**" is defined as the analysis of existing traffic, plus background traffic (derived from growth rates, vested trips, or combination of both) on the model that

includes the roadway network identified in the **Impacted Roadways/Intersections** and the **Analysis Scenarios** sections.

The developer shall only be responsible for the equal mitigation improvement; however, for informational purposes only, if equal mitigation improvements are identified at any deficient location(s), then additional improvements that may be needed to bring the entire deficient location(s) back to the **LOS** standard, shall also be identified and reported separately.

The design and construction of any mitigation improvements shall be in accordance with City, Volusia County or FDOT standards as applicable.

The analysis of intersections to demonstrate the adequacy of an improvement to achieve equal mitigation must be based on a consistent, traffic-signal timing strategy (e.g. minimizes delay, balance **V/C** or delay, subject to **V/C** maximums) and must follow the steps below:

a. Analyze total future traffic on existing geometry (future scenario). For this analysis, signal timings may be optimized within the limits of the existing timing plan or may be adjusted manually within the limits of the existing timing plan. If the **LOS** standard is met, no further analysis is required. If the **LOS** standard is not met, further analysis to identify appropriate mitigation is required.
b. The next analysis is to evaluate the "base scenario" condition. For this scenario, signal timing optimization within the limits of the existing timing plan or manually adjusted timings within the limits of the existing timing plan is required. The choice of signal-timing methodology in this step must be carried consistently into the next step. From the analysis, an overall Intersection Signal Delay is reported by the software.
c. The next analysis is to evaluate total future traffic on an improved intersection concept (future scenario with mitigation). The same signal-timing strategy used in paragraph b. (above) is required. If the overall Intersection Signal Delay, and delay by movement are equal or less than in the base scenario, the improvement is considered to be adequate to offset the impacts of the development.

Any changes to existing conditions, including traffic-signal timing or phasing changes shall be noted on the intersection capacity analysis worksheets and in the conclusions of the report. Arterial analysis worksheets for the base and improved network conditions must also be submitted.

Alternate Location Mitigation – If the developer presents evidence acceptable to the **DRC** or the City/County Commission/Council that the mitigation improvements required by sections a. or b. above are not cost feasible in relation to the development proposed, mitigation strategies at alternative locations may be proposed and may be accepted by the **DRC** or the City/County Commission/Council. At a minimum, the proposed improvements should meet the following criteria:

a. The locations proposed for improvement must be within the impacted area and must be at or near deficiency,
b. The improvement must be other than simply a signal timing or phasing change,
c. Mitigation must, at the minimum, improve the overall vehicle-hours of delay, intersection capacity utilization, and/or speed of the alternative location by the equivalent amount of the reduced vehicle-hours of delay, intersection capacity utilization, and/or speed at the primarily impacted location(s),
d. The improvements must not already be, or be in the process of being, a condition of approval of another development,

e. All applicable analysis requirements for the primary locations(s) shall apply to the analysis of the alternative location(s).

Proportionate Share Mitigation – If the developer submits evidence acceptable to the **DRC** or City/County Commission/Council that the required equal mitigation is not cost feasible in relation to the development proposal, the developer may propose a proportionate-share payment as mitigation, which must be approved by the **DRC** or City/County Commission/Council.

The proportionate share payment shall be calculated as follows:

a. Identify all needed improvements to bring all deficient locations in the study network back to the **LOS** standard,
b. Submit an engineer-certified cost estimate of the required improvements as approved by the City/County,
c. Calculate the proportionate-share cost of those improvements per the following formulae:

For road segments:

$$\textbf{Proportionate share cost}^{1} = \frac{\text{Project traffic}}{\text{Increase in capacity created by the improvement}} \times \text{Total cost of improvement (Indexed to future year of construction)}$$

[1] Refer to local jurisdictions proportionate share ordinance based upon project location.

If other unforeseen situations arise, they will be dealt with on a case-by-case basis.

d. The above values shall be in units of peak hour, two-way values. Cost values shall include design, right-of-way, maintenance of traffic, construction, and construction observation/administration costs. However, costs of major utility upgrades or the costs of other activities that are advantageous to accomplish with the road construction but that do not relate to providing transportation capacity or services should not be included.

Circumstances where the local government is **required to accept** proportionate share mitigation include:

Where improvements to maintain the adopted level of service on all roadway locations impacted by the proposed development are specifically identified for funding in the 5-year schedule of capital improvements in the capital improvements element of the local plan or the long-term concurrency management system or if such contributions or payments to such facilities or segments are reflected in the 5-year schedule of capital improvements in the next regularly scheduled update of the capital improvements element (F.S. 163.3180 (16)(b)1).

Circumstances where the local government may **choose to not accept** Equivalent Mitigation or Proportionate Share mitigation include, but are not limited to:

a. Situations where all of the needed improvements to offset development impacts or maintain the adopted level of service standard are not in the five-year **CIE**,
b. Situations where the proposed improvements are not compatible with the long-range transportation plan,
c. Situations where severe transportation congestion may be caused and remain un-cured if the development were to proceed,
d. Situations where severe or undesirable environmental or social impacts may result,
e. Situations where granting of impact fee credits for the costs of the improvements might disrupt the orderly scheduling of impact fee funded capital improvements.

Generally, the proportionate share funds from a development will be used by the developer to implement an improvement that is agreed upon by the City/County and agencies responsible for the road to be improved and other impacted roadways, to be of substantial benefit to the impacted roadway network. If needed improvements are scheduled in the **CIE**, then the City/County will accept payment of the proportionate share.

15. APPEAL PROCESS AND SCHEDULE

If a petitioner desires to appeal any portion of the requirements of this procedure, the appeal shall be in accordance with the applicable section of the local government's land development process (e.g., City/County Zoning Ordinance or **LDC**).

16. VARIANCE

Any deviation or variance requested shall be in accordance with the applicable section of the local government's land development process (e.g., City/County Zoning Ordinance or **LDC**).

TRANSPORTATION IMPACT ANALYSIS SUBMISSION CHECKLIST

	DESCRIPTION	INFORMATION INCLUDED			
		YES	NO	N/A	Remarks[1]
TRANSPORTATION IMPACT ANALYSIS REPORT DATA	4 Printed TIA Copies Signed and Sealed by Professional Engineer				
	1 Electronic version of the TIA & all analysis computer files				
	Site Location relative to surrounding roadway network (map)				
	Description of proposed land uses				
	Proposed Build-out schedule				
	Study area boundaries including all Thoroughfare Road segments and intersections within appropriate radius (map)				
	Existing Traffic Volumes				
	Existing roadway segment analysis				
	Existing intersection analysis				
	List scheduled improvements within first three years of County, FDOT, and/or City Capital Improvement Programs				
	Proposed development trip generation/internal capture/pass by capture				
	Proposed development trip distribution and assignment (map)				
	Future Background Traffic Volume Estimates				
	Projected future roadway segment analysis				
	Future Total Peak-Hour(s) Traffic Volume Estimates (Background + Vested + Project Trips)				
	Projected future Peak-Hour(s) roadway intersection analysis including proposed turn lanes and signals				
	Projected Future Roadway Concurrency Analysis				
	Conclusions and Recommended Improvements				
	Site access recommendations				
	Concurrency mitigation strategy				
APPENDIX DATA	Methodology Documentation & Conceptual Site Plan				
	Traffic Count Data & Inventory of Existing Road Conditions				
	Confirmation of Scheduled Improvements (Copy of Appropriate CIE)				
	Existing Conditions Analysis Worksheets (HCS Printouts)				
	Background Traffic Growth Worksheets				
	Trip Generation, Internal Capture, Pass-By Capture Worksheets				
	Future Conditions Analysis Worksheets (HCS Printouts)				
	Turn Lanes Analysis Worksheets (Queue Length)				
	Signal Warrant Analysis				
	Multi Way STOP Warrant Analysis				

1 – Remarks: Justify “NO” and “N/A”

Submitted By:_____ Printed Name:_____

Date:_____

APPENDIX

A-1
Definitions

Annual Average Daily (AADT) refers to a basic traffic parameter for determining the level of service for motorized vehicles along a roadway. It is the total volume passing a point or segment of a roadway facility, in both directions, for one year, divided by the number of days in the year.

Annual Average Weekday (AAWDT) is the total volume passing a point or segment of a highway facility, in both directions, for weekdays only for one year, divided by the number of weekdays in the year...

Average Daily Traffic (ADT) is the average number of vehicles that pass a specified point during a 24-hour period.

Average Peak Hour Volume refers to the average of peak season and off-peak season turning movements. *Most typically the 100th highest hour which is considered to be the primary planning analysis hour in Florida. (Refer to FDOT's Q/LOS Handbook)*

Alternative Mode Analysis refers to the evaluation of bicycle, pedestrian and transit features and services within the study area, and identification of the developments proposal for improvements to those if applicable.

Arterial Road refers to a roadway providing service which is relatively continuous and of relatively high traffic volume, long trip length, and high operating speed.

ARTPLAN is FDOT's arterial planning software sometimes used for calculating level of service and service volume tables for interrupted flow roadways.

Background Traffic means and refers to the projected traffic generation from previously approved but incomplete projects.
Note: FDOT's Site impact Handbook defines Background Traffic as an estimate of future traffic within the vicinity of the proposed development, without the site development traffic, but with existing traffic adjusted for expected growth, and addition of traffic from major vested projects.

Capacity refers to the availability of a public service or facility to accommodate users, expressed in an appropriate unit of measure, such as average daily trip ends of two way peak hour trips. It means the maximum rate of flow at which persons or vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions. *Sometimes, capacity is referred to as "service volume" due to its reliance on the local government's adopted level of service.*

Captured Trips refer to trips not generated by a proposed project which are passing trips already on the roadway on which the proposed project is to be located.

Concurrency is an evaluation of whether a transportation facility or service has adequate capacity to accommodate the trips generated from a proposed development. *Concurrency*, as used in growth management, is the requirement of s. *163.3180, FS*, that public facilities and services needed to support development shall be available at the same time the impacts of such development will occur.

Concurrency Management System refers to the procedures and/or process that the local government will utilize to assure that development orders and permits are not issued unless the necessary facilities and services are available concurrent with the impacts of development (*Specific Authority 163.3177(9), (10) FS. Law Implemented 163.3177, 163.3178 FS. History–New 3-6-86, Amended 10-20-86, 11-22-89, 4-2-92, 3-23-94, 5-18-94, 3-21-99, 2-25-01.)*

Collector Road refers to a roadway providing service which is of relatively moderate traffic volume, moderate trip length, and moderate operating speed. Collector roads collect and distribute traffic between local roads or arterial roads (*Specific Authority 163.3177(9), (10) FS. Law Implemented 163.3177, 163.3178 FS. History–New 3-6-86, Amended 10-20-86, 11-22-89, 4-2-92, 3-23-94, 5-18-94, 3-21-99, 2-25-01*.)

Critical Roadways are identified by the volume to capacity ratio (v/c). If the v/c ratio is >= 1.0 on an emergency evacuation route or if the v/c ratio is >= 1.1 on a non-emergency evacuation route then it considered a critical roadway segment *(Approved by the TPO on June 24, 2008).*

Critical Signalized Intersection refers to a signalized intersection with the lowest volume to capacity ratio (v/c), typically the one with the lowest effective green ratio (g/C) for the through movement.

Cycle Length (C) is the time it takes a traffic signal to go through one complete sequence of signal indications.

De minimus "The Legislature finds that a de minimis impact is consistent with this part. A de minimis impact is an impact that would not affect more than 1 percent of the maximum volume at the adopted level of service of the affected transportation facility as determined by the local government. No impact will be de minimis if the sum of existing roadway volumes and the projected volumes from approved projects on a transportation facility would exceed 110 percent of the maximum volume at the adopted level of service of the affected transportation facility; provided however, that an impact of a single family home on an existing lot will constitute a de minimis impact on all roadways regardless of the level of the deficiency of the roadway. Further, no impact will be de minimis if it would exceed the adopted level-of-service standard of any affected designated hurricane evacuation routes. Each local government shall maintain sufficient records to ensure that the 110-percent criterion is not exceeded." (*Per FS 163.3180 - Concurrency*)

DOT Guidelines refers to the Florida Department of Transportation (FDOT) Quality/Level of Service Handbook published in 2002 by the Florida Department of Transportation, all as subsequently amended and updated.

Existing Traffic refers to the average annual daily traffic and two way peak hour traffic volumes. *Most typically the 100th highest hour which is considered to be the primary planning analysis hour in Florida. (See Q/LOS Handbook)*

Evacuation Routes as identified in the currently Adopted Volusia County Comprehensive Plan, pursuant to Chapter 163, FS, and consist with the Transportation Element.

FREEPLAN is FDOT's freeway planning software for calculating level of service and service volume tables.

Generalized Level of Service Volume Tables is the maximum service volumes based on area wide roadway traffic and control variables and presented in tabular form.

Growth Rate is the rate of which traffic increases or decreases over a given period of time based on historic traffic count information and land use.

HIGHPLAN is FDOT's software for calculating levels of service and service volume tables for two-lane highways and multilane highways.

Highway Capacity Manual (HCM) is the Transportation Research Board (TRB) document on highway capacity and quality of service.

ITE refers to the Institute of Transportation Engineers. ITE Trip Generation Rates are published by the Institute of Transportation Engineers (ITE) for traffic engineers and transportation planners for site level planning and analysis.

Internal Capture are trips that remain on a proposed development's site due to the presence of non-residential and residential land uses which in combination reduce impact on the surrounding roadway network.

Internal Capture Rate is the percentage of the total number of trips from a site that are contained within on-site circulation systems only.

K-30 is the proportion of AADT occurring during the 30th highest hour of the design hour.

K-100 is the proportion of AADT occurring during the 100th highest hour of the design hour.

K-FACTOR is the ratio of the demand traffic volume in the 30th highest hour of the year to AADT.

Level of Service (LOS) is a quantitative stratification of the quality of service of a service or facility into six letter grade levels with "A"describing the highest quality and "F" describing the lowest quality; a discrete stratification of a quality of service continuum. With regard to traffic and transportation, the measure of the functional and operational characteristics of a roadway based upon traffic volume in relation to road capacity.

Areawide LOS refers to a standard that may be established for facilities with similar functions serving common origins and destinations within one or more designated transportation concurrency management areas, pursuant to *Rule 9J-5.0055(5), FAC*, and must be maintained as a basis for the issuance of development orders and permits.

Local Road means a roadway providing service which is of relatively low traffic volume, short average trip length or minimal through traffic movements. *(Specific Authority 163.3177(9), (10) FS. Law Implemented 163.3177, 163.3178 FS. History–New 3-6-86, Amended 10-20-86, 11-22-89, 4-2-92, 3-23-94, 5-18-94, 3-21-99, 2-25-01*.)

Link refers to the portion of a major thoroughfare between two (2) major intersections, or between a major intersection and the end of the thoroughfare, or between a major intersection or end of the thoroughfare and the city limits.

Near Critical Roadways are roadways with a v/c ratio > 0.90 and < 1.0 on an emergency evacuation route or a v/c ratio > 0.90 and < 1.1 on a non-emergency evacuation route. The roadway segment is considered to be near capacity and flagged for analysis and monitoring to ensure that a development's trips do not make a roadway fail or reach "critical" status. *(Approved by the TPO on June 24, 2008)*

Major City/County Roadway is a roadway not on the State Highway System whose roadway, traffic and control characteristics are similar to those classified as state minor arterials.

Transportation Planning Organization (TPO) is the organization designated as being responsible, together with the state, for conducting the continuing, cooperative, and comprehensive planning process under 23 USC 134 and 49 USC 1607. It is the forum for cooperative transportation decision-making. *Florida follows federal requirements, see s. 339.175, FS.*

Peak Direction is the course of the higher flow of traffic.

Peak Hour Traffic is hours of which traffic volumes are the highest during a 24-hour period, usually the highest volume in the am (between 7am and 9 am) and in the pm (between 4 pm and 6pm)

Peak Hour Factor (PHF) is the ratio of the hourly volume to the peak 15-minute flow rate for that hour; specifically hourly volume / (4 x peak 15-minute volume).

Peak Season is the 13 consecutive weeks with the highest daily volumes for an area.

Peak Season Weekday Average Daily Traffic is the average daily traffic for Monday through Friday during the peak season.

Peak to Daily Ratio is the ratio of the highest 1 hour volume of a day to the daily volume.

Passer by Factor is the percentage of a development's total traffic that is considered already on the road network and merely stops at the development in passing.

Roadway Functional Classification refers to the assignment of roads into categories according to the character of service they provide in relation to the total road network. Basic functional categories include limited access facilities, arterial roads, and collector roads, which may be subcategorized into principal, major or minor levels. Those levels may be further grouped into urban and rural categories. (*Specific Authority 163.3177(9), (10) FS. Law Implemented 163.3177, 163.3178 FS. History–New 3-6-86, Amended 10-20-86, 11-22-89, 4-2-92, 3-23-94, 5-18-94, 3-21-99, 2-25-01.)*

Signal Density is the number of signalized intersections per mile.

Signal Type is the kind of traffic signal (actuated, pre-timed or semi-actuated) with respect to the way its cycle length, phase plan, and phase times are operated.

Signalized Intersection is a place where 2 roadways cross and have a signal controlling traffic movements.

Signalized Intersection Spacing is the distance between signalized intersections.

Threshold is the breakpoints between level of service differentiations.

Transportation Impact Analysis (TIA) is a study conducted to evaluate the impacts of a proposed development on the transportation system and identify possible mitigation strategies.

Traffic volume is the number of vehicles passing a point on a highway during a specific time period.

Trip Generation Standards refers to the book entitled trip generation, 8th Edition, prepared by the ITE in 2007, and as amended or revised from time to time including more recent editions.

Turning Movement Counts (TMC) are traffic counts that are at a specific intersection broken out by direction and movement on the links, and used for intersection analysis.

SIS refers to the Strategic Intermodal System (SIS) relates to statewide and interregional significant transportation facilities and services that provide for the smooth and efficient transfer of both passengers and freight, including but not limited to interstates, ports, airports, and railways. *(Strategic Intermodal System (SIS) as established pursuant to Sections 339.61-.64, F.S.)*

Vested Trips are trips from an approved development that are distributed on the road network and treated as existing as a means to monitor background traffic growth and preserve capacity for that development.

A-2

INTERGOVERNMENTAL COORDINATION PROCESS

(As approved by the VCMPO on Jan 27, 2009)

If a Transportation Impact Analysis (TIA) is required and all or a portion of the project trips are projected to cause a new LOS deficiency or contribute to an existing LOS deficiency on a roadway in a neighboring jurisdiction then an electronic copy of the TIA must be provided to the affected jurisdiction(s) for review and comment. If an impact occurs on a roadway maintained by any other jurisdiction(s) the respective maintenance jurisdiction(s) shall also be provided an electronic copy of the TIA for review and comment.

Comments from the affected jurisdiction(s) shall be submitted in a timely manner, to the City/County that is considering the development approval, within 30 days from the day of receipt of the TIA. Upon final approval of the development for which the TIA was prepared, an electronic copy of the approved TIA shall be submitted to the Volusia County MPO.

Cross-Jurisdictional Impacts: If the City/County that is considering the development approval determines that the proposed development causes or contributes to a LOS deficiency located in an affected jurisdiction(s) and said impact is not classified as ***de minimis***, the City/County considering said development will coordinate with the affected jurisdiction(s) to mitigate the impacts via the steps below: ***Per 163.3180(6) F.S., if the impact on the deficient roadway consumes one percent or less of the roadway's adopted service volume and the roadway is not over 110% of capacity on a non-evacuation route, then the impact can be considered de minimis and will not be subject to mitigation. No de minimis designations shall be made on evacuation routes over 100% of capacity.***

a. The City/County shall ensure that the local jurisdiction(s) in which the LOS deficiency exists is notified in writing or via electronic mail. The notification shall include a copy of the proposed development's TIA and a full description of the LOS deficiency. Additionally, if impacts occur on a roadway not maintained by the City/County considering the proposed development for approval, the respective maintenance jurisdiction(s) shall be notified in writing or via electronic mail.
b. If necessary, a meeting shall be held between all affected parties to discuss necessary mitigation solutions and funding strategies.
c. The developer and/or the City/County considering approval of the development shall be responsible for any mitigation unless the affected jurisdiction(s) agree to support the mitigation through a formal agreement in accordance with the mitigation measures enumerated in, but not limited to, the Volusia TPO TIA Guidelines.
d. The developer shall be required to: 1) pay proportionate fair-share for the development's impacts, or 2) determine a reasonable mitigation solution agreeable to all parties, and implement such mitigation. If the City/County and/or the jurisdiction that maintains the roadway in which the LOS deficiency exists does not have funding in its five-year CIE to mitigate the existing LOS deficiency that requires a capital improvement and does not desire to amend its CIE to include the funding for the necessary mitigation project, then the developer will work towards an acceptable alternative mitigation project with the local jurisdiction approving concurrency of the site as well as the affected jurisdiction(s).
e. Upon final agreement and approval of the development for which the TIA was prepared, an electronic copy of all formal agreements (i.e. proportionate fair-share, inter-local agreements, memorandum of understanding (MOU) or others) shall be submitted to the Volusia TPO.

A-3
ACRONYMNS

(AADT) Annual Average Daily Traffic

(CFRPM) Central Florida Regional Planning Model

(CTE) City/County Traffic Engineer

(DO) Development Order

(DRC) Development Review Committee

(FDOT) Florida Department of Transportation

(HCM) Highway Capacity Manual

(HCS) Highway Capacity Software

(ITE) Institute of Transportation Engineers

(LDC) Land Development Code

(LDM) Land Development Manager

(LOS) Level of Service

(MM) Methodology Memorandum

(MOU) Memorandum of Understanding

(TPO) Transportation Planning Organization

(PHF) Peak-hour factor

(Q/LOS) Quality Level of Service

(TIA) Transportation Impact Analysis

(TIP) Transportation Improvement Plan

(TMC) Turning Movement Counts

(V/C) Volume to Capacity

Appendix "B"

Traffic Counts, Volusia County Information, SF, & Synopsis Reports

Volusia County 2013 Average Annual Daily Traffic & Historical Counts

Road Name	Limits (From - To)	Count Station Number	2013 SIS Facility	Cycle 10-2 2013 Evacuation Route	Roadway Maintaining Agency	2013 Roadway on County's Thoroughfare	Distance (in miles)	2013 No. of Lanes	Posted Speed	Direction	2013 Facility Type	2000 Federal Functional Classification	2004 AADT	2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2013 Vol. Co. Allowable LOS	DAILY 2013 LOS Capacity	DAILY 2013 V/C Ratio	DAILY 2013 LOS	PEAK 2Way 2013 LOS Capacity
I-4	SR 46 to Volusia Co.	0266-S	Yes	Yes	FDOT	Yes	1.90	6	65	E+W	UA_FWIS_6L + AUX	Rural Principal Arterial - Interstate	103,000	112,500	112,000	113,000	111,000	108,000	115,000	109,500	103,000	107,500	C	113,000	0.95	C	10,170
I-4	Seminole Co. to Dirksen Dr.	484	Yes	Yes	FDOT	Yes	3.58	6	65	E+W	UA_FWIS_6L	Rural Principal Arterial - Interstate	94,000	111,500	115,500	119,500	115,000	107,500	111,500	102,500	106,500	108,000	C	93,000	1.16	D	8,370
I-4	Dirksen Dr. to Saxon Blvd.	9906	Yes	Yes	FDOT	Yes	2.79	6	70	E+W	UA_FWIS_6L	Urban Principal Arterial - Interstate	82,000	97,500	96,600	95,356	92,578	94,700	95,400	93,600	93,900	96,400	C	93,000	1.04	D	8,370
I-4	Saxon Blvd. to SR 472	1003	Yes	Yes	FDOT	Yes	3.15	6	70	E+W	UA_FWIS_6L	Urban Principal Arterial - Interstate	70,000	83,500	86,500	89,000	86,000	53,500	86,500	79,500	88,000	88,500	C	93,000	0.95	C	8,370
I-4	SR 472 to Orange Camp Rd.	485	Yes	Yes	FDOT	Yes	2.12	6	70	E+W	UA_FWIS_6L	Urban Principal Arterial - Interstate	60,000	57,500	59,500	61,500	58,000	75,000	76,000	70,500	77,500	77,000	C	93,000	0.83	C	8,370
I-4	Orange Camp Rd. to SR 44	497	Yes	Yes	FDOT	Yes	2.56	6	70	E+W	UA_FWIS_6L	Urban Principal Arterial - Interstate	52,500	62,000	59,000	61,000	58,000	61,500	65,000	62,000	55,500	60,500	C	93,000	0.65	B	8,370
I-4	SR 44 to US 92 Connector	486	Yes	Yes	FDOT	Yes	10.31	4	70	E+W	UA_FWIS_4L	Urban Principal Arterial - Interstate	47,500	49,500	53,500	54,500	56,000	56,000	56,000	54,000	55,000	55,000	C	61,500	0.89	C	5,540
I-4	US 92 Connector to I-95	491	Yes	Yes	FDOT	Yes	3.52	4	70	E+W	UA_FWIS_4L	Urban Principal Arterial - Interstate	35,500	36,500	37,500	42,500	47,500	45,500	43,000	43,000	40,000	40,000	C	61,500	0.65	B	5,540
I-95	N. of Volusia/Flagler Co. Line	292-F	Yes	Yes	FDOT			6	70	N+S	UA_FWIS_6L	Rural & Urban Principal Arterial - Interstate	60,600	63,000	65,000	-	57,700	63,200	64,700	62,500	63,200	65,100	C	93,000	0.70	B	8,370
I-95	Flagler Co. Line/Old Dixie to US 1	496	Yes	Yes	FDOT	Yes	5.00	6	70	N+S	UA_FWIS_6L	Rural & Urban Principal Arterial - Interstate	62,500	58,500	58,500	58,500	53,000	66,000	67,000	60,500	64,500	69,500	C	93,000	0.75	C	8,370
I-95	US 1 to SR 40	495	Yes	Yes	FDOT	Yes	5.55	6	70	N+S	UA_FWIS_6L	Rural & Urban Principal Arterial - Interstate	60,500	60,000	60,000	60,000	55,000	68,500	69,000	62,500	66,500	63,500	C	93,000	0.68	B	8,370
I-95	SR 40 to LPGA Blvd.	534	Yes	Yes	FDOT	Yes	2.64	6	70	N+S	UA_FWIS_6L + AUX	Urban Principal Arterial - Interstate	84,500	70,500	80,500	73,000	79,000	79,500	68,000	76,000	69,500	70,000	C	113,000	0.62	B	10,170
I-95	LPGA Blvd. to US 92	494	Yes	Yes	FDOT	Yes	3.56	6	65	N+S	UA_FWIS_6L	Urban Principal Arterial - Interstate	74,500	75,500	80,000	74,000	68,000	70,000	70,500	74,500	71,500	71,500	C	93,000	0.77	C	8,370
I-95	US 92 to Beville Rd./I-4	494	Yes	Yes	FDOT	Yes	1.26	6	65	N+S	UA_FWIS_6L + AUX	Urban Principal Arterial - Interstate	78,000	91,000	119,000	56,000	57,500	70,000	70,500	74,500	71,500	71,500	C	113,000	0.63	B	10,170
I-95	Beville Rd./I-4 to SR 421 (Dunlawton Av	492	Yes	Yes	FDOT	Yes	4.57	4	70	N+S	UA_FWIS_4L	Urban Principal Arterial - Interstate	46,500	49,500	49,500	56,000	57,500	52,500	51,000	44,500	42,500	45,000	C	61,500	0.73	B	5,540
I-95	SR 421 (Dunlawton Ave.) to SR 44	133	Yes	Yes	FDOT	Yes	6.99	4	70	N+S	UA_FWIS_4L	Urban Principal Arterial - Interstate	40,082	41,000	40,400	40,119	36,377	37,400	38,000	36,600	36,900	36,600	C	61,500	0.60	B	5,540
I-95	SR 44 to SR 442 (Indian River Blvd.)	503	Yes	Yes	FDOT	Yes	4.84	4	70	N+S	UA_FWIS_4L	Rural & Urban Principal Arterial - Interstate	30,500	34,000	28,500	33,500	34,000	32,000	32,000	31,000	31,000	32,500	C	61,500	0.53	B	5,540
I-95	SR 442 (Indian River Blvd.) to Brevard C	0436-B	Yes	Yes	FDOT	Yes	11.45	4	70	N+S	RUA_FW_4L	Rural Principal Arterial - Interstate	24,500	27,500	31,500	27,000	24,500	26,000	24,500	30,500	30,000	26,500	B	43,000	0.62	B	4,510
US 1	N. of Volusia/Flagler Co. Line	0263-F			FDOT	Yes		4	65	N+S	TA_UFH_2W_4L_D_WL	Rural Principal Arterial - Other	12,235	13,600	17,100	15,135	13,680	12,100	11,600	11,200	10,700	10,700	C	49,600	0.22	B	4,460
US 1	Flagler Co. to I-95	536			FDOT	Yes	1.53	4	60	N+S	UA_UFH_2W_4L_D_WL	Urban Principal Arterial - Other	15,400	17,100	18,300	19,900	16,800	15,200	15,400	15,100	13,400	14,300	D	65,600	0.22	B	5,900
US 1	I-95 to Airport Rd.	351		Yes	FDOT	Yes	2.81	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	20,600	22,500	23,000	23,000	22,500	21,500	21,500	20,500	19,400	20,200	D	39,800	0.51	C	3,580
US 1	Airport Rd. to Nova Rd.	100		Yes	FDOT	Yes	1.13	4	55	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	24,000	34,500	30,000	31,000	29,000	25,500	25,500	26,000	22,500	25,500	D	39,800	0.64	C	3,580
US 1	Nova Rd. to SR 40	1019		Yes	FDOT	Yes	1.83	4	55	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	20,000	19,600	19,800	18,800	18,200	17,000	16,800	16,300	16,400	16,600	D	39,800	0.42	C	3,580
US 1	SR 40 to Hand Ave.	5142		Yes	FDOT	Yes	0.84	4	40	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	30,000	26,500	27,000	25,000	23,500	22,500	23,000	21,500	19,000	20,300	D	39,800	0.51	C	3,580
US 1	Hand Ave. to LPGA Blvd.	1018		Yes	FDOT	Yes	2.00	4	40	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	30,000	29,000	28,500	28,500	27,000	26,000	26,000	26,000	21,500	24,000	D	39,800	0.60	C	3,580
US 1	LPGA Blvd. to SR 430 (Mason Ave.)	1018		Yes	FDOT	Yes	1.47	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	30,000	28,500	28,500	28,500	27,000	26,000	26,000	26,000	21,500	24,000	D	32,400	0.74	D	2,920
US 1	SR 430 (Mason Ave.) to Fairview/Main S	5074		Yes	FDOT	Yes	0.54	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	29,500	28,500	30,000	30,000	29,000	29,500	28,500	27,000	27,000	27,500	D	32,400	0.85	D	2,920
US 1	Fairview/Main St. to US 92/ISB	5071		Yes	FDOT	Yes	0.66	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	29,000	32,000	32,500	29,500	29,000	28,000	27,000	24,000	23,500	26,000	D	32,400	0.80	D	2,920
US 1	US 92/ISB to Orange Ave.	5070		Yes	FDOT	Yes	0.30	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	36,000	35,000	32,000	30,000	30,000	29,000	28,000	28,000	26,000	29,000	D	32,400	0.90	D	2,920
US 1	Orange Ave. to Bellevue Ave.	5066		Yes	FDOT	Yes	0.72	4	40	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	36,000	35,500	32,500	30,500	30,500	29,500	28,500	28,000	29,500	28,000	D	39,800	0.70	C	3,580
US 1	Bellevue Ave. to SR 400/Beville Rd.	452		Yes	FDOT	Yes	1.05	4	40	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	41,000	39,000	33,500	34,000	32,500	31,500	30,500	32,500	30,000	29,500	D	39,800	0.74	C	3,580
US 1	SR 400/Beville Rd. to Bellewood Ave.	5063		Yes	FDOT	Yes	0.27	4	40	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	35,500	35,000	33,000	30,500	30,000	28,000	26,000	28,000	27,500	26,000	D	39,800	0.65	C	3,580
US 1	Bellewood Ave. to Big Tree Rd.	5062		Yes	FDOT	Yes	0.45	4	40	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	35,500	34,000	31,500	29,500	30,000	28,000	27,500	26,500	24,500	27,000	D	39,800	0.68	C	3,580
US 1	Big Tree Rd. to Reed Canal Rd.	5061		Yes	FDOT	Yes	1.17	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	37,500	35,500	33,000	30,000	31,500	29,500	29,000	27,500	25,000	26,500	D	39,800	0.67	C	3,580
US 1	Reed Canal Rd. to SR 421 (Dunlawton A	213		Yes	FDOT	Yes	1.18	4	40	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	34,000	33,500	29,500	31,000	27,500	26,000	25,500	24,500	24,500	24,500	E	39,800	0.62	C	3,790
US 1	SR 421 (Dunlawton Ave.) to Commonwe	5057		Yes	FDOT	Yes	1.37	4	40	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	25,000	24,500	23,500	22,500	22,500	20,500	20,100	20,500	19,600	20,300	E	39,800	0.51	C	3,790
US 1	Commonwealth to Nova Rd.	152		Yes	FDOT	Yes	1.23	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	23,000	21,000	20,500	17,000	15,800	15,200	15,800	14,100	13,800	13,900	D	39,800	0.35	C	3,580
US 1	Nova Rd. to Art Center Ave.	13		Yes	FDOT	Yes	3.19	4	45	N+S	UA_UFH_2W_4L_D_WL	Urban Principal Arterial - Other	25,500	22,500	23,500	22,000	21,500	20,900	20,100	19,400	19,600	20,500	D	65,600	0.31	B	5,900
US 1	Art Center Ave. to Turnbull Bay Rd.	5159		Yes	FDOT	Yes	2.24	4	55	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	27,000	26,000	29,000	24,500	23,500	11,600	22,500	23,500	22,500	23,500	D	39,800	0.59	C	3,580
US 1	Turnbull Bay Rd. to Canal St. (Bus. SR 4	5155		Yes	FDOT	Yes	1.34	4	40	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	36,000	31,000	30,000	28,000	27,500	26,000	23,500	22,500	24,500	22,000	D	39,800	0.55	C	3,580
US 1	Canal St. (Bus. SR 44) to 10th Ave.	5154		Yes	FDOT	Yes	1.52	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	28,500	28,500	28,000	27,000	26,000	25,000	24,000	22,000	21,500	18,600	D	32,400	0.57	D	2,920
US 1	10th Ave. to Park Ave.	5168		Yes	FDOT	Yes	1.00	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	32,000	32,000	32,500	29,000	28,000	27,000	28,000	27,000	25,500	25,000	D	39,800	0.63	C	3,580
US 1	Park Ave. to SR 442 (Indian River Blvd.)	5170		Yes	FDOT	Yes	1.49	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	31,500	31,500	31,500	29,000	29,000	27,000	27,500	26,500	25,500	25,000	D	39,800	0.63	C	3,580
US 1	SR 442 (Indian River Blvd.) to Volco Rd.	27		Yes	FDOT	Yes	2.26	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	23,000	22,500	22,500	25,000	21,000	19,600	20,000	18,900	19,000	18,800	D	39,800	0.47	C	3,580
US 1	Volco Rd. to H.H. Birch Rd.	9929		Yes	FDOT	Yes	3.70	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	13,105	13,094	12,980	12,672	11,843	11,700	11,400	11,000	11,100	11,100	D	39,800	0.28	C	3,580
US 1	H.H. Birch Rd. to Halifax Ave.	9929		Yes	FDOT	Yes	2.05	4	45	N+S	TA_SSAC1_2W_4L_D_WL	Rural Principal Arterial - Other	13,105	13,094	12,980	12,672	11,843	11,700	11,400	11,000	11,100	11,100	C	35,500	0.31	C	3,060
US 1	Halifax Ave. to Putnam Grove Rd.	531		Yes	FDOT	Yes	0.57	4	65	N+S	TA_SSAC1_2W_4L_D_WL	Rural Principal Arterial - Other	4,300	3,700	3,700	4,000	3,600	3,800	3,500	3,400	3,100	3,100	C	35,500	0.09	C	3,060
US 1	Putnam Grove Rd. to Kennedy Pkwy.	531		Yes	FDOT	Yes	1.63	4	65	N+S	TA_SSAC1_2W_4L_D_WL	Rural Principal Arterial - Other	4,300	3,700	3,700	4,000	3,600	3,800	3,500	3,400	3,100	3,100	C	35,500	0.09	C	3,060
US 1	Kennedy Pkwy. to Brevard Co.	531		Yes	FDOT	Yes	3.97	4	55	N+S	RUA_UFH_2W_4L_D_WL	Rural Principal Arterial - Other	4,300	3,700	3,700	4,000	3,600	3,800	3,500	3,400	3,100	3,100	B	25,700	0.12	B	3,820
US 1	S. of Volusia/Brevard Co. Line	0404-B		Yes	FDOT	Yes		4	65	N+S	RUA_UFH_2W_4L_D_WL	Rural Principal Arterial - Other	3,400	3,100	2,800	3,000	2,700	3,000	2,700	2,800	3,000	3,100	B	25,700	0.12	B	3,820
US 17	N. of Volusia/Putnam Co. Line	67-P	Yes		FDOT	Yes		2	60	N+S	RUA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	6,300	6,300	6,100	5,700	6,200	5,100	5,300	5,000	4,900	5,000	C	8,400	0.60	C	790
US 17	Putnam County to CR 305/Lk George Rd	280	Yes		FDOT	Yes	3.41	2	60	N+S	RUA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	5,200	5,600	5,700	5,600	5,100	4,600	4,500	4,400	4,400	4,400	C	8,400	0.52	B	790
US 17	CR 305/Lk George Rd to Washington A	46	Yes		FDOT	Yes	5.28	2	55	N+S	RDA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	5,100	5,300	5,300	5,400	4,900	4,700	4,600	4,600	4,300	4,500	C	16,400	0.27	B	1,550
US 17	Washington Ave. to SR 40	448	Yes		FDOT	Yes	5.02	2	45	N+S	RDA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	7,200	7,100	7,500	7,100	7,400	6,400	6,000	6,300	5,700	6,200	C	16,400	0.38	B	1,550
US 17	SR 40 to Lake Winona Rd.	104	Yes		FDOT	Yes	4.93	2	45	N+S	RUA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	8,100	8,500	8,600	9,000	8,000	8,000	7,900	7,500	7,400	7,300	C	8,400	0.87	C	790
US 17	Lake Winona Rd. to Spring Garden Ranc	104	Yes		FDOT	Yes	0.56	2	45	N+S	TA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	8,100	8,500	8,600	9,000	8,000	8,000	7,900	7,500	7,400	7,300	C	17,300	0.42	B	1,550
US 17	Spring Garden Ranch Rd. to Reynolds R	519	Yes		FDOT	Yes	1.09	2	55	N+S	UA_UFH_2W_2L_U_WL	Urban Principal Arterial - Other	10,800	12,100	11,500	11,900	11,000	10,800	11,000	10,100	10,200	10,100	C	17,000	0.59	C	1,530
US 17	Reynolds Rd to SR 15A/CR 15A	476	Yes		FDOT	Yes	2.76	4	45	N+S	UA_UFH_2W_4L_D_WL	Urban Principal Arterial - Other	17,000	19,200	18,800	18,900	18,000	17,500	18,000	16,400	16,000	15,800	C	51,800	0.31	B	4,660
US 17	SR 15A/CR 15A to Glenwood Rd.	236			FDOT	Yes	1.64	4	55	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	16,000	16,600	17,200	16,700	15,300	15,200	15,100	14,500	13,700	13,500	D	39,800	0.34	C	3,580
US 17	Glenwood Rd. to Mercers Fernery Rd.	69			FDOT	Yes	0.51	4	55	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	23,500	24,500	25,000	24,000	22,500	22,500	21,500	21,000	20,500	20,500	D	39,800	0.52	C	3,580
US 17	Mercers Fernery Rd. to US 92	1000			FDOT	Yes	0.68	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	32,500	30,500	33,000	33,500	35,500	32,000	29,500	30,000	27,500	29,000	D	39,800	0.73	C	3,580
US 17/92	US 92 to Plymouth Ave.	66			FDOT	Yes	0.83	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	24,500	26,500	26,000	25,000	26,500	23,000	22,000	21,500	22,500	20,500	D	39,800	0.52	C	3,580
US 17/92	Plymouth Ave. to SR 44 (New York Ave.	5008			FDOT	Yes	1.01	2	30	N+S	UA_SSAC2_2W_2L_U_WL	Urban Principal Arterial - Other	23,000	19,300	19,500	18,000	18,300	16,300	16,700	16,400	16,000	16,300	E	15,600	1.04	F	1,410
US 17/92	SR 44 (New York Ave.) to Euclid Ave.	5004			FDOT	Yes	0.49	2	30	N+S	UA_SSAC2_2W_2L_U_WL	Urban Principal Arterial - Other	17,600	17,400	18,200	16,400	15,200	14,700	15,300	16,600	15,100	16,300	E	15,600	1.04	F	1,410
US 17/92	Euclid Ave. to Beresford Ave.	5173			FDOT	Yes	0.49	2	35	N+S	UA_SSAC2_2W_2L_D_WL	Urban Principal Arterial - Other	19,700	19,500	20,000	17,900	16,800	16,400	17,300	18,000	16,800	16,600	E	16,380	1.01	F	1,480
US 17/92	Beresford Ave. to SR 15A (Taylor Rd.)	1006			FDOT	Yes	1.02	4	40	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	29,000	33,500	32,000	33,000	27,500	26,500	26,500	27,500	27,000	27,000	D	39,800	0.68	C	3,580
US 17/92	SR 15A (Taylor Rd.) to SR 472	1004	Yes		FDOT	Yes	1.75	6	45	N+S	UA_SSAC1_2W_6L_D_WL	Urban Principal Arterial - Other	47,500	51,500	50,000	49,500	47,500	43,500	44,000	44,000	41,000	45,000	C	58,400	0.77	C	5,250
US 17/92	SR 472 to New York Ave.	445	Yes		FDOT	Yes	0.75	4	55	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	32,000	33,500	33,500	30,000	28,000	27,500	28,000	27,000	26,000	27,000	D	39,800	0.68	C	3,580
US 17/92	New York Ave. to Graves Ave.	5166	Yes		FDOT	Yes	1.00	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	33,000	35,000	33,000	32,000	30,000	29,500	30,000	29,000	27,500	26,500	D	39,800	0.67	C	3,580
US 17/92	Graves Ave. to Rhode Island Ave.	5165	Yes		FDOT	Yes	1.01	4	40	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	33,000	35,000	33,500	32,500	30,500	29,500	30,000	29,000	26,500	29,000	D	39,800	0.73	C	3,580
US 17/92	Rhode Island Ave. to Enterprise Rd.	444	Yes		FDOT	Yes	0.75	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	36,000	36,000	36,500	36,000	35,500	33,000	31,000	32,500	29,500	30,500	D	39,800	0.77	C	3,580
US 17/92	Enterprise Rd. to Saxon Blvd.	539	Yes		FDOT	Yes	0.80	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	29,500	30,500	30,500	28,500	27,500	27,500	27,500	27,500	26,000	17,600	D	39,800	0.44	C	3,580
US 17/92	Saxon Blvd. to DeBary Plantation Blvd	509	Yes		FDOT	Yes	0.61	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	29,500	30,500	30,500	28,500	27,500	27,500	27,500	27,500	26,000	26,000	C	37,900	0.69	C	3,420
US 17/92	DeBary Plantation Blvd to Highbanks Rd	8	Yes		FDOT	Yes	0.92	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	29,500	30,500	30,500	28,500	27,500	27,500	27,500	27,500	26,000	22,000	C	37,900	0.58	C	3,420
US 17/92	Highbanks Rd. to Valencia Rd	7	Yes		FDOT	Yes	0.74	4	40	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	19,400	21,000	22,500	21,500	22,000	21,000	21,500	21,000	21,500	21,500	C	37,900	0.57	C	3,420
US 17/92	Valencia Rd. to Dirksen Dr.	479	Yes		FDOT	Yes	1.05	4	50	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	19,400	21,000	22,500	21,500	22,000	21,000	21,500	21,000	21,500	21,500	C	37,900	0.57	C	3,420
US 17/92	Dirksen to Ft. Florida Rd.	101	Yes		FDOT	Yes	0.72	4	50	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	25,000	21,500	23,000	25,000	23,500	22,000	21,500	19,800	19,300	23,000	C	37,900	0.61	C	3,420
US 17/92	Ft. Florida Rd. to Barwick Rd	0040-S	Yes		FDOT	Yes	0.76	4	50	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	25,000	21,500	23,000	25,000	23,500	22,000	21,500	19,800	19,300	22,000	C	37,900	0.58	C	3,420
US 17/92	Barwick Rd. to Seminole Co.	0040-S	Yes		FDOT	Yes	0.52	4	50	N+S	UA_SSAC1_2W_4L_D_WL	Rural Principal Arterial - Other	25,000	21,500	23,000	25,000	23,500	22,000	21,500	19,800	19,300	22,000	C	37,900	0.58	C	3,420
US 92	US 17 to Jacobs Rd.	1001		Yes	FDOT	Yes	1.41	4	45	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	26,000	28,500	29,000	31,000	27,000	27,000	24,000	25,000	24,500	25,500	D	39,800	0.64	C	3,580
US 92	Jacobs Rd. to Kepler Rd.	5		Yes	FDOT	Yes	1.23	4	45	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	26,000	28,500	29,000	31,000	27,000	27,000	24,000	25,000	22,500	22,500	D	39,800	0.57	C	3,580
US 92	Kepler Rd. to Old Daytona Rd.	9925		Yes	FDOT	Yes	1.32	4	65	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	16,429	16,636	16,800	16,531	14,852	14,200	14,000	13,400	13,000	13,000	D	39,800	0.33	C	3,580
US 92	Old Daytona Rd. to Red John Dr.	9925		Yes	FDOT	Yes	7.20	4	55	E+W	RDA_UFH_2W_4L_D_WL	Rural Principal Arterial - Other	16,429	16,636	16,800	16,531	14,852	14,200	14,000	13,400	13,000	13,000	B	25,900	0.50	B	3,860
US 92	Red John Dr. to I-4 EB Ramp	478		Yes	FDOT	Yes	2.26	4	55	E+W	TA_SSAC1_2W_4L_D_WL	Rural & Urban Principal Arterial - Other	23,000	24,000	25,000	24,500	25,000	22,000	22,000	20,000	19,800	19,800	C	34,400	0.58	C	3,060
US 92	I-4 EB Ramp to LPGA Blvd.	478		Yes	FDOT	Yes	0.58	4	55	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	23,000	24,000	25,000	24,500	25,000	22,000	22,000	20,000	19,800	25,200	D	39,800	0.63	C	3,580
US 92	LPGA Blvd. to I-95	532		Yes	FDOT	Yes	2.03	4	55	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	32,000	31,500	28,000	29,000	28,500	25,500	25,000	27,000	24,500	25,000	D	39,800	0.63	C	3,580
US 92	I-95 to Williamson Blvd.	508	Yes	Yes	FDOT	Yes	0.71	8	50	E+W	UA_SSAC1_2W_8L_D_WL	Urban Principal Arterial - Other	46,500	48,000	48,500	51,500	43,500	43,500	42,000	40,500	40,500	37,500	C	78,800	0.48	C	7,090
US 92	Williamson Blvd. to Bill France Blvd.	5172	Yes	Yes	FDOT	Yes	1.13	8	50	E+W	UA_SSAC1_2W_8L_D_WL	Urban Principal Arterial - Other	47,000	51,500	49,500	50,000	50,000	43,500	46,000	43,000	41,500	42,000	C	78,800	0.53	C	7,090
US 92	Bill France Blvd. to SR 483/Clyde Morris	5094	Yes	Yes	FDOT	Yes	0.86	8	50	E+W	UA_SSAC1_2W_8L_D_WL	Urban Principal Arterial - Other	41,500	42,500	42,500	44,000	40,500	39,000	39,000	39,500	35,500	36,000	C	78,800	0.46	C	7,090
US 92	SR 483/Clyde Morris Blvd. to SR 5A/Nov	5096	Yes	Yes	FDOT	Yes	0.93	6	45	E+W	UA_SSAC1_2W_6L_D_WL	Urban Principal Arterial - Other	43,000	45,000	45,000	44,000	41,500	39,500	40,500	43,000	39,000	36,000	C	58,400	0.62	C	5,250
US 92	SR 5A/Nova Rd. to Martin Luther King B	5099	Yes	Yes	FDOT	Yes	0.78	4	40	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	32,000	33,000	29,000	26,500	29,500	28,500	27,500	25,500	27,500	26,000	C	37,900	0.69	C	3,420
US 92	Martin Luther King Blvd. to US 1	5104	Yes	Yes	FDOT	Yes	0.38	4	40	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	30,500	28,000	28,000	26,000	28,500	27,000	26,500	25,500	26,000	22,000	C	37,900	0.58	C	3,420
US 92	US 1 to Beach St.	5105		Yes	FDOT	Yes	0.23	4	30	E+W	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	17,700	20,900	17,900	22,500	20,800	17,700	18,500	17,500	17,300	15,200	D	32,400	0.47	D	2,920
US 92	Beach St. to SR 441/Peninsula Dr.	337		Yes	FDOT	Yes	0.88	4	40	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	20,400	21,000	16,500	18,500	18,700	17,400	15,800	13,500	18,100	13,200	D	39,800	0.33	C	3,580
US 92	SR 441/Peninsula Dr. to SR A1A/Atlanti	5109		Yes	FDOT	Yes	0.30	4	30	E+W	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	10,200	12,800	19,600	15,300	10,500	13,500	9,500	8,900	9,900	8,200	D	32,400	0.25	C	2,920
SR A1A - Ocean Shore Blvd.	Westmayer Pl. to N. 17th St.	0246-F		Yes	FDOT		2.25	2	45	N+S	UA_UFH_2W_2L_U_WL	Urban Principal Arterial - Other	6,900	6,700	6,100	5,600	4,900	6,000	4,800	5,000	4,700	5,200	D	24,200	0.21	B	2,170
SR A1A - Ocean Shore Blvd.	N. 17th St. to SR 100	1002-F		Yes	FDOT		1.25	2	45	N+S	UA_SSAC1_2W_2L_U_WL	Urban Principal Arterial - Other	8,300	8,500	7,500	6,800	5,600	6,400	6,000	6,200	5,900	6,500	D	17,700	0.37	C	1,600
SR A1A - Ocean Shore Blvd.	SR 100 to S. 23rd St.	1001-F		Yes	FDOT		2.10	2	35	N+S	UA_SSAC2_2W_2L_U_WL	Urban Principal Arterial - Other	9,600	10,100	8,700	7,800	7,700	9,200	7,700	7,600	7,700	8,800	D	17,700	0.50	D	1,330

Volusia County 2013 Average Annual Daily Traffic & Historical Counts

Road Name	Limits (From - To)	Count Station Number	2013 SIS Facility	Cycle 10-2 2013 Evacuation Route	Roadway Maintaining Agency	2013 Roadway on County's Thoroughfare	Distance (in miles)	2013 No. of Lanes	Posted Speed	Direction	2013 Facility Type	2000 Federal Functional Classification	2004 AADT	2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2013 Vol. Co. Allowable LOS	DAILY 2013 LOS Capacity	DAILY 2013 V/C Ratio	DAILY 2013 LOS	PEAK 2Way 2013 LOS Capacity
SR A1A - Ocean Shore Blvd.	S. 23rd St. to Volusia Co. Line	0010-F		Yes	FDOT		2.00	2	45	N+S	UA_UFH_2W_2L_U_WL	Urban Principal Arterial - Other	7,600	7,300	6,000	5,500	4,600	6,000	5,000	4,700	4,600	5,100	D	24,200	0.21	B	2,170
SR A1A - Ocean Shore Blvd.	Flagler Co Line to High Bridge Rd	368		Yes	FDOT	Yes	1.26	2	55	N+S	UA_UFH_2W_2L_U_WL	Urban Principal Arterial - Other	11,400	10,500	16,300	17,100	17,300	15,100	15,700	15,500	15,300	15,800	D	24,200	0.65	C	2,170
SR A1A - Ocean Shore Blvd.	High Bridge Rd to Ormond Mall	368		Yes	FDOT	Yes	6.42	2	55	N+S	UA_UFH_2W_2L_U_WL	Urban Principal Arterial - Other	11,400	10,500	16,300	17,100	17,300	15,100	15,700	15,500	15,300	15,800	D	24,200	0.65	C	2,170
SR A1A - Ocean Shore Blvd.	Ormond Mall to Neptune Ave	174		Yes	FDOT	Yes	1.69	2	40	N+S	UA_UFH_2W_2L_U_WL	Urban Principal Arterial - Other	21,500	17,600	16,500	16,600	17,500	16,400	15,800	18,500	15,100	15,400	D	24,200	0.64	C	2,170
SR A1A - Ocean Shore Blvd.	Neptune Ave to SR 40 (Granada Blvd.)	5125		Yes	FDOT	Yes	0.70	2	35	N+S	UA_UFH_2W_2L_U_WL	Urban Principal Arterial - Other	22,500	17,400	18,400	18,100	17,100	17,900	16,800	15,600	12,300	14,000	D	24,200	0.58	C	2,170
SR A1A - Atlantic Ave. North	SR 40 to Harvard Dr.	5124		Yes	FDOT	Yes	1.70	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	20,500	19,700	19,100	19,800	17,700	19,500	16,500	16,600	17,600	16,400	D	39,800	0.41	D	2,920
SR A1A - Atlantic Ave. North	Harvard Dr. to SR430/Seabreeze Blvd.)	5121		Yes	FDOT	Yes	2.53	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	18,900	21,000	20,000	24,000	20,000	18,500	17,000	17,100	16,400	17,800	D	39,800	0.45	D	2,920
SR A1A - Atlantic Ave. North	SR 430/Seabreeze Blvd. to SR430/Oakr	5117		Yes	FDOT	Yes	0.12	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	16,500	17,700	16,700	24,300	16,600	17,900	19,800	20,800	17,100	15,200	D	39,800	0.38	D	2,920
SR A1A - Atlantic Ave. North	SR 430/Oakridge Blvd. to US 92/ISB	5115		Yes	FDOT	Yes	0.90	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	15,300	16,000	15,400	21,500	23,500	17,400	17,800	15,200	16,500	17,300	D	39,800	0.43	D	2,920
SR A1A - Atlantic Ave. South	US 92 to Silver Beach Ave.	5112		Yes	FDOT	Yes	0.69	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	13,200	14,600	13,300	15,400	13,300	12,800	12,200	11,200	12,000	12,700	D	39,800	0.32	C	2,920
SR A1A - Atlantic Ave. South	Silver Beach Ave. to Florida Shores	436		Yes	FDOT	Yes	2.34	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	18,000	16,000	19,500	18,900	10,500	11,400	10,100	10,700	10,400	12,500	D	39,800	0.31	C	2,920
SR A1A - Atlantic Ave. South	Florida Shores to Van Ave.	5179		Yes	FDOT	Yes	1.29	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	14,400	15,600	13,900	14,900	16,900	11,800	16,100	13,800	11,400	12,800	D	39,800	0.32	C	2,920
SR A1A - Atlantic Ave. South	Van Ave. to SRA1A/Dunlawton Ave.	477		Yes	FDOT	Yes	1.05	4	35	N+S	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	23,500	17,400	18,800	13,000	16,700	15,800	15,500	13,700	11,200	12,500	D	39,800	0.31	C	2,920
SR A1A - Dunlawton Ave.	SR A1A/Atlantic Ave. to US 1	427		Yes	FDOT	Yes	1.25	4	35	E+W	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	28,000	28,500	29,000	29,500	30,000	27,000	24,500	27,000	26,000	26,000	E	39,800	0.65	D	3,040
SR 5A - Nova Rd.	US 1 to Wilmette Ave.	459		Yes	FDOT	Yes	1.00	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	10,600	11,800	15,900	14,700	14,000	13,400	12,800	12,800	12,300	12,400	D	39,800	0.31	C	3,580
SR 5A - Nova Rd.	Wilmette Ave. to SR 40	518		Yes	FDOT	Yes	0.51	6	45	N+S	UA_SSAC1_2W_6L_D_WL	Urban Principal Arterial - Other	21,500	21,500	24,500	26,000	24,500	23,000	23,000	24,000	23,500	23,500	D	59,900	0.39	C	5,390
SR 5A - Nova Rd.	SR 40 to Hand Ave.	510		Yes	FDOT	Yes	1.15	6	45	N+S	UA_SSAC1_2W_6L_D_WL	Urban Principal Arterial - Other	19,000	23,500	29,000	29,500	29,000	27,500	26,500	24,000	28,500	27,500	D	59,900	0.46	C	5,390
SR 5A - Nova Rd.	Hand Ave. to LPGA Blvd.	528		Yes	FDOT	Yes	2.06	6	45	N+S	UA_SSAC1_2W_6L_D_WL	Urban Principal Arterial - Other	20,500	25,000	31,000	31,000	30,500	29,000	29,000	28,000	28,500	26,000	D	59,900	0.43	C	5,390
SR 5A - Nova Rd.	LPGA Blvd. to SR 430/Mason Blvd	366		Yes	FDOT	Yes	1.47	6	45	N+S	UA_SSAC1_2W_6L_D_WL	Urban Principal Arterial - Other	24,500	32,500	31,500	31,000	32,500	30,000	29,500	27,500	27,000	25,500	D	59,900	0.43	C	5,390
SR 5A - Nova Rd.	SR 430/Mason Ave. to US 92/ISB	5088		Yes	FDOT	Yes	1.22	6	45	N+S	UA_SSAC1_2W_6L_D_WL	Urban Principal Arterial - Other	34,000	36,000	35,000	35,000	32,000	33,500	32,000	30,000	30,000	31,000	D	59,900	0.52	C	5,390
SR 5A - Nova Rd.	US 92/ISB to Bellevue Ave.	5090		Yes	FDOT	Yes	1.07	6	45	N+S	UA_SSAC1_2W_6L_D_WL	Urban Principal Arterial - Other	38,000	41,000	38,500	38,000	38,000	34,500	35,000	32,500	32,000	33,000	D	59,900	0.55	C	5,390
SR 5A - Nova Rd.	Bellevue Ave. to SR 400/Beville Rd.	348		Yes	FDOT	Yes	1.00	6	50	N+S	UA_SSAC1_2W_6L_D_WL	Urban Principal Arterial - Other	38,000	40,000	39,000	38,000	37,000	34,500	35,000	34,000	33,000	33,000	D	59,900	0.55	C	5,390
SR 5A - Nova Rd.	SR 400/Beville Rd. to Big Tree	363		Yes	FDOT	Yes	0.70	6	50	N+S	UA_SSAC1_2W_6L_D_WL	Urban Principal Arterial - Other	28,500	30,000	30,000	28,500	29,000	27,500	28,500	27,000	25,500	26,500	D	59,900	0.44	C	5,390
SR 5A - Nova Rd.	Big Tree to Madeline Ave.	363		Yes	FDOT	Yes	1.61	5	50	N+S	UA_SSAC1_2W_5L_D_WL	Urban Principal Arterial - Other	28,500	30,000	30,000	28,500	29,000	27,500	28,500	27,000	25,500	26,500	D	49,850	0.53	C	4,490
SR 5A - Nova Rd.	Madeline Ave to SR 421/Dunlawton Ave	1017		Yes	FDOT	Yes	1.30	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	23,000	25,000	26,000	26,000	26,500	26,500	27,000	26,500	25,500	26,000	D	39,800	0.65	C	3,580
SR 5A - Nova Rd.	SR 421/Dunlawton Ave. to Spruce Creek	1016		Yes	FDOT	Yes	1.08	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	23,500	23,500	25,500	24,500	24,500	25,000	25,500	23,500	25,000	24,500	D	39,800	0.62	C	3,580
SR 5A - Nova Rd.	Spruce Creek Rd. to US 1	458		Yes	FDOT	Yes	1.44	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	10,500	16,400	17,400	16,900	17,100	16,700	16,900	16,800	16,300	16,800	D	39,800	0.42	C	3,580
SR 11	CR 304 (in Flagler Co.) to SR 40	0009-F			FDOT	Yes	2.42	2	60	N+S	RUA_UFH_2W_2L_U_0L	Rural Principal Arterial - Other	3,100	3,100	3,000	3,200	2,600	2,400	2,200	2,000	2,200	2,100	C	6,300	0.33	B	590
SR 11	SR 40 to CR 15A	527			FDOT	Yes	9.19	2	60	N+S	RUA_UFH_2W_2L_U_0L	Rural Principal Arterial - Other	2,700	3,200	3,000	3,100	2,700	2,600	2,600	2,700	2,700	2,800	C	6,300	0.44	B	590
SR 11	CR 15A to US 17	4			FDOT	Yes	2.45	2	55	N+S	UA_UFH_2W_2L_U_WL	Urban Principal Arterial - Other	6,900	7,200	7,200	6,800	6,900	6,400	6,000	6,100	6,000	6,300	D	24,200	0.26	B	2,170
SR 15A	US 17 to Glenwood Rd.	466	Yes		FDOT	Yes	1.11	4	50	N+S	UA_SSAC1_2W_4L_D_WL	Urban Minor Arterial	11,000	11,600	10,900	11,400	10,600	10,800	10,700	10,300	10,200	10,600	C	37,900	0.28	C	3,420
SR 15A	Glenwood Rd. to CR 92	465	Yes		FDOT	Yes	1.20	4	50	N+S	UA_SSAC1_2W_4L_D_WL	Urban Minor Arterial	13,700	15,000	13,700	15,100	13,800	14,000	13,800	13,800	13,100	13,600	C	37,900	0.36	C	3,420
SR 15A	CR 92 to Plymouth Ave.	537	Yes	Yes	FDOT	Yes	0.83	4	50	N+S	UA_SSAC1_2W_4L_D_WL	Urban Minor Arterial	21,000	24,000	23,000	23,500	22,500	22,000	22,000	22,500	18,900	21,500	C	37,900	0.57	C	3,420
SR 15A	Plymouth Ave. to SR 44/New York Ave.	463	Yes	Yes	FDOT	Yes	1.01	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Minor Arterial	26,000	26,000	27,000	26,000	26,500	25,500	23,500	21,900	23,000	23,000	C	37,900	0.61	C	3,420
SR 15A	SR 44/New York Ave. to Beresford Ave.	474	Yes		FDOT	Yes	1.00	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Minor Arterial	27,500	25,500	24,500	24,500	23,500	22,500	22,500	21,500	21,000	22,000	C	37,900	0.58	C	3,420
SR 15A	Beresford Ave. to New Hampshire Ave.	6	Yes		FDOT	Yes	0.59	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Minor Arterial	28,000	22,500	24,000	22,000	21,000	20,000	19,200	21,000	20,500	21,000	C	37,900	0.55	C	3,420
SR 15A	New Hampshire Ave. to US 17/92	1005	Yes		FDOT	Yes	1.17	4	45	N+S	UA_SSAC1_2W_4L_D_WL	Urban Minor Arterial	20,000	22,000	22,500	22,000	21,000	21,000	19,100	19,700	19,000	20,500	C	37,900	0.54	C	3,420
SR 40	W. of the St. Johns River	0050-L	Yes	Yes	FDOT			2	45	E+W	RDA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	8,400	8,800	8,700	8,300	7,200	7,500	7,100	6,800	6,400	7,300	C	16,400	0.45	B	1,550
SR 40	Lake County to Emporia Rd.	533	Yes	Yes	FDOT	Yes	0.86	2	55	E+W	RDA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	7,600	7,300	7,600	8,700	7,600	7,700	6,800	7,000	6,800	6,300	C	16,400	0.38	B	1,550
SR 40	Emporia Rd. to US 17	344	Yes	Yes	FDOT	Yes	5.58	2	55	E+W	RDA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	6,600	6,900	7,500	8,300	7,200	7,000	6,500	6,500	6,600	5,900	C	16,400	0.36	B	1,550
SR 40	US 17 to SR 11	530	Yes	Yes	FDOT	Yes	6.69	2	60	E+W	RDA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	5,400	5,600	5,800	6,000	5,800	5,700	6,000	4,800	5,400	5,500	C	16,400	0.34	B	1,550
SR 40	SR 11 to Pinto Lane	530	Yes	Yes	FDOT	Yes	6.83	2	60	E+W	RDA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	5,400	5,600	5,800	6,000	5,800	5,700	6,000	4,800	5,400	5,500	C	16,400	0.34	B	1,550
SR 40	Pinto Lane to Rima Ridge Rd (urban bou	523	Yes	Yes	FDOT	Yes	1.25	4	60	E+W	UA_SSAC1_2W_4L_D_WL	Rural & Urban Principal Arterial - Other	12,400	13,000	13,500	11,200	10,800	10,800	10,000	10,600	9,400	9,400	C	37,900	0.25	C	3,420
SR 40	Rima Ridge Rd to Tymber Creek Rd.	499	Yes	Yes	FDOT	Yes	4.36	4	60	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	30,000	28,500	28,000	28,500	26,500	29,000	27,000	27,000	26,500	27,000	C	37,900	0.71	C	3,420
SR 40	Tymber Creek Rd. to I-95	499	Yes	Yes	FDOT	Yes	0.79	4	50	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	30,000	28,500	28,000	28,500	26,500	29,000	27,000	27,000	26,500	27,000	C	37,900	0.71	C	3,420
SR 40	I-95 to Clyde Morris Blvd.	522		Yes	FDOT	Yes	1.58	4	50	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	36,000	38,500	36,500	38,000	37,500	35,500	36,000	36,000	33,000	33,500	D	39,800	0.84	C	3,580
SR 40	Clyde Morris Blvd. to SR 5A/Nova Rd.	489		Yes	FDOT	Yes	1.06	4	50	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	35,000	37,000	36,000	36,000	35,000	33,500	33,000	33,000	33,000	32,000	D	39,800	0.80	C	3,580
SR 40	SR5A/Nova Rd. to US 1	1020		Yes	FDOT	Yes	1.33	4	45	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	29,500	31,500	33,000	32,500	32,000	32,000	29,500	30,000	30,000	30,000	D	39,800	0.75	C	3,580
SR 40	US 1 to Halifax Ave.	171		Yes	FDOT	Yes	1.11	4	35	E+W	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	38,000	39,500	35,500	34,500	36,500	34,500	34,000	34,000	33,500	34,000	D	32,400	1.05	F	2,920
SR 40	Halifax Ave. to SR A1A	5128		Yes	FDOT	Yes	0.37	4	35	E+W	UA_SSAC2_2W_4L_D_WL	Urban Principal Arterial - Other	20,500	23,000	23,000	25,000	24,000	22,000	19,500	20,500	18,000	18,900	D	32,400	0.58	D	2,920
SR 44	W. of the St. Johns River	0010-L		Yes	FDOT			2	45	E+W	RDA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	6,900	7,700	7,500	7,200	6,500	6,200	5,600	5,900	6,200	5,500	C	16,400	0.34	B	1,550
SR 44	Lake Co. to Shell Rd.	1007		Yes	FDOT	Yes	1.19	2	55	E+W	RDA_UFH_2W_2L_U_WL	Rural Principal Arterial - Other	10,700	11,300	11,400	12,000	10,600	10,400	9,400	9,000	9,400	9,200	C	16,400	0.56	C	1,550
SR 44	Shell Rd. to Grand Ave.	1007		Yes	FDOT	Yes	1.26	2	45	E+W	UA_UFH_2W_2L_U_WL	Rural & Urban Principal Arterial - Other	10,700	11,300	11,400	12,000	10,600	10,400	9,400	9,000	9,400	9,200	D	24,200	0.38	B	2,170
SR 44	Grand Ave. to Old New York/Hazen Rd.	290		Yes	FDOT	Yes	0.70	2	55	E+W	UA_UFH_2W_2L_U_WL	Urban Principal Arterial - Other	11,000	11,700	11,600	11,500	10,500	10,800	10,400	9,700	9,300	9,700	D	24,200	0.40	C	2,170
SR 44	Old New York/Hazen Rd. to SR 15A/Spr	274		Yes	FDOT	Yes	0.71	2	40	E+W	UA_UFH_2W_2L_U_WL	Urban Principal Arterial - Other	13,100	14,400	14,300	13,600	12,700	10,600	12,500	11,800	11,500	11,700	D	24,200	0.48	C	2,170
SR 44	SR 15A/Spring Garden Ave. to Stone St.	447		Yes	FDOT	Yes	0.50	2	40	E+W	UA_SSAC1_2W_2L_U_WL	Urban Principal Arterial - Other	12,900	13,400	13,300	12,500	12,000	12,000	11,400	11,300	11,300	10,600	D	17,700	0.60	C	1,600
SR 44	Stone St. to Clara Ave.	5012		Yes	FDOT	Yes	0.51	2	35-40	E+W	UA_SSAC1_2W_2L_U_WL	Urban Principal Arterial - Other	12,100	13,100	12,900	12,300	12,200	12,200	10,900	11,100	10,900	10,600	D	17,700	0.60	C	1,600
SR 44	Clara Ave. to Amelia Ave.	5015		Yes	FDOT	Yes	0.50	2	25-35	E+W	UA_SSAC2_2W_2L_U_WL	Urban Principal Arterial - Other	10,000	10,600	10,000	9,800	9,900	9,700	9,900	9,200	9,400	8,700	D	14,800	0.59	D	1,330
SR 44	Amelia Ave. to Hill Ave.	5019		Yes	FDOT	Yes	1.00	2	35/40/45	E+W	UA_SSAC1_2W_2L_U_WL	Urban Principal Arterial - Other	14,200	14,700	15,300	13,200	15,900	13,600	13,700	13,300	13,000	14,100	D	17,700	0.80	C	1,600
SR 44	Hill Ave. to Blue Lake Ave.	80		Yes	FDOT	Yes	0.51	2	45	E+W	UA_SSAC1_2W_2L_U_WL	Urban Principal Arterial - Other	13,200	13,200	14,600	15,600	12,600	14,500	12,300	13,300	13,000	12,600	D	17,700	0.71	C	1,600
SR 44	Blue Lake Ave. to Kepler Rd.	19		Yes	FDOT	Yes	0.94	2	45	E+W	UA_SSAC1_2W_2L_U_WL	Urban Principal Arterial - Other	14,700	16,400	17,700	15,000	15,800	15,100	14,600	16,400	15,600	15,900	D	17,700	0.90	C	1,600
SR 44	Kepler Rd. to Summit Ave.	259		Yes	FDOT	Yes	1.18	2	45-50	E+W	UA_SSAC1_2W_2L_U_WL	Urban Principal Arterial - Other	16,100	16,100	18,000	17,200	17,300	17,300	17,800	18,300	17,800	18,000	D	17,700	1.02	E	1,600
SR 44	Summit Ave. to I-4	538		Yes	FDOT	Yes	0.98	4	45	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	14,800	16,200	16,800	17,200	15,100	16,300	16,800	16,800	17,500	17,000	D	39,800	0.43	C	3,580
SR 44	I-4 to Prevatt Ave.	480		Yes	FDOT	Yes	0.74	4	55	E+W	TA_SSAC1_2W_4L_D_WL	Rural Principal Arterial - Other	15,800	17,200	14,700	15,300	16,700	17,600	17,700	16,400	17,200	19,900	C	35,500	0.56	C	3,060
SR 44	Prevatt Ave. to Pioneer Tr.	41		Yes	FDOT	Yes	5.93	4	65	E+W	RDA_UFH_2W_4L_D_WL	Rural Principal Arterial - Other	15,800	17,200	14,700	12,200	13,100	15,100	15,100	13,600	14,900	16,700	B	25,900	0.64	B	3,860
SR 44	Pioneer Tr. to SR 415/CR 415	1011		Yes	FDOT	Yes	3.56	4	65	E+W	RDA_UFH_2W_4L_D_WL	Rural Principal Arterial - Other	8,700	10,300	9,400	12,200	10,900	12,000	12,400	10,500	9,900	12,200	B	25,900	0.47	B	3,860
SR 44	SR 415/CR 415 to Samsula Dr.	1012		Yes	FDOT	Yes	1.14	4	65	E+W	RDA_UFH_2W_4L_D_WL	Rural Principal Arterial - Other	13,900	14,200	14,000	14,900	15,100	16,400	17,300	15,800	13,500	15,700	B	25,900	0.61	B	3,860
SR 44	Samsula Dr. to Airport Rd	423		Yes	FDOT	Yes	1.70	4	65	E+W	TA_UFH_2W_4L_D_WL	Rural & Urban Principal Arterial - Other	14,300	14,300	18,200	18,800	15,700	18,200	17,700	16,200	14,400	18,300	C	49,600	0.37	B	4,460
SR 44	Airport Rd. to I-95	423		Yes	FDOT	Yes	2.05	4	65	E+W	TA_UFH_2W_4L_D_WL	Rural & Urban Principal Arterial - Other	14,300	14,300	18,200	18,800	15,700	18,200	17,700	16,200	14,400	18,300	C	49,600	0.37	B	4,460
SR 44	I-95 to Mission Dr	515		Yes	FDOT	Yes	2.83	4	55	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	23,500	22,000	23,000	25,500	23,500	25,500	22,500	25,000	27,500	30,000	D	39,800	0.75	C	3,580
SR 44	Mission Dr. to Live Oak	514		Yes	FDOT	Yes	1.35	4	45	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	18,400	18,200	19,000	20,200	19,300	22,000	22,500	17,800	18,700	19,600	D	39,800	0.49	C	3,580
SR 44/SR A1A/S Causeway	Live Oak to Peninsula Ave.	207		Yes	FDOT	Yes	1.30	4	50	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	25,500	26,000	25,500	31,000	28,000	30,000	29,500	24,000	26,500	26,500	D	39,800	0.67	C	3,580
SR 44/SR A1A/S Causeway	Peninsula Ave. to Saxon Dr.	5180		Yes	FDOT	Yes	0.35	4	40	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	23,000	23,000	21,500	27,500	25,000	26,000	25,000	21,000	22,500	23,000	D	39,800	0.58	C	3,580
SR 44/SR A1A/3rd Ave/Atlantic	Saxon Dr. to 6th Ave	5043		Yes	FDOT	Yes	0.50	4	40	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	13,500	13,500	13,200	16,700	16,800	18,300	17,000	14,000	15,300	14,200	D	39,800	0.36	C	3,580
SR 44 (Business) - Canal St.	SR 44/Lytle St to Pioneer Trail	516			FDOT	Yes	0.17	2	40	E+W	UA_SSAC1_2W_2L_U_WL	Urban Minor Arterial	13,000	12,800	13,100	14,800	12,500	12,200	11,200	11,400	10,800	11,300	D	17,700	0.64	C	1,600
SR 44 (Business) - Canal St.	Pioneer Tr. to US 1	111			FDOT	Yes	0.76	2	40	E+W	UA_SSAC1_2W_2L_U_WL	Urban Minor Arterial	13,600	13,700	13,600	14,900	13,000	12,500	11,500	11,700	11,100	11,600	D	17,700	0.66	C	1,600
SR 44 (Old) - N Causeway	Riverside Dr to Peninsula	421			FDOT	Yes	0.14	2	30	E+W	UA_SSAC2_2W_2L_U_WL	Urban Minor Arterial	10,400	10,000	9,000	8,900	9,600	9,200	8,600	9,000	9,300	10,200	D	14,800	0.69	D	1,330
SR 46	Seminole Co. to Brevard Co.	0416-B			FDOT	Yes	5.44	2	55	E+W	RUA_UFH_2W_2L_U_WL	Rural Minor Arterial	5,700	6,000	5,700	-	5,500	8,500	5,200	5,600	6,000	5,600	C	8,400	0.67	C	790
SR 100 - Flagler County	John Anderson Hwy (CR 201) to Lamber	1000-F		Yes	FDOT		0.50	4	35	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	17,100	18,000	17,000	16,900	16,600	17,400	16,400	16,700	16,300	17,300	D	39,800	0.43	C	3,580
SR 100 - Flagler County	Lambert Ave. (CR 201) to SR A1A	5012-F		Yes	FDOT		0.70	4	35	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	13,900	13,600	12,500	12,200	12,400	14,000	11,500	12,100	11,200	12,900	D	39,800	0.32	C3,580	
SR 400 - Beville Rd.	I-95 to Williamson Blvd.	501		Yes	FDOT	Yes	0.28	4	55	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	27,500	27,500	28,500	25,500	24,500	24,000	24,500	24,000	24,000	26,500	D	39,800	0.67	C	3,580
SR 400 - Beville Rd.	Williamson Blvd. to SR 483/Clyde Morris	5189		Yes	FDOT	Yes	1.91	4	55	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	27,500	27,500	28,500	29,000	27,500	27,500	27,500	27,000	26,500	28,500	D	39,800	0.72	C	3,580
SR 400 - Beville Rd.	SR 483/Clyde Morris Blvd. to SR 5A/Nov	511		Yes	FDOT	Yes	0.68	4	45	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	35,000	35,000	34,500	34,000	32,500	32,500	31,000	32,000	33,000	33,000	D	39,800	0.83	C	3,580
SR 400 - Beville Rd.	SR 5A/Nova Rd. to US 1	502		Yes	FDOT	Yes	1.34	4	45	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	28,000	28,500	26,000	25,000	26,000	24,500	24,500	23,000	24,000	24,500	D	39,800	0.62	C	3,580
SR 415 - State Count	SR 44 to Acorn Lake Rd	1009		Yes	FDOT	Yes	10.49	2	55	N+S	RDA_UFH_2W_2L_U_WL	Rural Minor Arterial	9,400	9,700	9,500	10,500	9,100	9,200	7,300	8,300	7,700	9,000	C	16,400	0.55	C	1,550
SR 415 - State Count	Acorn Lake Rd to Howland Blvd.	321		Yes	FDOT	Yes	0.88	2	55	N+S	UA_UFH_2W_2L_U_WL	Urban Minor Arterial	5,100	6,100	7,300	6,600	6,200	6,700	6,400	5,900	6,500	6,500	D	24,200	0.27	B	2,170
SR 415 - State Count	Howland Blvd. to Enterprise-Osteen Rd.	437		Yes	FDOT	Yes	1.83	2	55	N+S	UA_UFH_2W_2L_U_WL	Urban Minor Arterial	14,100	14,200	14,000	15,700	15,200	15,300	15,100	15,100	15,200	15,200	D	24,200	0.63	C	2,170
SR 415 - State Count	Enterprise-Osteen Rd. to Seminole Co.	25		Yes	FDOT	Yes	4.39	2	55	N+S	TA_UFH_2W_2L_U_WL	Rural Minor Arterial	17,400	17,700	17,500	19,300	18,200	17,100	17,100	16,800	16,800	16,800	D	24,400	0.69	C	2,190
SR 415 - State Count	Volusia Co. Line to SR 46	0279-S		Yes	FDOT		0.90	2	55	N+S	UA_UFH_2W_2L_U_WL	Rural Minor Arterial	16,200	15,400	14,900	-	15,400	14,100	14,200	15,400	15,200	15,200	D	24,200	0.63	C	2,170
SR 421 - Dunlawton Ave.	Williamson to Clyde Morris Blvd.	517		Yes	FDOT	Yes	1.07	6	45	E+W	UA_SSAC1_2W_6L_D_WL	Urban Principal Arterial - Other	34,500	37,500	35,500	36,500	37,500	38,000	36,500	39,500	38,500	45,500	D	59,900	0.76	C	5,390
SR 421 - Dunlawton Ave.	Clyde Morris Blvd. to SR 5A/Nova Rd.	1014		Yes	FDOT	Yes	1.31	6	50	E+W	UA_SSAC1_2W_6L_D_WL	Urban Principal Arterial - Other	29,000	31,500	29,500	33,500	30,000	31,000	31,500	28,500	26,500	28,500	D	59,900	0.48	C	5,390
SR 421 - Dunlawton Ave.	SR5A/Nova Rd. to Spruce Creek Rd.	1015		Yes	FDOT	Yes	0.91	4	45	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	29,500	28,500	32,000	28,000	28,000	29,500	30,500	27,000	28,000	27,500	D	39,800	0.69	C	3,580
SR 421 - Dunlawton Ave.	Spruce Creek Rd. to US 1	5181		Yes	FDOT	Yes	0.71	4	45	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	28,500	25,500	29,000	26,000	27,000	26,500	27,500	25,000	25,500	25,000	E	39,800	0.63	C	3,790

Volusia County 2013 Average Annual Daily Traffic & Historical Counts

Road Name	Limits (From - To)	Count Station Number	2013 SIS Facility	Cycle 10-2 2013 Evacuation Route	Roadway Maintaining Agency	2013 Roadway on County's Thoroughfare	Distance (in miles)	2013 No. of Lanes	Posted Speed	Direction	2013 Facility Type	2000 Federal Functional Classification	2004 AADT	2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2013 Vol. Co. Allowable LOS	DAILY 2013 LOS Capacity	DAILY 2013 V/C Ratio	DAILY 2013 LOS	PEAK 2Way 2013 LOS Capacity
SR 430 - Mason Ave.	SR 483/Clyde Morris Blvd. to SR 5A/Nov	5197		Yes	FDOT	Yes	0.99	4	35	E+W	UA_SSAC2_2W_4L_U_0L	Urban Minor Arterial	21,500	21,000	19,600	20,300	20,300	20,100	18,200	18,200	17,800	18,200	D	24,300	0.75	D	2,190
SR 430 - Mason Ave.	SR 5A/Nova Rd. to US 1	5197		Yes	FDOT	Yes	1.08	4	35	E+W	UA_SSAC2_2W_4L_U_0L	Urban Minor Arterial	21,500	21,000	19,600	20,300	20,300	20,100	18,200	18,200	17,800	18,200	D	24,300	0.75	D	2,190
SR 430 - Mason Ave.	US 1 to Beach St.	5197		Yes	FDOT	Yes	0.30	4	35	E+W	UA_SSAC2_2W_4L_D_WL	Urban Minor Arterial	21,500	21,000	19,600	20,300	20,300	20,100	18,200	18,200	17,800	18,200	D	32,400	0.56	D	2,920
SR 430 - Oakridge Blvd. - EB	Beach St. to Peninsula Dr	5194			FDOT	Yes	0.70	2	40	E+W	UA_SSAC1_1W_2L_D_WL	Urban Minor Arterial	6,300	6,900	6,700	6,400	7,000	5,800	6,000	5,500	5,300	5,600	D	23,880	0.23	C	2,150
SR 430 - Oakridge Blvd. - EB	Peninsula Dr to SR A1A/Atlantic	5195			FDOT	Yes	0.28	2	40	E+W	UA_SSAC1_1W_2L_D_WL	Urban Minor Arterial	4,500	5,300	4,600	5,300	5,500	5,500	4,800	4,700	3,600	4,100	D	23,880	0.17	C	2,150
SR 430 - Seabreeze Bridge - WB	Beach St. to Peninsula Dr	5196		Yes	FDOT	Yes	1.01	2	40	E+W	UA_SSAC1_1W_2L_D_WL	Urban Minor Arterial	11,000	11,500	10,000	10,500	11,000	11,000	9,900	17,800	16,800	18,000	D	23,880	0.75	C	2,150
SR 430 - Seabreeze Bridge - WB	Peninsula Dr to SR A1A/Atlantic	5191		Yes	FDOT	Yes	0.29	2	30	E+W	UA_SSAC2_1W_2L_D_WL	Urban Minor Arterial	5,500	6,200	4,800	5,900	6,500	6,300	5,000	5,300	4,300	4,900	D	19,440	0.25	C	1,400
SR 441 - Peninsula Dr.	US 92/ISB to Silver Beach Ave.	5187			FDOT	Yes	0.65	2	35	N+S	UA_SSAC1_2W_2L_U_WL	Urban Minor Arterial	11,200	12,200	12,100	11,100	10,600	9,900	9,400	8,700	9,400	9,300	D	17,700	0.53	C	1,600
SR 441 - Peninsula Dr.	Silver Beach Ave. to Florida Shores	5187			FDOT	Yes	2.34	2	35	N+S	UA_SSAC1_2W_2L_U_WL	Urban Minor Arterial	11,200	12,200	12,100	11,100	10,600	9,900	9,400	8,700	9,400	9,300	D	17,700	0.53	C	1,600
SR 441 - Peninsula Dr.	Florida Shores to SR A1A/Dunlawton	5188			FDOT	Yes	2.42	2	40	N+S	UA_SSAC1_2W_2L_U_WL	Urban Minor Arterial	6,400	7,000	7,100	6,700	6,600	6,100	6,000	5,600	5,300	5,400	D	17,700	0.31	C	1,600
SR 442 - Indian River Blvd.	I-95 to Air Park Rd.	170		Yes	FDOT	Yes	2.09	4	55	E+W	TA_SSAC1_2W_4L_D_WL	Rural Minor Arterial	9,379	9,700	10,000	9,647	8,972	9,200	9,300	8,900	9,500	9,920	C	35,500	0.28	C	3,060
SR 442 - Indian River Blvd.	Air Park Rd. to US 1	5190		Yes	FDOT	Yes	1.69	4	45	E+W	UA_SSAC1_2W_4L_D_WL	Urban Minor Arterial	16,400	18,800	20,200	17,300	17,800	16,800	17,700	16,400	16,100	16,800	D	39,800	0.42	C	3,580
SR 472	US 17/92 to CR 4101/MLK Blvd	472			FDOT	Yes	2.31	4	60	E+W	UA_UFH_2W_4L_D_WL	Urban Principal Arterial - Other	19,200	20,100	21,400	20,800	18,900	19,200	20,200	19,700	20,100	21,000	D	65,600	0.32	B	5,900
SR 472	CR 4101/MLK Blvd to I-4 (end of state r	535			FDOT	Yes	1.10	4	60	E+W	UA_SSAC1_2W_4L_D_WL	Urban Principal Arterial - Other	23,500	27,000	28,000	27,000	25,500	24,000	24,500	22,000	24,500	24,000	D	39,800	0.60	C	3,580
SR 483 - Clyde Morris Blvd.	SR 430 (Mason Ave.) to US 92/ISB	5182			FDOT	Yes	1.20	4	45	N+S	UA_SSAC1_2W_4L_U_WL	Urban Principal Arterial - Other	21,500	22,000	20,500	20,500	18,400	17,700	18,300	20,000	18,100	18,900	D	37,800	0.50	C	3,400
SR 483 - Clyde Morris Blvd.	US 92/ISB to Aviation Ctr Pkwy/Bellevue	5193			FDOT	Yes	1.20	4	45	N+S	UA_SSAC1_2W_4L_U_WL	Urban Principal Arterial - Other	34,000	34,000	34,000	32,000	31,500	26,500	31,000	30,500	27,000	26,000	D	37,800	0.69	C	3,400
SR 483 - Clyde Morris Blvd.	Aviation Ctr Pkwy/Bellevue to SR 400/Be	5193			FDOT	Yes	0.98	4	45	N+S	UA_SSAC1_2W_4L_U_WL	Urban Principal Arterial - Other	34,000	34,000	34,000	32,000	31,500	26,500	31,000	30,500	27,000	26,000	D	37,800	0.69	C	3,400
6th St.	Derbyshire Rd. to SR 5A/Nova Rd	11			County	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,480	3,580	3,470	3,640	2,970	2,610	2,820	2,980	2,780	2,710	E	13,640	0.20	C	1,020
8th St.	Derbyshire Rd. to SR 5A/Nova Rd	21			City	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	4,270	3,670	3,670	3,950	3,330	3,090	2,850	2,790	2,530	-	E	13,640	-	-	1,020
13th St.	Derbyshire Rd. to SR 5A/Nova Rd	31			County	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,990	2,610	2,250	2,520	2,360	1,900	2,060	2,090	1,600	1,700	E	13,640	0.12	C	1,020
Adelle Ave.	Beresford Ave. to New Hampshire Ave.	43			County	No	0.50	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,930	3,120	2,970	3,540	2,310	2,850	2,290	2,530	2,410	2,650	E	13,640	0.19	C	1,020
Adelle Ave.	New Hampshire Ave. to SR 15A	41			County	No	0.50	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	700	660	650	780	590	300	270	320	320	330	E	13,640	0.02	C	1,020
Air Park Rd.	Park Ave. to Ragis Rd	52			County	Yes	0.87	2	40	N+S	UA_UFH_2W_2L_U_0L	n/c	1,030	1,470	1,410	920	2,080	2,030	1,700	2,030	2,100	2,270	E	24,975	0.09	B	2,240
Air Park Rd.	Ragis Rd. to SR 442	50			County	Yes	0.55	2	40	N+S	UA_UFH_2W_2L_U_0L	n/c	710	1,000	910	1,440	1,740	1,340	1,840	1,470	1,840	2,060	E	24,975	0.08	B	2,240
Airport Rd. (OB)	Tymber Creek Rd. to Pineland Tr.	60			County	Yes	2.05	2	35	E+W	UA_UFH_2W_2L_U_0L	Urban Collector	6,390	6,310	4,930	5,590	4,910	5,630	5,290	5,020	5,680	5,230	E	24,975	0.21	B	2,240
Airport Rd. (OB)	Pineland Tr. to Sunshine Blvd.	62			County	Yes	1.40	2	45	N+S	UA_UFH_2W_2L_U_0L	Urban Collector	5,650	5,520	4,760	4,970	4,360	4,490	4,460	4,400	5,040	4,670	E	24,975	0.19	B	2,240
Airport Rd. (OB)	Sunshine Blvd. to US 1	63			County	Yes	0.30	2	35	E+W	UA_UFH_2W_2L_U_0L	Urban Collector	8,050	7,830	6,330	6,700	7,380	7,190	6,640	6,780	7,640	7,090	E	24,975	0.28	C	2,240
Airport Rd. (PO)	Williamson Blvd to Pioneer Tr.	64			County	Yes	2.50	2	45	N+S	UA_UFH_2W_2L_U_WL	Urban Collector	3,310	5,000	5,290	5,330	5,430	5,410	5,440	6,000	6,160	6,040	E	33,300	0.18	B	2,990
Airport Rd. (NSB)	Pioneer Tr. to Luna Bella Ln	67			City	Yes	3.30	2	45	N+S	UA_UFH_2W_2L_D_WL	n/c	-	-	-	-	-	2,730	2,690	3,110	3,300	3,320	E	34,965	0.09	B	3,140
Airport Rd. (NSB)	Luna Bella Ln to SR 44	68			City	Yes	3.30	2	45	N+S	UA_UFH_2W_2L_D_WL	n/c	-	-	-	-	-	2,730	1,040	2,250	2,610	2,770	E	34,965	0.08	B	3,140
Amelia Ave.	US 92 to Plymouth Ave.	77			County	Yes	0.85	2	35	N+S	UA_NSSRC2_2W_2L_U_WL	Urban Collector	7,010	7,030	7,370	6,960	7,710	7,920	7,340	6,610	6,080	6,700	E	14,040	0.48	D	1,270
Amelia Ave.	Plymouth Ave. to Minnesota Ave.	75			County	Yes	0.50	2	30	N+S	UA_NSSRC2_2W_2L_U_WL	Urban Collector	13,080	13,850	11,950	12,920	12,030	12,620	11,570	10,610	10,230	10,590	E	14,040	0.75	D	1,270
Amelia Ave.	Minnesota Ave. to Ohio Ave.	74			County	Yes	0.15	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	12,570	13,500	11,650	12,500	11,680	12,300	11,440	10,310	10,260	10,380	E	13,640	0.76	D	1,020
Amelia Ave.	Ohio Ave. to SR 44	73			County	Yes	0.15	4	30	N+S	UA_NSSRC2_2W_4L_U_0L	Urban Collector	13,150	13,390	12,420	12,300	11,080	11,900	10,810	10,380	10,580	10,650	E	22,820	0.47	D	2,060
Amelia Ave.	SR 44 to Voorhis Ave.	71			City	No	0.25	4	30	N+S	UA_NSSRC2_2W_4L_U_0L	Urban Collector	10,840	11,010	10,610	9,750	8,950	9,570	9,260	8,590	8,920	9,669	E	22,820	0.42	C	2,060
Amelia Ave.	Voorhis Ave. to Beresford Ave.	70			City	No	0.75	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	8,250	8,580	8,390	7,670	6,770	7,280	6,650	7,000	7,070	6,940	E	13,640	0.51	D	1,020
Anderson Dr./Cloverleaf Blvd.	Cloverleaf Blvd. to Providence Blvd.	85			City	No	1.00	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	3,200	3,260	3,250	2,943			DELT	-	-	-	E	13,640	-	-	1,020
Ariel Rd.	Beacon Light Rd. to US 1	91			County	No	1.20	2	35	E+W	TA_NSSRC2_2W_2L_U_0L	Rural Local	650	730	680	590	530	530	500	560	540	540	E	10,220	0.05	C	920
Arredondo Grant Rd.	Spring Garden Ranch Rd. to James St.	100			County	Yes	0.60	2	30	E+W	RUA_UFH_2W_2L_U_0L	Rural Major Collector & Urban Collector	790	590	1,160	1,090	980	1,130	1,050	1,100	1,140	1,020	C	6,300	0.16	B	590
Arredondo Grant Rd.	James St. to SR 11	101			County	Yes	2.00	2	35	E+W	RUA_UFH_2W_2L_U_0L	Rural Collector	2,840	230	590	550	460	460	450	510	580	600	C	6,300	0.10	B	590
Atlantic Ave. (DBS)	SR A1A/Dunlawton Ave. to Phillis Ave.	115		Yes	County	Yes	0.40	4	35	N+S	UA_NSSRC2_2W_4L_D_WL	Urban Collector	13,670	13,010	17,620	14,180	11,530	12,400	14,380	9,170	13,680	13,050	E	30,420	0.43	C	2,740
Atlantic Ave. (DBS)	Phillis Ave. to Marcelle Ave.	113		Yes	County	Yes	0.75	2	35	N+S	UA_NSSRC2_2W_2L_D_WL	Urban Collector	11,270	11,340	13,370	11,280	9,360	10,110	12,930	8,250	11,990	11,760	E	14,740	0.80	D	1,330
Atlantic Ave. (DBS)	Marcelle Ave. to Major St	111		Yes	County	Yes	1.30	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	9,760	10,350	10,470	9,800	8,020	8,580	10,480	6,780	9,420	9,420	E	13,640	0.69	D	1,020
Atlantic Ave. (PI)	Major St to Beach St.	110		Yes	County	Yes	2.80	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,950	1,580	2,760	2,800	2,330	2,410	3,190	1,760	2,930	2,910	E	13,640	0.21	C	1,020
Atlantic Ave/Turtle Mound Rd.	Flagler Ave. (N. Causeway) to 6th Ave.	123		Yes	City	Yes	1.25	2	35	N+S	UA_NSSRC2_2W_2L_D_WL	Urban Principal Arterial - Other	3,920	3,090	4,190	3,760	3,020	3,410	3,550	2,760	3,350	-	E	14,740	-	-	1,330
Atlantic Ave/Turtle Mound Rd.	6th Ave. to 27th Ave.	122		Yes	County	Yes	1.45	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	17,530	14,800	18,250	19,070	13,580	16,840	16,200	13,430	16,510	14,560	E	37,970	0.38	C	3,410
Atlantic Ave/Turtle Mound Rd.	27th Ave. to Hiles Blvd.	120		Yes	County	Yes	1.55	2	45	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Principal Arterial - Other	11,600	9,160	12,840	13,230	8,260	12,190	12,790	9,900	11,900	11,400	E	17,050	0.67	C	1,540
Atlantic Ave/Turtle Mound Rd.	Hiles Blvd. to Saxon Dr	118		Yes	County	Yes	0.45	2	45	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Principal Arterial - Other	6,700	4,720	7,450	8,010	4,870	6,870	6,580	5,650	6,530	6,370	E	17,050	0.37	C	1,540
Atlantic Ave/Turtle Mound Rd.	Saxon Dr. to Turtle Mound Rd.	116		Yes	County	Yes	1.60	2	45	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Principal Arterial - Other	6,610	5,540	7,460	7,870	4,920	7,030	5,470	5,580	6,560	6,390	E	17,050	0.37	C	1,540
Atlantic Ave/Turtle Mound Rd.	Turtle Mound Rd. to Canaveral Nat'l Parl	1872		Yes	County	Yes	7.65	2	45	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Principal Arterial - Other	2,750	2,030	2,860	3,090	1,940	2,740	2,150	2,230	2,610	2,450	E	13,640	0.18	C	1,230
Barwick Rd.	Ft. Florida Rd. to US 17/92	127			City	No	1.50	2	30	N+S & E+W	TA_NSSRC2_2W_2L_U_0L	n/c	-	740	710	720	920	680	650	750	930	770	E	10,220	0.08	C	920
Beach/Riverside/Beach (OB)	Pine Tree Dr to Inglesa Ave.	137			County	Yes	1.10	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	2,520	2,600	2,380	2,450	2,150	2,490	2,220	2,000	1,950	1,830	E	13,640	0.13	C	1,020
Beach/Riverside/Beach (OB)	Inglesa Ave. to Wilmette Ave.	135			County	Yes	2.55	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	6,060	6,020	6,430	6,330	6,320	6,390	5,880	5,660	5,740	5,300	E	13,640	0.39	D	1,020
Beach/Riverside/Beach (OB)	Wilmette Ave. to SR 40	132			County	Yes	0.70	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	8,320	8,290	9,240	8,980	9,680	9,840	8,610	8,780	8,780	8,070	E	13,640	0.59	D	1,020
Beach/Riverside/Beach (OB)	SR 40 to Division Ave.	131			County	Yes	0.60	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	9,050	9,160	10,310	10,120	7,730	7,770	7,290	6,860	6,800	6,620	E	13,640	0.49	D	1,020
Beach/Riverside/Beach (HH)	Division Ave. to LPGA Blvd.	1632			County	Yes	1.60	2	25	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	6,140	6,620	6,110	6,530	5,550	5,400	5,000	4,930	5,050	4,570	E	13,640	0.34	C	1,020
Beach/Riverside/Beach (HH)	LPGA Blvd. to 5th St	130			County	Yes	0.20	4	25	N+S	UA_NSSRC2_2W_4L_U_0L	Urban Minor Arterial	7,610	6,360	6,480	6,860	5,120	5,060	4,600	4,920	4,960	4,740	E	13,640	0.35	C	1,020
Beach/Riverside/Beach (HH)	5th St to SR 430/Mason	130			County	Yes	0.20	4	25	N+S	UA_NSSRC2_2W_4L_U_0L	Urban Minor Arterial	7,610	6,360	6,480	6,860	5,120	5,060	4,600	4,920	4,960	4,740	E	22,820	0.21	C	2,060
Beacon Light Rd.	Volco Rd. to Ariel Rd.	141			County	Yes	1.25	2	35	N+S	TA_NSSRC2_2W_2L_U_0L	Rural Local	530	300	260	220	370	360	370	430	370	380	E	10,220	0.04	C	920
Beacon Light Rd.	Ariel Rd. to Halifax Ave.	140			County	Yes	2.75	2	35	N+S	RUA_UFH_2W_2L_U_0L	Rural Local	160	150	130	130	170	170	190	190	210	170	C	6,300	0.03	B	590
Bellevue Ave. Extension	CR 415/Tomoka Farms Rd to Williamso	151			County	Yes	0.50	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	5,740	6,520	6,280	6,970	7,790	5,450	5,470	4,970	5,010	5,290	E	13,640	0.39	D	1,020
Bellevue Ave. Extension	Williamson Blvd to SR 483/Clyde Morris	153			County	Yes	2.50	2	45	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	3,160	3,400	3,240	3,700	4,930	2,560	2,950	2,760	2,410	2,570	E	13,640	0.19	C	1,230
Bellevue Ave.	Clyde Morris Blvd. to Nova Rd.	DB-37			City	No	0.70	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	8,840	8,570	7,160	8,340	7,820	7,460	7,640	-	-	-	E	13,640	-	-	1,020
Bellevue Ave.	Nova Rd. to US 1	DB-35			City	No	1.20	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	8,140	8,720	8,630	7,310	7,060	6,780	7,000	-	-	-	E	13,640	-	-	1,020
Beresford Ave.	Beresford Rd. to Fatio Rd	161			County	Yes	0.70	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,880	1,420	1,640	1,930	1,420	1,290	1,300	1,280	1,340	1,340	E	13,640	0.10	C	1,020
Beresford Ave.	Fatio Rd. to SR 15A	162			County	Yes	1.30	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	4,900	3,410	4,130	4,860	3,760	3,760	3,600	3,590	3,720	3,540	E	13,640	0.26	C	1,020
Beresford Ave.	SR 15A to US 17/92	164			County	Yes	1.75	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	5,790	5,500	6,130	6,700	4,350	4,700	4,290	4,810	4,760	4,740	E	13,640	0.35	C	1,020
Beresford Ave.	US 17/92 to Amelia Ave	165			County	Yes	0.25	2	35	E+W	UA_NSSRC2_2W_2L_D_WL	Urban Collector	12,100	12,010	12,260	12,710	9,450	9,590	9,260	9,700	9,520	9,750	E	14,740	0.66	D	1,330
Beresford Ave.	Amelia Ave. to Hill Ave.	167			County	Yes	1.00	2	40	E+W	UA_NSSRC1_2W_2L_D_WL	Urban Collector	6,090	6,650	6,830	7,450	5,840	5,650	5,400	5,600	5,970	6,070	E	17,900	0.34	C	1,620
Beresford Ave.	Hill Ave. to Blue Lake Ave.	169			County	Yes	1.35	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	n/c	3,650	3,410	4,080	4,410	3,600	3,250	3,330	2,980	3,300	3,460	E	13,640	0.25	C	1,230
Beresford Ave.	Blue Lake Ave. to MLK (Kepler Rd.)	171			County	Yes	0.80	0	40	E+W	UA_NSSRC1_2W_2L_U_0L	n/c	-	-	-	-	-	-	-	-	-	-	E	13,640	-	-	1,230
Beresford Ave.	MLK (Kepler Rd.) to SR 44	172			County	Yes	0.75	0	40	E+W	UA_NSSRC1_2W_2L_U_0L	n/c	-	-	-	-	-	-	-	-	-	-	E	13,640	-	-	1,230
Beresford Rd.	Old New York Ave. to Beresford Ave.	183			County	No	0.30	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,290	1,920	2,350	2,370	2,100	1,890	1,860	1,990	2,050	1,890	E	13,640	0.14	C	1,020
Beresford Rd.	Beresford Ave. to Fatio Rd.	182			County	No	1.30	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Rural Minor Collector	1,020	1,130	1,200	1,240	1,170	1,050	920	1,050	1,060	950	E	13,640	0.07	C	1,020
Beresford Rd.	Fatio Rd. to Spring Garden Ave.	181			County	No	0.75	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	680	720	920	970	670	680	720	670	710	630	E	13,640	0.05	C	1,020
Beresford Rd.	Spring Garden Ave. to SR 15A	180			County	No	0.40	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	550	710	810	840	730	860	500	470	940	890	E	13,640	0.07	C	1,020
Big Tree Rd.	Clyde Morris Blvd. to Nova Rd.	192			County	Yes	1.10	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	7,180	9,400	8,350	9,180	8,320	8,630	7,940	7,700	8,080	7,200	E	13,640	0.53	D	1,020
Big Tree Rd.	Nova Rd. to Magnolia Ave.	193			County	Yes	0.40	2	35	E+W	UA_NSSRC2_2W_2L_D_WL	Urban Collector	10,130	15,230	13,110	14,860	13,840	13,150	12,830	12,230	11,460	11,040	E	14,740	0.75	D	1,330

Volusia County 2013 Average Annual Daily Traffic & Historical Counts

Road Name	Limits (From - To)	Count Station Number	2013 SIS Facility	Cycle 10-2 2013 Evacuation Route	Roadway Maintaining Agency	2013 Roadway on County's Thoroughfare	Distance (in miles)	2013 No. of Lanes	Posted Speed	Direction	2013 Facility Type	2000 Federal Functional Classification	2004 AADT	2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2013 Vol. Co. Allowable LOS	DAILY 2013 LOS Capacity	DAILY 2013 V/C Ratio	DAILY 2013 LOS	PEAK 2Way 2013 LOS Capacity
Big Tree Rd.	Magnolia Ave. to Kenilworth Ave.	195			County	Yes	0.45	2	35	E+W	UA_NSSRC2_2W_2L_D_WL	Urban Collector	9,850	13,710	12,120	13,530	11,640	11,180	11,310	10,850	10,160	9,290	E	14,740	0.63	D	1,330
Big Tree Rd.	Kenilworth Ave. to US 1	196			County	Yes	0.55	2	35	E+W	UA_NSSRC2_2W_2L_D_WL	Urban Collector	10,020	9,190	8,400	9,450	9,260	8,190	7,010	7,270	6,790	6,570	E	14,740	0.45	C	1,330
Bill France Blvd.	Clyde Morris Blvd. to Mason Ave.	202			City	No	0.38	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Collector	5,550	7,330	6,830	7,850	7,050	5,750	5,850	5,230	4,970	5,140	E	37,970	0.14	C	3,410
Bill France Blvd.	Mason Ave. to Dunn Ave.	201			City	No	0.63	4	40	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Collector	9,600	11,150	10,580	11,820	11,290	8,930	8,930	7,960	7,790	7,950	E	37,970	0.21	C	3,410
Bill France Blvd.	Dunn Ave. to US 92	200			City	No	0.60	4	35	N+S	UA_NSSRC2_2W_4L_U_WL	Urban Collector	12,450	16,110	13,740	15,020	13,920	10,260	11,410	10,250	10,750	11,270	E	28,900	0.39	C	2,600
Blackburn Rd.	CR 3 to Emporia Rd	211			County	No	1.25	2	35	N+S	RUA_UFH_2W_2L_U_0L	Rural Minor Collector	590	680	680	750	660	730	560	550	550	550	C	6,300	0.09	B	590
Blackwelder Rd.	Lake Winona Rd. to SR 11	221			County	No	3.25	2	35	E+W	RUA_UFH_2W_2L_U_0L	Rural Local	210	270	400	420	200	240	190	180	180	170	C	6,300	0.03	B	590
Blue Lake Ave.	Plymouth Ave. to Minnesota Ave.	237			County	Yes	1.00	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	4,270	4,900	3,960	7,690	5,460	5,090	5,100	5,780	5,380	5,200	E	13,640	0.38	C	1,230
Blue Lake Ave.	Minnesota Ave. to SR 44	236			County	Yes	0.55	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,760	3,430	3,650	5,320	4,230	3,920	3,760	4,330	4,190	4,060	E	13,640	0.30	C	1,020
Blue Lake Ave.	SR 44 to Voorhis Ave.	235			County	Yes	0.25	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,660	3,290	2,900	3,760	3,000	3,260	3,200	3,480	3,520	3,370	E	13,640	0.25	C	1,020
Blue Lake Ave.	Voorhis Ave. to Beresford Ave.	234			County	Yes	0.75	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,600	4,160	3,710	4,690	4,140	3,950	3,940	4,180	4,310	4,010	E	13,640	0.29	C	1,020
Blue Lake Ave.	Beresford Ave.. to Taylor Rd.	232			County	Yes	1.05	2	45	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	4,000	4,860	4,840	6,260	5,280	4,970	4,890	5,200	5,730	5,440	E	13,640	0.40	C	1,230
Blue Lake Ave.	Taylor Rd. to Orange Camp Rd.	231			County	Yes	1.05	2	45	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Collector	4,040	4,550	3,440	5,440	4,290	4,190	4,130	4,110	4,250	3,980	E	17,050	0.23	C	1,540
Blue Springs Av (West)	Sparkman Dr to Lawton Dr	239			County	No	0.60	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	-	-	-	7,260	6,940	7,710	6,120	5,830	5,410	5,080	E	13,640	0.37	C	1,020
Brownlee Rd.	Raulerson Rd. #1 to Raulerson Rd.	240			County	No	1.70	2	35	N+S	RUA_UFH_2W_2L_U_0L	n/c	190	210	210	250	140	100	260	140	180	180	C	6,300	0.03	B	590
Captain Dr.	Lake Helen-Osteen Rd. to Snow Dr	DLT-15.000			City	No	0.50	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Local	4,370	4,630	4,700	6,113	4,912		-	-	-	-	E	13,640	-	-	1,020
Captain Dr.	Snow Dr to Courtland Blvd.	DLT-15.010			City	No	1.00	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Local	2,620	2,190	2,240	3,562	3,340		-	-	-	-	E	13,640	-	-	1,020
Cardinal Blvd.	SR 421/Dunlawton Ave. to Marcelle Ave	260			County	No	0.15	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	4,770	2,590	2,780	3,370	4,530	4,630	4,830	5,090	5,160	4,740	E	13,640	0.35	C	1,020
Cardinal Blvd.	Marcelle Ave to Major St.	261			County	No	2.00	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,530	-	430	1,120	1,100	940	940	790	870	730	E	13,640	0.05	C	1,020
Carter Rd.	SR 11 to Marsh Rd.	270			County	No	1.75	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	n/c	1,440	1,590	1,540	1,340	1,400	1,470	1,540	1,400	1,460	1,420	E	13,640	0.10	C	1,230
Cassadaga Rd.	W. Volusia Bltwy. to Macy Ave.	280			County	Yes	1.80	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,340	2,490	2,410	2,380	1,670	2,170	2,100	1,970	2,190	2,010	E	13,640	0.15	C	1,020
Catalina Blvd.	Howland Blvd. to Sixma Rd.	DLT-20.020			City	No	0.50	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Local	9,560	11,560	12,750	15,799	12,089		-	-	-	11,700	E	13,640	0.86	E	1,020
Catalina Blvd.	Sixma Rd. to Lake Helen-Osteen Rd.	DLT-20.030			City	No	0.40	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Local	8,440	9,700	10,120	9,401	10,733		-	-	-	9,780	E	13,640	0.72	D	1,020
Clara Ave.	Beresford Ave. to New Hampshire Ave.	303			County	No	0.50	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,870	2,690	2,490	2,840	2,390	1,350	1,910	2,070	2,040	2,270	E	13,640	0.17	C	1,020
Clara Ave.	New Hampshire Ave. to SR 15A	301			County	No	0.50	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,630	1,710	1,570	1,800	1,780	1,410	1,540	1,640	1,640	1,850	E	13,640	0.14	C	1,020
Clifton Rd.	Lake Winona Rd. to SR 11	311			County	No	1.70	2	30	E+W	RUA_UFH_2W_2L_U_0L	Rural Local	150	140	180	250	180	200	180	190	160	170	C	6,300	0.03	B	590
Clyde Morris Blvd.	SR 40 to Hand Ave	348			County	Yes	0.80	4	35	N+S	UA_NSSRC2_2W_4L_D_WL	Urban Principal Arterial - Other	15,160	16,050	16,380	18,450	12,060	12,220	13,030	12,340	11,940	11,230	E	30,420	0.37	C	2,740
Clyde Morris Blvd.	Hand Ave. to LPGA Blvd.	343			County	Yes	1.50	4	50	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	13,960	15,090	15,640	17,500	11,790	11,970	13,000	14,070	13,560	12,280	E	37,970	0.32	C	3,410
Clyde Morris Blvd.	LPGA Blvd. to Bill France Blvd.	341			County	Yes	1.25	4	50	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	18,110	15,430	15,920	17,890	12,700	12,660	13,690	13,450	12,880	12,290	E	37,970	0.32	C	3,410
Clyde Morris Blvd.	Bill France Blvd. to Mason Ave.	338			County	Yes	0.60	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	13,330	14,470	14,390	16,700	12,420	12,610	13,630	13,140	12,310	11,990	E	37,970	0.32	C	3,410
Clyde Morris Blvd./SR 483	SR 430/Mason Ave. to US 92	5182			FDOT	Yes	1.20	4	45	N+S	UA_SSAC1_2W_4L_U_WL	Urban Principal Arterial - Other	21,500	22,000	20,500	20,500	18,400	17,700	18,300	20,000	18,100	18,900	D	37,800	0.50	C	3,400
Clyde Morris Blvd./SR 483	US 92 to Beville Rd.	5193			FDOT	Yes	2.00	4	45	N+S	UA_SSAC1_2W_4L_U_WL	Urban Principal Arterial - Other	34,000	34,000	34,000	32,000	31,500	26,500	31,000	30,500	27,000	26,000	D	37,800	0.69	C	3,400
Clyde Morris Blvd.	Beville Rd. to Big Tree Rd.	337			County	Yes	0.90	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	26,000	25,670	25,470	28,340	24,640	23,350	23,290	24,600	22,880	21,790	E	37,970	0.57	C	3,410
Clyde Morris Blvd.	Big Tree Rd. to Madeline Ave.	335			County	Yes	1.00	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	23,870	25,290	25,040	27,880	22,640	21,970	23,010	24,200	22,260	20,800	E	37,970	0.55	C	3,410
Clyde Morris Blvd.	Madeline Ave. to Willow Run Blvd.	333			County	Yes	1.30	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	24,820	24,800	24,690	27,290	25,290	21,200	22,130	22,750	21,460	20,000	E	37,970	0.53	C	3,410
Clyde Morris Blvd.	Willow Run Blvd. to SR 421/Dunlawton A	332			County	Yes	0.65	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	23,150	22,890	22,760	24,710	19,550	19,810	19,890	21,310	19,060	18,420	E	37,970	0.49	C	3,410
Clyde Morris Blvd.	SR 421/Dunlawton Ave to Taylor Rd.	330			County	Yes	0.95	2	40	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	11,980	11,440	11,390	12,670	8,730	10,300	10,530	10,060	9,900	9,190	E	17,050	0.54	C	1,540
Commonwealth Blvd.	Spruce Creek Rd. to Orange Ave.	360			County	No	0.55	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Local	4,810	6,010	5,900	6,410	6,620	5,210	5,380	5,250	5,450	5,220	E	13,640	0.38	C	1,020
Commonwealth Blvd.	Orange Ave. to US 1	361			County	No	0.35	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Local	6,420	4,130	3,730	4,120	3,970	3,460	3,590	3,670	3,540	3,530	E	13,640	0.26	C	1,020
CR 3	US 17 to Washington Ave.	386			County	Yes	2.20	2	35	N+S	RDA_UFH_2W_2L_U_0L	Rural Local	1,120	1,130	1,200	1,320	1,250	1,220	1,200	1,040	1,100	1,060	C	12,300	0.09	B	1,160
CR 3	Washington Ave. to Emporia Rd	384			County	Yes	1.20	2	30	N+S	RDA_UFH_2W_2L_U_0L	Rural Local	2,020	1,990	2,070	2,320	1,740	1,980	1,870	1,650	1,680	1,660	C	12,300	0.13	B	1,160
CR 3	Emporia Rd to SR 40	382			County	Yes	3.40	2	45	N+S	RDA_UFH_2W_2L_U_0L	Rural Local	950	890	980	1,100	760	880	760	700	680	720	C	12,300	0.06	B	1,160
CR 3	SR 40 to Lake Winona Rd.	380			County	Yes	5.04	2	35	N+S	RDA_UFH_2W_2L_U_0L	n/c	940	910	1,050	1,150	770	680	690	670	610	680	C	12,300	0.06	B	1,160
CR 3	Lake Winona Rd. to Ponce DeLeon Blvd	380			County	Yes	0.45	2	45	N+S	TA_NSSRC1_2W_2L_U_0L	n/c	940	910	1,050	1,150	770	680	690	670	610	690	E	13,640	0.05	C	1,120
CR 15A	US 17 to Airport Rd.	440			County	Yes	0.90	2	50	N+S	UA_UFH_2W_2L_U_0L	Urban Minor Arterial	4,280	4,970	4,100	4,320	4,700	4,380	4,300	4,220	4,160	3,980	E	24,975	0.16	B	2,240
CR 15A	Airport Rd. to SR 11	441			County	Yes	1.25	2	40	E+W	UA_UFH_2W_2L_U_0L	Urban Minor Arterial	2,200	2,770	2,420	2,530	2,530	2,230	2,150	2,190	2,060	2,070	E	24,975	0.08	B	2,240
CR 92 (Intn'l Spdwy Blvd.)	SR 15A to Stone St.	450		Yes	County	Yes	0.25	4	45	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	11,790	12,600	14,030	14,900	13,810	12,350	12,040	11,970	11,770	12,070	E	37,970	0.32	C	3,410
CR 92 (Intn'l Spdwy Blvd.)	Stone St. to US 17/92	452		Yes	County	Yes	0.75	4	35	E+W	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	15,050	14,890	16,710	17,690	16,590	15,630	14,870	14,370	14,000	14,510	E	30,420	0.48	D	2,740
CR 305 (Bunnell Rd.)	US 17 to Cowart Rd.	460			County	Yes	1.50	2	50	E+W	RUA_UFH_2W_2L_U_0L	Rural Minor Collector	1,890	2,080	2,050	2,120	2,200	1,660	1,220	1,490	1,420	1,360	C	6,300	0.22	B	590
CR 305 (Bunnell Rd.)	Cowart Rd. to Flagler Co.	461			County	Yes	3.00	2	50	E+W	RUA_UFH_2W_2L_U_0L	Rural Minor Collector	1,240	1,410	1,520	1,530	1,710	1,140	710	990	890	910	C	6,300	0.14	B	590
Courtland Blvd.	Beckwith St. to Captain Dr.	DLT-30.010			City	No	1.00	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	3,820	3,990	4,040	7,975	3,681		-	-	-	2,010	E	13,640	0.15	C	1,230
Courtland Blvd.	Captain Dr. to Elkcam Blvd	DLT-30.030			City	No	1.50	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	5,990	5,870	5,870	9,975	5,068		-	-	-	4,570	E	13,640	0.34	C	1,230
Courtland Blvd.	Elkcam Blvd. to end of road (Puerto Rico	DLT-30.040			City	No	0.75	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,940	2,120	2,110	4,331	1,899		-	-	-	1,160	E	13,640	0.09	C	1,020
Courtland Blvd.	Tallwood Dr. to Newmark Dr.	DLT-30.050			City	No	0.25	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,640	1,720	1,680	1,907	1,670		-	-	-	1,280	E	13,640	0.09	C	1,020
Courtland Blvd.	Newmark Dr. to Howland Blvd	DLT-30.070			City	No	1.00	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,150	3,170	3,180	5,973	3,575		-	-	-	2,400	E	13,640	0.18	C	1,020
Courtland Blvd.	Howland Blvd. to India Blvd	DLT-30.090			City	No	1.20	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	5,310	6,370	6,400	12,066	7,764		-	-	-	6,470	E	13,640	0.47	D	1,020
Courtland Blvd.	India Blvd. to Ft Smith Blvd	DLT-30.100			City	No	0.70	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	6,070	6,280	6,230	6,972	8,397		-	-	-	8,000	E	13,640	0.59	D	1,020
Courtland Blvd.	Ft Smith Blvd. to Doyle Rd	DLT-30.130			City	No	1.80	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	6,040	6,040	6,040	6,377	6,241		-	-	-	6,080	E	13,640	0.45	C	1,230
Courtland Blvd.	Doyle Rd. to Enterprise-Osteen Rd.	DLT-30.140			City	No	0.90	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,110	2,050	2,000	3,106	1,609		-	-	-	1,600	E	13,640	0.12	C	1,020
Cowart Rd.	Bunnell Rd to Little Brown Church Rd.	430			County	No	2.05	2	40	N+S	RUA_UFH_2W_2L_U_0L	Rural Local	240	370	390	440	390	280	310	260	230	220	C	6,300	0.03	B	590
Cow Creek Rd.	SR 442 to Volco Rd.	420			County	Yes	3.50	2	50	N+S	RUA_UFH_2W_2L_U_0L	n/c	820	840	970	1,020	780	750	720	750	740	760	C	6,300	0.12	B	590
Daugharty Rd.	SR 11 to Marsh Rd.	472			County	No	0.95	2	35	N+S	RUA_UFH_2W_2L_U_0L	Rural Local	570	670	600	530	540	540	610	550	550	510	C	6,300	0.08	B	590
Daugharty Rd. (S. End)	Marsh Rd. to SR 11	470			County	Yes	0.80	2	35	N+S	RUA_UFH_2W_2L_U_0L	Rural Local	570	650	620	560	590	520	500	510	510	490	C	6,300	0.08	B	590
Deltona Blvd.	Normandy Blvd. to Cloverleaf Blvd./Ande	DLT-35.000			City	No	1.25	4	35	E+W	UA_NSSRC2_4L_D_WL	Urban Collector	14,420	16,130	-	14,802	14,966		-	-	-	11,420	E	30,420	0.38	C	2,740
Deltona Blvd.	Cloverleaf Blvd./Anderson Dr. to Enterpr	DLT-35.030			City	No	0.50	4	35	N+S	UA_NSSRC2_4L_D_WL	Urban Collector	17,620	18,980	-	18,396	15,546		-	-	-	14,270	E	30,420	0.47	D	2,740
Deltona Blvd.	Enterprise Rd. to DeBary Ave	DLT-35.040			City	No	0.85	2	35	N+S	UA_NSSRC2_2W_2L_D_WL	Urban Collector	12,840	13,550	-	15,305	13,780		-	-	-	9,320	E	14,740	0.63	D	1,330
Demotte Ave.	Peninsula Dr. to Atlantic Ave.	500			County	No	0.20	2	25	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	4,420	2,820	2,270	2,450	2,450	3,900	4,250	3,940	4,480	4,050	E	13,640	0.30	C	1,020
Derbyshire Rd.	Flomich St. to LPGA Blvd.	512			County	Yes	0.75	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	7,080	8,420	8,320	9,010	7,870	7,420	7,680	7,930	7,470	7,320	E	13,640	0.54	D	1,020
Derbyshire Rd.	LPGA Blvd. to SR 430/Mason Ave.	511			County	No	1.45	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	6,710	7,230	6,810	7,400	6,830	6,400	6,160	5,950	5,980	5,870	E	13,640	0.43	D	1,020
Dirksen/DeBary/Doyle	US 17/92 to Sunrise Blvd.	520			County	Yes	1.75	2	45	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Minor Arterial	10,180	7,750	8,110	8,950	7,110	6,330	6,270	6,910	6,230	6,190	E	13,640	0.45	C	1,230
Dirksen/DeBary/Doyle	Sunrise Blvd to WB I-4 Ramps	521			County	Yes	0.20	2	45	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Minor Arterial	14,630	13,370	13,170	16,300	11,510	10,980	10,720	11,180	10,690	9,980	E	13,640	0.73	C	1,230
Dirksen/DeBary/Doyle	WB I-4 Ramps to EB I-4 Ramps	522			County	Yes	0.20	4	35	E+W	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	24,220	21,200	21,670	22,930	18,940	18,470	17,940	18,660	17,850	17,380	E	30,420	0.57	D	2,740
Dirksen/DeBary/Doyle	I-4 to Deltona Blvd.	480			County	Yes	0.10	4	35	E+W	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	31,400	29,800	31,030	31,210	27,480	26,450	25,730	26,830	26,260	25,480	E	30,420	0.84	D	2,740
Dirksen/DeBary/Doyle	Deltona Blvd. to Enterprise St.	481			County	Yes	0.65	4	35	E+W	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	20,530	20,040	20,900	20,510	17,820	17,680	17,220	17,190	17,630	17,240	D	30,420	0.57	D	2,630
Dirksen/DeBary/Doyle	Enterprise St. to Main St.	482			County	Yes	0.15	4	35	E+W	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	20,230	19,650	20,070	19,980	17,150	16,970	22,090	23,180	23,030	22,400	D	30,420	0.74	D	2,630
Dirksen/DeBary/Doyle	Main St. to Providence Blvd.	484			County	Yes	0.80	4	35	E+W	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	22,300	21,940	22,160	21,930	19,300	18,560	19,280	20,230	21,260	20,460	D	30,420	0.67	D	2,630

Volusia County 2013 Average Annual Daily Traffic & Historical Counts

Road Name	Limits (From - To)	Count Station Number	2013 SIS Facility	Cycle 10-2 2013 Evacuation Route	Roadway Maintaining Agency	2013 Roadway on County's Thoroughfare	Distance (in miles)	2013 No. of Lanes	Posted Speed	Direction	2013 Facility Type	2000 Federal Functional Classification	2004 AADT	2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2013 Vol. Co. Allowable LOS	DAILY 2013 LOS Capacity	DAILY 2013 V/C Ratio	DAILY 2013 LOS	PEAK 2Way 2013 LOS Capacity
Dirksen/DeBary/Doyle	Providence Blvd. to Garfield Rd.	485			County	Yes	1.20	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Minor Arterial	14,300	13,910	12,340	13,250	11,660	11,570	10,670	11,700	12,400	11,890	E	13,640	0.87	C	1,230
Dirksen/DeBary/Doyle	Garfield Rd. to Saxon Blvd.	530			County	Yes	1.50	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Minor Arterial	9,950	10,260	10,030	10,760	9,120	9,670	7,590	9,420	9,580	9,220	E	13,640	0.68	C	1,230
Dirksen/DeBary/Doyle	Saxon Blvd. to Courtland Blvd.	531			County	Yes	2.50	2	45	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Minor Arterial	9,190	9,380	9,170	9,020	8,180	8,870	8,720	7,880	8,020	7,860	E	13,640	0.57	C	1,230
Dirksen/DeBary/Doyle	Courtland Blvd. to SR 415	533			County	Yes	1.50	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Minor Arterial	6,150	5,770	5,730	6,700	5,830	6,370	5,800	6,020	5,950	5,680	E	13,640	0.42	C	1,230
Dunn/George Engram/Fairview/Ma	Tomoka Farms Rd. to Williamson Blvd.	716			County	Yes	0.75	2	40	E+W	UA_NSSRC1_2W_2L_U_WL	n/c	-	-	-	-	-	-	-	1,220	1,660	1,800	E	17,050	0.11	C	1,540
Dunn/George Engram/Fairview/Ma	Williamson Blvd. to Bill France Blvd.	717			County	Yes	1.00	2	40	E+W	UA_NSSRC1_2W_2L_U_WL	n/c	-	-	-	-	-	6,140	6,150	5,910	6,530	6,760	E	17,050	0.40	C	1,540
Dunn/George Engram/Fairview/Ma	Bill France Blvd. to Clyde Morris Blvd.	718(DB-54)			County	Yes	0.85	2	35	E+W	UA_NSSRC2_2W_2L_U_WL	n/c	13,776	13,512	16,618	19,622	13,264	12,430	12,740	11,350	11,530	11,350	E	14,040	0.81	D	1,270
Dunn/George Engram/Fairview/Ma	Clyde Morris Blvd. to Nova Rd.	719(DB-46)			County	Yes	1.00	4	40	E+W	UA_NSSRC1_2W_4L_D_WL	n/c	14,080	13,440	13,190	13,780	13,770	11,410	11,590	10,550	10,400	10,150	E	37,970	0.27	C	3,410
Dunn/George Engram/Fairview/Ma	Nova Rd. to US 1	720			County	Yes	1.20	4	35	E+W	UA_NSSRC2_2W_4L_D_WL	Urban Principal Arterial - Other	12,130	12,210	11,760	12,880	11,330	11,790	12,090	10,430	10,310	10,230	E	30,420	0.34	C	2,740
Dunn/George Engram/Fairview/Ma	US 1 to Beach St	631			County	Yes	0.40	2	30	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Principal Arterial - Other	6,270	5,960	5,640	6,200	5,590	5,500	5,670	5,570	5,060	5,380	E	14,040	0.38	C	1,270
Dunn/George Engram/Fairview/Ma	Beach St. to Peninsula Dr.	1170			County	Yes	0.60	2	30	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Principal Arterial - Other	10,700	7,530	7,080	7,650	7,050	6,220	6,710	6,980	6,330	6,560	E	14,040	0.47	C	1,270
Dunn/George Engram/Fairview/Ma	Peninsula Dr. to SR A1A	1171			County	Yes	0.35	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	10,420	6,750	6,250	6,770	6,640	5,360	5,870	6,010	5,700	5,540	E	13,640	0.41	D	1,020
Elkcam Blvd.	Normandy Blvd. to Ft. Smith Blvd.	DLT-45.000			City	No	1.50	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	11,870	12,570	-	10,153	5,142		-	-	-	7,500	E	13,640	0.55	D	1,020
Elkcam Blvd.	Ft. Smith Blvd. to Providence Blvd.	DLT-45.010			City	No	1.00	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	8,530	8,890	-	7,158	4,805		-	-	-	6,130	E	13,640	0.45	D	1,020
Elkcam Blvd.	Providence Blvd. to Montecito Ave.	DLT-45.020			City	No	1.05	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	12,890	13,360	-	11,751	11,772		-	-	-	10,080	E	13,640	0.74	D	1,020
Elkcam Blvd.	Montecito Ave. to Howland Blvd.	DLT-45.040			City	No	1.00	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	12,140	12,590	-	5,591	10,554		-	-	-	9,930	E	13,640	0.73	D	1,020
Elkcam Blvd.	Howland Blvd. to Lake Helen-Osteen Rd	DLT-45.050			City	No	0.15	2	35	E+W	UA_NSSRC2_2W_2L_D_WL	Urban Collector	13,280	13,980	-	6,068	13,766		-	-	-	10,530	E	14,740	0.71	D	1,330
Elkcam Blvd.	Lake Helen-Osteen Rd to Courtland Blvd	DLT-45.060			City	No	0.70	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	11,160	11,960	-	4,736	8,571		-	-	-	6,900	E	13,640	0.51	D	1,020
Elkcam Blvd.	Courtland Blvd. to Riverhead Dr.	DLT-45.080			City	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	620	680	-	592	943		-	-	-	480	E	13,640	0.04	C	1,020
Emporia Rd.	SR 40 to Peterson/Blackburn	560			County	Yes	3.00	2	40	N+S	RUA_UFH_2W_2L_U_0L	Rural Minor Collector	840	790	920	1,030	800	850	860	690	720	690	C	6,300	0.11	B	590
Emporia Rd.	Peterson/Blackburn to US 17	564			County	Yes	1.45	2	40	E+W	RUA_UFH_2W_2L_U_0L	Rural Minor Collector	1,390	1,330	1,540	1,640	1,210	1,420	1,880	1,280	1,230	1,320	C	6,300	0.21	B	590
Enterprise Ave. (NSB)	Pioneer Tr. to Halleck St.	570			County	Yes	0.10	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	7,410	7,480	7,400	7,110	7,500	7,210	7,640	7,460	7,000	7,740	E	13,640	0.57	D	1,020
Enterprise Rd.	US 17/92 to Harley Strickland Blvd.	586			County	Yes	0.50	4	35	N+S	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	23,070	22,530	24,250	23,270	23,090	23,210	22,160	22,090	20,900	19,330	E	30,420	0.64	D	2,740
Enterprise Rd.	Harley Strickland Blvd. to Saxon Blvd.	585			County	Yes	0.50	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	23,530	23,030	24,860	25,370	24,100	25,340	23,250	23,670	22,790	20,710	E	37,970	0.55	C	3,410
Enterprise Rd.	Saxon Blvd. to Highbanks Rd.	584			County	Yes	1.55	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	21,340	21,140	20,510	23,720	23,150	24,490	23,470	23,460	23,750	21,590	E	37,970	0.57	C	3,410
Enterprise Rd.	Highbanks Rd. to Deltona Blvd.	582			County	Yes	0.50	4	35	N+S	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	14,560	14,390	14,090	15,750	14,720	14,990	12,530	15,330	14,620	14,110	E	30,420	0.46	D	2,740
Enterprise Rd.	Deltona Blvd. to Main St.	581			County	Yes	1.10	2	35	N+S	UA_NSSRC2_2W_2L_U_WL	Urban Collector	6,270	6,290	6,310	6,860	5,990	6,100	7,030	7,800	7,150	7,270	E	14,040	0.52	D	1,270
Enterprise-Osteen Rd.	Providence to Garfield Rd	600			County	Yes	1.50	2	30	E+W	TA_NSSRC2_2W_2L_U_0L	Rural Local	2,830	2,840	2,970	2,790	2,580	2,480	2,570	2,690	2,470	2,470	E	10,220	0.24	C	920
Enterprise-Osteen Rd.	Garfield Rd to Reed Ellis Rd.	601			County	Yes	1.70	2	35	E+W	TA_NSSRC2_2W_2L_U_0L	Rural Local	1,930	1,910	1,960	2,020	1,870	1,840	1,750	1,850	1,690	1,690	E	10,220	0.17	C	920
Enterprise-Osteen Rd.	Reed Ellis Rd. to SR 415	602			County	Yes	2.50	2	35	E+W	TA_NSSRC2_2W_2L_U_0L	Rural Local	1,320	1,330	1,270	1,350	1,150	1,210	1,050	1,160	1,080	1,160	E	10,220	0.11	C	920
Euclid Ave.	Grand to Fatio Rd.	610			County	No	0.25	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,680	1,670	1,570	1,860	1,200	1,220	1,190	1,190	1,080	1,150	E	13,640	0.08	C	1,020
Euclid Ave.	Fatio Rd. to Woodward Ave.	611			County	No	0.25	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,520	1,770	1,640	1,950	1,370	1,380	1,340	1,360	1,270	1,330	E	13,640	0.10	C	1,020
Euclid Ave.	Woodward Ave. to SR 15A	612			County	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,130	2,990	2,860	3,400	2,300	2,390	2,270	2,310	2,300	2,220	E	13,640	0.17	C	1,020
Euclid Ave.	SR 15A to Adelle Ave.	613			County	No	0.75	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,210	3,000	2,790	3,310	2,500	2,740	2,520	2,440	2,510	2,430	E	13,640	0.18	C	1,020
Euclid Ave.	Adelle Ave. to US 17/92	614			County	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,360	2,096	1,850	2,140	2,080	1,940	2,180	2,150	2,200	2,150	E	13,640	0.16	C	1,020
Eustace Ave.	Catalina Blvd. to Providence Blvd	DLT-55.010			City	No	0.85	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	4,310	4,610	-	3,639	4,199		-	-	-	3,480	E	13,640	0.26	C	1,020
Flagler Ave. (NSB)	N. Causeway to Peninsula Ave.	640			FDOT	Yes	0.40	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	6,630	5,610	8,310	7,960	8,270	8,820	9,100	8,560	9,500	-	E	13,640	-	-	1,020
Flagler Ave. (NSB)	Peninsula Ave. to Atlantic Ave.	641			City	Yes	0.40	2	20	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	9,790	9,420	4,740	4,500	4,740	5,120	5,420	5,050	4,130	-	E	13,640	-	-	1,020
Flomich St.	Derbyshire Rd. to SR 5A/Nova Rd.	650			County	Yes	0.30	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	5,420	5,520	5,600	6,210	5,890	4,980	5,520	5,450	5,570	5,430	E	13,640	0.40	D	1,020
Flomich St.	SR 5A/Nova Rd. to US 1				City	No	1.40	2	25	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	-	-	-	-	-	-	-	-		-	E	13,640	-	-	1,020
Fort Florida Rd.	Highbanks Rd. to Ft. Florida Point Rd.	661			City	No	1.75	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	790	1,080	1,190	1,130	950	1,150	970	1,090	1,080	1,170	E	13,640	0.09	C	1,020
Fort Florida Rd.	Ft. Florida Point Rd. to Barwick Rd.	662			City	No	2.25	2	35	N+S & E+W	TA_NSSRC2_2W_2L_U_0L	Rural Minor Collector	790	410	400	380	270	230	260	640	770	730	E	10,220	0.07	C	920
Fort Florida Rd.	Barwick Rd. to US 17/92	660			City	No	0.60	2	35	E+W	TA_NSSRC2_2W_2L_U_0L	Rural Minor Collector	1,140	1,140	1,130	1,130	1,040	980	960	1,340	1,350	1,260	E	10,220	0.12	C	920
Fort Smith Blvd.	Elkcam Blvd. to Providence Blvd	DLT-60.000			City	No	1.00	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,220	2,910	-	3,160	3,280		-	-	-	2,250	E	13,640	0.16	C	1,020
Fort Smith Blvd.	Providence Blvd. to Newmark Dr.	DLT-60.020			City	No	0.50	2	35	N+S	UA_NSSRC2_2W_2L_D_WL	Urban Collector	12,680	12,290	-	11,901	13,876		-	-	-	10,500	E	14,740	0.71	D	1,330
Fort Smith Blvd.	Newmark Dr. to Normandy Blvd	DLT-60.030			City	No	0.85	2	35	N+S	UA_NSSRC2_2W_2L_D_WL	Urban Collector	8,140	7,470	-	7,576	7,010		-	-	-	8,610	E	14,740	0.58	D	1,330
Fort Smith Blvd.	Normandy Blvd. to India Blvd	DLT-60.050			City	No	0.55	2	35	N+S	UA_NSSRC2_2W_2L_D_WL	Urban Collector	14,410	13,530	-	14,262	13,768		-	-	-	11,570	E	14,740	0.78	D	1,330
Fort Smith Blvd.	India Blvd. to Courtland Blvd	DLT-60.070			City	No	2.25	2	35	N+S	UA_NSSRC2_2W_2L_D_WL	Urban Collector	7,400	6,880	-	7,154	7,592		-	-	-	6,260	E	14,740	0.42	C	1,330
Fort Smith Blvd.	Courtland Blvd. to Howland Blvd	DLT-60.100			City	No	0.75	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	5,670	4,760	-	7,388	8,497		-	-	-	8,460	E	14,740	0.57	D	1,330
Fort Smith Blvd.	Howland Blvd. to SR 415	DLT-60.110			City	No	0.55	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	4,010	3,810	-	3,949	3,108		-	-	-	2,840	E	13,640	0.21	C	1,020
French Ave.	Beginning of road to Blue Springs Park	690			County	No	1.00	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	170	170	160	190	130	160	130	140	180	130	E	13,640	0.01	C	1,020
French Ave.	Blue Springs Park to Lawton Ave./Hamil	691			County	No	1.25	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	700	540	510	600	530	1,340	800	520	670	480	E	13,640	0.04	C	1,020
French Ave.	Lawton Ave./Hamitlon to US 17/92	694			County	Yes	1.00	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	5,640	6,100	6,810	7,740	5,470	5,970	5,320	5,660	5,240	4,480	E	13,640	0.33	C	1,020
Garfield Ave.	US 92 to Plymouth Ave.	702			County	Yes	0.85	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,770	1,930	2,150	2,700	2,390	2,230	2,240	2,310	2,220	2,100	E	13,640	0.15	C	1,020
Garfield Ave.	Plymouth Ave. to SR 44	700			County	Yes	1.00	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,480	2,270	2,490	2,750	2,400	2,240	2,230	2,350	2,280	1,980	E	13,640	0.15	C	1,020
Garfield Ave.	SR 44 to Beresford Ave.	698 - NEW			City	No	1.00	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	-	-	-	-	-	-	-	2,330	2,140	2,100	E	13,640	0.15	C	1,020
Garfield Rd.	Doyle Rd. to Enterprise-Osteen Rd	711			County	Yes	0.90	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	n/c	1,830	1,880	1,680	1,480	1,440	1,590	1,530	1,860	1,680	1,530	E	13,640	0.11	C	1,230
Glencoe Rd.	Pioneer Tr. to SR 44	732			County	No	0.85	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	1,260	1,550	1,730	1,680	1,550	1,380	1,370	1,670	1,820	1,930	E	13,640	0.14	C	1,020
Glencoe Rd.	SR 44 to Paige Ave.	731			County	No	1.10	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	2,470	3,750	3,550	3,830	3,750	3,300	3,380	3,710	3,780	3,820	E	13,640	0.28	C	1,020
Glencoe Rd.	Paige Ave. to Taylor Rd.	730			County	No	1.50	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	n/c	1,290	1,470	1,110	1,400	1,280	1,070	1,120	1,310	1,300	1,410	E	13,640	0.10	C	1,230
Glenwood Rd.	Grand Ave. to SR 15A	741			County	Yes	1.60	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	4,060	4,420	2,270	1,600	4,430	3,980	3,980	4,210	4,170	4,030	E	13,640	0.30	C	1,020
Glenwood Rd.	SR 15A to US 17	743			County	Yes	1.25	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,070	2,420	2,230	1,330	2,580	2,260	2,190	2,140	2,140	2,050	E	13,640	0.15	C	1,020
Grand Av/CR 4053	Retta St. to Lemon St.	756			County	Yes	1.80	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	2,230	2,250	1,990	2,130	1,830	1,770	1,750	1,740	1,720	1,700	E	13,640	0.12	C	1,230
Grand Av/CR 4053	Lemon St. to Glenwood Rd.	754			County	Yes	1.30	2	35	N+S	UA_NSSRC2_2W_2L_D_WL	Urban Collector	4,800	4,360	4,180	4,330	4,060	3,790	3,720	3,700	3,630	3,550	E	14,740	0.24	C	1,330
Grand Av/CR 4053	Glenwood Rd. to Plymouth Ave.	752			County	Yes	2.10	2	40	N+S	RDA_UFH_2W_2L_U_0L	Rural Major Collector	2,840	2,770	2,750	2,960	2,610	2,250	2,270	1,910	2,010	2,080	C	12,300	0.17	B	1,160
Grand Av/CR 4053	Plymouth Ave. to Minnesota Ave.	751			County	Yes	0.50	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	1,800	1,570	1,500	1,540	1,570	1,280	1,290	1,240	1,270	1,260	E	13,640	0.09	C	1,230
Grand Av/CR 4053	Minnesota Ave. to SR 44	750			County	Yes	0.90	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,170	2,600	2,800	2,980	2,870	2,600	2,570	2,250	1,820	2,190	E	13,640	0.16	C	1,020
Grand Av/CR 4053	SR 44 to Old New York Ave.	748 - NEW			County	Yes	0.60	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	-	-	-	-	-	-	-	810	860	830	E	13,640	0.06	C	1,020
Graves Av/CR 4145	US 17/92 to Leavitt Ave.	770			County	Yes	0.50	2	30	E+W	UA_NSSRC2_2W_2L_D_WL	Urban Minor Arterial	7,010	7,780	7,910	7,000	7,570	6,610	6,110	6,680	6,470	5,550	E	14,740	0.38	C	1,330
Graves Av/CR 4145	Leavitt Ave. to Veteran's Memorial Pkwy	772			County	Yes	1.20	2	30	E+W	UA_NSSRC2_2W_2L_D_WL	Urban Minor Arterial	7,580	8,250	8,320	7,590	7,850	6,450	6,770	6,780	6,520	6,510	E	13,640	0.48	D	1,020
Graves Av/CR 4145	Veteran's Memorial Pkwy. to Kentucky A	775			County	Yes	0.30	2	45	E+W	UA_NSSRC1_2W_2L_D_WL	Urban Minor Arterial	14,740	18,040	15,840	16,680	17,290	16,590	16,840	17,570	17,140	16,750	E	17,900	0.94	E	1,620
Graves Av/CR 4145	Kentucky Ave. to Howland Blvd.	900			County	Yes	0.90	2	45	E+W	UA_NSSRC1_2W_2L_D_WL	Urban Minor Arterial	12,010	12,970	11,560	13,740	13,250	12,660	11,530	13,790	11,840	12,970	E	17,900	0.72	C	1,620
Greens Dairy Rd.	SR 15A to Stone St.	780			County	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	180	140	180	190	60	120	100	120	90	100	E	13,640	0.01	C	1,020
Halifax Dr. (OB)	John Anderson Dr. to Neptune Ave.	801			City	Yes	1.35	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	4,970	3,890	3,930	4,460	3,770	3,330	3,850	3,620	3,560	-	E	13,640	-	-	1,020
Halifax Dr. (OB)	Neptune Ave. to SR 40	800			City	Yes	0.70	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	7,120	6,760	7,310	7,720	6,610	6,220	5,900	6,080	5,790	-	E	13,640	-	-	1,020
Halleck St. (NSB)	Wayne Ave. to Enterprise Ave.	810			County	Yes	0.20	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	7,920	6,160	6,210	5,940	6,230	6,110	6,210	6,170	5,780	5,890	E	13,640	0.43	D	1,020
Hand Ave.	Williamson Blvd. to Clyde Morris Blvd.	830			County	Yes	1.25	2	50	E+W	UA_NSSRC1_2W_2L_U_WL	Urban Collector	7,700	9,080	8,780	8,440	7,870	7,110	8,340	7,660	7,900	6,750	E	17,050	0.40	C	1,540
Hand Ave.	Clyde Morris Blvd. to Shangri La Dr.	832			County	Yes	0.75	2	50	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	13,790	15,690	15,000	14,800	13,150	11,880	13,510	13,220	13,090	10,230	E	13,640	0.75	C	1,230
Hand Ave.	Shangri La Dr. to Nova Rd.	833			County	Yes	0.25	4	45	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Collector	14,860	17,210	17,010	15,840	14,200	13,750	15,150	14,880	14,320	13,350	E	37,970	0.35	C	3,410
Hand Ave.	Nova Rd. to US 1	834			City	Yes	1.90	2	25	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	10,900	12,180	11,730	8,480	7,860	7,270	7,670	8,080	5,360	-	E	13,640	-	-	1,020

Volusia County 2013 Average Annual Daily Traffic & Historical Counts

Road Name	Limits (From - To)	Count Station Number	2013 SIS Facility	Cycle 10-2 2013 Evacuation Route	Roadway Maintaining Agency	2013 Roadway on County's Thoroughfare	Distance (in miles)	2013 No. of Lanes	Posted Speed	Direction	2013 Facility Type	2000 Federal Functional Classification	2004 AADT	2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2013 Vol. Co. Allowable LOS	DAILY 2013 LOS Capacity	DAILY 2013 V/C Ratio	DAILY 2013 LOS	PEAK 2Way 2013 LOS Capacity
Harley Strickland Blvd.	Enterprise Rd. to Veteran's Memorial Pk	841			City	No	1.35	2	35	E+W	UA_NSSRC2_2W_2L_U_WL	n/c	10,290	11,420	11,460	13,760	12,190	12,110	12,770	12,390	11,850	11,760	E	14,040	0.84	D	1,270
Hazen Rd.	Mercers Ferrery Rd. to Plymouth Ave.	852			County	Yes	1.50	2	35	N+S	UA_NSSRC1_2W_2L_U_0L	n/c	790	680	850	880	620	630	590	720	700	800	E	13,640	0.06	C	1,020
Hazen Rd.	Plymouth Ave. to SR 44	850			County	Yes	1.00	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	n/c	1,120	1,190	1,370	1,480	1,190	1,130	1,130	1,050	1,240	1,250	E	13,640	0.09	C	1,230
Highbanks Rd.	Fort Florida Rd. to Westside Connector	860			City	No	1.75	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	2,200	1,930	1,950	1,980	2,100	2,260	1,880	1,810	1,840	2,120	E	13,640	0.16	C	1,230
Highbanks Rd.	Westside Connector to US 17/92	861			City	No	1.00	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	10,550	10,810	10,850	10,550	9,700	10,380	9,600	10,010	9,840	9,860	E	13,640	0.72	D	1,020
Highbanks Rd.	US 17/92 to Enterprise Rd.	863			City	No	1.45	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	8,060	7,360	7,420	7,990	7,420	7,070	6,800	7,360	7,370	7,380	E	13,640	0.54	C	1,230
Highbridge Rd.	Walter Boardman Ln. to John Anderson	871			County	Yes	1.60	2	30	E+W	TA_NSSRC2_2W_2L_U_0L	Rural Major Collector	2,400	2,340	2,010	2,010	1,950	2,370	2,130	1,830	2,100	1,750	E	10,220	0.17	C	920
Highbridge Rd.	John Anderson Dr. to SR A1A	872			County	Yes	0.20	2	30	E+W	TA_NSSRC2_2W_2L_U_0L	Rural Major Collector	1,910	1,950	1,580	1,610	1,560	1,920	1,730	1,520	1,780	1,490	E	10,220	0.15	C	920
Hill Ave./Jacobs Rd.	US 92 to Plymouth Ave.	950			County	Yes	0.85	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	4,160	4,340	4,910	5,770	5,580	5,100	6,190	5,870	5,190	5,820	E	13,640	0.43	C	1,230
Hill Ave.	Plymouth Ave. to Minnesota Ave.	885			City	Yes	0.50	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	4,520	4,730	4,980	5,590	4,410	4,700	4,340	5,240	5,020	4,890	E	13,640	0.36	C	1,020
Hill Ave.	Minnesota Ave. to SR 44	883			City	Yes	0.50	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,910	4,020	4,380	4,680	3,690	3,800	3,810	4,060	4,010	3,800	E	13,640	0.28	C	1,020
Hill Ave.	SR 44 to Voorhis Ave.	882			County	Yes	0.25	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,290	2,540	2,760	2,870	2,230	2,290	2,400	2,530	2,780	2,540	E	13,640	0.19	C	1,020
Hill Ave.	Voorhis Ave. to Beresford Ave.	881			County	Yes	0.75	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,960	2,150	2,310	2,450	2,050	2,080	2,130	2,310	2,370	2,200	E	13,640	0.16	C	1,020
Hill Ave.	Beresford Ave. to Taylor Rd.	878 - NEW			County	Yes	1.00	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	-	-	-	-	-	-	-	430	480	550	E	13,640	0.04	C	1,020
Hontoon Rd.	Old New York Ave. to Botts Landing Rd.	891			County	No	1.15	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	3,140	3,520	3,330	3,570	2,990	2,930	2,930	3,050	2,840	2,820	C	13,640	0.21	C	1,090
Hontoon Rd.	Botts Landing Rd. to end of road	890			County	No	2.00	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	760	1,080	980	1,060	850	780	920	870	790	840	C	13,640	0.06	C	470
Howland Blvd.	I-4/SR 472 to Wolf Pack Run	901			FDOT	Yes	0.40	4	45	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	26,180	29,420	34,200	31,910	29,950	28,290	30,330	30,490	29,890	27,480	E	37,970	0.72	C	3,410
Howland Blvd.	Wolf Pack Run to Catalina Blvd.	903			County	Yes	1.15	4	45	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	21,920	26,100	30,200	28,610	26,660	25,260	27,640	28,010	27,440	25,280	E	37,970	0.67	C	3,410
Howland Blvd.	Catalina Blvd. to Providence Blvd.	905			County	Yes	0.35	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	17,100	19,850	23,670	22,660	20,700	19,640	21,890	22,110	21,930	20,070	E	37,970	0.53	C	3,410
Howland Blvd.	Providence Blvd. to Elkcam Blvd.	906			County	Yes	2.10	2	45	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Minor Arterial	12,670	14,380	14,610	16,590	14,620	13,380	15,390	16,890	14,140	15,150	E	13,640	1.11	F	1,230
Howland Blvd.	Elkcam Blvd. to Lake Helen-Osteen Rd.	908			County	Yes	0.30	4	45/40	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	15,520	16,610	18,200	17,460	15,020	15,250	15,030	15,300	15,620	14,220	E	37,970	0.37	C	3,410
Howland Blvd.	Lake Helen-Osteen Rd. to Newmark Dr.	909			County	Yes	0.70	4	40	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	18,660	19,200	21,180	20,690	17,810	16,330	19,340	20,350	20,990	19,330	E	37,970	0.51	C	3,410
Howland Blvd.	Newmark Dr. to Courtland Blvd.	911			County	Yes	1.15	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	14,650	14,960	16,580	16,820	14,860	13,640	16,250	16,640	16,990	15,600	E	37,970	0.41	C	3,410
Howland Blvd.	Courtland Blvd. to Ft Smith Blvd.	913			County	Yes	1.80	2	45	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	9,160	9,300	11,280	12,690	11,160	11,570	12,820	13,280	12,920	11,770	E	17,050	0.69	C	1,540
Howland Blvd.	Ft Smith Blvd. to SR 415	915			County	Yes	0.65	2	45	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	7,750	7,770	8,220	11,730	11,870	11,580	12,770	12,650	12,180	12,530	E	17,050	0.73	C	1,540
India Blvd.	Fort Smith Blvd. to Humphrey Blvd.	DLT-80.000			City	No	2.06	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	6,560	6,120	-	6,106	3,750		-	-	-	3,520	E	13,640	0.26	C	1,020
Indian Lake Rd.	Tiger Bay Rd. to US 92	935			County	No	0.80	2	40	N+S	TA_NSSRC1_2W_2L_U_0L	Rural Local	-	5,650	5,880	7,250	6,340	5,380	5,020	6,090	5,550	5,180	E	13,640	0.38	C	1,120
Jimmy Ann Dr.	LPGA Blvd. to Clyde Morris Blvd.	962			City	No	0.30	2	45	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	8,120	7,170	7,430	8,330	8,660	7,890	8,470	7,520	7,650	7,680	E	13,640	0.56	C	1,230
Jimmy Ann Dr.	Clyde Morris Blvd. to Mason Ave.	960			City	No	0.15	2	45	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	7,680	5,650	5,730	4,760	4,700	4,460	4,900	4,380	4,000	4,070	E	13,640	0.30	C	1,230
John Anderson Dr.	Highbridge Rd. to Lynnhurst	974			County	Yes	7.40	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	4,960	5,300	4,420	5,180	3,430	4,080	3,880	3,590	3,960	4,570	E	13,640	0.34	C	1,020
John Anderson Dr.	Lynnhurst to Halifax Dr	972			County	Yes	0.85	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	6,710	6,970	6,150	6,890	5,550	5,620	5,220	5,390	5,520	6,730	E	13,640	0.49	D	1,020
John Anderson Dr.	Halifax Dr. to -Neptune	971			City	Yes	1.00	2	25	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	5,020	5,360	4,510	5,070	3,690	3,550	3,620	3,610	3,950	-	E	13,640	-	-	1,020
John Anderson Dr.	Neptune to SR 40	970			City	Yes	1.00	2	25	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	8,340	6,780	6,460	7,120	5,430	5,550	5,110	5,060	5,930	-	E	13,640	-	-	1,020
John Anderson Hwy.	Walter Boardman Lane to Flagler Co.	990			County	Yes	1.00	2	5 NB / 30 S	N+S	TA_NSSRC1_2W_2L_U_0L	Rural Minor Collector	1,440	1,480	1,060	1,060	1,110	1,040	960	1,000	1,140	900	E	13,640	0.07	C	1,120
Josephine St./10th St.	Old Mission Rd. to Tatum Blvd.	1000			County	Yes	0.30	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	4,400	6,050	6,310	6,370	5,610	6,370	6,000	5,810	5,860	5,910	E	13,640	0.43	D	1,020
Josephine St./10th St.	Tatum Blvd. to US 1	1002			City	Yes	1.80	2	35	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Collector	3,250	7,460	6,930	6,920	6,870	7,400	7,310	7,350	7,140	-	E	14,040	0.00		1,270
Kathy Dr. (N. Penin.)	John Anderson Dr. to SR A1A	1011			County	No	0.44	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Local	250	550	400	390	430	420	470	420	460	470	E	13,640	0.03	C	1,020
Kennedy Pkwy (Old SR 3)	US 1 to Park Entrance	1020			Federal	No	4.00	2	55	E+W	RUA_UFH_2W_2L_U_0L	Rural Major Collector	1,140	1,090	950	830	1,000	930	1,040	700	660	-	C	6,300	-	-	590
Kicklighter Rd.	Macy Ave. to Lake Helen-Osteen/Prevat	1051			County	Yes	0.75	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Local	1,270	1,550	1,520	1,640	1,760	1,770	1,930	2,080	1,810	1,690	E	13,640	0.12	C	1,020
Lake George Rd.	Bream Dr. to US 17	1062			County	No	3.90	2	30	E+W	RUA_UFH_2W_2L_U_0L	Rural Local	1,430	1,220	940	1,080	990	1,010	780	860	820	740	C	6,300	0.12	B	590
Lake Helen-Osteen Rd.	Kicklighter Rd. to Captain Dr.	1076			County	Yes	1.40	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	7,820	7,760	7,810	8,290	6,290	7,310	7,020	7,030	6,570	6,750	E	13,640	0.49	C	1,230
Lake Helen-Osteen Rd.	Captain Dr. to Catalina Blvd.	1073			County	Yes	0.40	2	45	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	7,920	8,050	8,090	8,610	6,700	6,990	7,390	7,410	7,090	6,840	E	13,640	0.50	C	1,230
Lake Helen-Osteen Rd.	Catalina Blvd. to Haulover Blvd.	1072			County	Yes	0.50	2	45	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	9,640	9,430	9,490	10,130	9,560	9,430	10,200	10,320	9,740	9,570	E	13,640	0.70	C	1,230
Lake Helen-Osteen Rd.	Haulover Blvd. to Elkcam Blvd.	1071			County	Yes	1.75	2	45	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	7,790	7,900	7,920	8,230	6,720	7,000	7,470	7,690	7,540	7,220	E	13,640	0.53	C	1,230
Lake Helen-Osteen Rd.	Elkcam Blvd. to Howland Blvd.	1070			County	Yes	0.40	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,470	3,420	3,400	3,660	2,920	3,440	5,490	6,140	6,050	6,060	E	13,640	0.44	D	1,020
Children's Way/Lakeshore Dr.	Main St. to Providence Blvd.	1090			County	Yes	0.70	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Local	2,430	2,340	2,380	2,220	2,000	2,080	1,220	1,000	960	900	E	13,640	0.07	C	1,020
Lakeshore Dr.	Providence Blvd. to Garfield Rd	1092			County	Yes	0.45	2	30	E+W	TA_NSSRC2_2W_2L_U_0L	Rural Local	2,050	3,200	3,350	3,100	3,070	2,860	2,680	2,590	2,610	2,520	E	10,220	0.25	C	920
Lakeview Dr.	New York Ave. to Main St.	1101			County	No	0.25	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,100	1,270	1,250	1,400	1,320	1,080	1,100	1,130	1,190	1,110	C	13,640	0.08	C	470
Lakeview Dr.	Main St. to Ohio Ave.	1100			County	Yes	0.50	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,340	2,650	2,640	2,890	2,780	2,300	2,900	2,600	2,790	2,740	C	13,640	0.20	C	470
Lake Winona Rd.	SR 40 to Blackwelder Rd.	1082			County	Yes	3.70	2	35	N+S	RUA_UFH_2W_2L_U_0L	Rural Local	230	260	250	300	180	180	180	150	120	140	C	6,300	0.02	B	590
Lake Winona Rd.	Blackwelder Rd. to US 17	1081			County	Yes	2.25	2	35	N+S	RUA_UFH_2W_2L_U_0L	Rural Local	1,070	1,120	1,160	1,290	880	910	860	880	800	800	C	6,300	0.13	B	590
Lake Winona Rd.	US 17 to CR 3	1080			County	Yes	0.15	2	35	N+S	RUA_UFH_2W_2L_U_0L	Rural Local	200	240	300	360	180	180	160	160	170	170	C	6,300	0.03	B	590
Lemon Bluff Rd.	SR 415 to end of road	1111			County	No	4.60	2	45	E+W	RUA_UFH_2W_2L_U_0L	Rural Local	1,190	1,200	1,060	960	990	960	990	1,000	980	880	C	6,300	0.14	B	590
Little Brown Church Rd.	US 17 to Cowart Rd.	1120			County	No	0.65	2	40	E+W	RUA_UFH_2W_2L_U_0L	Rural Local	470	680	720	720	690	630	640	510	460	450	C	6,300	0.07	B	590
LPGA Blvd. (DB)	Tomoka Farms Rd. to US 92				County	Yes	3.67	0	55	N+S	RDA_UFH_2W_2L_U_WL	n/c	-	-	-	-	-	-	-	-	-	-	C	16,400	-	-	1,550
LPGA Blvd. (DB)	US 92 to Welshinger-Butler Circle	1130			County	Yes	2.75	2	55	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	6,870	7,990	7,940	6,990	7,890	6,180	6,590	5,830	6,440	6,250	E	17,050	0.37	C	1,540
LPGA Blvd. (DB)	Welshinger-Butler Circle to Tomoka Far	1131			County	Yes	2.60	2	55	E+W	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	7,740	7,860	7,900	8,740	9,570	7,740	7,800	8,390	8,620	8,270	E	17,050	0.49	C	1,540
LPGA Blvd. (DB)	Tomoka Farms Rd to Williamson Blvd	1133	Yes		County	Yes	0.65	4	45	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	22,390	24,740	25,210	25,230	27,120	23,330	24,180	23,210	24,500	24,420	E	37,970	0.64	C	3,410
LPGA Blvd. (DB)	Williamson Blvd. to Clyde Morris Blvd.	1134	Yes		County	Yes	0.50	4	50	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	20,160	21,700	21,930	21,750	22,550	19,490	21,030	19,240	20,640	21,180	E	37,970	0.56	C	3,410
LPGA Blvd. (DB)	Clyde Morris Blvd. to Jimmy Ann Dr.	1136	Yes		County	Yes	1.10	4	45	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	14,480	16,530	16,800	19,480	16,650	14,400	13,850	14,080	15,410	15,650	E	37,970	0.41	C	3,410
LPGA Blvd. (DB)	Jimmy Ann Dr. to Derbyshire Rd.	1137	Yes		County	Yes	0.25	2	35	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Minor Arterial	16,950	19,310	19,730	18,680	19,030	16,430	15,700	15,960	17,300	18,010	E	14,040	1.28	F	1,270
LPGA Blvd. (CO)	Derbyshire Rd. to SR5A/Nova Rd.	1139	Yes		County	Yes	0.55	4	35	E+W	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	14,000	15,020	14,890	14,640	16,860	12,930	13,080	11,140	13,160	14,000	E	30,420	0.46	D	2,740
LPGA Blvd. (HH)	SR5A/Nova Rd. to US 1	1141	Yes		County	Yes	1.10	2	30	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Minor Arterial	12,180	11,750	11,690	10,920	11,600	9,850	10,260	9,350	9,570	9,830	E	14,040	0.70	D	1,270
Macy Ave.	Ohio St. to Cassadaga Rd.	1150			County	Yes	0.75	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,250	1,400	1,380	1,530	1,390	1,230	1,350	1,210	1,230	1,170	C	13,640	0.09	C	470
Madeline Ave.	Williamson Blvd. to Clyde Morris Blvd	1161			City	Yes	1.30	2	35	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Minor Arterial	5,570	9,850	8,820	9,900	10,030	8,910	9,600	9,930	9,980	-	E	14,040	-	-	1,270
Madeline Ave.	Clyde Morris Blvd. to SR5A/Nova Rd.	1163			City	Yes	1.30	2	25	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Minor Arterial	7,530	7,800	6,940	7,660	9,460	6,460	6,560	6,370	6,560	-	E	14,040	-	-	1,270
Madeline Ave.	SR5A/Nova Rd. to Sauls St.	1164			City	Yes	1.00	2	35	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Minor Arterial	6,310	5,560	5,100	5,680	4,270	4,210	4,760	4,510	4,440	-	E	14,040	-	-	1,270
Madeline Ave.	Sauls St. to US 1				City	Yes	0.50	0	35	E+W	UA_NSSRC2_2W_2L_U_WL	n/c	-	-	-	-	-	-	-	-	-	-	E	14,040	-	-	1,270
Main St. (Enterprise)	Jacob Brock Ave to DeBary Ave.	1174			County	Yes	0.35	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	5,600	4,810	4,870	4,440	4,490	4,880	2,830	2,920	2,660	2,370	E	13,640	0.17	C	1,020
Main St. (Harbor Oaks)	Riverside Dr. to US 1	1175			County	No	0.20	2	25	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	490	500	570	680	620	480	490	470	510	-	E	13,640	-	-	1,020
Main St. (Lake Helen)	I-4 to Lakeview Dr.	1176			County	Yes	0.95	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	5,450	6,330	6,050	6,370	5,320	5,390	5,600	5,500	5,550	5,310	C	13,640	0.39	D	470
Marsh Rd.	Daugharty Rd. to Carter Rd.	1183			County	Yes	3.00	2	40	N+S	RDA_UFH_2W_2L_U_0L	Rural Local	730	740	810	750	600	710	720	5,500	680	670	C	12,300	0.05	B	1,160
Marsh Rd.	Carter Rd. to US 92	1180			County	Yes	2.05	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Local	3,020	2,730	2,920	2,730	2,140	2,140	2,430	2,330	2,340	2,390	E	13,640	0.18	C	1,020
Mason Ave.	Williamson Blvd. to Fentress Blvd.	1190			County	Yes	0.60	2	45	E+W	UA_NSSRC1_2W_2L_D_WL	Urban Minor Arterial	10,330	10,020	9,490	10,860	9,090	8,400	8,360	8,300	8,450	8,650	E	17,900	0.48	C	1,620

Volusia County 2013 Average Annual Daily Traffic & Historical Counts

Road Name	Limits (From - To)	Count Station Number	2013 SIS Facility	Cycle 10-2 2013 Evacuation Route	Roadway Maintaining Agency	2013 Roadway on County's Thoroughfare	Distance (in miles)	2013 No. of Lanes	Posted Speed	Direction	2013 Facility Type	2000 Federal Functional Classification	2004 AADT	2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2013 Vol. Co. Allowable LOS	DAILY 2013 LOS Capacity	DAILY 2013 V/C Ratio	DAILY 2013 LOS	PEAK 2Way 2013 LOS Capacity
Mason Ave.	Fentress Blvd. to Bill France Blvd.	1191			County	Yes	0.50	2	40	E+W	UA_NSSRC1_2W_2L_D_WL	Urban Minor Arterial	12,080	12,470	11,660	11,550	10,700	10,680	10,580	9,320	9,760	8,460	E	17,900	0.47	C	1,620
Mason Ave.	Bill France Blvd. to Jimmy Ann Dr.	1193			County	Yes	0.30	4	40	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	14,530	14,240	13,750	13,830	13,250	12,140	12,900	11,750	12,520	11,660	E	37,970	0.31	C	3,410
Mason Ave.	Jimmy Ann Dr. to SR 483/Clyde Morris B	1194			County	Yes	0.50	4	40	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	15,590	15,140	14,650	16,230	13,510	13,150	13,530	12,120	12,330	11,940	E	37,970	0.31	C	3,410
Maytown Rd.	New Smyrna Blvd. to Pell Rd.	1196			County	No	5.60	2	50	E+W	RDA_UFH_2W_2L_U_0L	Rural Minor Collector	-	3,720	3,450	3,370	3,120	3,360	3,120	3,350	3,270	3,120	C	12,300	0.25	B	1,160
Maytown Rd.	Pell Rd. to Beacon Light Rd.	1198			County	No	12.90	2	45	E+W	RUA_UFH_2W_2L_U_0L	Rural Minor Collector	-	1,200	1,110	720	660	670	650	730	600	700	C	6,300	0.11	B	590
Maytown Rd./Halifax Ave. (OH)	Beacon Light Rd. to US 1	790			County	Yes	1.10	2	35	E+W	RDA_UFH_2W_2L_U_0L	Rural Minor Collector	1,900	1,960	1,770	1,990	1,380	1,650	1,650	1,770	1,680	1,620	C	12,300	0.13	B	1,160
McBride Rd.	US 17 to Lake George Rd.	1200			County	No	3.00	2	35	N+S	RUA_UFH_2W_2L_U_0L	Rural Local	330	350	380	380	270	290	310	300	220	220	C	6,300	0.03	B	590
McGregor Rd.	Westside Con./Fatio to Spring Garden A	1210 - NEW			County	Yes	0.70	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	-	-	-	-	-	-	-	1,600	1,600	1,570	E	13,640	0.12	C	1,230
McGregor Rd.	Spring Garden Ave. to US17/92	1211			County	Yes	1.40	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	4,930	5,800	5,440	5,580	4,990	4,730	4,600	8,110	8,850	6,250	E	13,640	0.46	C	1,230
Mercers Fernery Rd.	Glenwood Rd. to SR 15A	1221			County	Yes	1.45	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	990	1,010	2,340	2,380	830	910	860	980	950	1,010	E	13,640	0.07	C	1,020
Mercers Fernery Rd.	SR 15A to US 17	1223			County	Yes	1.25	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	1,150	1,300	1,470	1,530	1,170	1,350	1,370	1,580	1,520	1,470	E	13,640	0.11	C	1,020
Midway Ave.	Williamson Blvd. to US 92	1230			County	Yes	2.00	4	40	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Collector	3,020	3,110	2,840	3,210	3,310	2,420	2,530	2,380	2,440	2,630	E	37,970	0.07	C	3,410
Minnesota Ave. (DeLand)	Grand Ave. to SR 15A	1245			County	Yes	1.35	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	1,790	1,740	1,860	1,950	2,230	2,670	2,670	2,650	2,850	2,800	E	13,640	0.21	C	1,020
Minnesota Ave. (DeLand)	SR 15A to US 17/92	1247			County	Yes	1.25	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,780	1,790	1,840	1,990	1,110	1,240	1,090	1,100	900	970	E	13,640	0.07	C	1,020
Minnesota Ave. (DeLand)	Amelia Ave. to Hill Ave	1249			County	Yes	0.75	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,360	2,270	1,690	1,850	1,970	2,280	2,170	2,300	2,110	2,060	E	13,640	0.15	C	1,020
Minnesota Ave. (DeLand)	Hill Ave. to Blue Lake Ave.	1250			County	Yes	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,060	2,780	2,070	2,230	2,630	2,840	2,680	2,770	2,650	2,520	E	13,640	0.18	C	1,020
Minnesota Ave. (DeLand)	Blue Lake Ave. to Kepler Rd.	1251			County	Yes	0.85	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	4,340	3,890	3,370	3,550	4,270	4,500	3,530	4,530	4,170	4,000	E	13,640	0.29	C	1,230
Minnesota Ave. (Orange City)	Sparkman Ave. to US 17/92	1241			County	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	1,790	1,900	2,040	2,280	2,090	1,860	1,810	1,930	1,950	2,090	E	13,640	0.15	C	1,020
Minnesota Ave. (Orange City)	US 17/92 to Leavitt Ave.	1242			County	No	0.50	2	25	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,180	1,510	1,520	1,700	1,500	1,400	1,470	1,360	1,390	1,410	E	13,640	0.10	C	1,020
Minnesota Ave. (Orange City)	Leavitt Ave. to SR 472	1243			County	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,380	960	1,320	1,430	1,430	1,340	1,430	1,170	1,180	1,230	E	13,640	0.09	C	1,020
New Hampshire Ave.	SR 15A to Adelle Ave	1270			County	No	0.15	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,650	2,730	2,550	2,610	2,080	2,110	2,210	2,280	2,260	2,470	E	13,640	0.18	C	1,020
New Hampshire Ave.	Adelle Ave to Clara Ave.	1271			County	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,220	3,320	3,050	3,200	2,550	2,540	2,480	2,630	2,780	2,760	E	13,640	0.20	C	1,020
New Hampshire Ave.	Clara Ave. to US 17/92	1272			County	No	0.25	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,500	3,500	3,200	3,390	2,580	2,640	2,640	2,790	2,850	2,830	E	13,640	0.21	C	1,020
Newmark Dr.	Ft Smith Blvd. to Humphrey Blvd.	DLT-100.000			City	No	1.60	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	8,770	8,700	-	8,066	7,061		-	-	-	6,060	E	13,640	0.44	D	1,020
Newmark Dr.	Humphrey Blvd. to Howland Blvd	DLT-100.020			City	No	0.90	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	7,440	7,010	-	7,046	6,452		-	-	-	6,370	E	13,640	0.47	D	1,020
Newmark Dr.	Howland Blvd. to Courtland Blvd.	DLT-100.040			City	No	0.75	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,490	2,540	-	6,875	1,434		-	-	-	1,110	E	13,640	0.08	C	1,020
New York Ave. (Orange City)	Westside Pkwy/Hamilton Ave. to Sparkn	1281			County	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	3,500	4,030	4,340	4,730	4,490	3,750	3,850	4,230	3,880	3,990	E	13,640	0.29	C	1,020
New York Ave. (Orange City)	Sparkman Ave. to Carpenter Ave	1283			County	No	0.30	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	4,880	5,390	5,160	5,700	5,350	4,560	4,770	5,230	4,990	4,850	E	13,640	0.36	C	1,020
New York Ave. (Orange City)	Carpenter Ave. to US 17/92	1284			County	No	0.25	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	5,970	6,400	6,320	6,500	6,030	5,300	5,580	6,090	5,640	5,770	E	13,640	0.42	D	1,020
New York Ave. (Lake Helen)	Summit Ave. to Lakeview Dr.	1285			County	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,080	1,110	1,100	1,160	910	850	920	900	970	890	C	13,640	0.07	C	470
Normandy Blvd.	Graves (old Howland) to Rhode Island A	DLT-105.000			City	No	1.25	2	45	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	6,360	6,710	-	6,786	4,411		-	-	-	7,100	E	13,640	0.52	C	1,230
Normandy Blvd.	Rhode Island Ave. to Elkcam Blvd.	DLT-105.000			City	No	0.50	2	30	N+S	UA_NSSRC2_2W_4L_D_WL	Urban Collector	6,700	7,550	-	6,439	4,893		-	-	-	6,890	E	30,420	0.23	C	2,740
Normandy Blvd.	Elkcam Blvd. to Saxon Blvd	DLT-105.030			City	No	1.00	4	35	N+S	UA_NSSRC2_2W_4L_D_WL	Urban Collector	13,940	14,930	-	13,100	10,694		-	-	-	7,530	E	30,420	0.25	C	2,740
Normandy Blvd.	Saxon Blvd. to Deltona Blvd	DLT-105.050			City	No	0.70	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	13,630	14,370	-	12,775	10,996		-	-	-	10,230	E	13,640	0.75	D	1,020
Normandy Blvd.	Deltona Blvd. to Tivoli Dr.	DLT-105.070			City	No	1.10	3	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	13,740	14,360	-	12,843	11,929		-	-	-	9,560	E	13,640	0.70	D	1,020
Normandy Blvd.	Tivoli Dr. to Providence Blvd	DLT-105.090			City	No	0.90	3	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	9,560	10,360	-	12,069	8,305		-	-	-	6,850	E	13,640	0.50	D	1,020
Normandy Blvd.	Providence Blvd. to Saxon Blvd	DLT-105.120			City	No	1.00	2	35	N+S	UA_NSSRC2_2W_2L_D_WL	Urban Minor Arterial	9,240	10,040	-	8,662	8,148		-	-	-	7,020	E	14,740	0.48	D	1,330
Normandy Blvd.	Saxon Blvd. to Ft Smith Blvd	DLT-105.140			City	No	0.75	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	12,400	13,310	-	7,640	11,232		-	-	-	10,720	E	13,640	0.79	E	1,020
Ohio Ave. (LH)	Macy Ave. to Lakeview Dr.	1320			County	Yes	0.20	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	640	730	710	790	690	610	710	640	730	680	C	13,640	0.05	C	470
Old Dixie Hwy.	I-95 to Old Kings Rd.	1334			County	Yes	0.60	2	45	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	8,500	8,360	8,380	8,230	7,720	7,250	7,750	7,480	7,430	7,260	E	13,640	0.53	C	1,230
Old Dixie Hwy.	Old Kings Rd. to Walter Boardman Ln.	1333			County	Yes	0.55	2	45	E+W	TA_NSSRC1_2W_2L_U_0L	Rural Major Collector	4,450	4,420	3,750	3,870	3,300	3,490	3,210	3,080	3,390	2,990	E	13,640	0.22	C	1,120
Old Dixie Hwy.	Walter Boardman Ln. to Pine Tree Dr..	1332			County	Yes	5.10	2	45	N+S	TA_NSSRC1_2W_2L_U_0L	Rural Major Collector	3,160	3,170	2,480	2,620	2,090	2,340	2,240	1,890	2,060	1,810	E	13,640	0.13	C	1,120
Old Dixie Hwy.	Pine Tree Dr. to Ingelsia	1330			County	Yes	0.50	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Rural Major Collector & Urban Minor Arterial	2,280	2,270	2,240	2,280	2,040	1,970	2,170	1,710	1,890	1,710	E	13,640	0.13	C	1,020
Old Kings Rd.	Flagler Co. to Old Dixie Hwy.	1340			County	Yes	0.60	2	50	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	3,910	3,980	4,180	4,120	3,290	3,110	2,980	3,050	3,150	2,960	E	13,640	0.22	C	1,230
Old Mission Rd.	SR 44/Mission Dr. to Old Mission Rd	1356			County	Yes	0.60	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	-	1,160	870	900	1,220		1,120	1,100	1,080	1,120	E	13,640	0.08	C	1,230
Old New York Ave.	SR 44 to Hontoon Rd.	1360			County	Yes	1.40	2	40	E+W	RDA_UFH_2W_2L_U_0L	Rural Major Collector	1,200	1,280	1,110	1,190	870	720	870	940	810	820	C	12,300	0.07	B	1,160
Old New York Ave.	Hontoon Rd. to Lakeview Dr.	1361			County	Yes	0.40	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	4,190	4,120	3,850	4,190	3,570	2,820	3,250	3,540	3,190	3,170	C	13,640	0.23	C	1,090
Old New York Ave.	Lakeview Dr. to Grand Ave.	1362			County	Yes	0.50	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	5,210	5,080	5,050	5,390	3,970	3,860	4,130	4,210	3,990	4,010	E	13,640	0.29	C	1,230
Old New York Ave.	Grand Ave. to SR 44	1364			County	Yes	0.91	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	3,630	3,200	3,180	3,500	2,800	2,790	2,730	2,800	2,440	2,560	E	13,640	0.19	C	1,230
Orange/Silver Beach Ave.	Nova Rd. to Dr Martin Luther King Jr Blv	1370			County	Yes	0.75	2	30	E+W	UA_NSSRC2_2W_2L_D_WL	Urban Minor Arterial	12,260	10,760	10,870	11,500	9,290	9,980	10,930	8,500	7,970	7,980	E	14,740	0.54	D	1,330
Orange/Silver Beach Ave.	Martin Luther King Jr Blvd. to Marion St.	1372			County	Yes	0.20	2	30	E+W	UA_NSSRC2_2W_2L_D_WL	Urban Minor Arterial	9,030	8,380	7,770	8,390	6,530	7,110	7,270	6,190	6,210	6,220	E	14,740	0.42	C	1,330
Orange/Silver Beach Ave.	Marion St. to US 1	1373			County	Yes	0.10	4	30	E+W	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	9,510	8,150	7,540	8,360	6,300	6,890	7,530	6,280	6,200	6,160	E	30,420	0.20	C	2,740
Orange/Silver Beach Ave.	US 1 to Beach St.	1374		Yes	County	Yes	0.20	4	30	E+W	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	13,830	10,960	10,000	10,950	9,300	9,780	10,660	9,870	9,370	9,330	E	30,420	0.31	C	2,740
Orange/Silver Beach Ave.	Beach St. to City Island Pkwy.	1375		Yes	County	Yes	0.20	4	30	E+W	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	15,340	20,210	12,420	13,680	11,510	12,460	11,430	11,130	11,440	11,740	E	30,420	0.39	C	2,740
Orange/Silver Beach Ave.	City Island Pkwy. to Peninsula Dr.	1710		Yes	County	Yes	0.60	2	30	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Minor Arterial	13,200	12,730	11,130	11,820	10,210	10,870	10,340	10,550	10,850	10,710	E	14,040	0.76	D	1,270
Orange/Silver Beach Ave.	Peninsula Dr. to SR A1A	1711		Yes	County	Yes	0.30	2	30	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Minor Arterial	6,330	5,820	4,270	4,740	4,160	5,120	4,500	4,590	5,070	5,220	E	14,040	0.37	C	1,270
Orange Camp Rd.	US 17/92 to Princeton	1380			County	Yes	0.75	2	35	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Minor Arterial	9,010	10,030	10,460	10,960	9,620	8,730	8,850	9,020	9,640	9,080	E	14,040	0.65	D	1,270
Orange Camp Rd.	Princeton. to Blue Lake Ave.	1382			County	Yes	0.90	2	50	E+W	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	8,170	8,380	7,710	8,170	8,540	8,430	8,070	8,860	9,280	8,800	E	17,050	0.52	C	1,540
Orange Camp Rd.	Blue Lake Ave. to W Volusia Bltwy. (Dr M	1384			County	Yes	0.55	2	50	E+W	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	9,130	9,920	10,210	10,790	9,590	9,190	8,940	8,880	9,600	9,330	E	17,050	0.55	C	1,540
Orange Camp Rd.	W Volusia Bltwy. (Dr MLK Jr) to I-4	1385			County	Yes	1.00	2	50	E+W	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	10,210	12,170	12,080	12,700	11,510	10,280	10,730	10,910	11,300	10,870	E	17,050	0.64	C	1,540
Palm Dr.	John Anderson Dr. to SR A1A	1391			County	No	0.44	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,250	1,680	1,500	1,420	1,360	1,450	1,600	1,410	1,440	1,190	E	13,640	0.09	C	1,020
Park Ave.	Old Mission Rd. to Air Park Rd.	1409			County	Yes	0.90	2	45	E+W	TA_NSSRC1_2W_2L_U_0L	Rural Major Collector	-	4,220	3,960	4,320	4,180	3,960	3,770	3,670	3,800	3,930	E	13,640	0.29	C	1,120
Park Ave.	Air Park Rd. to US 1	1413			County	Yes	1.40	2	30	E+W	UA_NSSRC2_2W_2L_D_WL	Urban Collector	8,100	8,460	7,900	8,070	7,850	7,400	6,960	7,490	7,070	7,040	E	14,740	0.48	D	1,330
Peninsula Dr. - South	Dunlawton Ave. to Marcelle Ave	1420			County	No	0.15	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	4,800	3,500	2,760	3,110	4,370	4,620	5,160	4,660	5,280	4,870	E	13,640	0.36	C	1,020
Peninsula Dr. - South	Marcelle Ave. to Major St.	1423			County	No	0.45	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,590	-	1,200	1,730	2,150	2,730	2,970	2,700	2,960	2,770	E	13,640	0.20	C	1,020
Peninsula Dr. - South	Major St. to Inlet Harbor Rd	1419			County	No	0.55	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	-	-	-	-	-	6,630	2,690	2,520	2,780	2,600	E	13,640	0.19	C	1,020
Peninsula Dr. - South	Inlet Harbor Rd to Beach Street	1422			City	No	3.00	2	25	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,570	1,500	880	1,220	1,270	1,220	1,510	980	1,320	-	E	13,640	-	-	1,020
Peterson Rd.	Riley Pridgeon Rd. to Emporia/Blackburn	1433			County	No	2.80	2	35	E+W	RUA_UFH_2W_2L_U_0L	Rural Local	370	400	390	390	290	280	320	330	310	350	C	6,300	0.06	B	590
Pineland Tr.	Airport Rd. to Harmony Ave.	1450			County	No	2.50	2	50	N+S	TA_NSSRC1_2W_2L_U_0L	n/c	720	750	390	480	440	700	610	570	670	510	E	13,640	0.04	C	1,120
Pineland Tr.	Harmony Ave. to US 1	1451			County	No	2.00	2	50	E+W	TA_NSSRC1_2W_2L_U_0L	n/c	480	650	280	360	300	260	230	220	370	210	E	13,640	0.02	C	1,120
Pine Tree Dr.	US 1 to Addison Dr	1440			County	No	1.00	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Local	2,870	3,040	2,870	3,020	2,460	2,590	2,600	2,480	2,620	2,540	E	13,640	0.19	C	1,020
Pine Tree Dr.	Addison Dr. to Old Dixie Hwy	1441			County	No	1.00	2	35	E+W	TA_NSSRC2_2W_2L_U_0L	Rural Local	1,510	1,570	1,850	1,890	1,660	1,740	1,420	1,250	1,300	1,750	E	10,220	0.17	C	920
Pioneer Tr.	SR 44 to Tomoka Farms Rd.	1461			County	Yes	4.00	2	50	E+W	RDA_UFH_2W_2L_U_0L	Rural Major Collector	2,520	2,530	2,600	2,580	2,730	3,300	3,070	3,340	3,480	4,020	C	12,300	0.33	B	1,160
Pioneer Tr.	Tomoka Farms Rd. Airport Rd.	1464			County	Yes	1.40	2	45	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	3,160	4,080	4,210	3,620	3,370	3,310	3,660	3,700	3,510	3,670	E	13,640	0.27	C	1,230
Pioneer Tr.	Airport Rd. to Turnbull Bay Rd.	1465			County	Yes	2.50	2	45	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	3,040	3,380	3,590	2,700	2,620	2,860	2,710	2,720	2,610	2,830	E	13,640	0.21	C	1,230
Pioneer Tr.	Turnbull Bay Rd. to Sugar Mill Dr	1467			County	Yes	1.75	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,100	3,480	3,850	2,950	2,790	2,670	2,840	2,800	2,780	3,040	E	13,640	0.22	C	1,020
Pioneer Tr.	Sugar Mill Dr. to Williams Rd.	1471			County	Yes	1.45	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	3,100	3,740	4,200	3,630	3,560	4,360	3,920	4,230	4,280	4,710	E	13,640	0.35	C	1,230
Pioneer Tr.	Williams Rd. to Enterprise Ave	1473			County	Yes	1.05	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	4,620	5,590	5,460	5,430	5,320	5,830	5,300	5,240	4,910	5,150	E	13,640	0.38	C	1,230

Volusia County 2013 Average Annual Daily Traffic & Historical Counts

Road Name	Limits (From - To)	Count Station Number	2013 SIS Facility	Cycle 10-2 2013 Evacuation Route	Roadway Maintaining Agency	2013 Roadway on County's Thoroughfare	Distance (in miles)	2013 No. of Lanes	Posted Speed	Direction	2013 Facility Type	2000 Federal Functional Classification	2004 AADT	2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2013 Vol. Co. Allowable LOS	DAILY 2013 LOS Capacity	DAILY 2013 V/C Ratio	DAILY 2013 LOS	PEAK 2Way 2013 LOS Capacity
Pioneer Tr.	Enterprise Ave. to Jungle Rd	1474			County	Yes	0.50	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	7,270	8,810	8,850	9,410	8,600	8,870	8,380	8,220	7,300	7,280	E	13,640	0.53	D	1,020
Pioneer Tr.	Jungle Rd to Canal St.	1475			County	Yes	0.25	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,630	2,310	2,120	2,080	2,390	2,630	1,910	1,940	2,120	2,420	E	13,640	0.18	C	1,020
Wallace Rd.	Canal St to SR 44	1955			County	Yes	0.25	3	35	N+S	UA_NSSRC2_2W_2L_D_WL	Urban Collector	-	8,300	7,610	8,750	8,020	8,260	7,700	7,550	7,540	7,690	E	14,740	0.52	D	1,330
Mission Dr.	SR 44 to Old Mission Rd.	1261			County	Yes	0.75	4	40	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Collector	13,380	14,040	14,920	15,200	14,310	14,190	12,420	14,180	11,730	11,780	E	37,970	0.31	C	3,410
Old Mission Rd./Mission Rd.	Old Mission Rd. to Josephine St.	1354			County	Yes	0.75	4	40	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Collector	9,860	12,570	12,470	13,630	12,250	12,570	12,270	11,920	11,390	11,580	E	37,970	0.30	C	3,410
Old Mission Rd.	Josephine St. to Park Ave	1353			County	Yes	1.70	2	35	N+S	TA_NSSRC2_2W_2L_U_0L	Urban Collector	7,040	7,530	7,430	8,040	7,530	7,250	6,920	7,230	6,280	6,360	E	10,220	0.62	D	920
Old Mission Rd.	Park Ave. to SR 442	1351			County	Yes	2.00	2	45	N+S	TA_NSSRC1_2W_2L_U_0L	Rural Minor Collector	4,380	4,880	4,640	5,480	4,400	4,380	4,190	4,250	3,920	4,030	E	13,640	0.30	C	1,120
Plantation Oaks Blvd.	Old Dixie Highway				County	No	1.92	0		E+W	UA_NSSRC2_2W_2L_U_WL	n/c	-	-	-			-	-	-	-	-	E	14,040	Built NOT Open		
Plaza Dr. (N. Penin.)	John Anderson Dr. to SR A1A	1481			County	No	1.00	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	200	240	240	200	200	190	280	370	230	370	E	13,640	0.03	C	1,020
Plymouth Ave.	Grand Ave. to Hazen Rd.	1490			County	Yes	1.00	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	1,260	1,290	1,440	1,710	1,360	1,280	1,150	1,080	1,030	1,020	E	13,640	0.07	C	1,230
Plymouth Ave.	Hazen Rd. to SR 15A	1491			County	Yes	0.75	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	4,370	4,550	4,860	5,480	5,520	5,790	5,830	5,760	5,120	5,560	E	13,640	0.41	C	1,230
Plymouth Ave.	SR 15A to Stone St.	1493			County	Yes	0.50	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	10,020	9,460	10,010	10,540	10,180	9,970	10,320	10,050	9,380	9,070	E	13,640	0.66	D	1,020
Plymouth Ave.	Stone St. to Clara Ave	1495			County	Yes	0.50	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	11,090	9,920	10,590	11,050	10,280	10,780	10,460	10,490	10,040	9,560	E	13,640	0.70	D	1,020
Plymouth Ave.	Clara Ave. to US 17/92	1497			County	Yes	0.20	2	35	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Collector	13,320	11,530	12,210	12,980	12,200	12,340	11,990	12,110	11,460	10,910	E	14,040	0.78	D	1,270
Plymouth Ave.	US 17/92 to Amelia Ave	1498			County	Yes	0.20	2	30	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Collector	9,900	8,650	9,150	9,760	-	-	-	-	-	-	E	14,040	-	-	1,270
Plymouth Ave.	Amelia Ave. to Garfield Ave.	1500			County	Yes	0.20	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	7,360	6,460	7,040	7,480	7,100	6,960	7,090	6,440	5,850	5,850	E	13,640	0.43	D	1,020
Plymouth Ave.	Garfield Ave. to Blue Lake Rd./Jacobs D	1502			County	Yes	0.75	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	6,650	5,600	5,900	6,660	6,250	6,170	6,370	5,900	5,270	5,410	E	13,640	0.40	D	1,020
Ponce DeLeon Blvd.	CR 3 to US 17	1511			County	Yes	0.85	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Local	2,560	3,000	3,440	3,880	2,590	2,890	2,400	2,500	2,260	2,350	E	13,640	0.17	C	1,020
Prevatt Ave.	SR 44 to Lake Pearl Dr.	1523			County	Yes	1.80	2	55	N+S	TA_NSSRC1_2W_2L_U_WL	Rural Major Collector	3,690	4,000	3,930	4,310	3,610	4,960	4,130	4,630	4,230	4,470	E	15,600	0.29	C	1,400
Prevatt Ave.	Lake Pearl Dr. to Kicklighter Rd	1520			County	Yes	1.50	2	40	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Collector	4,540	4,420	4,360	4,670	3,940	5,020	4,500	4,800	4,390	4,570	C	17,050	0.27	C	1,360
Providence Blvd.	Howland Blvd. to Elkcam Blvd.	1542			County	Yes	1.70	2	35	N+S	UA_NSSRC2_2W_2L_U_WL	Urban Minor Arterial	8,820	9,440	12,930	14,270	12,870	12,200	10,940	11,990	10,790	11,290	E	14,040	0.80	D	1,270
Providence Blvd.	Elkcam Blvd. to Ft Smith Blvd.	1541			County	Yes	0.80	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	14,100	14,810	16,210	17,680	15,820	15,160	13,630	14,680	13,460	13,070	E	13,640	0.96	E	1,020
Providence Blvd.	Ft Smith Blvd. to Tivoli Dr.	1539			County	Yes	0.05	4	35	N+S	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	21,070	22,350	21,480	24,150	20,380	20,830	17,850	19,250	17,390	17,020	E	30,420	0.56	D	2,740
Providence Blvd.	Tivoli Dr. to Saxon Blvd.	1538			County	Yes	0.80	2	35	N+S	UA_NSSRC2_2W_2L_D_WL	Urban Minor Arterial	10,270	10,550	11,030	12,210	9,400	9,950	8,670	9,600	9,000	8,510	E	14,740	0.58	D	1,330
Providence Blvd.	Saxon Blvd. to Normandy Blvd	1535			County	Yes	0.70	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	11,680	12,110	11,080	12,320	9,490	9,080	8,930	9,860	9,310	8,900	E	13,640	0.65	D	1,020
Providence Blvd.	Normandy Blvd. to Anderson Dr.	1534			County	Yes	0.80	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	15,990	16,600	15,310	17,090	13,440	14,460	12,950	14,410	13,510	13,150	E	13,640	0.96	E	1,020
Providence Blvd.	Anderson Dr. to Doyle Rd.	1530			County	Yes	0.55	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	13,530	13,760	13,250	14,630	11,680	11,670	10,900	12,270	12,020	11,780	E	13,640	0.86	E	1,020
Raulerson Rd. # 1	US 17 to Brownlee Rd.	1550			County	No	1.20	2	35	E+W	RUA_UFH_2W_2L_U_0L	Rural Local	240	310	310	330	300	310	310	250	250	280	C	6,300	0.04	B	590
Raulerson Rd.	US 17 to Bunnell Rd./CR 305	1552			County	No	1.70	2	30	E+W	RUA_UFH_2W_2L_U_0L	Rural Local	540	440	470	500	350	320	380	250	300	300	C	6,300	0.05	B	590
Reed Canal Rd.	Clyde Morris Blvd. to SR5A/Nova Rd.	1561			County	Yes	0.80	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	8,490	7,430	7,640	8,070	6,100	5,850	5,890	5,810	6,040	5,870	E	13,640	0.43	D	1,020
Reed Canal Rd.	SR5A/Nova Rd. to Sauls St.	1562			County	Yes	0.65	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	14,040	11,160	11,230	11,690	11,110	10,200	9,960	9,490	9,600	8,980	E	13,640	0.66	D	1,020
Reed Canal Rd.	Sauls St. to US 1	1564			County	Yes	0.90	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	11,010	10,390	10,460	10,860	8,780	9,280	8,850	8,570	8,080	8,000	E	13,640	0.59	D	1,020
Reed Ellis Rd.	Enterprise-Osteen Rd. to SR 415	1571			County	Yes	2.10	2	45	E+W	TA_NSSRC1_2W_2L_U_0L	n/c	1,700	1,650	1,660	1,450	1,470	1,510	1,470	1,510	1,510	1,640	E	13,640	0.12	C	1,120
Retta St.	Grand Ave. to US 17	1580			County	Yes	0.15	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	850	910	860	880	860	890	840	750	730	770	E	13,640	0.06	C	1,020
Reynolds Rd.	US 17 to SR 11	1590			County	Yes	4.40	2	35	E+W	RUA_UFH_2W_2L_U_0L	Urban & Rural Local	1,630	1,570	1,420	1,320	1,360	1,450	1,410	1,160	1,250	1,240	E	6,300	0.20	B	2,030
Rhode Island Ave.	Westside Connector to Sparkman Ave	1598			County	Yes	1.00	2	35	E+W	UA_NSSRC2_2W_2L_D_WL	n/c	-	-	-	-	-	-	4,520	5,360	5,140	5,780	E	14,740	0.39	C	1,330
Rhode Island Ave.	Sparkman Ave to Carpenter Ave	1599			County	Yes	1.00	2	35	E+W	UA_NSSRC2_2W_2L_D_WL	n/c	-	-	-	-	-	-	6,360	7,000	6,480	6,890	E	14,740	0.47	C	1,330
Rhode Island Ave.	Carpenter Ave to US 17/92	1600			County	Yes	1.00	2	35	E+W	UA_NSSRC2_2W_2L_D_WL	n/c	-	-	-	-	-	-	6,540	7,080	6,280	6,350	E	14,740	0.43	C	1,330
Rhode Island Ave.	US 17/92 to Veteran's Memorial Pkwy.	1601			City	No	2.80	2	40	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	6,710	8,110	8,240	9,010	8,040	7,060	7,280	8,990	8,790	8,650	E	13,640	0.63	C	1,230
Rhode Island Ave.	Veteran's Memorial Pkwy. to Normandy				County	Yes	1.80	0		E+W	UA_NSSRC1_2W_2L_U_0L	n/c	-	-	-	-	-	-	-	-	-	-	E	13,640	-	-	1,230
Riley Pridgeon Rd.	Peterson Rd. to SR 40	1610			County	No	2.55	2	35	N+S	RUA_UFH_2W_2L_U_0L	Rural Local	320	870	910	1,080	410	430	490	480	450	450	C	6,300	0.07	B	590
River Dr.	John Anderson Dr. to SR A1A	1621			County	No	0.50	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Local	400	330	360	420	230	270	270	310	290	340	E	13,640	0.02	C	1,020
Riverside Dr. (NSB)	SR 44 (N. Causeway) to SR A1A (S. Ca	1635			City	No	0.20	2	25	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,060	4,200	4,040	3,870	4,160	3,850	2,600	3,640	3,800	-	E	13,640	-	-	1,020
Halifax/Riverside Dr. (PO)	Dunlawton Ave. to Commonwealth Ave	804			City	No	1.55	2	25	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,320	1,230	1,400	1,580	1,110	1,350	1,850	1,650	1,990	-	E	13,640	-	-	1,020
Riverside Dr. (PO)	Commonwealth Ave. to Main St	1638			City	No	1.20	2	25	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	750	1,030	840	960	760	640	720	590	600	-	E	13,640	-	-	1,020
Samsula Dr.	Pioneer Tr. to SR 44	1651			County	Yes	2.60	2	45	N+S	TA_NSSRC1_2W_2L_U_0L	Rural Minor Collector	1,310	1,740	1,500	1,570	1,270	1,280	1,330	1,430	1,160	1,160	E	13,640	0.09	C	1,120
Sandra Dr.	John Anderson Dr. to SR A1A	1661			County	No	1.00	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	220	290	220	270	260	250	270	270	270	250	E	13,640	0.02	C	1,020
Saxon Blvd.	Rail Station to Westside Connector				County	Yes	0.62	0	40	E+W	UA_NSSRC1_2W_2L_D_WL	n/c	-	-	-	-	-	-	-	-	-	-	E	17,900	-	-	1,620
Saxon Blvd.	Westside Connector to US 17/92				County	Yes	1.30	0	40	E+W	UA_NSSRC1_2W_2L_D_WL	n/c	-	-	-	-	-	-	-	-	-	-	E	17,900	-	-	1,620
Saxon Blvd.	US 17/92 to Enterprise Rd	1671			County	Yes	0.65	4	35	E+W	UA_NSSRC2_2W_4L_D_WL	Urban Minor Arterial	16,650	17,075	14,720	16,160	15,170	16,730	16,730	14,450	15,490	13,960	E	30,420	0.46	D	2,740
Saxon Blvd.	Enterprise Rd. to Veterans Memorial Pk	1673			County	Yes	0.60	5	45	E+W	UA_NSSRC1_2W_5L_D_WL	Urban Minor Arterial	35,540	35,790	32,660	32,130	30,170	34,710	32,160	30,370	30,950	27,870	E	47,560	0.59	C	4,280
Saxon Blvd.	VMP to FDOT Park & Ride	1674			County	Yes	0.30	5	45	E+W	UA_NSSRC1_2W_5L_D_WL	Urban Minor Arterial	47,320	48,090	45,170	44,450	41,750	43,900	41,920	40,060	40,700	36,330	E	47,560	0.76	C	4,280
Saxon Blvd.	FDOT Park & Ride to I-4	1685			County	Yes	0.30	4	45	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	47,320	48,090	45,170	39,780	37,360	46,860	44,590	42,380	43,180	36,440	E	37,970	0.96	E	3,410
Saxon Blvd.	I-4 to Finland Dr.	1675			County	Yes	0.35	4	40	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	49,540	50,330	45,250	46,890	44,040	45,960	40,660	41,210	41,200	34,420	E	37,970	0.91	D	3,410
Saxon Blvd.	Finland Dr. to Normandy Blvd.	1676			County	Yes	0.35	4	40	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	43,410	44,490	40,010	38,680	36,330	38,990	37,800	35,940	35,990	32,490	E	37,970	0.86	C	3,410
Saxon Blvd.	Normandy Blvd. to Tivoli Dr.	1677			County	Yes	1.25	4	40	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	26,410	28,380	25,440	24,990	23,470	29,890	25,550	24,160	24,000	22,010	E	37,970	0.58	C	3,410
Saxon Blvd.	Tivoli Dr. to Providence Blvd.	1678			County	Yes	0.90	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	11,430	12,560	11,020	10,520	9,880	10,560	10,200	9,720	9,610	9,980	E	13,640	0.73	D	1,020
Saxon Blvd.	Providence Blvd. to Normandy Blvd.	1681			County	Yes	0.70	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	9,020	9,880	10,040	10,790	8,130	8,540	8,210	7,590	8,270	8,150	E	13,640	0.60	D	1,020
Saxon Blvd.	Normandy Blvd. to Doyle Rd.	1684			County	Yes	1.00	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	6,120	6,790	6,700	7,300	5,850	5,630	5,580	5,420	5,460	5,540	E	13,640	0.41	C	1,230
Saxon Dr. (NSB)	3rd Ave/SR A1A to 27th Ave.	1695			County	No	1.75	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	4,840	5,600	5,570	5,750	5,340	5,690	5,760	5,390	5,480	5,570	E	13,640	0.41	D	1,020
Saxon Dr. (NSB)	27th Ave. to Hiles Blvd.	1693			County	No	1.55	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,400	2,650	2,690	2,860	2,490	2,940	2,880	2,480	2,460	2,610	E	13,640	0.19	C	1,020
Saxon Dr. (NSB)	Hiles Blvd. to SR A1A	1691			County	No	0.55	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	830	790	880	900	790	910	900	770	870	910	E	13,640	0.07	C	1,020
Shell Rd.	Highbanks Rd. to Sanford Ave.	1701			City	No	1.10	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	2,130	2,210	2,190	2,190	2,150	2,090	1,870	2,150	1,940	2,030	E	13,640	0.15	C	1,020
Shell Rd.	Sanford Ave. to Benson Junction Rd.	1700			City	No	0.70	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	850	1,300	1,270	1,880	1,600	1,450	1,460	1,510	1,490	1,410	E	13,640	0.10	C	1,020
Sparkman Ave.	Minnesota Ave. to New York Ave. W.	1723			County	No	0.45	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	990	1,120	1,250	1,420	1,020	1,140	1,160	1,150	1,120	1,100	E	13,640	0.08	C	1,020
Sparkman Ave.	New York Ave. W. to French Ave.	1722			County	No	0.75	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	1,800	1,720	1,850	2,050	1,500	1,600	1,850	1,670	1,540	1,530	E	13,640	0.11	C	1,020
Sparkman Ave.	French Ave. to Blue Springs Ave.	1721			County	No	0.65	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	2,140	2,080	2,240	2,500	2,080	2,220	2,330	2,880	2,600	2,520	E	13,640	0.18	C	1,020
Sparkman Ave.	Blue Springs Ave. to Rhode Island Ave.	1720			County	No	0.60	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	360	530	510	600	660	770	980	1,620	1,370	1,820	E	13,640	0.13	C	1,020
Spring Garden Ave.	Beresford Ave. to Beresford Rd. West	1732			County	Yes	0.60	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,380	2,270	2,550	2,490	2,380	2,260	1,940	2,030	2,060	1,950	E	13,640	0.14	C	1,020
Spring Garden Ave.	Beresford Rd. West to McGregor Rd.	1731			County	Yes	0.90	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,650	2,360	2,640	2,700	2,530	2,450	2,260	2,320	2,420	2,190	E	13,640	0.16	C	1,020
Spring Garden Ranch Rd.	US 17 to Arrendondo Grant Rd.	1740			County	Yes	1.85	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	2,480	3,240	3,040	2,780	2,930	3,220	2,860	2,910	3,020	2,670	E	13,640	0.20	C	1,020
Spring Garden Ranch Rd.	Arrendondo Grant Rd. to Reynolds Rd.	1742			County	No	1.80	2	35	E+W	RUA_UFH_2W_2L_U_0L	n/c	490	540	470	450	350	420	370	390	420	380	C	6,300	0.06	B	590
Spruce Creek Rd.	Dunlawton Ave. to Commonwealth Blvd.	1755			City	Yes	1.05	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	10,980	9,280	9,470	9,210	7,500	7,250	7,290	6,950	5,710	5,790	E	13,640	0.42	D	1,020
Spruce Creek Rd.	Commonwealth Blvd. to SR5A/Nova Rd.	1752			County	Yes	0.50	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Minor Arterial	12,650	12,130	12,230	12,170	10,660	10,460	9,310	9,960	9,360	8,930	E	13,640	0.65	D	1,020
Spruce Creek Rd.	SR5A/Nova Rd. to Taylor Rd.	1751			County	Yes	0.75	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	18,580	19,990	20,470	20,140	15,770	17,650	16,760	16,350	15,350	14,670	E	37,970	0.39	C	3,410
Stone St.	Mercers Fernery Rd. to CR 92/ISB	1773			County	Yes	0.70	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	650	610	730	780	580	610	610	540	530	500	E	13,640	0.04	C	1,020
Stone St.	CR 92 to Plymouth Ave.	1770			County	Yes	0.80	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	5,170	5,430	6,370	6,650	6,190	5,690	6,210	5,540	5,270	5,240	E	13,640	0.38	C	1,020

Volusia County 2013 Average Annual Daily Traffic & Historical Counts

Road Name	Limits (From - To)	Count Station Number	2013 SIS Facility	Cycle 10-2 2013 Evacuation Route	Roadway Maintaining Agency	2013 Roadway on County's Thoroughfare	Distance (in miles)	2013 No. of Lanes	Posted Speed	Direction	2013 Facility Type	2000 Federal Functional Classification	2004 AADT	2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2013 Vol. Co. Allowable LOS	DAILY 2013 LOS Capacity	DAILY 2013 V/C Ratio	DAILY 2013 LOS	PEAK 2Way 2013 LOS Capacity
Sugar Mill Dr.	Pioneer Tr. to SR 44	1781			County	Yes	1.30	2	45	N+S	UA_NSSRC1_2W_2L_U_0L	n/c	2,580	3,240	3,130	2,760	2,370	2,520	2,450	2,370	2,450	2,760	E	13,640	0.20	C	1,230
Summit Ave.	SR 44 to Main St.	1791			County	Yes	2.20	2	50	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Minor Arterial	4,640	3,000	2,980	3,180	4,690	4,660	5,630	5,280	4,780	4,430	E	13,640	0.32	C	1,230
Surfside Dr.	John Anderson Dr. to SR A1A	1801			County	No	0.35	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Local	410	430	340	370	370	330	450	350	340	300	E	13,640	0.02	C	1,020
Taylor Rd. (CO)	Tomoka Farms Rd. to Spruce Creek Blv	1810		Yes	County	Yes	0.70	2	45	E+W	UA_NSSRC1_2W_2L_U_WL	Urban Principal Arterial - Other	7,620	8,390	8,670	8,520	7,460	5,800	7,510	7,170	6,890	7,110	E	17,050	0.42	C	1,540
Taylor Rd. (CO)	Spruce Creek Blvd. to Crane Lake Blvd.	1811		Yes	County	Yes	1.10	2	50	E+W	UA_NSSRC1_2W_2L_U_WL	Urban Principal Arterial - Other	11,140	12,400	12,770	12,460	10,860	10,700	10,610	9,790	9,660	9,570	E	17,050	0.56	C1,540	
Taylor Rd. (CO)	Crane Lake Blvd. to Summertree Rd.	1812		Yes	County	Yes	0.75	2	50	E+W	UA_NSSRC1_2W_2L_U_WL	Urban Principal Arterial - Other	15,500	18,890	19,390	18,660	16,670	13,880	14,280	14,570	14,300	14,010	E	17,050	0.82	C	1,540
Taylor Rd. (CO)	Summertree Rd. to Williamson Blvd.	1813		Yes	County	Yes	0.20	4	45	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	16,980	20,590	20,960	20,330	-	16,340	14,630	15,190	14,600	13,700	E	37,970	0.36	C	3,410
Taylor Rd. (CO)	Williamson Blvd. to I-95 (at Dunlawton A	1814		Yes	County	Yes	0.15	5	45	E+W	UA_NSSRC1_2W_5L_D_WL	Urban Principal Arterial - Other	30,510	37,390	38,740	37,180	33,230	33,660	36,960	36,170	38,000	35,490	E	47,560	0.75	C	4,280
Taylor Rd. (PO)	Dunlawton Ave. to Clyde Morris Blvd.	1823			County	Yes	0.55	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	11,590	14,160	14,300	12,910	13,480	12,880	12,860	12,980	12,840	12,270	E	13,640	0.90	E	1,020
Taylor Rd. (PO)	Clyde Morris Blvd. to Hensel Rd	1824			County	Yes	0.50	4	45	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Collector	18,850	21,300	21,810	19,460	19,670	19,620	18,590	19,530	19,350	18,280	E	37,970	0.48	C	3,410
Taylor Rd. (PO)	Hensel Rd. Spruce Creek Rd.	1826			County	Yes	1.00	4	45	E+W	UA_NSSRC1_2W_4L_D_WL	Urban Collector	15,180	17,420	18,110	14,980	16,620	15,720	15,270	15,600	15,050	14,330	E	37,970	0.38	C	3,410
Taylor Rd. (DL)	US 17/92 to Stratford Dr.	1816			County	Yes	0.80	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	5,680	5,770	5,500	5,680	6,590	6,240	5,820	5,740	6,090	5,690	E	13,640	0.42	D	1,020
Taylor Rd. (DL)	Stratford Dr. to Blue Lake Ave.	1818			County	Yes	0.95	2	50	E+W	UA_NSSRC1_2W_2L_U_WL	Urban Collector	4,290	4,520	4,130	4,280	5,490	5,180	4,710	4,750	5,070	4,780	E	17,050	0.28	C	1,540
Taylor Rd. (DL)	Blue Lake Ave. to Martin Luther King Blt	1819			County	Yes	0.80	2	50	E+W	UA_NSSRC1_2W_2L_U_0L	Urban Collector	3,800	4,280	3,960	4,120	5,180	4,790	4,590	4,730	4,960	4,810	E	13,640	0.35	C	1,230
Taylor Rd. (NSB)	Glencoe Rd. to Mission Rd	1821			County	No	0.75	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	1,550	1,770	1,450	1,590	1,550	1,340	1,480	1,550	1,500	1,590	E	13,640	0.12	C	1,020
Tivoli Dr.	Saxon Blvd. to Providence Blvd	DLT-125.020			City	No	0.85	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	12,590	12,890	-	12,272	13,736	-	-	-	-	11,070	E	13,640	0.81	E	1,020
Tomoka Farms Rd.	LPGA Blvd. (north end) to Dunn Ave.	1849			County	Yes	1.90	2	40	N+S	UA_UFH_2W_2L_U_0L	n/c	3,730	4,040	4,090	3,630	3,700	3,390	3,810	3,770	4,000	-	E	24,975	-	-	2,240
Tomoka Farms Rd.	Dunn Ave. to US 92	1848			County	Yes	1.90	2	40	N+S	UA_UFH_2W_2L_U_0L	n/c	1,840	1,830	1,890	2,470	2,660	3,080	3,350	3,550	4,380	5,070	E	24,975	0.20	B	2,240
Tomoka Farms Rd.	US 92 to Shunz Rd.	1847			County	Yes	3.02	2	40	N+S	UA_UFH_2W_2L_U_0L	Urban Minor Arterial	6,170	6,410	6,740	6,560	7,200	6,110	5,920	5,300	5,780	6,030	E	24,975	0.24	B	2,240
Tomoka Farms Rd.	Shunz Rd. to Townwest Blvd	1845			County	Yes	1.50	2	50	N+S	UA_UFH_2W_2L_U_0L	Urban Minor Arterial	4,980	5,840	6,160	4,960	5,470	4,910	5,470	5,870	5,780	6,210	E	24,975	0.25	B	2,240
Tomoka Farms Rd.	Townwest Blvd to Taylor Rd.	1844			County	Yes	1.45	2	50	N+S	UA_UFH_2W_2L_U_0L	Urban Minor Arterial	5,770	6,480	6,800	5,030	6,550	5,500	5,970	5,780	5,720	6,150	E	24,975	0.25	B	2,240
Tomoka Farms Rd.	Taylor Rd. to Pioneer Tr	1843		Yes	County	Yes	2.80	2	50	N+S	UA_UFH_2W_2L_U_0L	Urban Minor Arterial	8,140	8,520	8,650	9,050	9,590	7,910	9,180	9,330	8,810	9,790	E	24,975	0.39	C	2,240
Tomoka Farms Rd.	Pioneer Tr to SR 44	1840		Yes	County	Yes	2.20	2	50	N+S	RDA_UFH_2W_2L_U_0L	Rural Minor Arterial	5,840	5,310	5,550	5,260	6,740	5,000	4,700	4,510	5,110	5,260	C	12,300	0.43	B	1,160
Town West Blvd.	Tomoka Farms Rd. to Williamson Blvd.	1850			City	No	1.59	2	40	E+W	UA_NSSRC1_2W_2L_D_WL	n/c	-	-	-	-	-	14,200	3,240	3,570	3,920	4,370	E	17,900	0.24	C	1,620
Turnbull Bay Rd.	Pioneer Tr. to Williams Rd.	1863			County	Yes	2.90	2	45	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	2,870	3,120	3,130	3,290	3,020	3,210	3,340	2,950	2,900	2,860	E	13,640	0.21	C	1,230
Turnbull Bay Rd.	Williams Rd. to Industrial Park Ave.	1865			County	Yes	1.20	2	45	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Collector	3,580	4,130	3,640	4,030	3,810	3,140	3,350	3,080	3,100	3,140	E	13,640	0.23	C	1,230
Turnbull Bay Rd.	Industrial Park Ave. to US 1	1867			County	Yes	0.85	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	4,940	4,810	4,550	4,790	4,560	4,510	4,720	4,090	3,890	3,910	E	13,640	0.29	C	1,020
Tymber Creek Rd.	Broadway Ave /US 1 to Airport Rd	1883			County	Yes	4.20	2	40	N+S	TA_NSSRC1_2W_2L_U_0L	n/c	1,380	1,440	2,090	2,350	1,450	1,580	1,820	1,750	1,780	1,850	E	13,640	0.14	C	1,120
Tymber Creek Rd.	Airport Rd. to Tymber Run	1882			County	Yes	0.90	2	40	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Collector	8,960	8,980	8,980	9,930	7,290	8,440	8,240	8,000	8,280	7,870	E	17,050	0.46	C	1,540
Tymber Creek Rd.	Tymber Run to SR 40	1881			County	Yes	0.50	2	40	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Collector	13,910	13,910	13,990	15,090	13,020	13,470	12,320	12,880	13,400	12,670	E	17,050	0.74	C	1,540
Tymber Creek Rd.	SR 40 to Riverbend Rd.	1880			County	Yes	0.45	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	1,020	1,030	840	930	820	670	740	770	680	740	E	13,640	0.05	C	1,020
Van Ave.	Peninsula Dr. to SR A1A	1890			County	No	0.20	2	25	E+W	UA_NSSRC2_2W_2L_U_0L	n/c	520	620	580	700	660	500	420	630	630	550	E	13,640	0.04	C	1,020
Volco Rd.	Cow Creek Rd. to Beacon Light Rd.	1920			County	Yes	2.50	2	30	N+S	RUA_UFH_2W_2L_U_0L	n/c	320	290	260	230	240	150	220	270	220	230	C	6,300	0.04	B	590
Volco Rd.	Beacon Light Rd. to 35th St.	1921			County	Yes	1.40	2	45	N+S	TA_NSSRC1_2W_2L_U_0L	Rural & Urban Local	360	420	370	330	390	410	400	460	420	480	E	13,640	0.04	C	1,120
Volco Rd.	35th St. to US 1	1922			County	Yes	0.50	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Local	1,690	1,780	1,640	1,470	1,410	1,820	1,420	1,860	1,840	1,930	E	13,640	0.14	C	1,020
Voorhis Ave.	US 17/92 to Amelia Ave.	1931			County	Yes	0.20	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	5,090	5,230	5,000	5,300	4,130	4,030	3,780	3,940	3,670	3,560	E	13,640	0.26	C	1,020
Voorhis Ave.	Amelia Ave. to Hill Ave.	1933			County	Yes	1.00	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,190	3,440	3,430	3,860	3,240	3,260	3,000	3,060	3,000	2,780	E	13,640	0.20	C	1,020
Voorhis Ave.	Hill Ave. to Blue Lake Ave.	1934			County	Yes	0.50	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,150	3,390	3,200	3,760	3,100	3,130	2,960	3,030	3,070	2,790	E	13,640	0.20	C	1,020
Voorhis Ave.	Blue Lake Ave. to SR 44	1935			County	Yes	0.50	2	35	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	3,350	3,390	3,420	3,770	3,200	3,500	3,130	3,340	3,280	3,110	E	13,640	0.23	C	1,020
Walter Boardman Ln.	Old Dixie Hwy. to Highbridge Rd.	1960			County	Yes	1.20	2	30	E+W	TA_UFH_2W_2L_U_0L	Rural Major Collector	3,180	3,330	2,740	2,830	2,590	2,920	2,630	2,390	2,730	2,270	E	24,975	0.09	B	2,240
Wayne Ave. (NSB)	Halleck St. to US 1	1970			County	Yes	1.00	2	30	E+W	UA_NSSRC2_2W_2L_U_0L	Urban Collector	6,030	6,030	6,380	6,200	6,400	6,400	6,430	6,390	5,970	6,010	E	13,640	0.44	D	1,020
Westside Parkway (new/Fatio)	ex. termini south of SR 44 to Beresford A	1979			County	Yes	1.00	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	n/c	160	130	190	190	-	90	110	80	120	80	E	13,640	0.01	C	1,230
Westside Parkway (Fatio Rd.)	Beresford Ave. to McGregor Rd.	1978			County	Yes	2.00	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	Urban Local	1,430	1,570	1,570	1,650	1,640	1,500	1,370	1,450	1,470	1,460	E	13,640	0.11	C	1,230
Westside Parkway (new)	McGregor Rd. to existing Hamilton/Fatio	1977			County	Yes	2.00	0	40	N+S	UA_NSSRC1_2W_2L_U_0L	n/c	-	-	-	-	-	-	-	-	-	-	-	13,640	-	-	1,090
Westside Parkway (Hamilton Ave.)	Hamilton Ave. (north end) to French Ave	1976			County	Yes	1.20	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	2,340	2,650	2,580	2,500	2,680	2,400	2,300	2,430	2,560	2,410	E	13,640	0.18	C	1,020
Westside Parkway (Lawton Ave.)	French Ave. to Rhode Island Ave.	1975			County	Yes	1.25	0	25	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	-	-	-	-	-	-	-	-	-	-	-	13,640	-	-	-
Westside Parkway (new)	Rhode Island Ave. to Debary Plantation	1974			County	Yes	1.48	0	35	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	-	-	-	-	-	-	-	-	-	-	-	13,640	-	-	-
Westside Parkway (Don Smith Blvd	DeBary Plantation Blvd. to Highbanks R	1972			County	Yes	1.2	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	-	5,880	6,060	1,120	1,490	1,760	1,710	1,870	1,860	1,810	E	13,640	0.13	C	1,020
W. Volusia Bltwy (Kepler Rd)	Northern terminus to US 92	1040			County	No	0.60	2	50	N+S	UA_NSSRC1_2W_2L_U_0L	n/c	1,740	1,840	1,930	1,930	1,660	1,510	1,360	1,560	1,460	1,430	E	13,640	0.10	C	1,230
W. Volusia Bltwy (Kepler Rd)	US 92 to Minnesota Ave.	1951			County	Yes	1.85	2	50	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	13,140	14,840	15,350	15,220	13,840	12,408	12,820	12,130	12,290	12,110	E	17,050	0.71	C	1,540
W. Volusia Bltwy (Kepler Rd)	Minnesota Ave. to SR 44	1949			County	Yes	0.75	2	50	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	13,960	16,890	17,400	17,310	17,000	14,160	13,890	14,310	14,480	14,110	E	17,050	0.83	C	1,540
W. Volusia Bltwy (Kepler Rd)	SR 44 to Beresford Ave. Ext.	1948			County	Yes	0.75	2	50	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	10,980	12,600	12,850	12,870	12,980	9,720	10,600	10,260	10,390	10,040	E	17,050	0.59	C	1,540
W. Volusia Bltwy (Dr MLK Jr)	Beresford Ave. Ext. to Taylor Rd.	1945			County	Yes	1.10	2	55	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	10,940	11,700	11,880	11,710	10,670	9,950	10,370	9,940	10,220	9,890	E	17,050	0.58	C	1,540
W. Volusia Bltwy (Dr MLK Jr)	Taylor Rd. to Orange Camp Rd.	1943			County	Yes	1.00	2	55	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	11,040	14,060	14,580	14,410	15,620	12,700	11,910	11,240	11,850	11,440	E	17,050	0.67	C	1,540
W. Volusia Bltwy (Dr MLK Jr)	Orange Camp Rd. to Cassadaga Rd.	1942			County	Yes	1.40	2	55	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	10,930	12,760	13,030	12,730	13,190	10,500	11,040	9,940	10,280	10,320	E	17,050	0.61	C	1,540
W. Volusia Bltwy (Dr MLK Jr)	Cassadaga Rd. to SR 472	1940			County	Yes	0.20	2	55	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	12,050	14,000	14,430	14,220	13,210	11,660	11,830	10,610	11,290	10,840	E	17,050	0.64	C	1,540
W. Volusia Bltwy (Kentucky Ave.)	SR 472 to Graves Ave	1030			County	Yes	0.80	2	45	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Collector	8,270	11,180	12,440	10,440	9,060	8,740	9,110	7,970	9,010	9,050	E	17,050	0.53	C	1,540
W. Volusia Bltwy (Veteran's Memo	Graves Ave. to Rhode Island Ave.	1902			County	Yes	1.50	2	45	N+S	UA_NSSRC1_2W_2L_D_WL	Urban Minor Arterial	11,760	13,400	13,690	13,510	13,570	13,860	13,050	14,100	14,830	15,510	E	17,900	0.87	C	1,620
W. Volusia Bltwy (Veteran's Memo	Rhode Island Ave. to Harley Strickland B	1901			County	Yes	1.22	2	55	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Minor Arterial	13,760	17,190	17,570	18,160	18,510	14,740	15,530	13,810	15,170	18,000	E	17,050	1.06	F	1,540
W. Volusia Bltwy (Veteran's Memo	Harley Strickland Blvd. to Saxon Blvd.	1900			County	Yes	0.38	4	40	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Minor Arterial	19,330	22,160	22,970	22,330	23,130	19,480	18,660	18,720	19,260	18,450	E	37,970	0.49	C	3,410
Williams Rd.	Turnbull Bay Rd. to Mooneyham Dr.	1981			County	No	0.50	2	35	N+S	UA_NSSRC2_2W_2L_U_0L	n/c	1,290	1,350	1,290	1,270	1,440	1,520	1,520	1,430	1,430	1,490	E	13,640	0.11	C	1,020
Williams Rd.	Mooneyham Dr. to Pioneer Tr.	1980			County	No	1.50	2	40	N+S	UA_NSSRC1_2W_2L_U_0L	n/c	1,510	1,550	1,480	1,430	1,590	1,780	1,640	1,770	1,640	1,790	E	13,640	0.13	C	1,230
Williamson Blvd.	SR 40 to Hand Ave.	2004			County	Yes	0.60	4	40	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	19,040	21,200	20,890	22,070	19,590	21,040	19,130	18,470	20,240	19,750	E	37,970	0.52	C	3,410
Williamson Blvd.	Hand Ave. to LPGA Blvd.	2001			County	Yes	2.05	2	50	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Principal Arterial - Other	13,380	15,480	15,090	16,040	13,530	12,780	13,010	14,090	12,500	12,860	E	17,050	0.75	C	1,540
Williamson Blvd.	LPGA Blvd. to Mason Ave.	2000		Yes	County	Yes	0.35	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	14,640	16,900	16,710	17,580	14,910	14,340	14,650	13,570	14,430	14,610	E	37,970	0.38	C	3,410
Williamson Blvd.	Mason Ave. to Dunn Ave.	1999			County	Yes	0.35	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	13,990	15,630	15,570	16,650	13,400	13,780	13,210	12,750	13,390	13,770	E	37,970	0.36	C	3,410
Williamson Blvd.	Dunn Ave. to US 92	1998			County	Yes	2.35	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	15,490	16,270	16,220	17,510	15,190	15,070	15,530	13,560	14,200	13,110	E	37,970	0.35	C	3,410
Williamson Blvd.	US 92 to Midway Ave.	1997			County	Yes	0.50	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	10,770	10,450	10,730	11,530	9,340	9,120	10,390	10,170	10,490	9,900	E	37,970	0.26	C	3,410
Williamson Blvd.	Midway Ave. to Bellevue Ave. Ext.	1996			County	Yes	0.50	4	50	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	15,630	15,740	15,950	17,130	13,840	13,870	13,560	13,580	13,330	13,690	E	37,970	0.36	C	3,410
Williamson Blvd.	Bellevue Ave. Ext. to SR400/Beville Rd.	1994			County	Yes	1.00	4	50	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	16,590	17,590	17,570	18,910	15,590	14,890	15,260	14,820	15,070	15,310	E	37,970	0.40	C	3,410
Williamson Blvd.	SR400/Beville Rd. to Madeline Ave.	1993			County	Yes	1.50	2	45	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Principal Arterial - Other	14,160	14,020	14,010	14,990	12,710	12,100	14,350	14,280	14,410	14,430	E	17,050	0.85	C	1,540
Williamson Blvd.	Madeline Ave. to Willow Run Blvd.	1992			County	Yes	1.10	2	55	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Principal Arterial - Other	13,000	13,860	13,810	14,890	13,310	12,340	14,340	13,220	14,100	14,220	E	17,050	0.83	C	1,540
Williamson Blvd.	Willow Run Blvd. Townwest Blvd	1991			County	Yes	0.25	2	55	N+S	UA_NSSRC1_2W_2L_U_WL	Urban Principal Arterial - Other	11,880	11,390	11,380	12,360	11,110	11,540	12,800	13,790	14,130	14,250	E	17,050	0.84	C	1,540
Williamson Blvd.	Townwest Blvd to Taylor Rd.	1990			County	Yes	2.75	4	55	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	11,280	13,160	13,070	14,270	10,990	10,770	14,380	14,340	17,250	16,480	E	37,970	0.43	C	3,410
Williamson Blvd.	Taylor Rd. to Spruce Creek Bridge	66			County	Yes	0.80	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	17,250	19,810	19,780	18,900	19,530	18,790	19,390	20,180	20,780	19,220	E	37,970	0.51	D	3,410
Williamson Blvd.	Spruce Creek Bridge to Airport Rd	65			County	Yes	1.00	4	45	N+S	UA_NSSRC1_2W_4L_D_WL	Urban Principal Arterial - Other	14,250	15,460	15,680	15,640	17,100	15,760	15,180	16,410	17,070	16,200	D	37,970	0.43	D	3,220
Williamson Blvd.	Airport Rd to Pioneer Trail	1989			County	Yes	3.00	2	35	N+S	UA_NSSRC2_2W_2L_U_WL	Urban Principal Arterial - Other	-	-	-	-	-	740	1,730	1,710	1,760	1,570	E	14,040	0.11	C	1,270
Willow Run Blvd. (PO)	Williamson Blvd. to Hidden Lake Dr.	2010			City	Yes	0.50	2	35	E+W	UA_NSSRC2_2W_2L_U_WL	n/c	4,280	4,470	4,510	4,890	5,290	4,810	5,160	5,110	5,440	-	E	14,040	-	-	1,270
Willow Run Blvd. (PO)	Hidden Lake Dr. to Clyde Morris Blvd.	2013			City	Yes	0.85	2	35	E+W	UA_NSSRC2_2W_4L_D_WL	n/c	8,230	8,450	8,680	9,630	-	8,200	8,140	8,230	8,510	-	E	30,420	-	-	2,740
Wilmette Ave.	SR 5A/Nova Rd to US 1	2021			City	No	1.80	2	35	E+W	UA_NSSRC2_2W_2L_U_WL	Urban Collector	8,800	9,620	8,660	8,180	8,690	6,730	8,330	8,010	9,620	-	E	14,040	-	-	1,270

Volusia County 2013 Average Annual Daily Traffic & Historical Counts

Road Name	Limits (From - To)	Count Station Number	2013 SIS Facility	Cycle 10-2 2013 Evacuation Route	Roadway Maintaining Agency	2013 Roadway on County's Thoroughfare	Distance (in miles)	2013 No. of Lanes	Posted Speed	Direction	2013 Facility Type	2000 Federal Functional Classification	2004 AADT	2005 AADT	2006 AADT	2007 AADT	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2013 Vol. Co. Allowable LOS	DAILY 2013 LOS Capacity	DAILY 2013 V/C Ratio	DAILY 2013 LOS	PEAK 2Way 2013 LOS Capacity
Woodward Ave.	SR 44 to Euclid Ave.	2030			County	No	0.50	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	1,000	860	1,050	1,140	710	670	720	770	750	740	E	13,640	0.05	C	1,020
Woodward Ave.	Euclid Ave. to Beresford Ave.	2031			County	No	0.50	2	30	N+S	UA_NSSRC2_2W_2L_U_0L	Urban Collector	910	840	990	1,100	720	740	750	830	800	740	E	13,640	0.05	C	1,020
Yorktown Blvd.	Willow Run to Hidden Lake Dr.				City	Yes	0.50	0	25	N+S	UA_NSSRC2_2W_2L_U_WL	n/c	-	-	-	-	-	-	-	-	-	-	-	14,040	-	-	
Yorktown Blvd.	Hidden Lake Dr. to SR 421/Dunlawton A	2080			City	Yes	1.00	2	40	N+S	UA_NSSRC1_2W_2L_U_WL	n/c	-	6,010	7,100	7,970	7,380	7,640	7,250	6,920	6,780	-	E	17,050	-	-	1,540

Area Types

			Centerline Miles
UA	= Urbanized Areas		
TA	= Transitioning Urbanized Areas	SIS Rds =	133
RDA	= Rural Developed Areas	non-SIS Rds =	217
RUA	= Rural Undeveloped Areas	All State Rds =	350
		County	
		TFare Rds =	381
			731

Facility Types - Urban/Transitioning

FWIS	= Freeways - Interchange Spacing Group 1 (spacing >= 2 miles apart)
FW	= Freeways - Transitioning & Rural
UFH	= Uninterrupted Flow Highways
SSAC1	= State Signalized Arterial Class 1
SSAAC2	= State Signalized Arterial Class 2
NSSRC1	= Non-State Signalized Road Class 1
NSSRC2	= Non-State Signalized Road Class 2

Facility Types - Rural Developed

FW	= Freeways - Transitioning & Rural
UFH	= Uninterrupted Flow Highways
IFH	= Interrupted Flow Highways

Facility Types - Rural Undeveloped

FW	= Freeways - Transitioning & Rural
UFH	= Uninterrupted Flow Highways
ISIS	= Isolated Signalized Intersections

One-Way/Two-Way

1W	= One-way Directional Volumes
2W	= Two-way Directional Volumes

Number of Lanes

2L, 4L, 5L, etc.	= Number of Roadway Lanes

Divided/Undivided

D	= Divided
U	= Undivided

Left Turn Bays

WL	= Left Turn Bays
0L	= No Left Turn Bays

Daily VMT										
Florida DOT										
SIS Rds =	4,992,118	5,245,558	5,403,051	5,335,606	5,155,047	5,186,090	5,253,250	5,118,011	5,126,566	5,145,738
non-SIS Rds =	3,827,456	3,913,120	3,951,019	3,913,799	3,781,767	3,665,724	3,593,107	3,514,105	3,432,313	3,542,360
All State Rds =	8,819,574	9,158,678	9,354,070	9,249,405	8,936,814	8,851,814	8,846,357	8,632,116	8,558,879	8,688,098
County										
TFare Rds =	2,465,351	2,569,594	2,595,206	2,685,440	2,409,657	2,313,351	2,317,178	2,293,413	2,313,033	2,263,405
TOTAL =	11,284,925	11,728,272	11,949,276	11,934,845	11,346,471	11,165,165	11,163,535	10,925,529	10,871,912	10,951,503
% of Daily VMT										
Florida DOT										
SIS Rds =	44%	45%	45%	45%	45%	46%	47%	47%	47%	47%
non-SIS Rds =	34%	33%	33%	33%	33%	33%	32%	32%	32%	32%
All State Rds =	78%	78%	78%	77%	79%	79%	79%	79%	79%	79%
County										
TFare Rds =	22%	22%	22%	23%	21%	21%	21%	21%	21%	21%
1-Year Change in Daily VMT										
Florida DOT										
1-Yr SIS % Chg =	2.73%	5.08%	3.00%	-1.25%	-3.38%	0.60%	1.30%	-2.57%	0.17%	0.37%
1-Yr non-SIS % Chg =	2.10%	2.24%	0.97%	-0.94%	-3.37%	-3.07%	-1.98%	-2.20%	-2.33%	3.21%
1 Yr All SR % Chg =	2.45%	3.84%	2.13%	-1.12%	-3.38%	-0.95%	-0.06%	-2.42%	-0.85%	1.51%
County										
1-Yr Tfare % Chg =	0.80%	4.23%	1.00%	3.48%	-10.27%	-4.00%	0.17%	-1.03%	0.86%	-2.15%
1-Yr All Significant Roads % Chg =	**2.09%**	**3.93%**	**1.88%**	**-0.12%**	**-4.93%**	**-1.60%**	***-0.01%***	***-2.13%***	**-0.49%**	**0.73%**
3-Year Change in Daily VMT										
Florida DOT										
3-Yr SIS % Chg =							-1.54%	-0.72%	-1.15%	-2.05%
3-Yr non-SIS % Chg =							-8.19%	-7.08%	-6.37%	-1.41%
3-Yr All SR % Chg =							-4.36%	-3.41%	-3.31%	-1.79%
County										
3-Yr Tfare % Chg =							-13.71%	-4.82%	-0.01%	-2.32%
3-Yr All Significant Roads % Chg =							**-6.46%**	**-3.71%**	**-2.63%**	**-1.90%**

YEAR 2013 CITY OF DELTONA TRAFFIC COUNTS

Prepared for
City of Deltona

Prepared by
GMB Engineers & Planners, Inc

May 2013

Appendix A

2013 Annual Count Report

YEAR 2013 CITY OF DELTONA TRAFFIC COUNT REPORT

Roadway	*Segment Limits*	*Count Station Number*	*2013 SIS Facility*	*2013 Evacuation Route*	*2013 Roadway on County's Thoroughfare*	*Distance (in miles)*	*2013 No. of Lanes*	*Speed Limit*	*2013 Facility Type*	*2002 AADT*	*2003 AADT*	*2004 AADT*	*2005 AADT*	*2006 AADT*	*2007 AADT*	*2008 AADT*	*2009 AADT*	*2010 AADT*	*2011 AADT*	*2012 AADT*	*2013 AADT*	*2013 Vol. Co. Allowable LOS*	*2013 LOS Capacity*	*2013 V/C Ratio*	*2013 LOS*
Catalina Blvd.	Howland Blvd. to Sixma Rd.	DLT-20.020	No	No	No	0.50	2	35	UA_MCCRAC1_2W_2L_U_0L	9,370	9,810	9,560	11,560	12,750	15,799	12,089	-	-	-	-	11,698	E	12,710	0.920	D
Catalina Blvd.	Sixma Rd. to Lake Helen-Osteen Rd.	DLT-20.030	No	No	No	0.40	2	35	UA_MCCRAC1_2W_2L_U_0L	8,480	8,740	8,440	9,700	10,120	9,401	10,733	-	-	-	-	9,776	E	12,710	0.769	C
Courtland Blvd.	Beckwith St. to Haulover Blvd.	DLT-30.010	No	No	No	1.00	2	40	UA_OCCRAC1_2W_2L_U_0L	3,080	3,510	3,820	3,990	4,040	7,975	3,681	-	-	-	-	2,008	E	9,180	0.219	B
Courtland Blvd.	Haulover Blvd. to Elkcam Blvd.	DLT-30.030	No	No	No	1.50	2	40	UA_OCCRAC1_2W_2L_U_0L	4,870	5,070	5,990	5,870	5,870	9,975	5,068	-	-	-	-	4,565	E	9,180	0.497	B
Courtland Blvd.	Elkcam Blvd. to Puerto Rico Dr.	DLT-30.040	No	No	No	0.75	2	35	UA_OCCRAC1_2W_2L_U_0L	1,850	1,340	1,940	2,120	2,110	4,331	1,899	-	-	-	-	1,159	E	9,180	0.126	B
Courtland Blvd.	Wavecrest St. to Newmark Dr.	DLT-30.050	No	No	No	0.25	2	35	UA_MCCRAC1_2W_2L_U_0L	1,510	1,390	1,640	1,720	1,680	1,907	1,870	-	-	-	-	1,283	E	12,710	0.101	B
Courtland Blvd.	Newmark Dr. to Howland Blvd.	DLT-30.070	No	No	No	1.00	2	35	UA_MCCRAC1_2W_2L_U_0L	3,270	3,050	3,150	3,170	3,180	5,973	3,575	-	-	-	-	2,399	E	12,710	0.189	B
Courtland Blvd.	Howland Blvd. to India Blvd.	DLT-30.090	No	No	No	1.20	2	35	UA_MCCRAC1_2W_2L_U_0L	7,000	5,390	5,310	6,370	6,400	12,066	7,764	-	-	-	-	6,467	E	12,710	0.509	B
Courtland Blvd.	India Blvd. to Ft Smith Blvd.	DLT-30.100	No	No	No	0.70	2	35	UA_MCCRAC1_2W_2L_U_0L	7,250	5,490	6,070	6,280	6,230	6,972	8,397	-	-	-	-	7,997	E	12,710	0.629	C
Courtland Blvd.	Ft Smith Blvd. to Doyle Rd.	DLT-30.130	No	No	No	1.80	2	40	UA_MCCRAC1_2W_2L_U_0L	6,510	6,830	6,040	6,040	6,040	6,377	6,241	-	-	-	-	6,079	E	12,710	0.478	B
Courtland Blvd.	Doyle Rd. to Enterprise-Osteen Rd.	DLT-30.140	No	No	No	0.90	2	30	UA_MCCRAC1_2W_2L_U_0L	2,090	2,080	2,110	2,050	2,000	3,106	1,609	-	-	-	-	1,600	E	12,710	0.126	B
Deltona Blvd.	Normandy Blvd. to Cloverleaf Blvd.	DLT-35.000	No	No	No	1.25	4	35	UA_MCCRAC1_2W_4L_D_WL	14,440	14,110	14,420	16,130	-	14,802	14,966	-	-	-	-	11,421	E	35,010	0.326	B
Deltona Blvd.	Cloverleaf Blvd. to Enterprise Rd.	DLT-35.030	No	No	No	0.50	4	35	UA_MCCRAC1_2W_4L_D_WL	15,540	18,400	17,620	18,980	-	18,396	15,546	-	-	-	-	14,268	E	35,010	0.408	B
Deltona Blvd.	Enterprise Rd. to DeBary Ave.	DLT-35.040	No	No	No	0.85	2	35	UA_MCCRAC1_2W_2L_U_0L	10,540	11,610	12,840	13,550	-	15,305	13,780	-	-	-	-	9,321	E	12,710	0.733	C
Elkcam Blvd.	Normandy Blvd. to Ft. Smith Blvd.	DLT-45.000	No	No	No	1.50	2	35	UA_MCCRAC1_2W_2L_U_0L	9,960	10,260	11,870	12,570	-	10,153	5,142	-	-	-	-	7,500	E	12,710	0.590	C
Elkcam Blvd.	Ft. Smith Blvd. to Providence Blvd.	DLT-45.010	No	No	No	1.00	2	35	UA_MCCRAC1_2W_2L_U_0L	7,270	7,360	8,530	8,890	-	7,158	4,805	-	-	-	-	6,125	E	12,710	0.482	B
Elkcam Blvd.	Providence Blvd. to Montecito Ave.	DLT-45.020	No	No	No	1.05	2	35	UA_MCCRAC1_2W_2L_U_0L	11,170	11,530	12,890	13,360	-	11,751	11,772	-	-	-	-	10,082	E	12,710	0.793	C
Elkcam Blvd.	Montecito Ave. to Howland Blvd.	DLT-45.040	No	No	No	1.00	2	35	UA_MCCRAC1_2W_2L_U_0L	10,620	10,840	12,140	12,590	-	5,591	10,554	-	-	-	-	9,926	E	12,710	0.781	C
Elkcam Blvd.	Howland Blvd. to Lake Helen-Osteen Rd.	DLT-45.050	No	No	No	0.15	2	35	UA_MCCRAC1_2W_2L_D_WL	10,920	11,400	13,280	13,980	-	6,068	13,766	-	-	-	-	10,533	E	16,680	0.631	C
Elkcam Blvd.	Lake Helen-Osteen Rd. to Courtland Blvd.	DLT-45.060	No	No	No	0.70	2	35	UA_MCCRAC1_2W_2L_U_0L	1,550	9,060	11,160	11,960	-	4,736	8,571	-	-	-	-	6,899	E	12,710	0.543	B
Elkcam Blvd.	Courtland Blvd. to Riverhead Dr.	DLT-45.080	No	No	No	0.50	2	30	UA_MCCRAC1_2W_2L_U_0L	560	610	620	680	-	592	943	-	-	-	-	484	E	12,710	0.038	B
Eustace Ave.	Catalina Blvd. to Roseboro Dr.	DLT-55.010	No	No	No	0.40	2	30	UA_OCCRAC1_2W_2L_U_0L	-	6,530	4,310	4,610	-	3,639	4,199	-	-	-	-	2,486	D	8,580	0.290	B
Eustace Ave.	Roseboro Dr. to Providence Blvd.	DLT-55.010	No	No	No	0.45	2	30	UA_OCCRAC1_2W_2L_U_0L	-	6,530	4,310	4,610	-	3,639	4,199	-	-	-	-	3,484	D	8,580	0.406	B
Fort Smith Blvd.	Elkcam Blvd. to Providence Blvd.	DLT-60.000	No	No	No	1.00	2	30	UA_MCCRAC1_2W_2L_U_0L	2,700	2,580	3,220	2,910	-	3,160	3,280	-	-	-	-	2,251	E	12,710	0.177	B
Fort Smith Blvd.	Providence Blvd. to Newmark Dr.	DLT-60.020	No	No	No	0.50	2	35	UA_MCCRAC1_2W_2L_U_0L	10,150	10,660	12,680	12,290	-	11,901	13,876	-	-	-	-	10,502	E	12,710	0.826	C
Fort Smith Blvd.	Newmark Dr. to Normandy Blvd.	DLT-60.030	No	No	No	0.85	2	35	UA_MCCRAC1_2W_2L_D_WL	7,040	6,850	8,140	7,470	-	7,576	7,010	-	-	-	-	8,609	E	16,680	0.516	B
Fort Smith Blvd.	Normandy Blvd. to India Blvd.	DLT-60.050	No	No	No	0.55	2	35	UA_MCCRAC1_2W_2L_D_WL	13,000	13,040	14,410	13,530	-	14,262	13,768	-	-	-	-	11,570	E	16,680	0.694	C
Fort Smith Blvd.	India Blvd. to Courtland Blvd.	DLT-60.070	No	No	No	2.25	2	35	UA_MCCRAC1_2W_2L_D_WL	6,570	6,720	7,400	6,880	-	7,154	7,592	-	-	-	-	6,262	E	16,680	0.375	B
Fort Smith Blvd.	Courtland Blvd. to Howland Blvd.	DLT-60.100	No	No	No	0.75	2	35	UA_MCCRAC1_2W_2L_D_WL	6,660	4,270	5,670	4,760	-	7,388	8,497	-	-	-	-	8,461	E	16,680	0.507	B
Fort Smith Blvd.	Howland Blvd. to SR 415	DLT-60.110	No	No	No	0.55	2	35	UA_MCCRAC1_2W_2L_U_0L	3,240	3,150	4,010	3,810	-	3,949	3,108	-	-	-	-	2,844	E	12,710	0.224	B
India Blvd.	Fort Smith Blvd. to Courtland Blvd.	DLT-80.000	No	No	No	2.06	2	35	UA_OCCRAC1_2W_2L_U_0L	6,950	6,280	6,560	6,120	-	6,106	3,750	-	-	-	-	3,517	E	9,180	0.383	B
Newmark Dr.	Ft Smith Blvd. to Humphrey Blvd.	DLT-100.000	No	No	No	1.60	2	35	UA_MCCRAC1_2W_2L_U_0L	7,300	7,750	8,770	8,700	-	8,066	7,061	-	-	-	-	6,063	E	12,710	0.477	B
Newmark Dr.	Humphrey Blvd. to Howland Blvd.	DLT-100.020	No	No	No	0.90	2	35	UA_MCCRAC1_2W_2L_U_0L	6,060	6,400	7,440	7,010	-	7,046	6,452	-	-	-	-	6,372	E	12,710	0.501	B
Newmark Dr.	Howland Blvd. to Courtland Blvd.	DLT-100.040	No	No	No	0.75	2	30	UA_MCCRAC1_2W_2L_U_0L	1,990	2,230	2,490	2,540	-	6,875	1,434	-	-	-	-	1,108	E	12,710	0.087	B

Note : 2013 LOS Capacities - based on 2009 FDOT Quality/Level of Service Facility Type Designations and Capacities (VERSION DATE: 9/04/2009)

YEAR 2013 CITY OF DELTONA TRAFFIC COUNT REPORT

Roadway	*Segment Limits*	*Count Station Number*	*2013 SIS Facility*	*2013 Evacuation Route*	*2013 Roadway on County's Thoroughfare*	*Distance (in miles)*	*2013 No. of Lanes*	*Speed Limit*	*2013 Facility Type*	*2002 AADT*	*2003 AADT*	*2004 AADT*	*2005 AADT*	*2006 AADT*	*2007 AADT*	*2008 AADT*	*2009 AADT*	*2010 AADT*	*2011 AADT*	*2012 AADT*	*2013 AADT*	*2013 Vol. Co. Allowable LOS*	*2013 LOS Capacity*	*2013 V/C Ratio*	*2013 LOS*
Normandy Blvd.	Graves Ave. to Rhode Island Ave.	DLT-105.000	No	No	No	1.25	2	45	UA_MCCRAC1_2W_2L_U_0L	6,020	5,720	6,360	6,710	-	6,786	4,411	-	-	-	-	7,095	E	12,710	0.558	C
Normandy Blvd.	Rhode Island Ave. to Elkcam Blvd.	DLT-105.000	No	No	No	0.50	4	30	UA_MCCRAC1_2W_4L_D_WL	5,950	5,640	6,700	7,550	-	6,439	4,893	-	-	-	-	6,891	E	35,010	0.197	B
Normandy Blvd.	Elkcam Blvd. to Saxon Blvd.	DLT-105.030	No	No	No	1.00	4	35	UA_NSOSRS_2W_4L_D_WL	13,140	13,400	13,940	14,930	-	13,100	10,694	-	-	-	-	7,532	E	35,010	0.215	B
Normandy Blvd.	Saxon Blvd. to Deltona Blvd.	DLT-105.050	No	No	No	0.70	2	35	UA_MCCRAC1_2W_2L_U_0L	13,670	12,950	13,630	14,370	-	12,775	10,996	-	-	-	-	10,231	E	12,710	0.805	C
Normandy Blvd.	Deltona Blvd. to Tivoli Dr.	DLT-105.070	No	No	No	1.10	3	30	UA_MCCRAC1_2W_2L_U_0L	13,420	12,700	13,740	14,360	-	12,843	11,929	-	-	-	-	9,560	E	12,710	0.752	C
Normandy Blvd.	Tivoli Dr. to Providence Blvd.	DLT-105.090	No	No	No	0.90	3	35	UA_MCCRAC1_2W_2L_U_0L	9,600	8,810	9,560	10,360	-	12,069	8,305	-	-	-	-	6,846	E	12,710	0.539	B
Normandy Blvd.	Providence Blvd. to Saxon Blvd.	DLT-105.120	No	No	No	1.00	2	35	UA_MCCRAC1_2W_2L_D_WL	8,020	8,860	9,240	10,040	-	8,662	8,148	-	-	-	-	7,016	E	16,680	0.421	B
Normandy Blvd.	Saxon Blvd. to Ft Smith Blvd.	DLT-105.140	No	No	No	0.75	2	35	UA_MCCRAC1_2W_2L_U_0L	11,960	11,970	12,400	13,310	-	7,640	11,232	-	-	-	-	10,715	E	12,710	0.843	C
Tivoli Dr.	Saxon Blvd. to Providence Blvd.	DLT-125.020	No	No	No	0.85	2	30	UA_MCCRAC1_2W_2L_U_0L	10,190	11,580	12,590	12,890	-	12,272	13,736	-	-	-	-	11,058	D	11,880	0.931	C

Note : 2013 LOS Capacities - based on 2009 FDOT Quality/Level of Service Facility Type Designations and Capacities (VERSION DATE: 9/04/2009)

Appendix B

2012 Seasonal Factors

2012 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7900 VOLUSIA COUNTYWIDE

MOCF: 0.95

WEEK	DATES	SF	PSCF
1	01/01/2012 - 01/07/2012	1.01	1.07
2	01/08/2012 - 01/14/2012	1.00	1.06
3	01/15/2012 - 01/21/2012	1.00	1.06
4	01/22/2012 - 01/28/2012	0.98	1.04
* 5	01/29/2012 - 02/04/2012	0.97	1.03
* 6	02/05/2012 - 02/11/2012	0.95	1.00
* 7	02/12/2012 - 02/18/2012	0.94	0.99
* 8	02/19/2012 - 02/25/2012	0.93	0.98
* 9	02/26/2012 - 03/03/2012	0.93	0.98
*10	03/04/2012 - 03/10/2012	0.93	0.98
*11	03/11/2012 - 03/17/2012	0.92	0.97
*12	03/18/2012 - 03/24/2012	0.93	0.98
*13	03/25/2012 - 03/31/2012	0.94	0.99
*14	04/01/2012 - 04/07/2012	0.95	1.00
*15	04/08/2012 - 04/14/2012	0.96	1.01
*16	04/15/2012 - 04/21/2012	0.97	1.03
*17	04/22/2012 - 04/28/2012	0.98	1.04
18	04/29/2012 - 05/05/2012	0.99	1.05
19	05/06/2012 - 05/12/2012	1.00	1.06
20	05/13/2012 - 05/19/2012	1.01	1.07
21	05/20/2012 - 05/26/2012	1.02	1.08
22	05/27/2012 - 06/02/2012	1.02	1.08
23	06/03/2012 - 06/09/2012	1.02	1.08
24	06/10/2012 - 06/16/2012	1.03	1.09
25	06/17/2012 - 06/23/2012	1.03	1.09
26	06/24/2012 - 06/30/2012	1.04	1.10
27	07/01/2012 - 07/07/2012	1.04	1.10
28	07/08/2012 - 07/14/2012	1.04	1.10
29	07/15/2012 - 07/21/2012	1.05	1.11
30	07/22/2012 - 07/28/2012	1.05	1.11
31	07/29/2012 - 08/04/2012	1.05	1.11
32	08/05/2012 - 08/11/2012	1.05	1.11
33	08/12/2012 - 08/18/2012	1.05	1.11
34	08/19/2012 - 08/25/2012	1.05	1.11
35	08/26/2012 - 09/01/2012	1.04	1.10
36	09/02/2012 - 09/08/2012	1.04	1.10
37	09/09/2012 - 09/15/2012	1.04	1.10
38	09/16/2012 - 09/22/2012	1.03	1.09
39	09/23/2012 - 09/29/2012	1.02	1.08
40	09/30/2012 - 10/06/2012	1.01	1.07
41	10/07/2012 - 10/13/2012	1.00	1.06
42	10/14/2012 - 10/20/2012	0.99	1.05
43	10/21/2012 - 10/27/2012	1.00	1.06
44	10/28/2012 - 11/03/2012	1.00	1.06
45	11/04/2012 - 11/10/2012	1.00	1.06
46	11/11/2012 - 11/17/2012	1.00	1.06
47	11/18/2012 - 11/24/2012	1.01	1.07
48	11/25/2012 - 12/01/2012	1.01	1.07
49	12/02/2012 - 12/08/2012	1.01	1.07
50	12/09/2012 - 12/15/2012	1.01	1.07
51	12/16/2012 - 12/22/2012	1.01	1.07
52	12/23/2012 - 12/29/2012	1.00	1.06
53	12/30/2012 - 12/31/2012	1.00	1.06

* PEAK SEASON

08-FEB-2013 12:30:05 830UPD [1,0,0,1] 5_7900_PKSEASON.TXT

Appendix C

2013 Raw Counts

Roadway Count Summary

GMB Engineers & Planners, Inc.

Start Date : May 7, 2013 Start Time 00:00
Stop Date : May 9, 2013 Stop Time 24:00
County : Volusia
Location : Catalina Blvd. from Sixma Rd. to Howland Blvd.

GMB Project #: 13-056.01

8-May-13 **Eastbound Volume**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	24	9	4	3	2	8	16	34	54	43	43	60
30	22	16	3	6	6	6	26	68	46	44	40	46
45	11	11	6	2	2	5	21	80	50	37	50	54
00	18	15	8	5	4	5	35	72	47	52	54	56
Hr Total	**75**	**51**	**21**	**16**	**14**	**24**	**98**	**254**	**197**	**176**	**187**	**216**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	60	60	80	126	136	150	133	106	77	89	63	33
30	64	76	82	116	114	160	130	96	92	74	50	36
45	50	68	90	107	126	162	128	81	100	71	50	36
00	55	78	96	126	128	167	120	84	80	56	49	18
Hr Total	**229**	**282**	**348**	**475**	**504**	**639**	**511**	**367**	**349**	**290**	**212**	**123**

24 Hour Total : 5,658
AM Peak Hour begins : 7:15 AM Peak Volume : 274 AM Peak Hour Factor : 0.86
PM Peak Hour begins : 17:00 PM Peak Volume : 639 PM PeaK Hour Factor : 0.96

8-May-13 **Westbound Volume**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	7	5	3	14	7	40	90	174	176	89	81	63
30	5	8	2	5	16	37	129	178	144	76	74	69
45	5	4	9	7	20	59	124	180	130	80	71	68
00	13	8	4	17	28	74	132	178	94	69	66	55
Hr Total	**30**	**25**	**18**	**43**	**71**	**210**	**475**	**710**	**544**	**314**	**292**	**255**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	76	74	78	106	78	86	80	74	56	43	31	22
30	54	65	95	76	84	92	98	57	39	37	24	20
45	66	76	102	107	97	101	88	58	46	45	31	14
00	74	72	88	92	86	87	64	48	42	26	29	14
Hr Total	**270**	**287**	**363**	**381**	**345**	**366**	**330**	**237**	**183**	**151**	**115**	**70**

24 Hour Total : 6,085
AM Peak Hour begins : 7:15 AM Peak Volume : 712 AM Peak Hour Factor : 0.99
PM Peak Hour begins : 14:15 PM Peak Volume : 391 PM PeaK Hour Factor : 0.92

8-May-13 **Total Volume for All Lanes**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	31	14	7	17	9	48	106	208	230	132	124	123
30	27	24	5	11	22	43	155	246	190	120	114	115
45	16	15	15	9	22	64	145	260	180	117	121	122
00	31	23	12	22	32	79	167	250	141	121	120	111
Hr Total	**105**	**76**	**39**	**59**	**85**	**234**	**573**	**964**	**741**	**490**	**479**	**471**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	136	134	158	232	214	236	213	180	133	132	94	55
30	118	141	177	192	198	252	228	153	131	111	74	56
45	116	144	192	214	223	263	216	139	146	116	81	50
00	129	150	184	218	214	254	184	132	122	82	78	32
Hr Total	**499**	**569**	**711**	**856**	**849**	**1,005**	**841**	**604**	**532**	**441**	**327**	**193**

24 Hour Total : 11,743
AM Peak Hour begins : 7:15 AM Peak Volume : 986 AM Peak Hour Factor : 0.95
PM Peak Hour begins : 17:00 PM Peak Volume : 1,005 PM PeaK Hour Factor : 0.96

Roadway Count Summary

GMB Engineers & Planners, Inc.

Start Date : April 30, 2013 Start Time 00:00
Stop Date : May 2, 2013 Stop Time 24:00
County : Volusia
Location : Normandy Blvd. from Graves Av. to Rhode Island Rd. (planned County T-fare)
GMB Project #: 13-056.01

30-Apr-13 **Northbound Volume**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	5	6	4	0	1	13	25	126	81	41	35	40
30	5	0	2	4	3	16	34	141	83	51	41	42
45	9	2	1	1	4	19	62	138	56	43	45	37
00	5	1	1	1	6	19	91	107	65	33	39	42
Hr Total	**24**	**9**	**8**	**6**	**14**	**67**	**212**	**512**	**285**	**168**	**160**	**161**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	40	57	46	63	67	61	63	35	44	18	18	8
30	43	41	62	53	58	66	53	37	15	21	13	4
45	39	42	62	55	62	62	48	31	17	27	14	6
00	45	41	67	63	40	38	50	37	22	35	13	6
Hr Total	**167**	**181**	**237**	**234**	**227**	**227**	**214**	**140**	**98**	**101**	**58**	**24**

24 Hour Total : 3,534
AM Peak Hour begins : 7:00 AM Peak Volume : 512 AM Peak Hour Factor : 0.91
PM Peak Hour begins : 14:15 PM Peak Volume : 254 PM PeaK Hour Factor : 0.95

30-Apr-13 **Southbound Volume**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	4	4	5	2	1	3	10	34	52	34	29	45
30	2	4	5	4	1	2	12	49	28	30	27	43
45	1	3	4	1	2	5	20	64	33	36	33	40
00	9	4	1	0	3	7	17	60	34	26	46	31
Hr Total	**16**	**15**	**15**	**7**	**7**	**17**	**59**	**207**	**147**	**126**	**135**	**159**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	45	42	74	75	69	82	74	59	59	37	29	18
30	43	41	37	78	78	124	73	49	47	31	22	20
45	35	40	58	74	79	113	61	57	30	33	14	16
00	47	52	87	84	95	97	64	45	43	32	23	10
Hr Total	**170**	**175**	**256**	**311**	**321**	**416**	**272**	**210**	**179**	**133**	**88**	**64**

24 Hour Total : 3,505
AM Peak Hour begins : 7:15 AM Peak Volume : 225 AM Peak Hour Factor : 0.88
PM Peak Hour begins : 17:00 PM Peak Volume : 416 PM PeaK Hour Factor : 0.84

30-Apr-13 **Total Volume for All Lanes**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	9	10	9	2	2	16	35	160	133	75	64	85
30	7	4	7	8	4	18	46	190	111	81	68	85
45	10	5	5	2	6	24	82	202	89	79	78	77
00	14	5	2	1	9	26	108	167	99	59	85	73
Hr Total	**40**	**24**	**23**	**13**	**21**	**84**	**271**	**719**	**432**	**294**	**295**	**320**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	85	99	120	138	136	143	137	94	103	55	47	26
30	86	82	99	131	136	190	126	86	62	52	35	24
45	74	82	120	129	141	175	109	88	47	60	28	22
00	92	93	154	147	135	135	114	82	65	67	36	16
Hr Total	**337**	**356**	**493**	**545**	**548**	**643**	**486**	**350**	**277**	**234**	**146**	**88**

24 Hour Total : 7,039
AM Peak Hour begins : 7:00 AM Peak Volume : 719 AM Peak Hour Factor : 0.89
PM Peak Hour begins : 16:45 PM Peak Volume : 643 PM PeaK Hour Factor : 0.85

Roadway Count Summary

GMB Engineers & Planners, Inc.

Start Date : May 7, 2013 Start Time 00:00
Stop Date : May 9, 2013 Stop Time 24:00
County : Volusia
Location : Normandy Blvd. from Rhode Island Rd. to Elkcam Blvd.

GMB Project #: 13-056.01

7-May-13 **Northbound Volume**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	3	1	2	1	3	10	23	113	85	44	36	29
30	3	3	0	3	2	7	42	128	60	52	44	45
45	5	2	2	2	7	16	56	130	44	44	46	56
00	6	2	2	6	4	22	74	99	68	37	19	32
Hr Total	**17**	**8**	**6**	**12**	**16**	**55**	**195**	**470**	**257**	**177**	**145**	**162**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	55	48	58	58	68	65	45	39	36	25	18	9
30	54	38	55	54	45	59	40	39	34	13	23	10
45	46	48	60	38	82	59	48	36	30	23	17	8
00	40	48	58	53	41	56	52	25	24	19	9	7
Hr Total	**195**	**182**	**231**	**203**	**236**	**239**	**185**	**139**	**124**	**80**	**67**	**34**

24 Hour Total : 3,435
AM Peak Hour begins : 7:00 AM Peak Volume : 470 AM Peak Hour Factor : 0.90
PM Peak Hour begins : 15:45 PM Peak Volume : 248 PM PeaK Hour Factor : 0.76

7-May-13 **Southbound Volume**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	5	2	7	3	1	3	12	34	56	32	29	47
30	2	4	2	4	1	4	13	62	41	31	30	31
45	4	2	5	1	2	6	22	66	37	43	36	40
00	9	4	2	1	2	8	20	69	42	30	34	34
Hr Total	**20**	**12**	**16**	**9**	**6**	**21**	**67**	**231**	**176**	**136**	**129**	**152**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	37	36	59	74	77	74	75	51	52	35	28	14
30	38	44	45	73	69	96	68	37	39	31	19	22
45	31	40	53	64	64	113	55	44	25	30	10	13
00	50	45	77	76	84	76	47	47	38	33	24	10
Hr Total	**156**	**165**	**234**	**287**	**294**	**359**	**245**	**179**	**154**	**129**	**81**	**59**

24 Hour Total : 3,317
AM Peak Hour begins : 7:15 AM Peak Volume : 253 AM Peak Hour Factor : 0.92
PM Peak Hour begins : 16:45 PM Peak Volume : 367 PM PeaK Hour Factor : 0.81

7-May-13 **Total Volume for All Lanes**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	8	3	9	4	4	13	35	147	141	76	65	76
30	5	7	2	7	3	11	55	190	101	83	74	76
45	9	4	7	3	9	22	78	196	81	87	82	96
00	15	6	4	7	6	30	94	168	110	67	53	66
Hr Total	**37**	**20**	**22**	**21**	**22**	**76**	**262**	**701**	**433**	**313**	**274**	**314**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	92	84	117	132	145	139	120	90	88	60	46	23
30	92	82	100	127	114	155	108	76	73	44	42	32
45	77	88	113	102	146	172	103	80	55	53	27	21
00	90	93	135	129	125	132	99	72	62	52	33	17
Hr Total	**351**	**347**	**465**	**490**	**530**	**598**	**430**	**318**	**278**	**209**	**148**	**93**

24 Hour Total : 6,752
AM Peak Hour begins : 7:00 AM Peak Volume : 701 AM Peak Hour Factor : 0.89
PM Peak Hour begins : 17:00 PM Peak Volume : 598 PM PeaK Hour Factor : 0.87

Field Turning Movement Counts

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Normandy		& Elkcam Bv
Date	February 20, 2014		All Vehicles
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
7:00 - 7:15	0	11	31	62	48	0
7:15 - 7:30	0	20	43	84	44	0
7:30 - 7:45	0	28	37	107	46	0
7:45 - 8:00	0	34	34	103	52	0
8:00 - 8:15	0	17	26	89	50	0
8:15 - 8:30	0	12	33	76	24	0
8:30 - 8:45	1	19	30	63	23	0
8:45 - 9:00	0	12	24	66	25	0
	1	153	258	650	312	0

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
7:00 - 7:15	0	0	0	55	0	27
7:15 - 7:30	0	0	0	83	0	48
7:30 - 7:45	0	0	0	58	3	75
7:45 - 8:00	0	0	0	56	0	57
8:00 - 8:15	0	0	0	42	1	24
8:15 - 8:30	0	0	0	37	1	22
8:30 - 8:45	0	0	0	31	0	27
8:45 - 9:00	0	0	0	40	0	28
	0	0	0	402	5	308

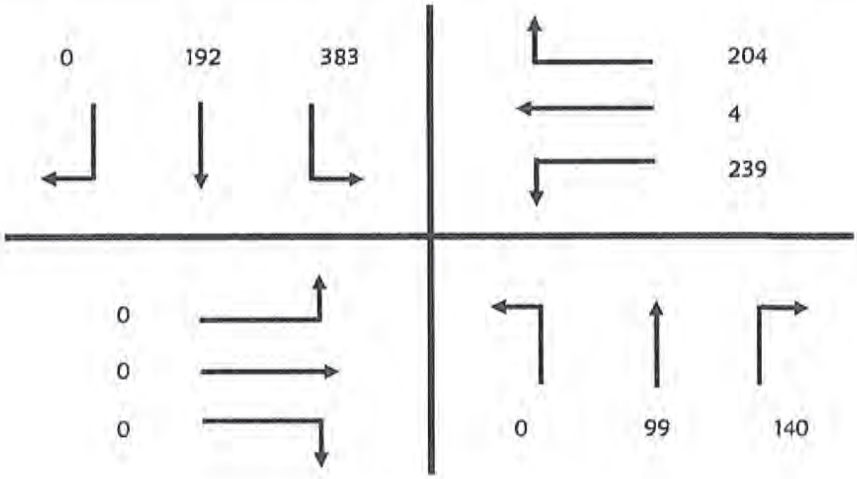
North / South
Normandy

East / West
Elkcam Bv

Peak Hour
7:15 - 8:15

Peak Hour Factor
0.89

Total Pk Hr Voume
1,261



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Normandy	&	Elkcam Bv
Date	February 20, 2014		
Time Period	7:00 to 9:00		Trucks

GMB Project #: 14-017.01

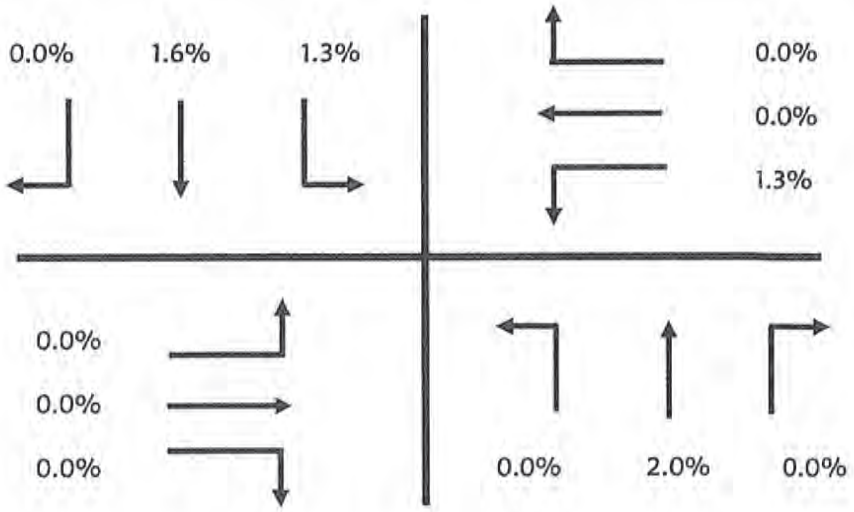
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	1	6	1	0	0
7:15 - 7:30	0	1	0	0	1	0
7:30 - 7:45	0	0	0	3	1	0
7:45 - 8:00	0	1	0	1	0	0
8:00 - 8:15	0	0	0	1	1	0
8:15 - 8:30	0	0	1	1	1	0
8:30 - 8:45	0	1	1	0	0	0
8:45 - 9:00	0	0	1	1	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	1	0	2
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	1	0	0
7:45 - 8:00	0	0	0	1	0	0
8:00 - 8:15	0	0	0	1	0	0
8:15 - 8:30	0	0	0	1	0	0
8:30 - 8:45	0	0	0	1	0	6
8:45 - 9:00	0	0	0	4	0	2

North / South
Normandy

East / West
Elkcam Bv

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Normandy	&	Elkcam Bv
Date	February 20, 2014		
Time Period	7:00 to 9:00		U-Turn & RTOR

GMB Project #: 14-017.01

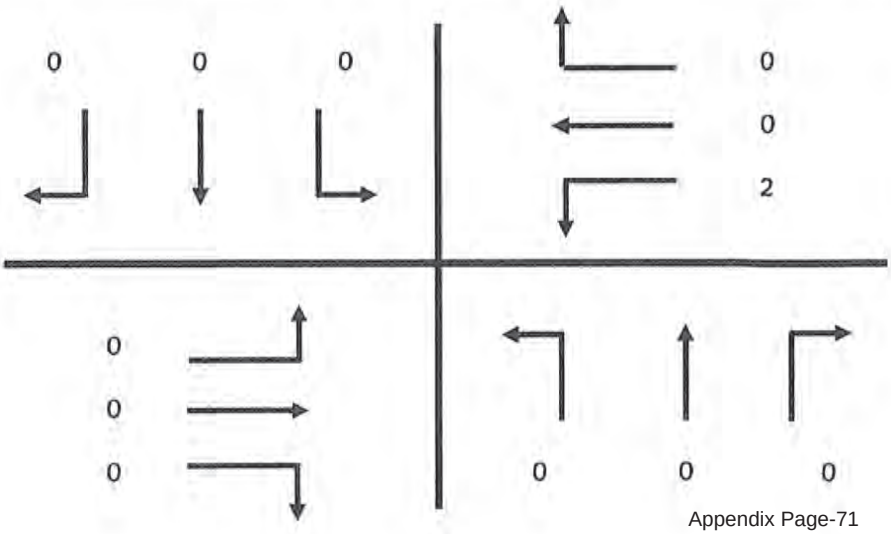
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	1	0	0
7:30 - 7:45	0	0	0	1	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

North / South
Normandy

East / West
Elkcam Bv

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Normandy		& Elkcam Bv
Date	February 20, 2014		All Vehicles
Time Period	16:00 to 18:00		

GMB Project #: 14-017.01

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	27	46	70	25	1
16:15 - 16:30	1	29	44	65	15	0
16:30 - 16:45	0	21	48	55	25	0
16:45 - 17:00	0	36	44	57	19	0
17:00 - 17:15	0	54	70	49	22	0
17:15 - 17:30	0	41	65	53	17	0
17:30 - 17:45	0	39	55	51	24	0
17:45 - 18:00	0	24	76	45	19	0
	1	271	448	445	166	1

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	33	0	72
16:15 - 16:30	0	0	0	30	0	61
16:30 - 16:45	0	0	0	40	0	72
16:45 - 17:00	0	0	0	50	1	79
17:00 - 17:15	0	0	0	39	0	78
17:15 - 17:30	0	0	0	40	0	64
17:30 - 17:45	0	0	0	32	0	86
17:45 - 18:00	0	0	0	55	0	69
	0	0	0	319	1	581

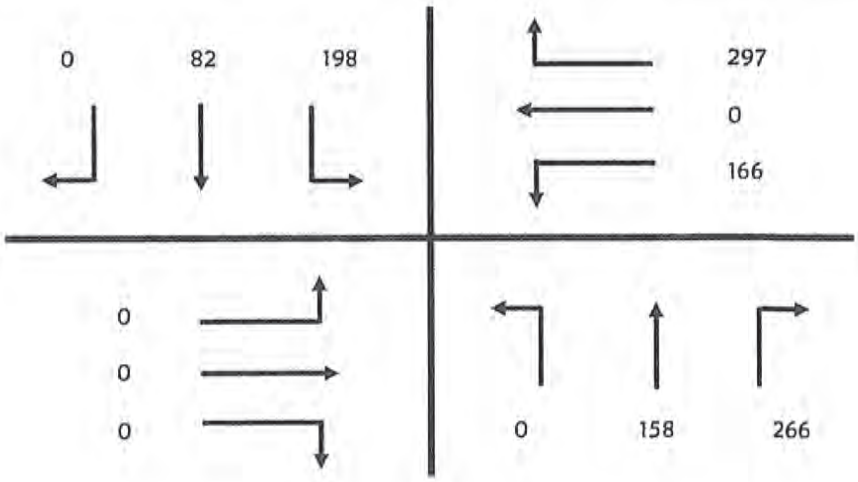
North / South
Normandy

East / West
Elkcam Bv

Peak Hour
17:00 - 18:00

Peak Hour Factor
0.94

Total Pk Hr Voume
1,167



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Normandy	&	Elkcam Bv
Date	February 20, 2014		
Time Period	16:00 to 18:00		Trucks

GMB Project #: 14-017.01

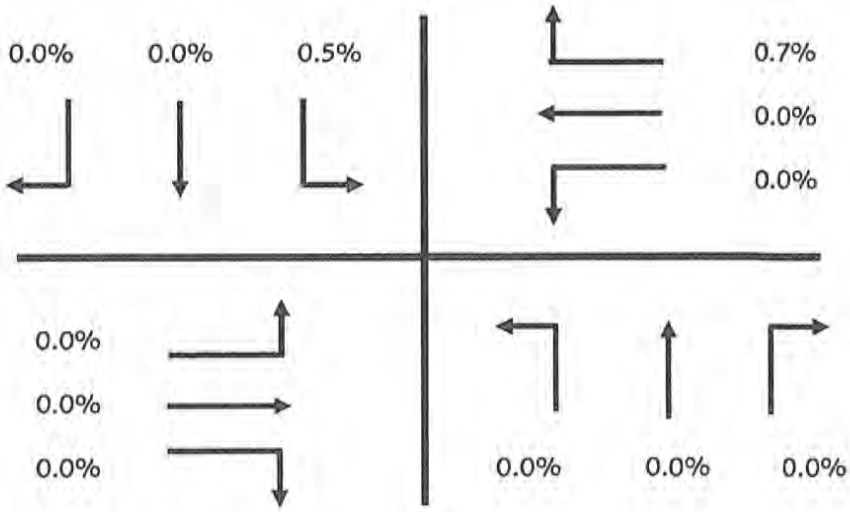
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	1	1	3	1	0
16:15 - 16:30	0	0	2	2	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	1	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	3	0	1
16:15 - 16:30	0	0	0	2	0	2
16:30 - 16:45	0	0	0	3	0	1
16:45 - 17:00	0	0	0	1	0	2
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	1
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	1

North / South
Normandy

East / West
Elkcam Bv

Peak Hour
17:00 - 18:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Normandy	&	Elkcam Bv
Date	February 20, 2014		
Time Period	16:00 to 18:00		U-Turn & RTOR

GMB Project #: 14-017.01

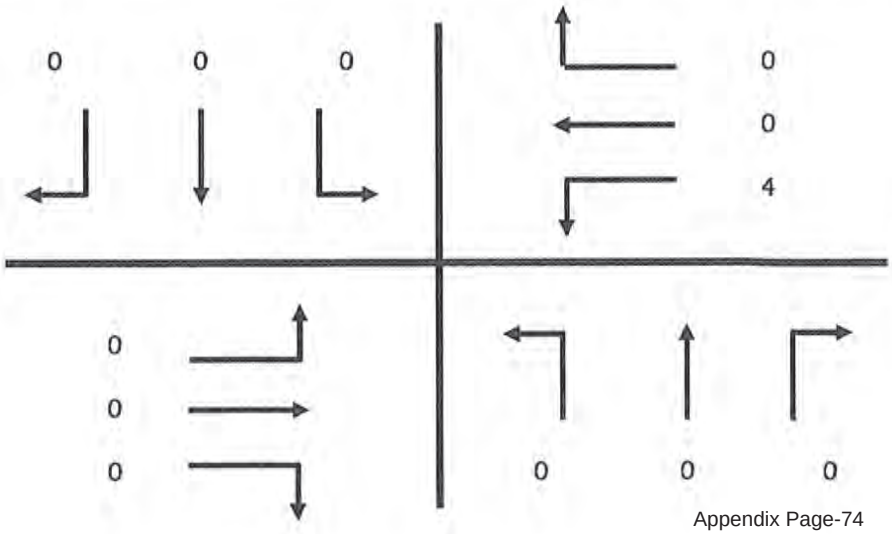
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	1	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	2	0	0
16:30 - 16:45	0	0	0	1	0	0
16:45 - 17:00	0	0	0	1	0	0
17:00 - 17:15	0	0	0	4	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

North / South
Normandy

East / West
Elkcam Bv

Peak Hour
17:00 - 18:00



Pedestrian & Bicycle Summary

Project #: 14-017.01 **NB/SB:** Normandy

Date: 2/20/2014 **EB/WB:** Elkcam Bv

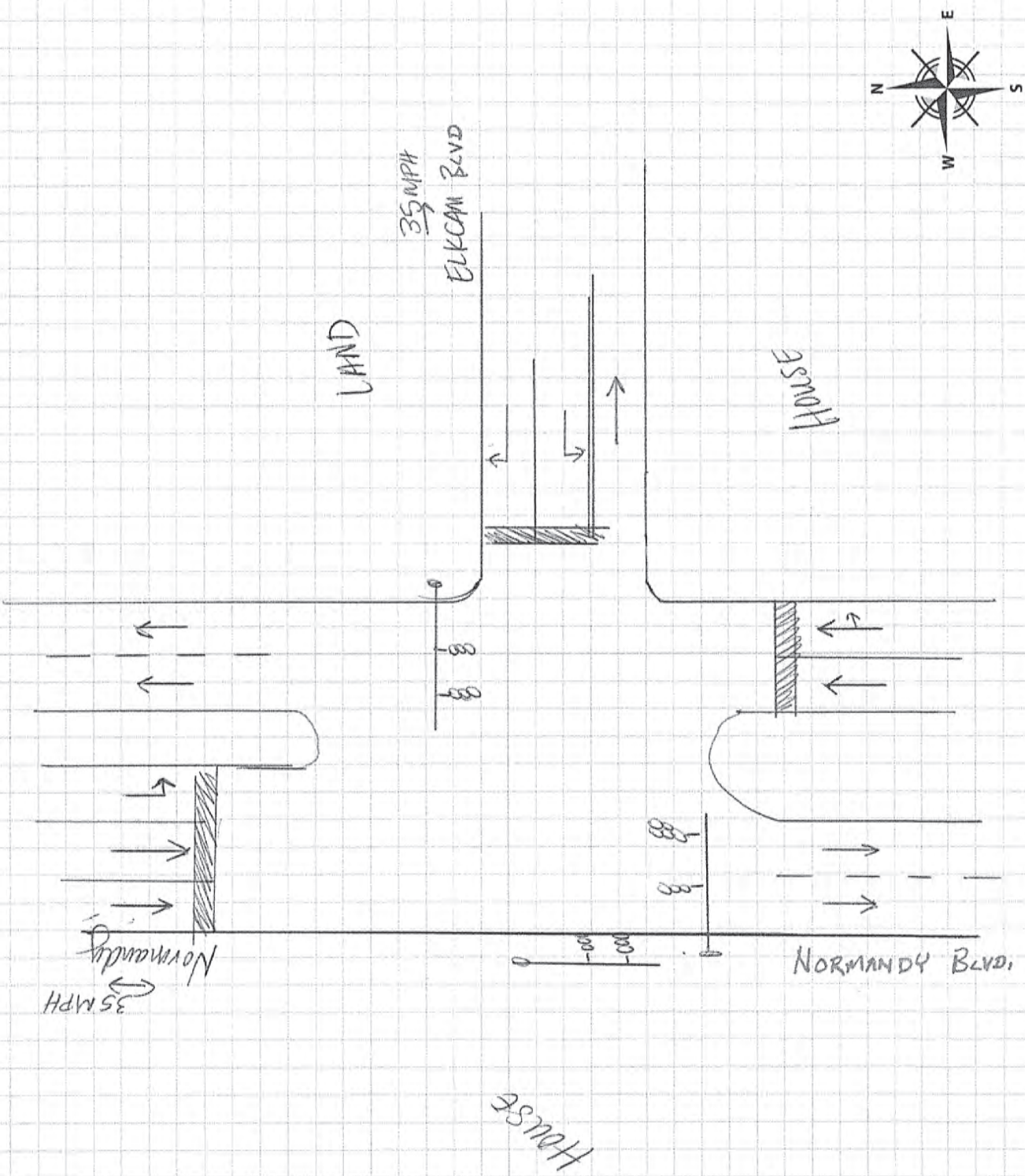
		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

Hour	Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike
7:00				
8:00				
16:00		1		
17:00				
	0	1	0	0

Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike	Hour
				7:00
		1		8:00
1				16:00
	1		1	17:00
1	1	1	1	

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped				1					1
Westbound	Bike									0
	Ped									0

Intersection Sketch



*SPEED LIMITS MUST BE LISTED FOR FOR TRAFFIC ENTERING INTERSECTION

GMB ENGINEERS & PLANNERS, INC.

Additional Notes & Observations:

#22

Date: 2-20-14

Project: 14-017.01 #22

Name: ROD

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Elkcam		& Howland
Date	February 20, 2014		All Vehicles
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
7:00 - 7:15	27	24	14	7	26	37
7:15 - 7:30	14	28	20	13	45	32
7:30 - 7:45	22	29	13	18	52	24
7:45 - 8:00	18	44	28	7	54	27
8:00 - 8:15	15	48	25	10	37	28
8:15 - 8:30	10	42	15	14	47	28
8:30 - 8:45	10	19	15	18	54	22
8:45 - 9:00	18	41	12	19	29	19
	134	275	142	106	344	217

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
7:00 - 7:15	13	46	6	17	144	3
7:15 - 7:30	19	54	4	32	134	5
7:30 - 7:45	12	71	11	47	160	3
7:45 - 8:00	16	74	12	22	124	3
8:00 - 8:15	20	59	6	20	90	7
8:15 - 8:30	23	64	6	20	109	6
8:30 - 8:45	22	54	3	23	113	6
8:45 - 9:00	21	59	8	31	114	10
	146	481	56	212	988	43

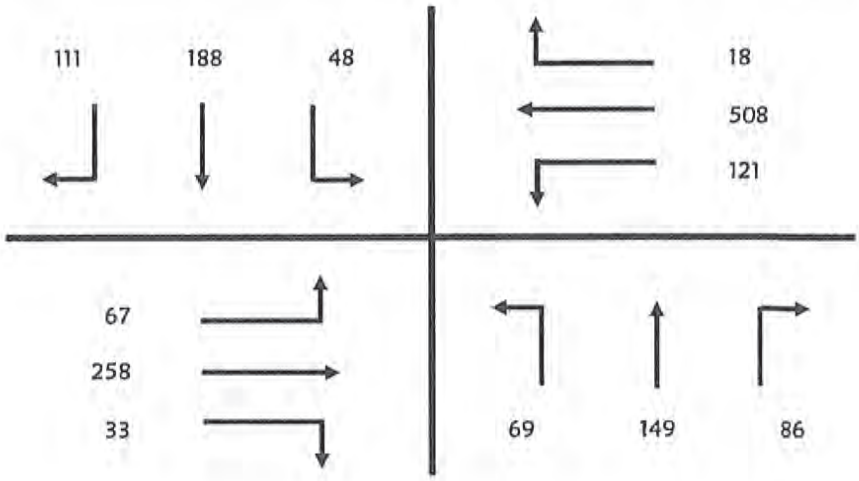
North / South
Elkcam

East / West
Howland

Peak Hour
7:15 - 8:15

Peak Hour Factor
0.90

Total Pk Hr Voume
1,656



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Elkcam	&	Howland
Date	February 20, 2014		
Time Period	7:00 to 9:00		Trucks

GMB Project #: 14-017.01

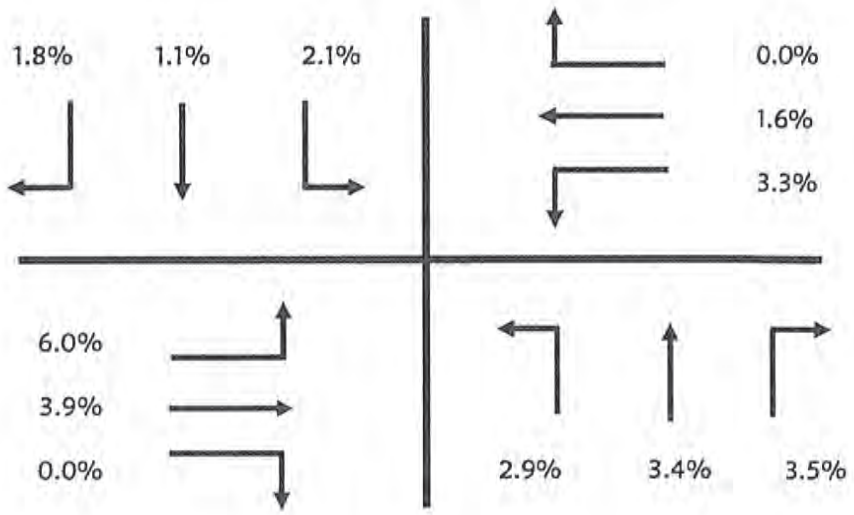
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	1	1	0	0	2
7:15 - 7:30	0	1	1	1	1	1
7:30 - 7:45	0	0	0	0	0	1
7:45 - 8:00	2	2	0	0	1	0
8:00 - 8:15	0	2	2	0	0	0
8:15 - 8:30	1	2	0	0	2	3
8:30 - 8:45	1	0	0	0	0	1
8:45 - 9:00	1	0	0	1	0	1

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	3	4	0	0	0	0
7:15 - 7:30	1	3	0	3	3	0
7:30 - 7:45	2	2	0	0	3	0
7:45 - 8:00	1	2	0	0	0	0
8:00 - 8:15	0	3	0	1	2	0
8:15 - 8:30	0	2	1	1	5	0
8:30 - 8:45	0	4	0	2	8	0
8:45 - 9:00	1	2	0	2	5	0

North / South
Elkcam

East / West
Howland

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Elkcam	&	Howland
Date	February 20, 2014		
Time Period	7:00 to 9:00		U-Turn & RTOR

GMB Project #: 14-017.01

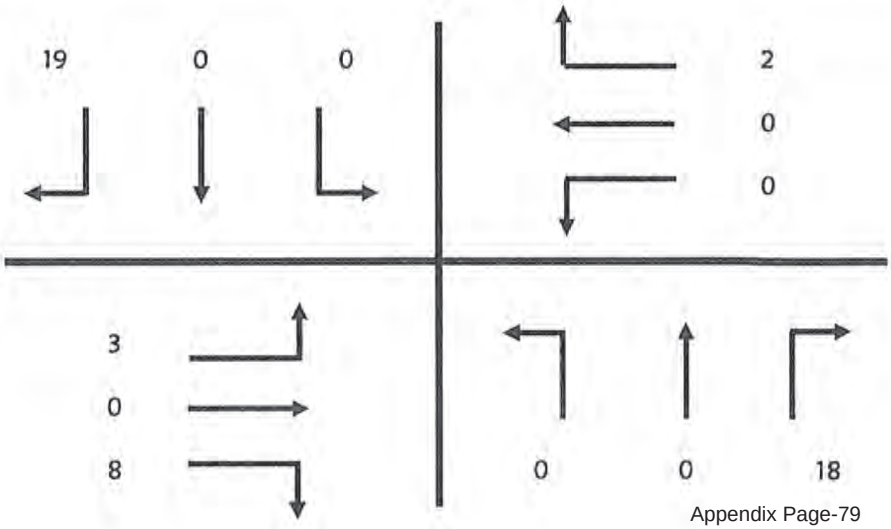
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	2	0	0	5
7:15 - 7:30	0	0	4	0	0	6
7:30 - 7:45	0	0	4	0	0	4
7:45 - 8:00	0	0	6	0	0	3
8:00 - 8:15	0	0	4	0	0	6
8:15 - 8:30	0	0	4	0	0	3
8:30 - 8:45	0	0	5	0	0	0
8:45 - 9:00	0	0	2	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	1	0	6	0	0	0
7:15 - 7:30	0	0	1	0	0	0
7:30 - 7:45	2	0	3	0	0	1
7:45 - 8:00	1	0	2	0	0	1
8:00 - 8:15	0	0	2	0	0	0
8:15 - 8:30	1	0	1	0	0	0
8:30 - 8:45	0	0	0	0	0	1
8:45 - 9:00	0	0	4	0	0	3

North / South
Elkcam

East / West
Howland

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Elkcam		& Howland
Date	February 20, 2014		All Vehicles
Time Period	16:00 to 18:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
16:00 - 16:15	12	55	22	16	37	29
16:15 - 16:30	9	62	33	23	65	17
16:30 - 16:45	21	56	22	24	44	26
16:45 - 17:00	14	52	25	19	40	25
17:00 - 17:15	16	80	25	27	56	20
17:15 - 17:30	11	53	19	16	41	17
17:30 - 17:45	9	66	18	18	60	31
17:45 - 18:00	15	71	22	15	57	26
	107	495	186	158	400	191

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
16:00 - 16:15	44	98	14	48	89	16
16:15 - 16:30	49	110	16	46	77	17
16:30 - 16:45	47	123	13	38	95	16
16:45 - 17:00	35	114	7	32	75	14
17:00 - 17:15	54	141	9	42	103	12
17:15 - 17:30	44	121	14	32	103	10
17:30 - 17:45	49	106	18	31	76	10
17:45 - 18:00	66	120	13	31	77	10
	388	933	104	300	695	105

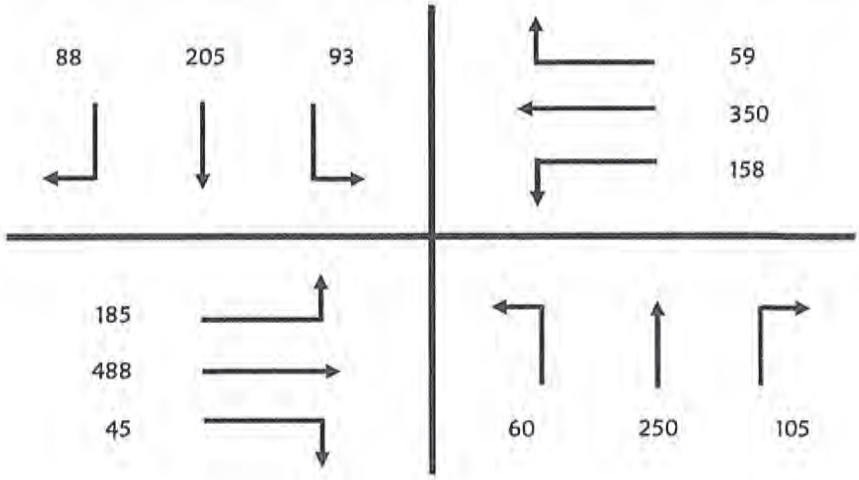
North / South
Elkcam

East / West
Howland

Peak Hour
16:15 - 17:15

Peak Hour Factor
0.89

Total Pk Hr Voume
2,086



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Elkcam	&	Howland
Date	February 20, 2014		
Time Period	16:00 to 18:00		Trucks

GMB Project #: 14-017.01

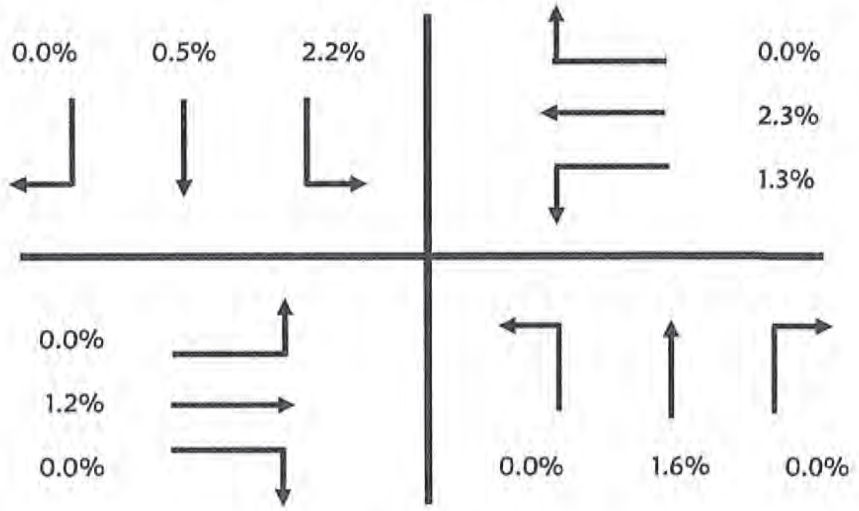
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	1	1	0	0	2
16:15 - 16:30	0	1	0	1	1	0
16:30 - 16:45	0	2	0	0	0	0
16:45 - 17:00	0	1	0	0	0	0
17:00 - 17:15	0	0	0	1	0	0
17:15 - 17:30	0	1	0	0	0	0
17:30 - 17:45	0	1	0	0	0	1
17:45 - 18:00	0	1	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	1	0	2	1	0
16:15 - 16:30	0	3	0	0	2	0
16:30 - 16:45	0	2	0	2	1	0
16:45 - 17:00	0	0	0	0	4	0
17:00 - 17:15	0	1	0	0	1	0
17:15 - 17:30	0	0	0	0	1	0
17:30 - 17:45	1	0	0	1	0	0
17:45 - 18:00	0	1	0	0	0	0

North / South
Elkcam

East / West
Howland

Peak Hour
16:15 - 17:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Elkcam	&	Howland
Date	February 20, 2014		
Time Period	16:00 to 18:00		U-Turn & RTOR

GMB Project #: 14-017.01

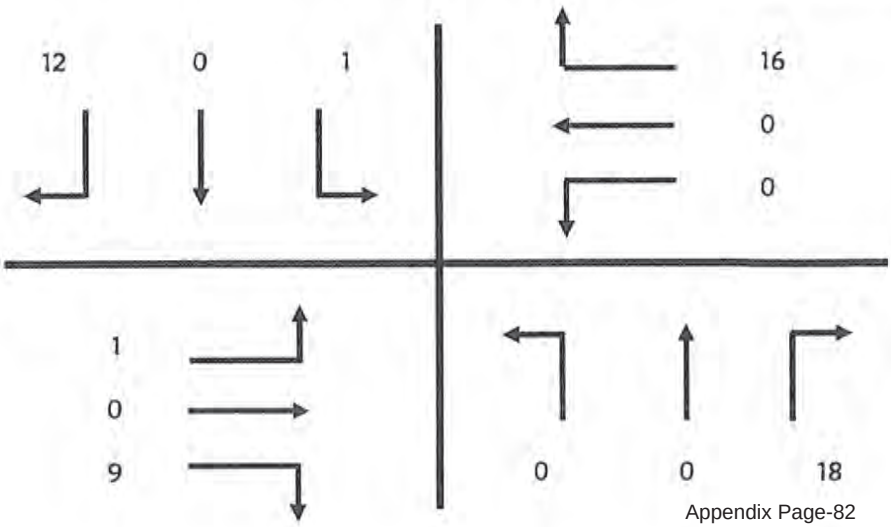
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	3	0	0	8
16:15 - 16:30	0	0	2	0	0	5
16:30 - 16:45	0	0	4	0	0	2
16:45 - 17:00	0	0	8	1	0	4
17:00 - 17:15	0	0	4	0	0	1
17:15 - 17:30	0	0	1	0	0	4
17:30 - 17:45	0	0	0	0	0	2
17:45 - 18:00	0	0	1	0	0	5

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	1	0	0	4
16:15 - 16:30	0	0	4	0	0	4
16:30 - 16:45	1	0	1	0	0	3
16:45 - 17:00	0	0	3	0	0	4
17:00 - 17:15	0	0	1	0	0	5
17:15 - 17:30	0	0	3	1	0	2
17:30 - 17:45	1	0	2	0	0	5
17:45 - 18:00	0	0	3	1	0	4

North / South
Elkcam

East / West
Howland

Peak Hour
16:15 - 17:15



Pedestrian & Bicycle Summary

Project #: 14-017.01 **NB/SB:** Elkcam

Date: 2/20/2014 **EB/WB:** Howland

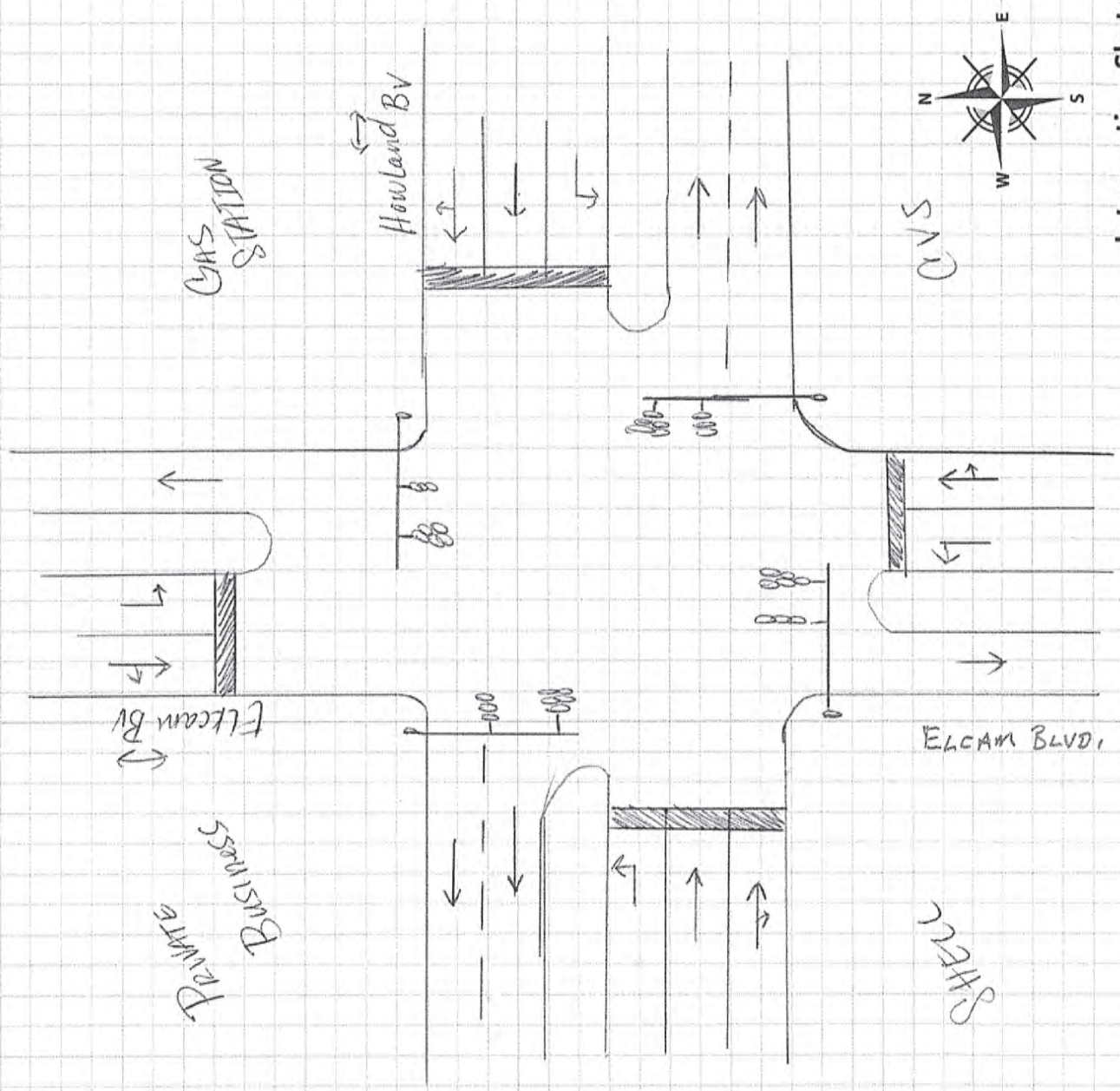
		7:00	8:00	16:00	17:00					
Eastbound ▶	Bike									0
	Ped				2					2
Westbound ◀	Bike									0
	Ped									0

Hour	Southbound Ped ▼	Southbound Bike ▼	Northbound Ped ▲	Northbound Bike ▲
7:00				
8:00				
16:00				
17:00				
	0	0	0	0

Hour	Southbound Ped ▼	Southbound Bike ▼	Northbound Ped ▲	Northbound Bike ▲
7:00				
8:00			2	
16:00			2	
17:00			2	1
	0	0	6	1

		7:00	8:00	16:00	17:00					
Eastbound ▶	Bike									0
	Ped				1					1
Westbound ◀	Bike	1								1
	Ped	1	1							2

Intersection Sketch



*SPEED LIMITS MUST BE LISTED FOR FOR TRAFFIC ENTERING INTERSECTION

GMB ENGINEERS & PLANNERS, INC.

Additional Notes & Observations:

#18

Date: 2-20-14

Project: 14-017-01 #18

Name: ROD

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Providence		& Howland
Date	February 20, 2014		All Vehicles
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
7:00 - 7:15	75	0	3	1	0	3
7:15 - 7:30	81	1	8	0	0	0
7:30 - 7:45	61	0	13	0	0	2
7:45 - 8:00	97	0	27	0	0	0
8:00 - 8:15	98	0	13	0	0	0
8:15 - 8:30	77	0	10	0	0	2
8:30 - 8:45	56	0	17	0	0	0
8:45 - 9:00	57	0	16	0	0	0
	602	1	107	1	0	7

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
7:00 - 7:15	0	73	54	7	220	0
7:15 - 7:30	1	87	88	17	230	1
7:30 - 7:45	0	79	95	29	228	0
7:45 - 8:00	3	68	96	35	161	0
8:00 - 8:15	0	70	59	22	163	0
8:15 - 8:30	1	92	59	20	147	0
8:30 - 8:45	0	73	36	20	161	0
8:45 - 9:00	0	69	54	19	143	0
	5	611	541	169	1,453	1

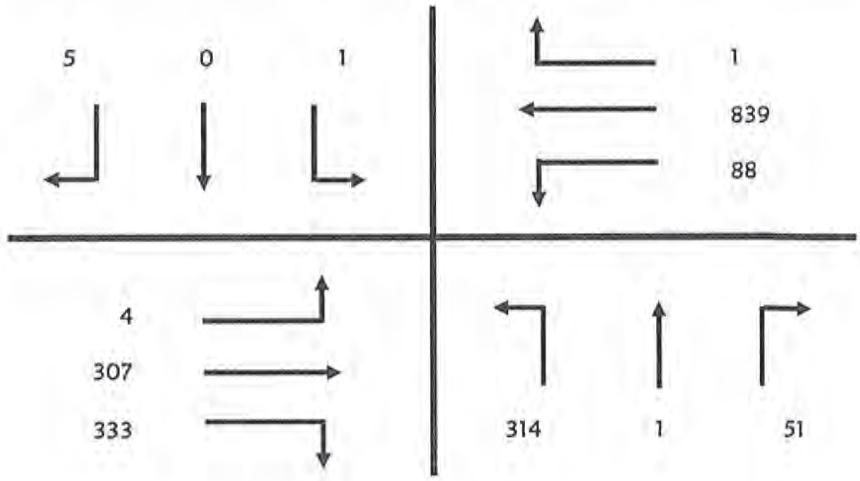
North / South
Providence

East / West
Howland

Peak Hour
7:00 - 8:00

Peak Hour Factor
0.95

Total Pk Hr Voume
1,944



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Providence	&	Howland
Date	February 20, 2014		
Time Period	7:00 to 9:00		Trucks

GMB Project #: 14-017.01

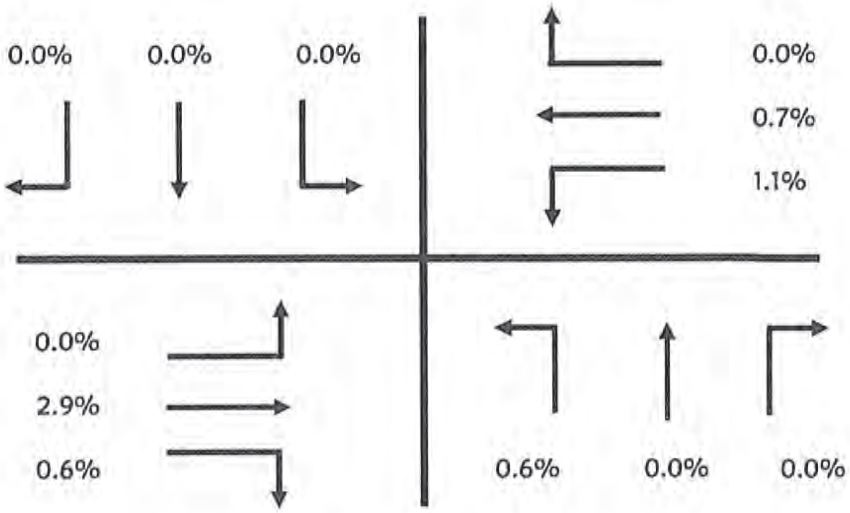
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	1	0	0	0	0	0
7:30 - 7:45	1	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	1	0	0	0	0	0
8:15 - 8:30	0	0	1	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	4	2	0	1	0
7:15 - 7:30	0	0	0	0	3	0
7:30 - 7:45	0	2	0	0	2	0
7:45 - 8:00	0	3	0	1	0	0
8:00 - 8:15	0	2	0	1	1	0
8:15 - 8:30	0	0	2	0	3	0
8:30 - 8:45	0	4	1	1	2	0
8:45 - 9:00	0	3	1	0	2	0

North / South
Providence

East / West
Howland

Peak Hour
7:00 - 8:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Providence	&	Howland
Date	February 20, 2014		
Time Period	7:00 to 9:00		U-Turn & RTOR

GMB Project #: 14-017.01

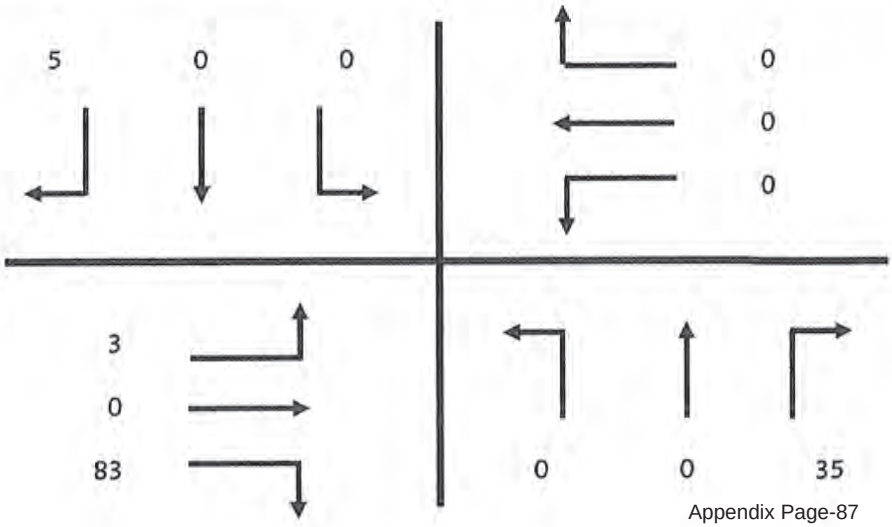
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	1	0	0	3
7:15 - 7:30	0	0	7	0	0	0
7:30 - 7:45	0	0	8	0	0	2
7:45 - 8:00	0	0	19	0	0	0
8:00 - 8:15	0	0	8	0	0	0
8:15 - 8:30	0	0	5	0	0	2
8:30 - 8:45	0	0	10	0	0	0
8:45 - 9:00	0	0	9	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	12	0	0	0
7:15 - 7:30	1	0	23	0	0	0
7:30 - 7:45	0	0	18	0	0	0
7:45 - 8:00	2	0	30	0	0	0
8:00 - 8:15	0	0	27	0	0	0
8:15 - 8:30	1	0	26	0	0	0
8:30 - 8:45	0	0	15	0	0	0
8:45 - 9:00	0	0	11	0	0	0

North / South
Providence

East / West
Howland

Peak Hour
7:00 - 8:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Providence	&	Howland
Date	February 20, 2014		All Vehicles
Time Period	16:00 to 18:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
16:00 - 16:15	63	0	15	0	0	1
16:15 - 16:30	49	0	12	0	0	1
16:30 - 16:45	67	0	16	1	0	1
16:45 - 17:00	57	1	19	0	0	0
17:00 - 17:15	88	1	17	1	0	3
17:15 - 17:30	69	0	20	1	0	1
17:30 - 17:45	48	0	7	0	0	2
17:45 - 18:00	57	0	17	0	0	0
	498	2	123	3	0	9

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
16:00 - 16:15	0	150	71	16	121	1
16:15 - 16:30	0	198	77	7	105	0
16:30 - 16:45	1	169	76	12	117	1
16:45 - 17:00	4	172	81	17	126	0
17:00 - 17:15	5	190	78	10	111	0
17:15 - 17:30	3	202	120	13	124	0
17:30 - 17:45	2	207	99	8	122	0
17:45 - 18:00	1	195	80	18	124	0
	16	1,483	682	101	950	2

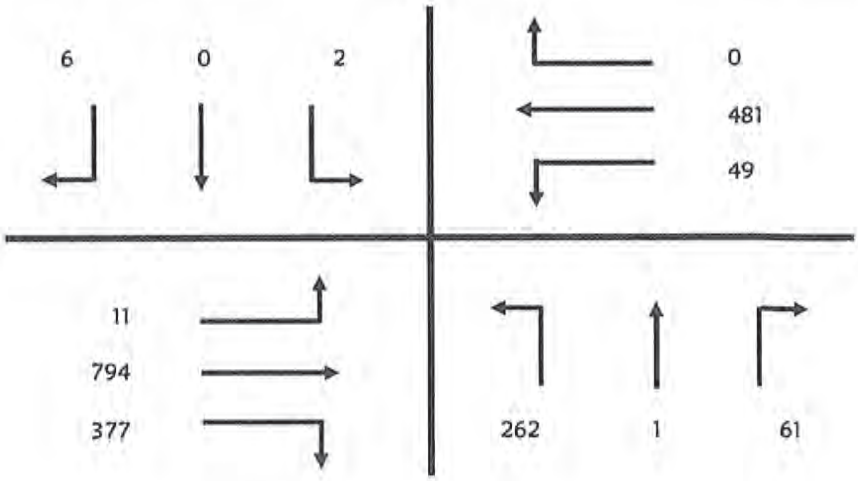
North / South
Providence

East / West
Howland

Peak Hour
17:00 - 18:00

Peak Hour Factor
0.92

Total Pk Hr Voume
2,044



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Providence	&	Howland
Date	February 20, 2014		
Time Period	16:00 to 18:00		Trucks

GMB Project #: 14-017.01

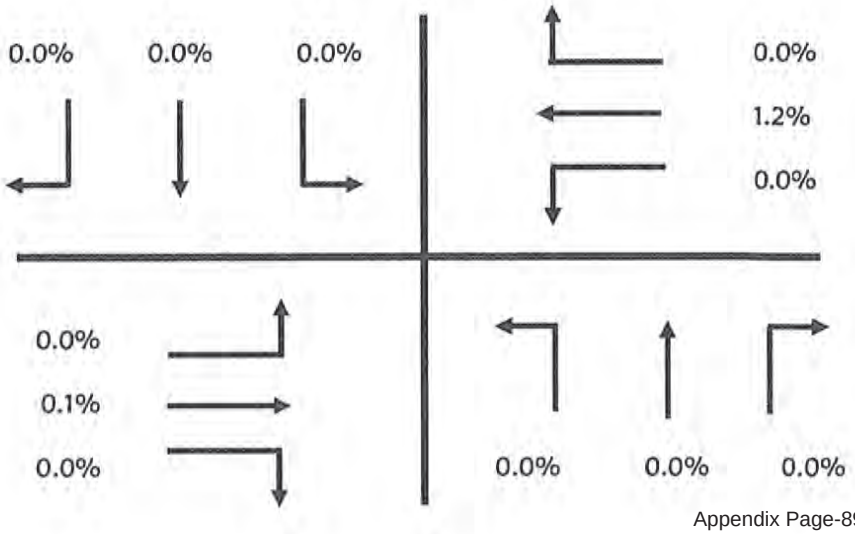
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	1	0	0	0	0	0
16:15 - 16:30	0	0	1	0	0	0
16:30 - 16:45	2	0	0	0	0	0
16:45 - 17:00	1	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	2	0	0	1	0
16:15 - 16:30	0	2	0	0	3	0
16:30 - 16:45	0	1	0	0	0	0
16:45 - 17:00	0	0	1	0	1	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	2	0
17:30 - 17:45	0	0	0	0	2	0
17:45 - 18:00	0	1	0	0	2	0

North / South
Providence

East / West
Howland

Peak Hour
17:00 - 18:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Providence	&	Howland
Date	February 20, 2014		
Time Period	16:00 to 18:00		U-Turn & RTOR

GMB Project #: 14-017.01

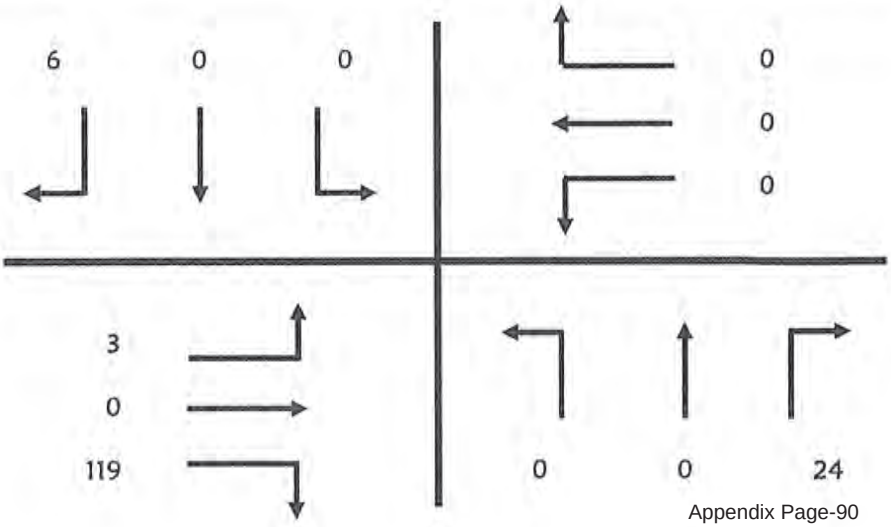
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	8	0	0	1
16:15 - 16:30	0	0	8	0	0	0
16:30 - 16:45	0	0	12	0	0	1
16:45 - 17:00	0	0	13	0	0	0
17:00 - 17:15	0	0	6	0	0	3
17:15 - 17:30	0	0	7	0	0	1
17:30 - 17:45	0	0	5	0	0	2
17:45 - 18:00	0	0	6	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	19	0	0	0
16:15 - 16:30	0	0	15	0	0	0
16:30 - 16:45	1	0	15	0	0	0
16:45 - 17:00	0	0	23	0	0	0
17:00 - 17:15	1	0	26	0	0	0
17:15 - 17:30	1	0	35	0	0	0
17:30 - 17:45	0	0	33	0	0	0
17:45 - 18:00	1	0	25	0	0	0

North / South
Providence

East / West
Howland

Peak Hour
17:00 - 18:00



Pedestrian & Bicycle Summary

Project #: 14-017.01 **NB/SB:** Providence

Date: 2/20/2014 **EB/WB:** Howland

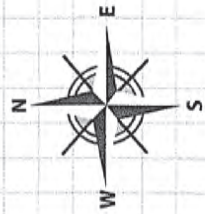
		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped			1						1

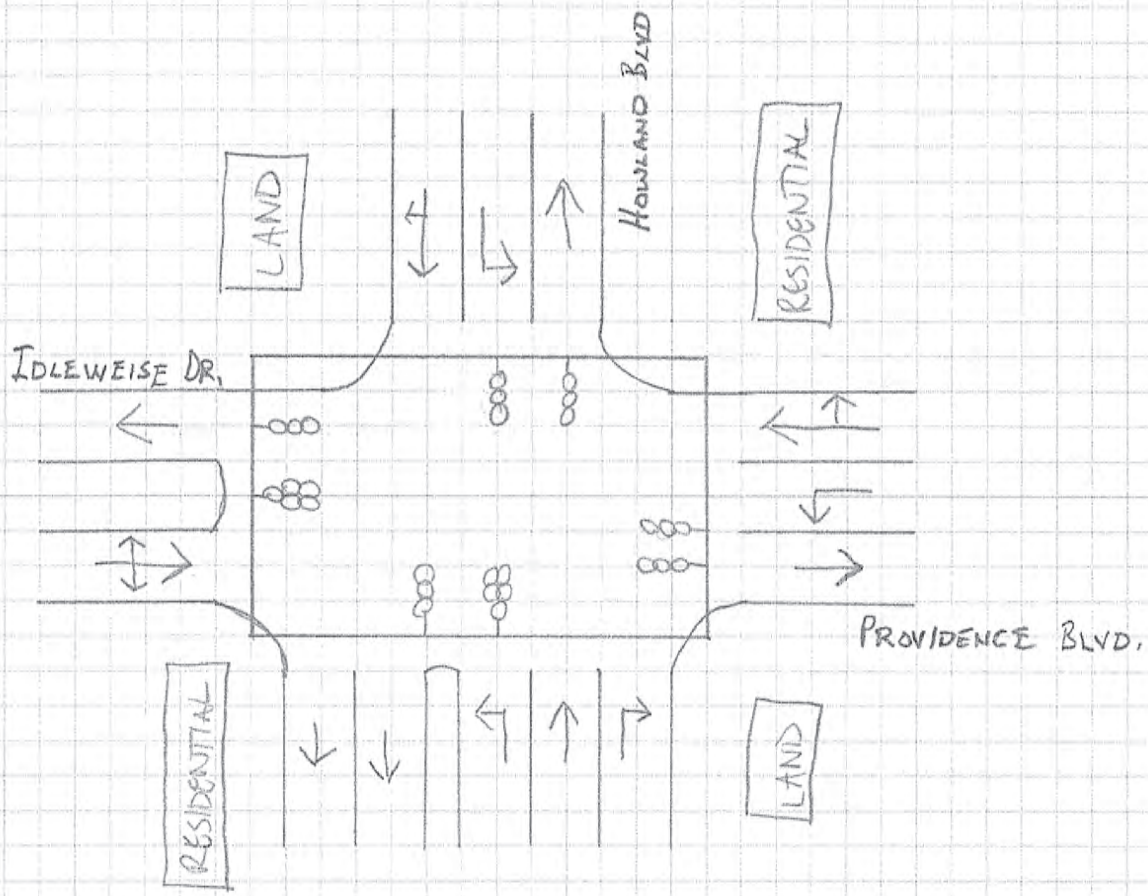
Hour	Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike
7:00			1	
8:00				
16:00				
17:00				
	0	0	1	0

Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike	Hour
				7:00
				8:00
				16:00
				17:00
0	0	0	0	

		7:00	8:00	16:00	17:00					
Eastbound	Bike	1								1
	Ped	1	1							2
Westbound	Bike									0
	Ped			1						1

Intersection Sketch





*SPEED LIMITS MUST BE LISTED FOR FOR TRAFFIC ENTERING INTERSECTION

GMB ENGINEERS & PLANNERS, INC.

Additional Notes & Observations:

Date: 2/20/14

Project: 14-017.01 #15

Name: DIEGO

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	I-4 NB Ramps		& Howland
Date	February 19, 2014		All Vehicles
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
7:00 - 7:15	82	0	26	0	0	0
7:15 - 7:30	107	0	30	0	0	0
7:30 - 7:45	132	0	36	0	0	0
7:45 - 8:00	154	0	45	0	0	0
8:00 - 8:15	119	0	25	0	0	0
8:15 - 8:30	137	0	28	0	0	0
8:30 - 8:45	98	0	32	0	0	0
8:45 - 9:00	99	0	37	0	0	0
	928	0	259	0	0	0

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
7:00 - 7:15	1	83	32	0	383	0
7:15 - 7:30	0	102	61	0	424	0
7:30 - 7:45	0	88	49	0	542	0
7:45 - 8:00	0	80	28	0	451	0
8:00 - 8:15	0	105	45	0	422	0
8:15 - 8:30	0	73	32	0	363	0
8:30 - 8:45	0	78	33	0	318	0
8:45 - 9:00	0	77	19	0	303	0
	1	686	299	0	3,206	0

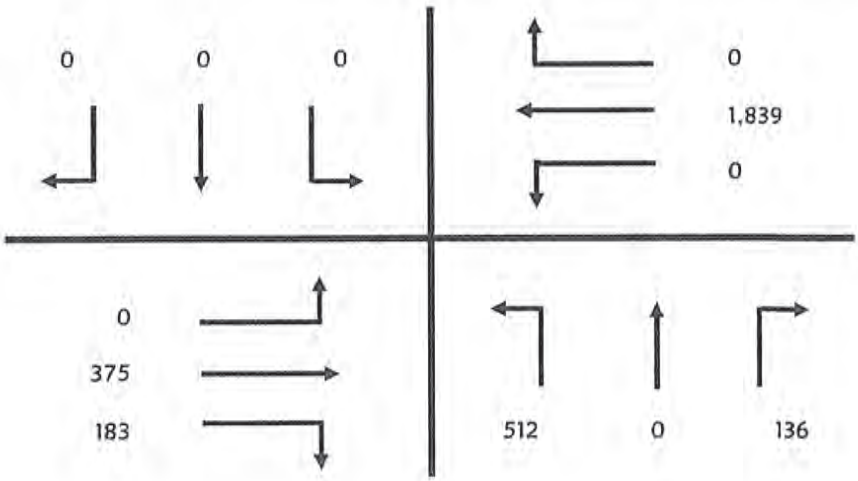
North / South
I-4 NB Ramps

East / West
Howland

Peak Hour
7:15 - 8:15

Peak Hour Factor
0.90

Total Pk Hr Voume
3,045



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	I-4 NB Ramps	&	Howland
Date	February 19, 2014		
Time Period	7:00 to 9:00		Trucks

GMB Project #: 14-017.01

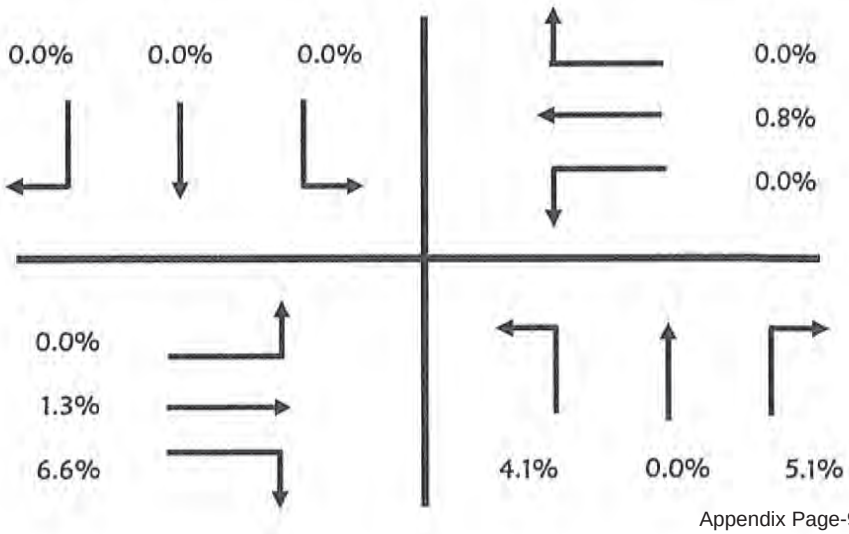
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	4	0	2	0	0	0
7:15 - 7:30	7	0	2	0	0	0
7:30 - 7:45	4	0	2	0	0	0
7:45 - 8:00	8	0	1	0	0	0
8:00 - 8:15	2	0	2	0	0	0
8:15 - 8:30	8	0	0	0	0	0
8:30 - 8:45	8	0	1	0	0	0
8:45 - 9:00	1	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	2	0	0	2	0
7:15 - 7:30	0	0	5	0	3	0
7:30 - 7:45	0	2	0	0	3	0
7:45 - 8:00	0	1	4	0	5	0
8:00 - 8:15	0	2	3	0	3	0
8:15 - 8:30	0	1	2	0	3	0
8:30 - 8:45	0	0	1	0	2	0
8:45 - 9:00	0	4	0	0	4	0

North / South
I-4 NB Ramps

East / West
Howland

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	I-4 NB Ramps	&	Howland
Date	February 19, 2014		
Time Period	7:00 to 9:00		U-Turn & RTOR

GMB Project #: 14-017.01

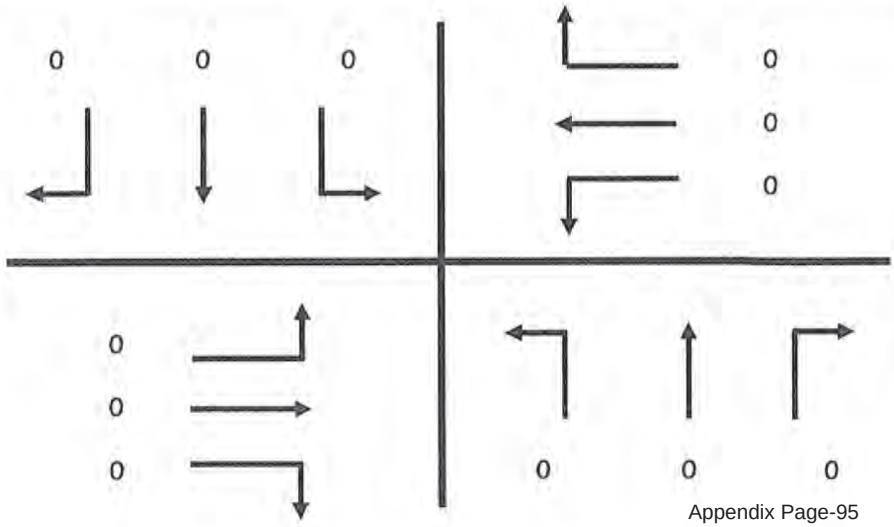
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

North / South
I-4 NB Ramps

East / West
Howland

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	I-4 NB Ramps		& Howland
Date	February 19, 2014		All Vehicles
Time Period	16:00 to 18:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
16:00 - 16:15	121	0	65	0	0	0
16:15 - 16:30	131	0	92	0	0	0
16:30 - 16:45	130	0	122	0	0	0
16:45 - 17:00	160	0	129	0	0	0
17:00 - 17:15	137	0	145	0	0	0
17:15 - 17:30	133	0	143	0	0	0
17:30 - 17:45	127	0	138	0	0	0
17:45 - 18:00	144	0	127	0	0	0
	1,083	0	961	0	0	0

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
16:00 - 16:15	0	149	36	0	172	0
16:15 - 16:30	0	180	20	0	173	0
16:30 - 16:45	0	159	23	0	198	0
16:45 - 17:00	0	200	22	0	197	0
17:00 - 17:15	0	211	14	0	176	0
17:15 - 17:30	0	243	19	0	217	0
17:30 - 17:45	0	256	20	0	177	0
17:45 - 18:00	0	208	18	0	162	0
	0	1,606	172	0	1,472	0

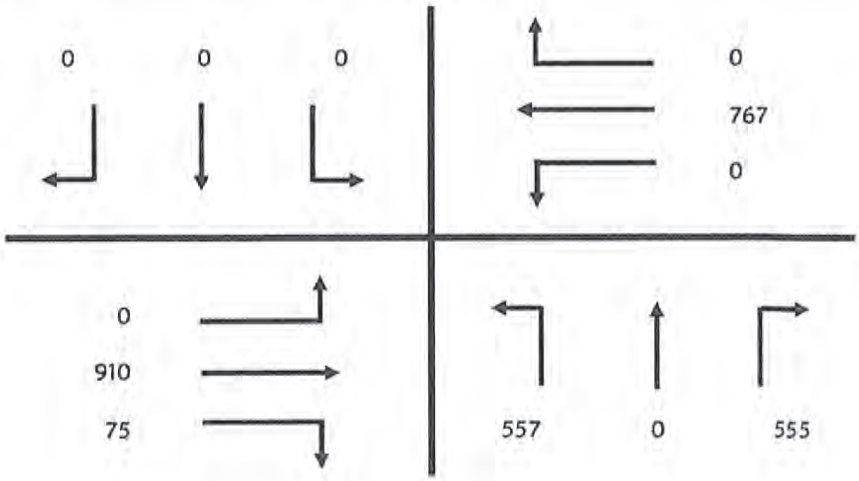
North / South
I-4 NB Ramps

East / West
Howland

Peak Hour
16:45 - 17:45

Peak Hour Factor
0.95

Total Pk Hr Voume
2,864



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	I-4 NB Ramps	&	Howland
Date	February 19, 2014		
Time Period	16:00 to 18:00		Trucks

GMB Project #: 14-017.01

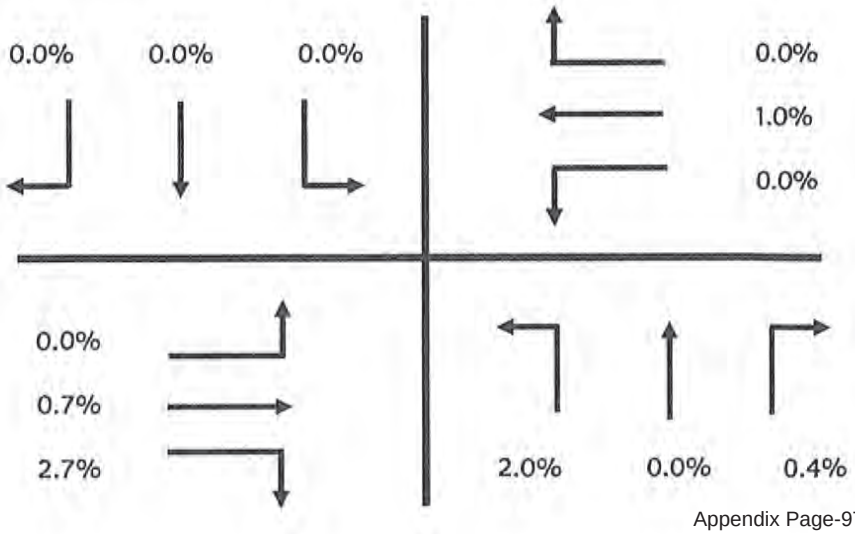
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	3	0	0	0	0	0
16:15 - 16:30	4	0	0	0	0	0
16:30 - 16:45	1	0	0	0	0	0
16:45 - 17:00	6	0	0	0	0	0
17:00 - 17:15	1	0	0	0	0	0
17:15 - 17:30	2	0	2	0	0	0
17:30 - 17:45	2	0	0	0	0	0
17:45 - 18:00	4	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	3	0	0	5	0
16:15 - 16:30	0	2	1	0	3	0
16:30 - 16:45	0	0	0	0	2	0
16:45 - 17:00	0	1	1	0	1	0
17:00 - 17:15	0	1	0	0	1	0
17:15 - 17:30	0	2	0	0	2	0
17:30 - 17:45	0	2	1	0	4	0
17:45 - 18:00	0	0	1	0	1	0

North / South
I-4 NB Ramps

East / West
Howland

Peak Hour
16:45 - 17:45



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	I-4 NB Ramps	&	Howland
Date	February 19, 2014		
Time Period	16:00 to 18:00		U-Turn & RTOR

GMB Project #: 14-017.01

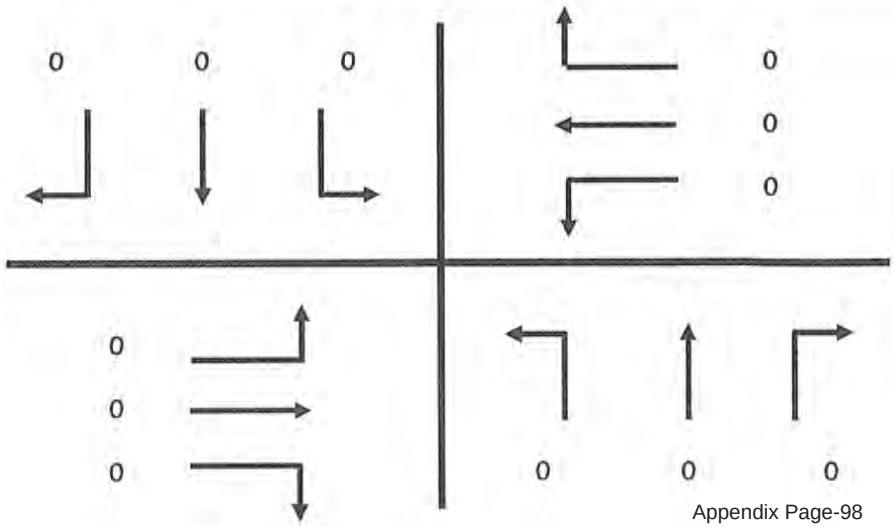
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

North / South
I-4 NB Ramps

East / West
Howland

Peak Hour
16:45 - 17:45



Pedestrian & Bicycle Summary

Project #: 14-017.01
Date: 2/19/2014

NB/SB: I-4 NB Ramps
EB/WB: Howland

* NO PEDS

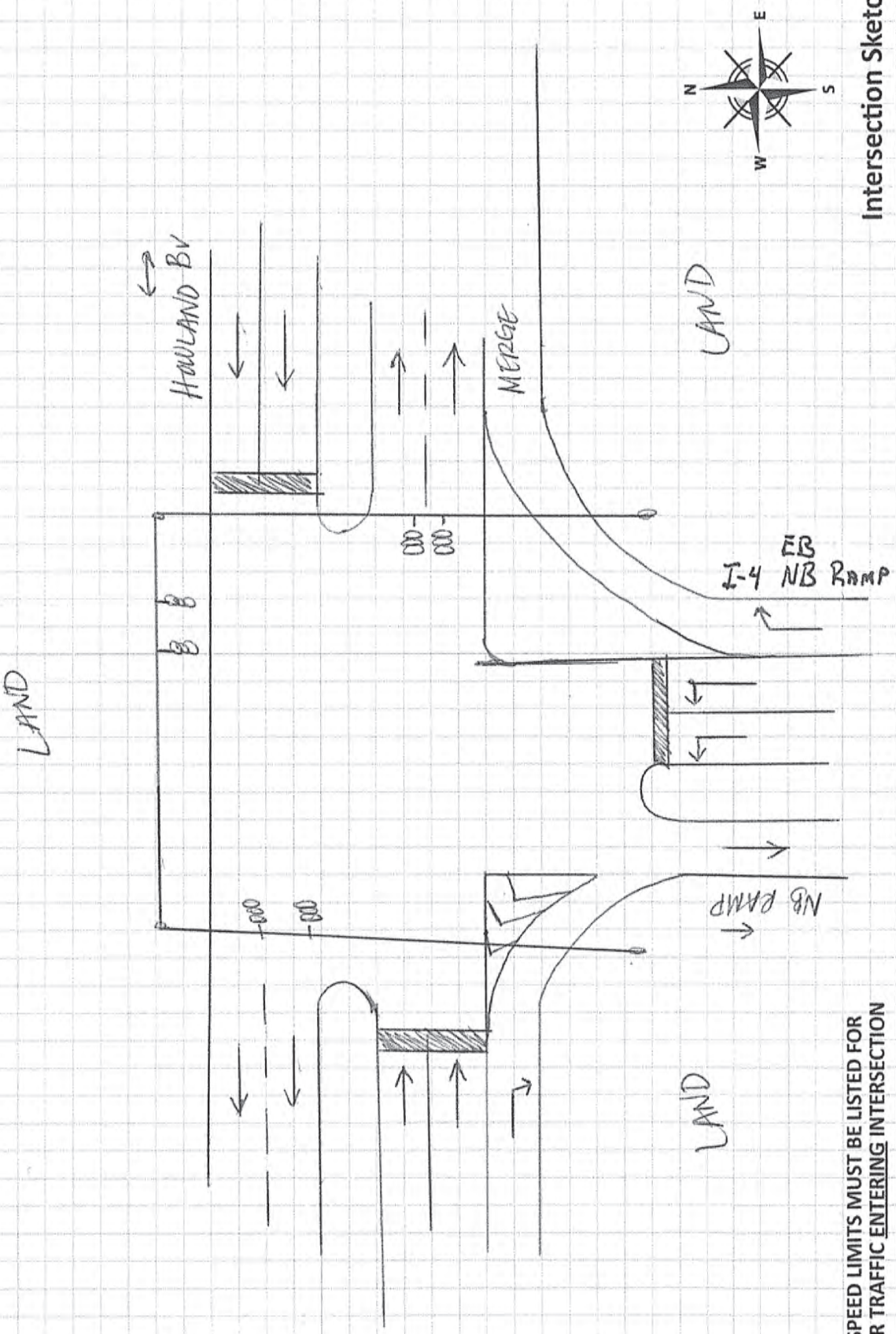
		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

Hour	Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike
7:00				
8:00				
16:00				
17:00				
	0	0	0	0

Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike	Hour
				7:00
				8:00
				16:00
				17:00
0	0	0	0	

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

Intersection Sketch



*SPEED LIMITS MUST BE LISTED FOR FOR TRAFFIC ENTERING INTERSECTION

GMB ENGINEERS & PLANNERS, INC.

Additional Notes & Observations:

#10

Date: 2-19-14

Project: 14-017.01 #10

Name: ROP

Roadway Count Summary

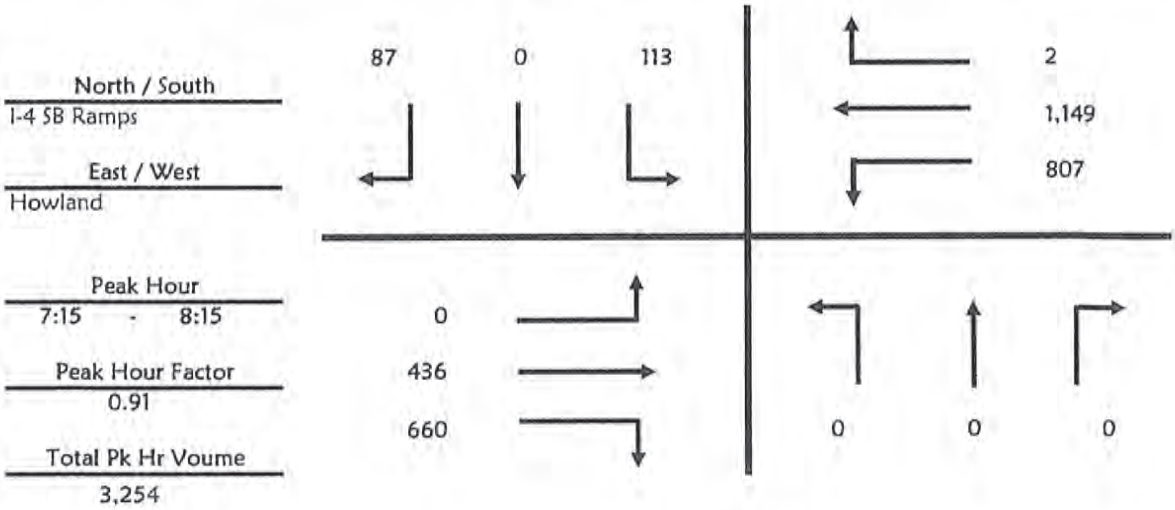
GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	I-4 SB Ramps		& Howland
Date	February 6, 2014		All Vehicles
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
7:00 - 7:15	0	0	0	36	0	20
7:15 - 7:30	0	0	0	23	0	19
7:30 - 7:45	0	0	0	32	0	20
7:45 - 8:00	0	0	0	30	0	28
8:00 - 8:15	0	0	0	28	0	20
8:15 - 8:30	0	0	0	16	0	20
8:30 - 8:45	0	0	0	14	0	21
8:45 - 9:00	0	0	0	25	0	15
	0	0	0	204	0	163

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
7:00 - 7:15	0	86	160	216	161	0
7:15 - 7:30	0	131	136	209	234	0
7:30 - 7:45	0	97	187	225	330	0
7:45 - 8:00	0	95	165	180	292	0
8:00 - 8:15	0	113	172	193	293	2
8:15 - 8:30	0	90	151	157	253	0
8:30 - 8:45	0	92	139	134	214	0
8:45 - 9:00	0	70	117	123	212	0
	0	774	1,227	1,437	1,989	2



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	I-4 SB Ramps	&	Howland
Date	February 6, 2014		
Time Period	7:00 to 9:00		Trucks

GMB Project #: 14-017.01

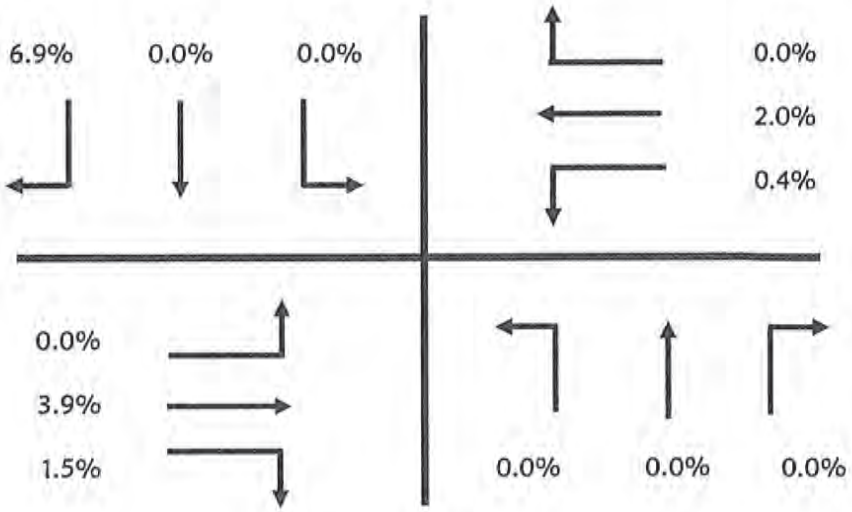
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	1
7:45 - 8:00	0	0	0	0	0	2
8:00 - 8:15	0	0	0	0	0	3
8:15 - 8:30	0	0	0	0	0	2
8:30 - 8:45	0	0	0	0	0	2
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	2	2	2	5	0
7:15 - 7:30	0	4	1	1	5	0
7:30 - 7:45	0	1	3	1	4	0
7:45 - 8:00	0	6	1	1	9	0
8:00 - 8:15	0	6	5	0	5	0
8:15 - 8:30	0	1	2	1	7	0
8:30 - 8:45	0	1	1	1	6	0
8:45 - 9:00	0	3	3	3	2	0

North / South
I-4 SB Ramps

East / West
Howland

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	I-4 SB Ramps	&	Howland
Date	February 6, 2014		
Time Period	7:00 to 9:00		U-Turn & RTOR

GMB Project #: 14-017.01

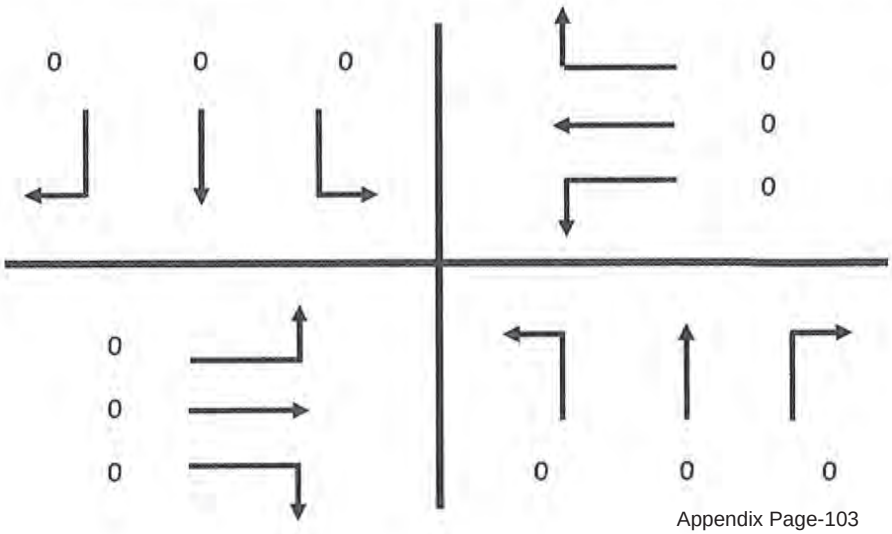
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

North / South
I-4 SB Ramps

East / West
Howland

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	I-4 SB Ramps		& Howland
Date	February 6, 2014		All Vehicles
Time Period	16:00 to	18:00	

GMB Project #: 14-017.01

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	64	0	34
16:15 - 16:30	0	0	0	49	0	49
16:30 - 16:45	0	0	0	49	0	41
16:45 - 17:00	0	0	0	70	0	38
17:00 - 17:15	0	0	0	75	0	35
17:15 - 17:30	0	0	0	76	0	37
17:30 - 17:45	0	0	0	101	0	60
17:45 - 18:00	0	0	0	79	1	29
	0	0	0	563	1	323

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	120	106	70	200	0
16:15 - 16:30	0	152	125	63	204	0
16:30 - 16:45	0	136	125	90	204	0
16:45 - 17:00	0	161	163	69	235	0
17:00 - 17:15	0	155	144	58	236	0
17:15 - 17:30	0	183	148	77	224	0
17:30 - 17:45	0	172	152	75	206	0
17:45 - 18:00	0	156	140	58	221	0
	0	1,235	1,103	560	1,730	0

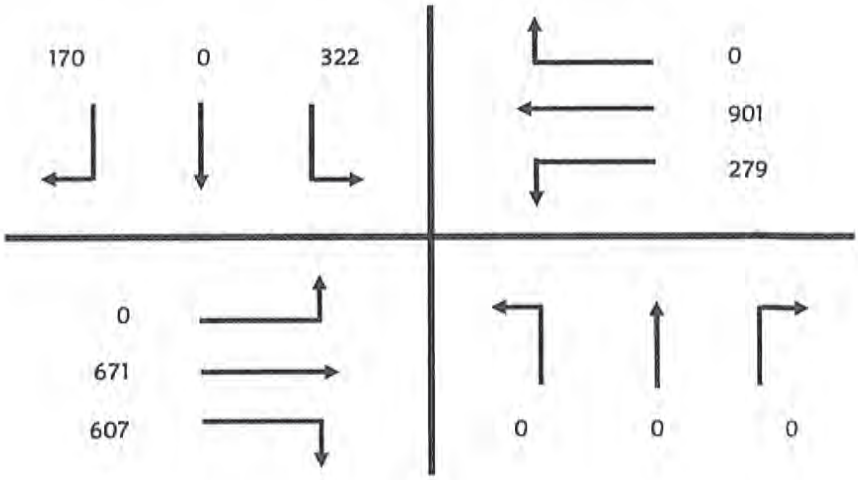
North / South
I-4 SB Ramps

East / West
Howland

Peak Hour
16:45 - 17:45

Peak Hour Factor
0.96

Total Pk Hr Voume
2,950



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	I-4 SB Ramps	&	Howland
Date	February 6, 2014		
Time Period	16:00 to 18:00		Trucks

GMB Project #: 14-017.01

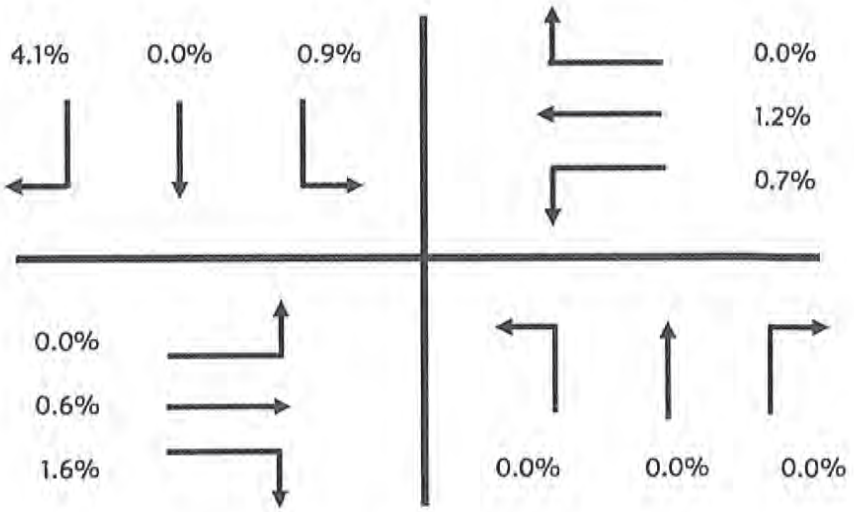
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	2	0	1
16:15 - 16:30	0	0	0	0	0	2
16:30 - 16:45	0	0	0	0	0	1
16:45 - 17:00	0	0	0	1	0	3
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	2	0	2
17:30 - 17:45	0	0	0	0	0	2
17:45 - 18:00	0	0	0	0	0	1

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	1	4	1	6	0
16:15 - 16:30	0	1	2	0	6	0
16:30 - 16:45	0	0	3	0	1	0
16:45 - 17:00	0	0	3	0	4	0
17:00 - 17:15	0	1	1	2	1	0
17:15 - 17:30	0	0	3	0	3	0
17:30 - 17:45	0	3	3	0	3	0
17:45 - 18:00	0	0	2	0	5	0

North / South
I-4 SB Ramps

East / West
Howland

Peak Hour
16:45 - 17:45



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	I-4 SB Ramps	&	Howland
Date	February 6, 2014		
Time Period	16:00 to 18:00		U-Turn & RTOR

GMB Project #: 14-017.01

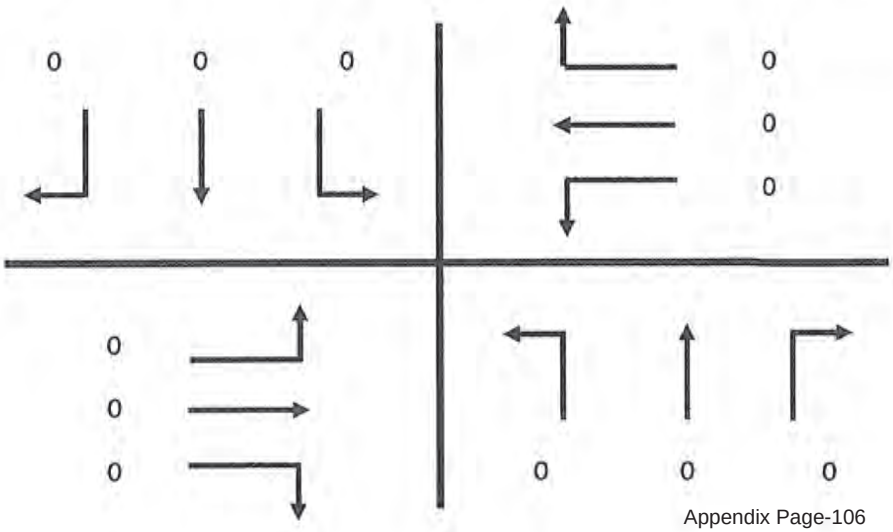
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

North / South
I-4 SB Ramps

East / West
Howland

Peak Hour
16:45 - 17:45



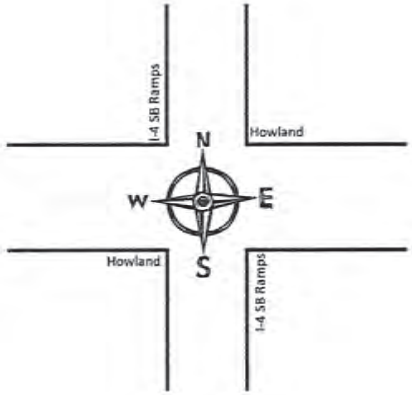
Pedestrian & Bicycle Summary

Project #: 14-017.01 **NB/SB:** I-4 SB Ramps * NO PEDS

Date: 2/6/2014 **EB/WB:** Howland

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

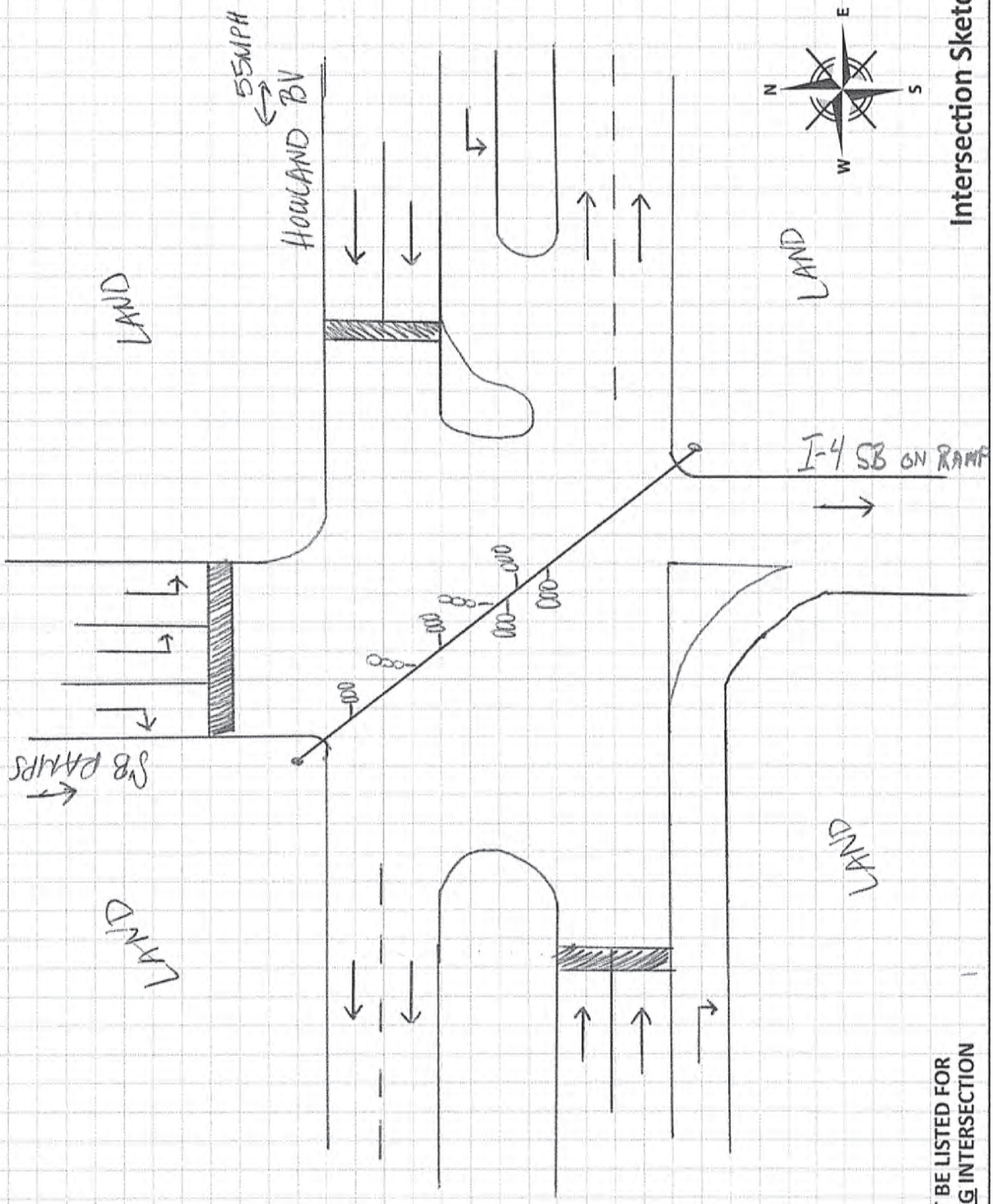
Hour	Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike
7:00				
8:00				
16:00				
17:00				
	0	0	0	0



Hour	Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike
	0	0	0	0

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

Intersection Sketch



*SPEED LIMITS MUST BE LISTED FOR FOR TRAFFIC ENTERING INTERSECTION

GMB ENGINEERS & PLANNERS, INC.

Additional Notes & Observations:

Date: 2-19-14

Project: 14-017.01 #9

Name: RAD

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Catalina Bv	&	Howland
Date	February 6, 2014		All Vehicles
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	39	7	12	17	10	121
7:15 - 7:30	48	29	18	23	10	156
7:30 - 7:45	57	19	15	54	10	124
7:45 - 8:00	49	37	10	35	16	134
8:00 - 8:15	37	18	4	27	29	104
8:15 - 8:30	31	21	8	17	22	70
8:30 - 8:45	31	20	5	16	29	80
8:45 - 9:00	26	15	2	11	10	66
	318	166	74	200	136	855

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	22	113	11	3	267	7
7:15 - 7:30	30	135	16	12	275	4
7:30 - 7:45	37	131	7	10	250	2
7:45 - 8:00	36	127	5	5	231	10
8:00 - 8:15	29	109	14	6	195	16
8:15 - 8:30	20	86	14	9	203	10
8:30 - 8:45	20	98	10	8	180	8
8:45 - 9:00	24	106	8	10	180	8
	218	905	85	63	1,781	65

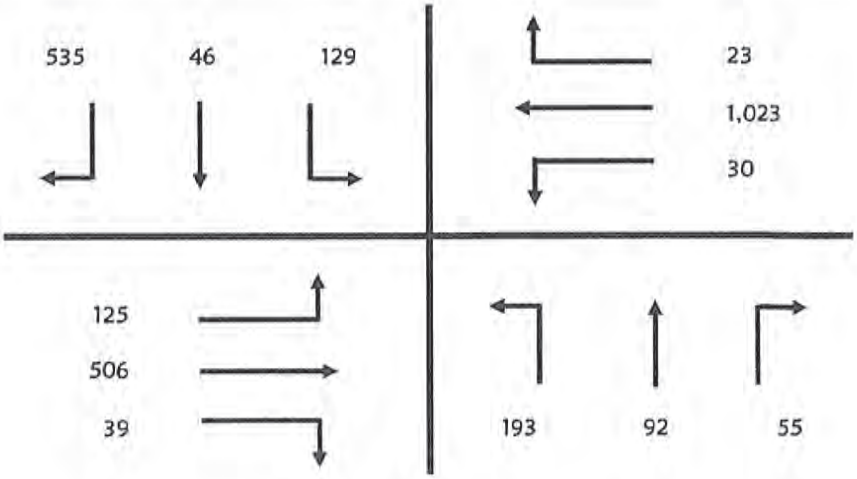
North / South
Catalina Bv

East / West
Howland

Peak Hour
7:00 - 8:00

Peak Hour Factor
0.93

Total Pk Hr Voume
2,796



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Catalina Bv	&	Howland
Date	February 6, 2014		
Time Period	7:00 to 9:00		Trucks

GMB Project #: 14-017.01

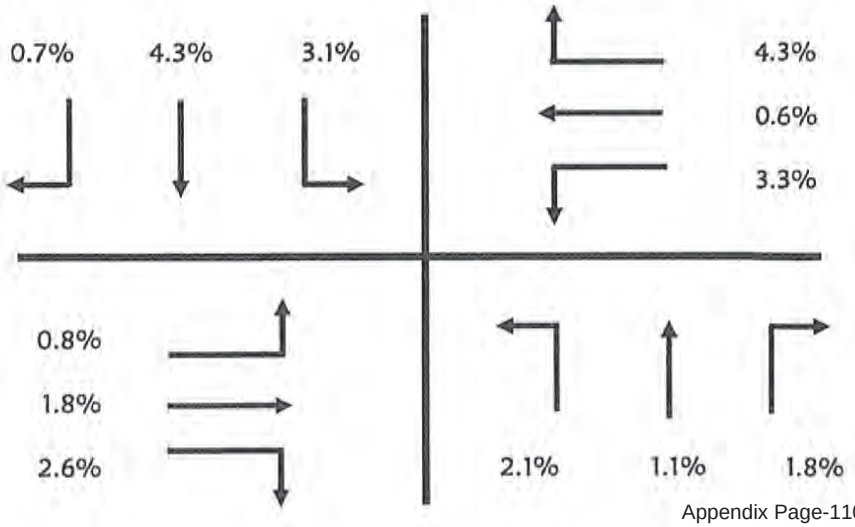
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	1	0	1	1	0	1
7:15 - 7:30	2	0	0	0	0	1
7:30 - 7:45	0	1	0	2	1	1
7:45 - 8:00	1	0	0	1	1	1
8:00 - 8:15	2	1	0	0	0	0
8:15 - 8:30	0	0	0	1	4	1
8:30 - 8:45	0	0	0	0	2	1
8:45 - 9:00	0	0	0	1	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	3	0	0	2	1
7:15 - 7:30	0	1	1	1	2	0
7:30 - 7:45	0	4	0	0	2	0
7:45 - 8:00	1	1	0	0	0	0
8:00 - 8:15	1	3	0	0	5	1
8:15 - 8:30	0	1	2	0	1	0
8:30 - 8:45	0	5	1	0	2	0
8:45 - 9:00	0	13	0	0	2	0

North / South
Catalina Bv

East / West
Howland

Peak Hour
7:00 - 8:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Catalina Bv	&	Howland
Date	February 6, 2014		
Time Period	7:00 to 9:00		U-Turn & RTOR

GMB Project #: 14-017.01

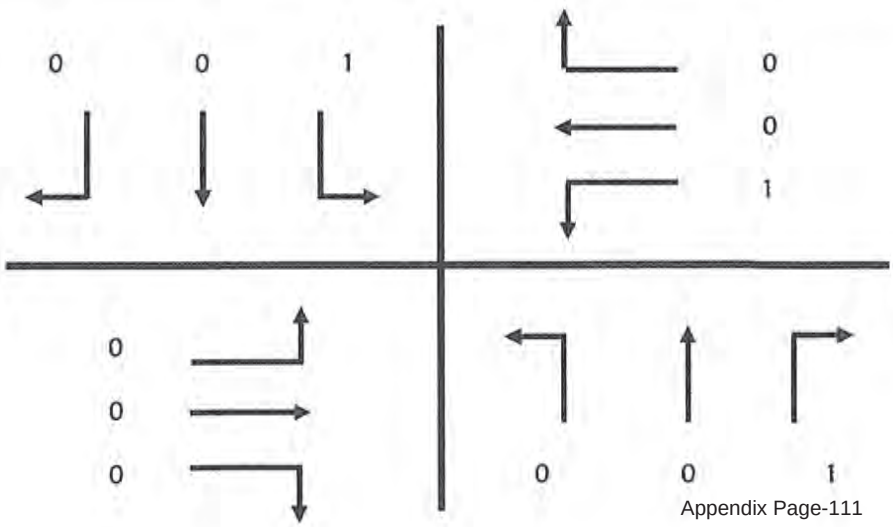
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	1	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	1	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	1	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

North / South
Catalina Bv

East / West
Howland

Peak Hour
7:00 - 8:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Catalina Bv	&	Howland
Date	February 6, 2014		All Vehicles
Time Period	16:00 to 18:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
16:00 - 16:15	25	29	8	22	17	59
16:15 - 16:30	17	15	3	18	19	45
16:30 - 16:45	17	13	8	21	20	49
16:45 - 17:00	19	17	11	30	16	36
17:00 - 17:15	22	27	7	24	23	37
17:15 - 17:30	22	31	6	34	21	60
17:30 - 17:45	17	21	7	22	13	51
17:45 - 18:00	23	22	5	22	15	49
	162	175	55	193	144	386

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
16:00 - 16:15	112	237	18	13	168	20
16:15 - 16:30	85	188	24	7	121	15
16:30 - 16:45	111	246	9	14	140	22
16:45 - 17:00	104	226	17	7	128	15
17:00 - 17:15	102	261	20	8	157	26
17:15 - 17:30	143	278	19	10	169	16
17:30 - 17:45	124	268	18	7	126	16
17:45 - 18:00	131	258	19	6	145	18
	912	1,962	144	72	1,154	148

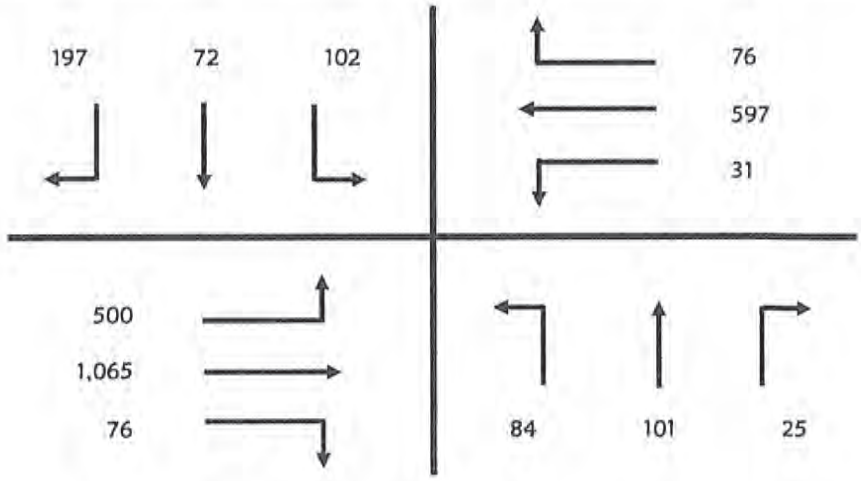
North / South
Catalina Bv

East / West
Howland

Peak Hour
17:00 - 18:00

Peak Hour Factor
0.90

Total Pk Hr Voume
2,926



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Catalina Bv	&	Howland
Date	February 6, 2014		
Time Period	16:00 to 18:00		Trucks

GMB Project #: 14-017.01

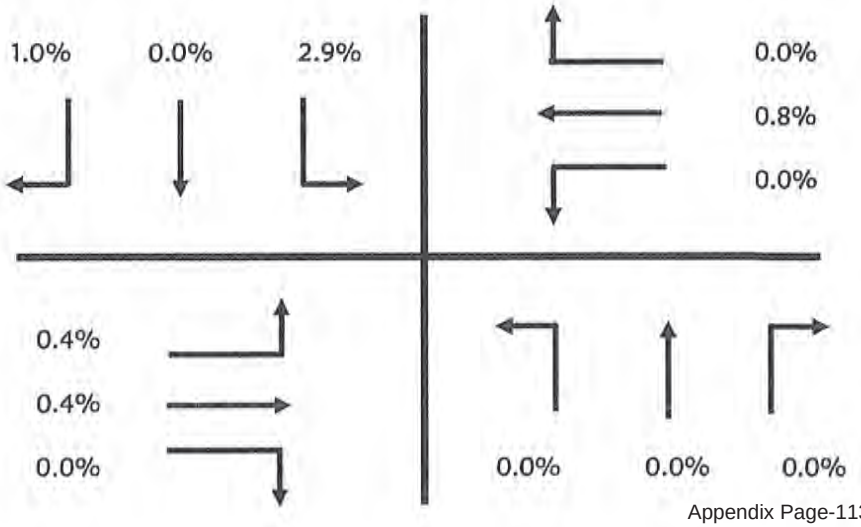
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	1	0	2	1	0
16:15 - 16:30	0	0	0	5	0	0
16:30 - 16:45	0	0	0	0	0	1
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	1	0	0
17:15 - 17:30	0	0	0	1	0	1
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	1	0	1

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	2	4	1	0	3	0
16:15 - 16:30	0	1	0	0	3	0
16:30 - 16:45	0	6	0	0	0	0
16:45 - 17:00	1	2	0	0	3	0
17:00 - 17:15	1	2	0	0	4	0
17:15 - 17:30	0	1	0	0	0	0
17:30 - 17:45	1	0	0	0	0	0
17:45 - 18:00	0	1	0	0	1	0

North / South
Catalina Bv

East / West
Howland

Peak Hour
17:00 - 18:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Catalina Bv	&	Howland
Date	February 6, 2014		
Time Period	16:00 to 18:00		U-Turn & RTOR

GMB Project #: 14-017.01

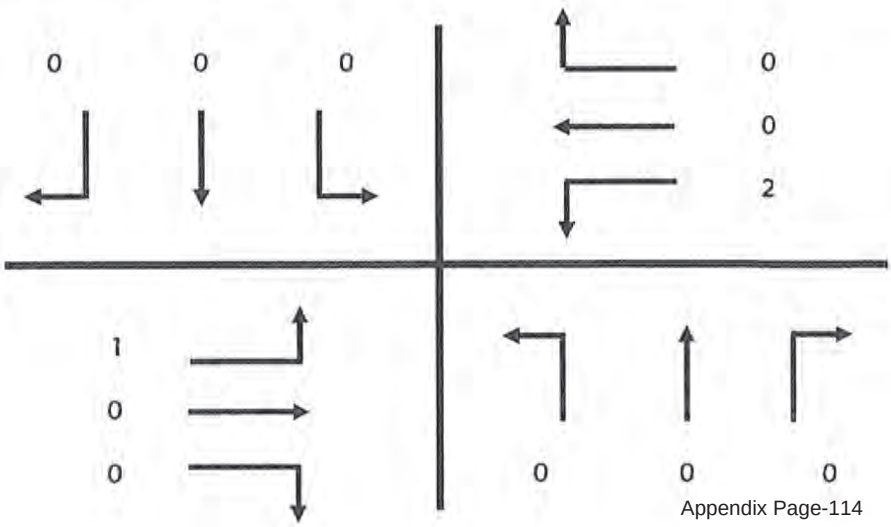
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	1	0	0	0	0	0
16:30 - 16:45	0	0	0	1	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	1	0	0
17:15 - 17:30	0	0	0	1	0	0
17:30 - 17:45	1	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

North / South
Catalina Bv

East / West
Howland

Peak Hour
17:00 - 18:00



Pedestrian & Bicycle Summary

Project #: 14-017.01 **NB/SB:** Catalina Bv * NO PEDS

Date: 2/6/2014 **EB/WB:** Howland

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

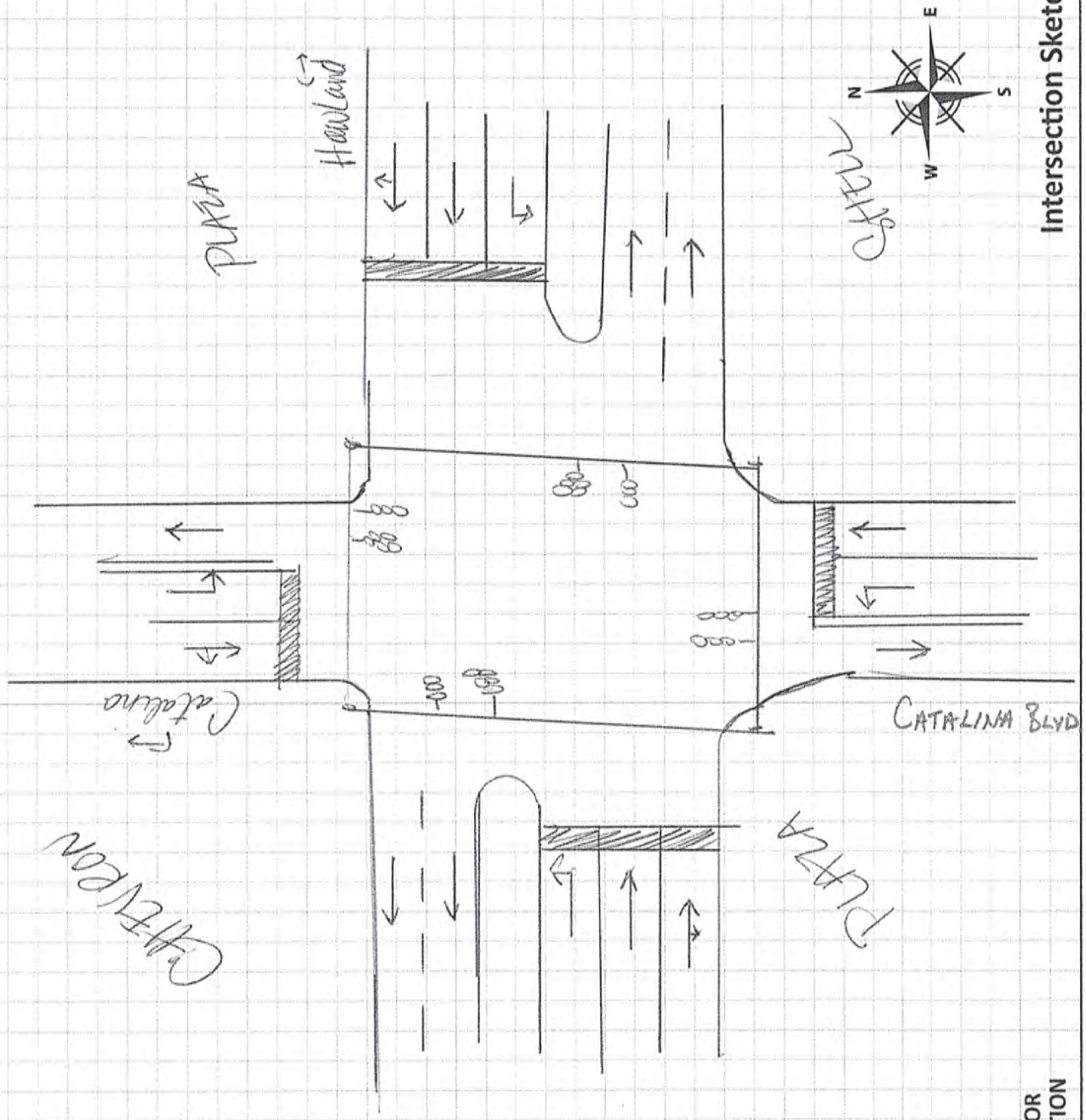
Hour	Southbound Ped ▼	Southbound Bike	Northbound Ped ▲	Northbound Bike
7:00				
8:00				
16:00				
17:00				
	0	0	0	0

Southbound Ped ▼	Southbound Bike	Northbound Ped ▲	Northbound Bike	Hour
				7:00
				8:00
				16:00
				17:00
0	0	0	0	

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

Hour

Intersection Sketch



*SPEED LIMITS MUST BE LISTED FOR FOR TRAFFIC ENTERING INTERSECTION

GMB ENGINEERS & PLANNERS, INC.

Additional Notes & Observations:

Date: 2-6-14

Project: 14-017.01 #8

Name: ROD

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Wolf Pack Run		& Howland
Date	February 6, 2014		All Vehicles
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
7:00 - 7:15	65	0	18	0	0	0
7:15 - 7:30	99	0	16	0	0	0
7:30 - 7:45	82	0	21	0	0	0
7:45 - 8:00	60	0	13	0	0	0
8:00 - 8:15	48	0	11	0	0	0
8:15 - 8:30	34	0	6	0	0	0
8:30 - 8:45	42	0	4	0	0	0
8:45 - 9:00	31	0	3	0	0	0
	461	0	92	0	0	0

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
7:00 - 7:15	0	134	75	62	342	0
7:15 - 7:30	0	135	59	74	319	0
7:30 - 7:45	0	147	24	14	470	0
7:45 - 8:00	0	153	30	11	346	0
8:00 - 8:15	0	139	29	8	319	0
8:15 - 8:30	0	120	23	6	274	0
8:30 - 8:45	0	130	16	19	312	0
8:45 - 9:00	0	114	18	6	251	0
	0	1,072	274	200	2,633	0

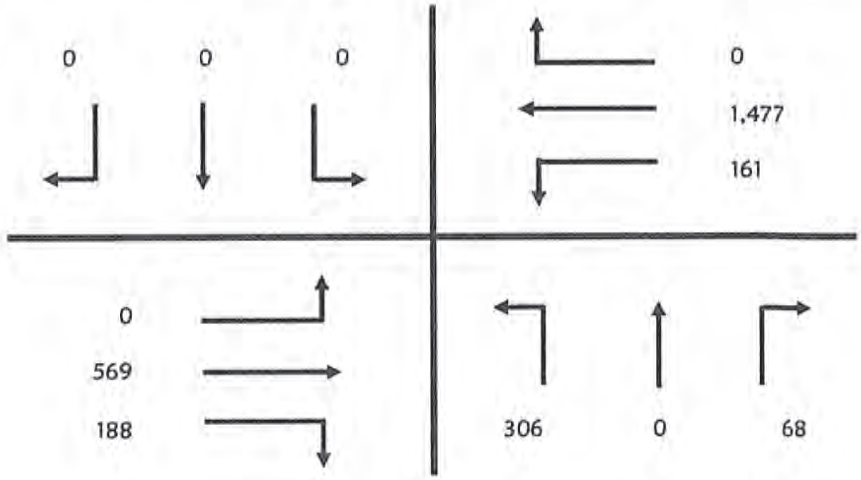
North / South
Wolf Pack Run

East / West
Howland

Peak Hour
7:00 - 8:00

Peak Hour Factor
0.91

Total Pk Hr Voume
2,769



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Wolf Pack Run	&	Howland
Date	February 6, 2014		
Time Period	7:00 to 9:00		Trucks

GMB Project #: 14-017.01

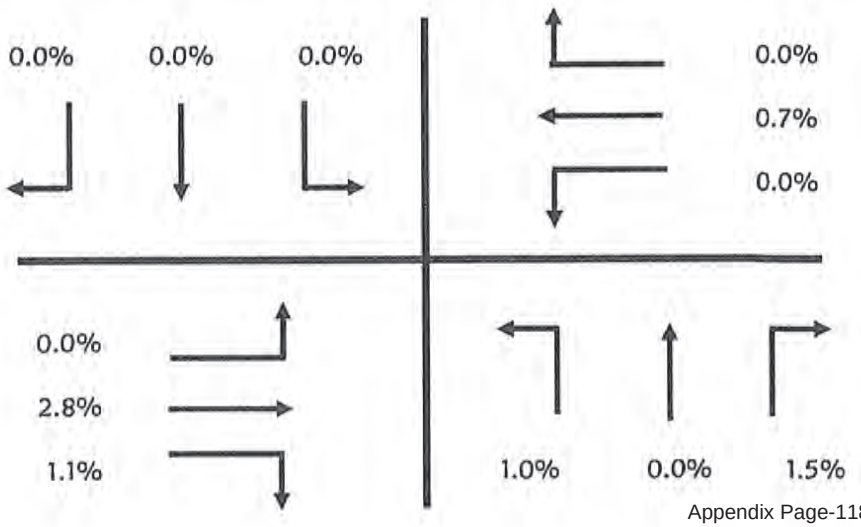
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	1	0	0	0
7:45 - 8:00	3	0	0	0	0	0
8:00 - 8:15	0	0	1	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	3	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	4	0	0	2	0
7:15 - 7:30	0	5	1	0	3	0
7:30 - 7:45	0	4	1	0	3	0
7:45 - 8:00	0	3	0	0	3	0
8:00 - 8:15	0	5	0	0	6	0
8:15 - 8:30	0	4	1	0	4	0
8:30 - 8:45	0	8	2	0	2	0
8:45 - 9:00	0	11	1	0	1	0

North / South
Wolf Pack Run

East / West
Howland

Peak Hour
7:00 - 8:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Wolf Pack Run	&	Howland
Date	February 6, 2014		
Time Period	7:00 to 9:00		U-Turn & RTOR

GMB Project #: 14-017.01

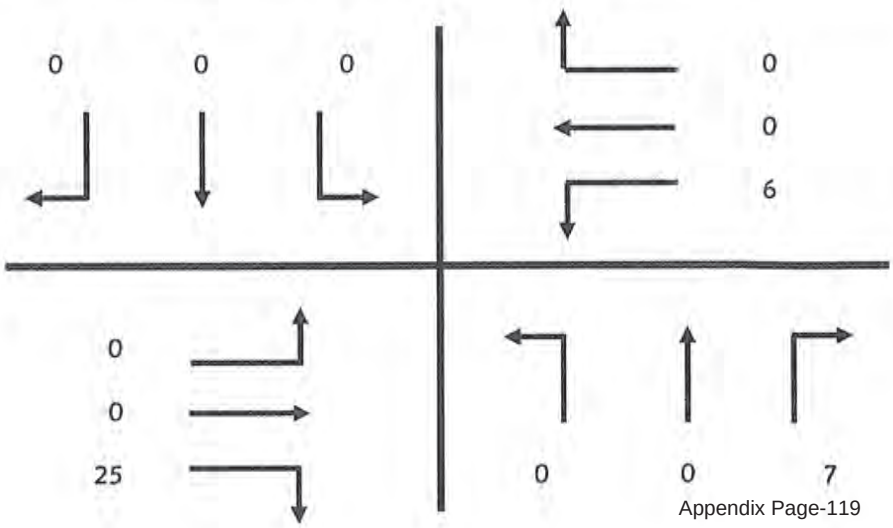
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	1	0	0	0
7:15 - 7:30	0	0	1	0	0	0
7:30 - 7:45	0	0	4	0	0	0
7:45 - 8:00	0	0	1	0	0	0
8:00 - 8:15	0	0	2	0	0	0
8:15 - 8:30	0	0	2	0	0	0
8:30 - 8:45	0	0	3	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	6	1	0	0
7:15 - 7:30	0	0	15	0	0	0
7:30 - 7:45	0	0	2	4	0	0
7:45 - 8:00	0	0	2	1	0	0
8:00 - 8:15	0	0	2	3	0	0
8:15 - 8:30	0	0	2	1	0	0
8:30 - 8:45	0	0	1	3	0	0
8:45 - 9:00	0	0	0	1	0	0

North / South
Wolf Pack Run

East / West
Howland

Peak Hour
7:00 - 8:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Wolf Pack Run		& Howland
Date	February 6, 2014		All Vehicles
Time Period	16:00 to 18:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
16:00 - 16:15	28	0	15	0	0	0
16:15 - 16:30	34	0	7	0	0	0
16:30 - 16:45	33	0	7	0	0	0
16:45 - 17:00	27	0	13	0	0	0
17:00 - 17:15	29	0	9	0	0	0
17:15 - 17:30	37	0	9	0	0	0
17:30 - 17:45	29	0	16	0	0	0
17:45 - 18:00	41	0	11	0	0	0
	258	0	87	0	0	0

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
16:00 - 16:15	0	290	28	21	189	0
16:15 - 16:30	0	329	64	11	172	0
16:30 - 16:45	0	361	69	10	185	0
16:45 - 17:00	0	338	54	18	182	0
17:00 - 17:15	0	358	60	24	160	0
17:15 - 17:30	0	369	73	31	203	0
17:30 - 17:45	0	430	80	23	200	0
17:45 - 18:00	1	368	72	10	190	0
	1	2,843	500	148	1,481	0

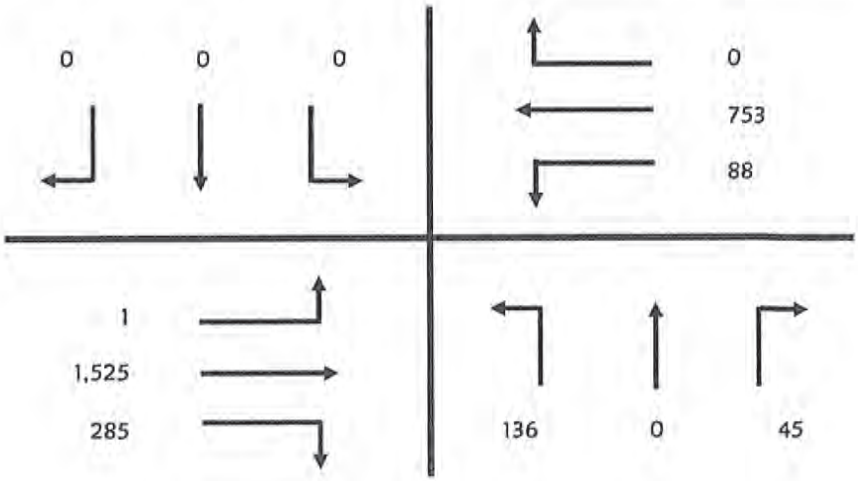
North / South
Wolf Pack Run

East / West
Howland

Peak Hour
17:00 - 18:00

Peak Hour Factor
0.91

Total Pk Hr Voume
2,833



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Wolf Pack Run	&	Howland
Date	February 6, 2014		
Time Period	16:00 to 18:00		Trucks

GMB Project #: 14-017.01

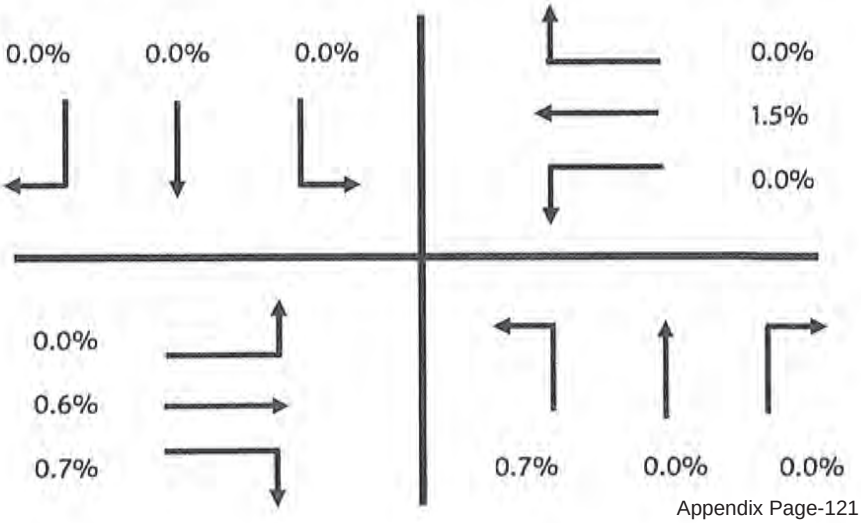
Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	1	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	1	0	1	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	1	0	0	0	0	0

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
16:00 - 16:15	0	6	0	0	3	0
16:15 - 16:30	0	3	0	0	4	0
16:30 - 16:45	0	7	1	0	3	0
16:45 - 17:00	0	4	0	0	2	0
17:00 - 17:15	0	5	0	0	4	0
17:15 - 17:30	0	0	1	0	3	0
17:30 - 17:45	0	4	0	0	0	0
17:45 - 18:00	0	0	1	0	4	0

North / South
Wolf Pack Run

East / West
Howland

Peak Hour
17:00 - 18:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Wolf Pack Run	&	Howland
Date	February 6, 2014		
Time Period	16:00 to 18:00		U-Turn & RTOR

GMB Project #: 14-017.01

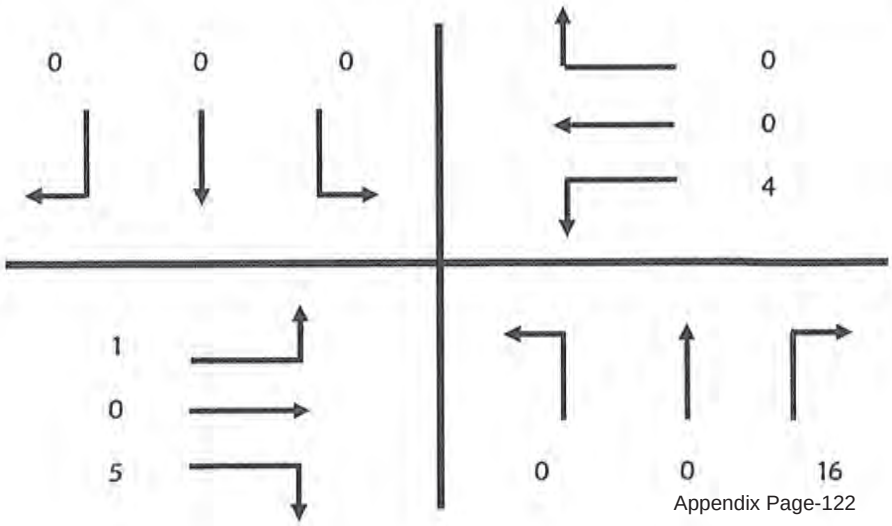
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	8	0	0	0
16:15 - 16:30	0	0	2	0	0	0
16:30 - 16:45	0	0	2	0	0	0
16:45 - 17:00	0	0	2	0	0	0
17:00 - 17:15	0	0	3	0	0	0
17:15 - 17:30	0	0	2	0	0	0
17:30 - 17:45	0	0	8	0	0	0
17:45 - 18:00	0	0	3	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	1	3	0	0
16:15 - 16:30	0	0	1	1	0	0
16:30 - 16:45	0	0	1	0	0	0
16:45 - 17:00	0	0	4	1	0	0
17:00 - 17:15	0	0	2	2	0	0
17:15 - 17:30	0	0	1	2	0	0
17:30 - 17:45	0	0	1	0	0	0
17:45 - 18:00	1	0	1	0	0	0

North / South
Wolf Pack Run

East / West
Howland

Peak Hour
17:00 - 18:00



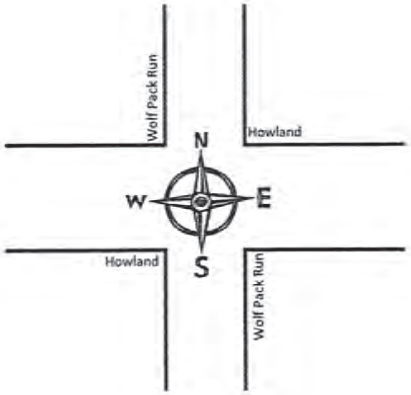
Pedestrian & Bicycle Summary

Project #: 14-017.01
Date: 2/6/2014

NB/SB: Wolf Pack Run
EB/WB: Howland

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

Hour	Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike
7:00				
8:00				
16:00	6		4	
17:00			2	
	6	0	6	0

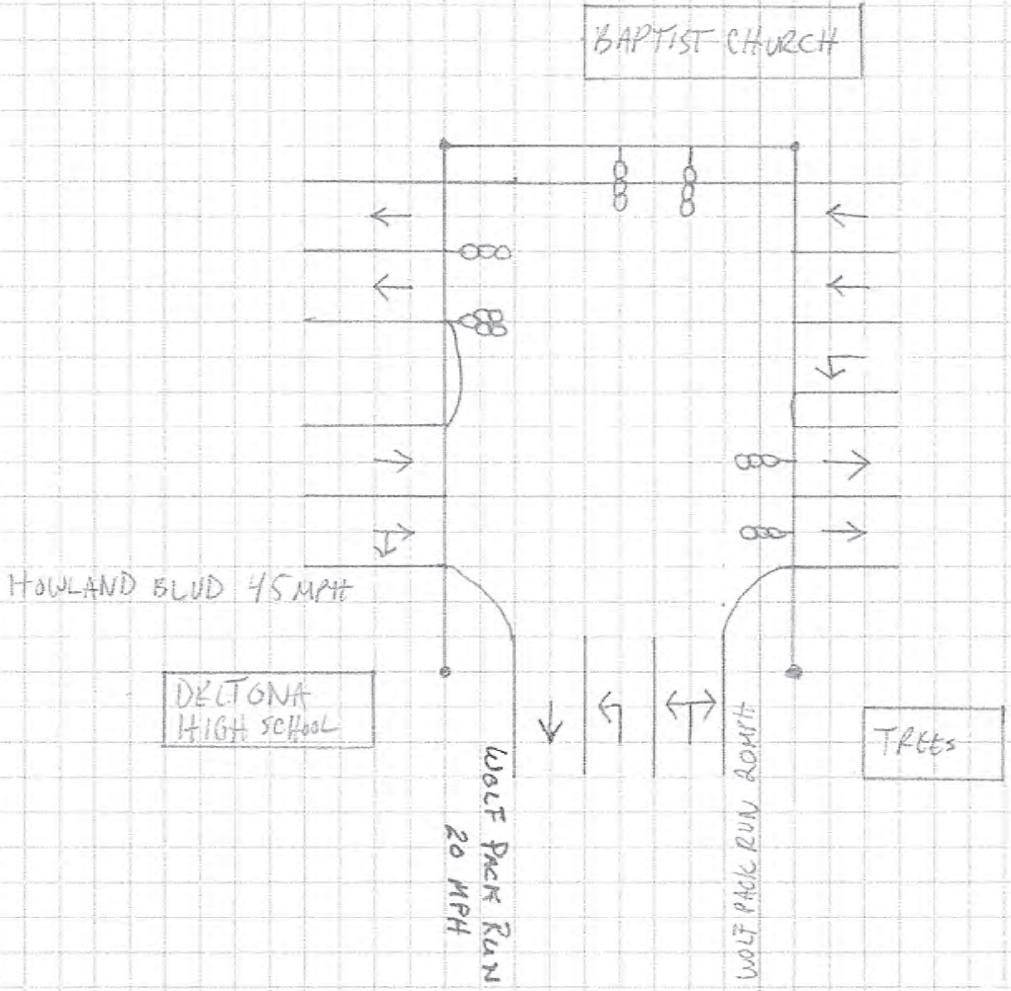


Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike	Hour
				7:00
				8:00
				16:00
3				17:00
3	0	0	0	

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

GMB ENGINEERS & PLANNERS, INC.

Additional Notes & Observations:



***SPEED LIMITS MUST BE LISTED FOR FOR TRAFFIC ENTERING INTERSECTION**

N
W
E
S

Intersection Sketch

Date: 2-6-14

Project: 14-017.01 #7

Name: D1260

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky		& Cassadaga
Date	February 6, 2014		All Vehicles
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
7:00 - 7:15	0	85	10	2	75	0
7:15 - 7:30	0	105	9	1	82	0
7:30 - 7:45	0	146	14	4	99	0
7:45 - 8:00	0	121	11	3	82	0
8:00 - 8:15	0	93	5	5	82	0
8:15 - 8:30	0	89	5	2	77	0
8:30 - 8:45	0	99	7	8	80	0
8:45 - 9:00	0	92	5	6	80	0
	0	830	66	31	657	0

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
7:00 - 7:15	0	0	0	11	0	11
7:15 - 7:30	0	0	0	22	0	3
7:30 - 7:45	0	0	0	26	0	7
7:45 - 8:00	0	0	0	27	0	11
8:00 - 8:15	0	0	0	18	0	6
8:15 - 8:30	0	0	0	6	0	7
8:30 - 8:45	0	0	0	12	0	6
8:45 - 9:00	0	0	0	8	0	3
	0	0	0	130	0	54

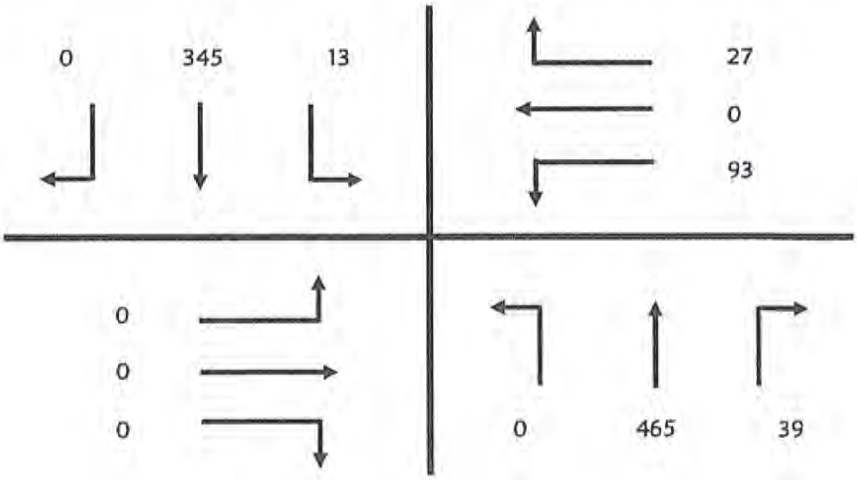
North / South
N Kentucky

East / West
Cassadaga

Peak Hour
7:15 - 8:15

Peak Hour Factor
0.83

Total Pk Hr Voume
982



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky	&	Cassadaga
Date	February 6, 2014		
Time Period	7:00 to 9:00		Trucks

GMB Project #: 14-017.01

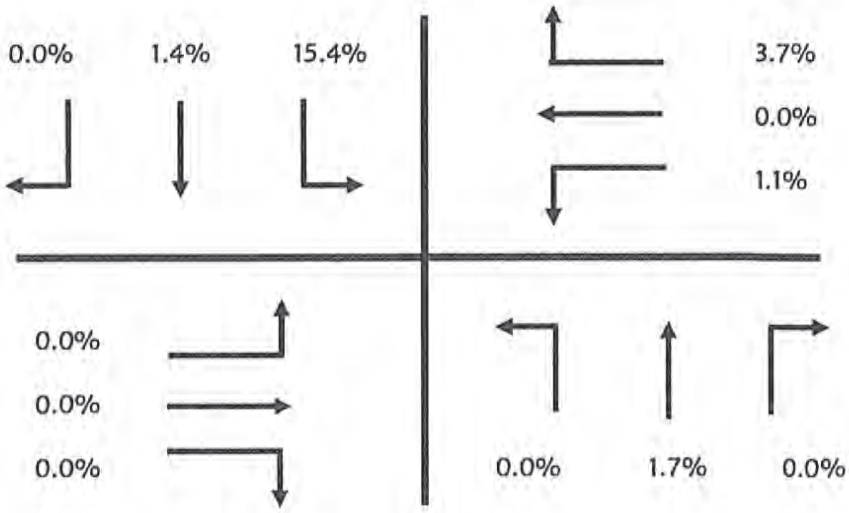
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	2	1	0	1	0
7:15 - 7:30	0	1	0	0	1	0
7:30 - 7:45	0	2	0	1	2	0
7:45 - 8:00	0	3	0	0	1	0
8:00 - 8:15	0	2	0	1	1	0
8:15 - 8:30	0	1	0	0	4	0
8:30 - 8:45	0	2	0	0	1	0
8:45 - 9:00	0	2	0	0	2	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	1	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	1
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

North / South
N Kentucky

East / West
Cassadaga

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky	&	Cassadaga
Date	February 6, 2014		
Time Period	7:00 to 9:00		U-Turn & RTOR

GMB Project #: 14-017.01

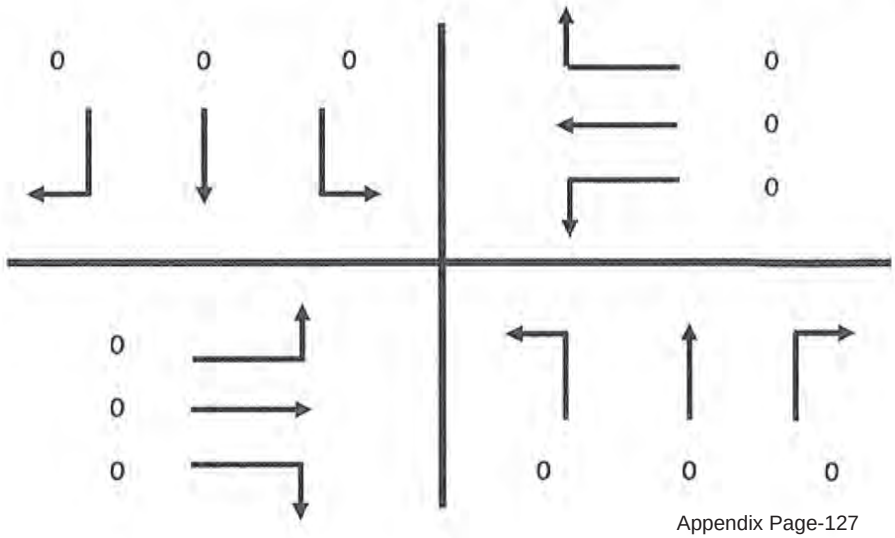
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

North / South
N Kentucky

East / West
Cassadaga

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky		& Cassadaga
Date	February 6, 2014		All Vehicles
Time Period	16:00 to 18:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
16:00 - 16:15	0	90	20	5	122	0
16:15 - 16:30	0	110	14	12	103	0
16:30 - 16:45	0	102	20	8	103	0
16:45 - 17:00	0	112	13	6	114	0
17:00 - 17:15	0	122	24	6	121	0
17:15 - 17:30	0	135	15	11	163	0
17:30 - 17:45	0	127	27	12	139	0
17:45 - 18:00	0	116	17	6	117	0
	0	914	150	66	982	0

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
16:00 - 16:15	0	0	0	7	0	6
16:15 - 16:30	0	0	0	13	0	6
16:30 - 16:45	0	0	0	14	0	8
16:45 - 17:00	0	0	0	10	0	7
17:00 - 17:15	0	0	0	11	0	3
17:15 - 17:30	0	0	0	9	0	9
17:30 - 17:45	0	0	0	14	0	6
17:45 - 18:00	0	0	0	12	0	10
	0	0	0	90	0	55

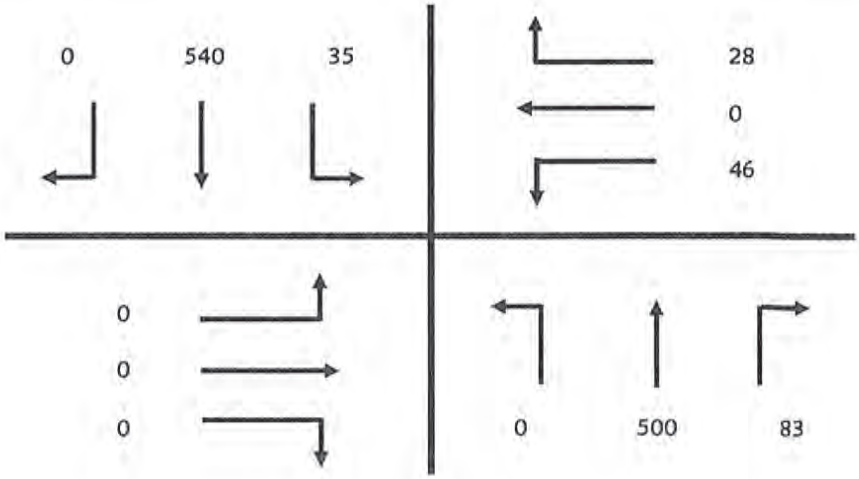
North / South
N Kentucky

East / West
Cassadaga

Peak Hour
17:00 - 18:00

Peak Hour Factor
0.90

Total Pk Hr Voume
1,232



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky	&	Cassadaga
Date	February 6, 2014		
Time Period	16:00 to 18:00		Trucks

GMB Project #: 14-017.01

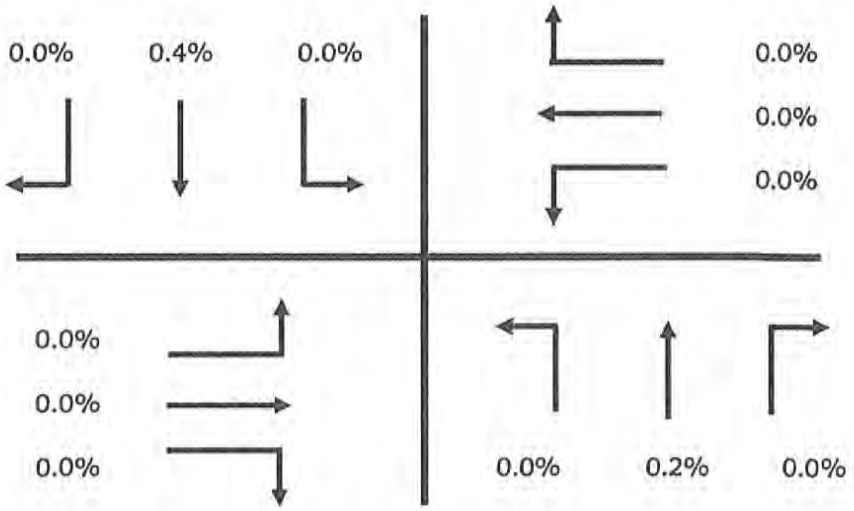
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	1	1	1	1	0
16:15 - 16:30	0	0	0	0	3	0
16:30 - 16:45	0	2	1	0	1	0
16:45 - 17:00	0	1	0	0	0	0
17:00 - 17:15	0	0	0	0	1	0
17:15 - 17:30	0	1	0	0	1	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

North / South
N Kentucky

East / West
Cassadaga

Peak Hour
17:00 - 18:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky	&	Cassadaga
Date	February 6, 2014		
Time Period	16:00 to 18:00		U-Turn & RTOR

GMB Project #: 14-017.01

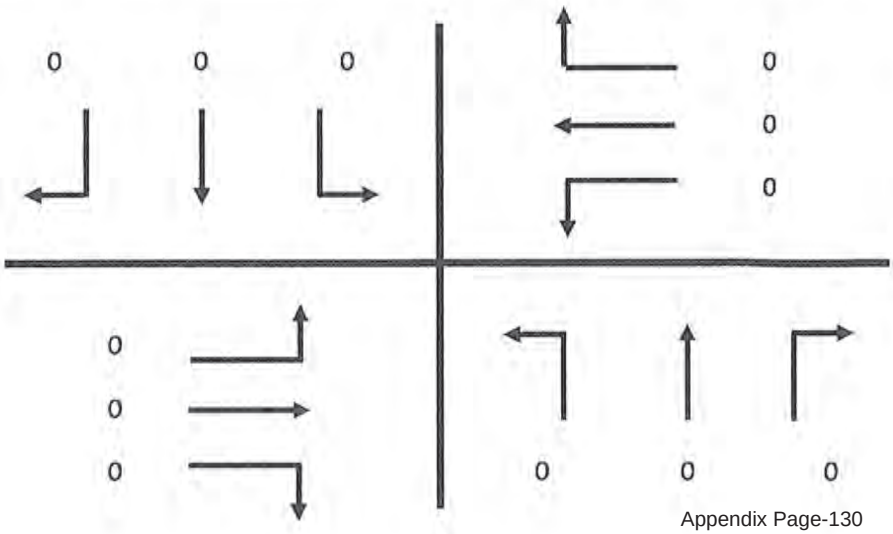
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

North / South
N Kentucky

East / West
Cassadaga

Peak Hour
17:00 - 18:00



Pedestrian & Bicycle Summary

Project #: 14-017.01
Date: 2/6/2014

NB/SB: N Kentucky
EB/WB: Cassadaga

* NO PEDS

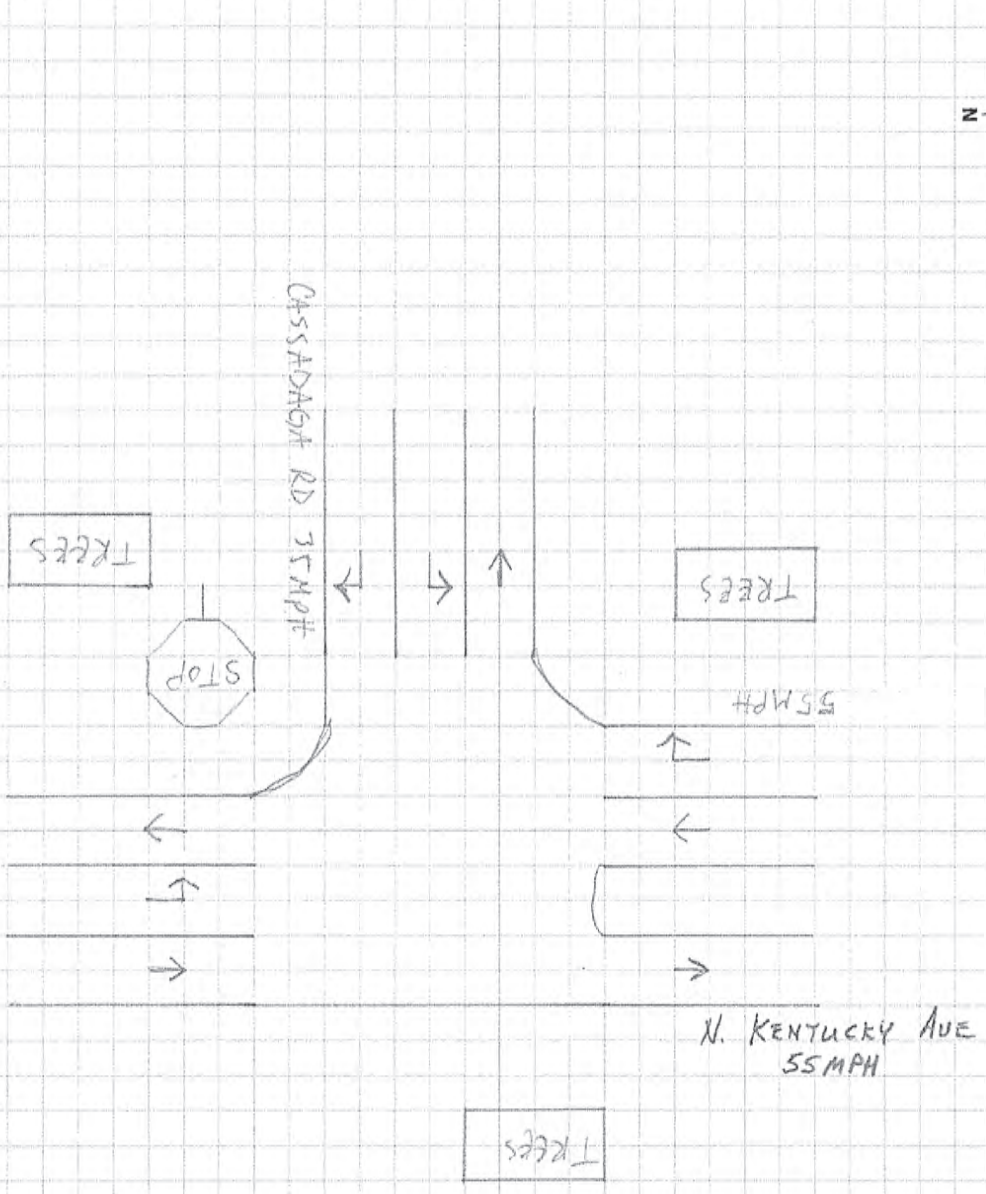
		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

Hour	Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike
7:00				
8:00				
16:00				
17:00				
	0	0	0	0

Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike	Hour
				7:00
				8:00
				16:00
				17:00
0	0	0	0	

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

Intersection Sketch



*SPEED LIMITS MUST BE LISTED FOR FOR TRAFFIC ENTERING INTERSECTION

GMB ENGINEERS & PLANNERS, INC.

Additional Notes & Observations:

Date: 2-6-14

Project: 14-017, 01 #6

Name: DIEGO

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky		& SR 472
Date	February 6, 2014		All Vehicles
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
7:00 - 7:15	26	43	29	43	34	5
7:15 - 7:30	31	51	26	51	48	10
7:30 - 7:45	39	69	15	48	58	10
7:45 - 8:00	43	45	17	42	54	9
8:00 - 8:15	40	42	11	35	54	11
8:15 - 8:30	24	31	13	36	32	6
8:30 - 8:45	20	44	13	40	58	4
8:45 - 9:00	20	45	7	29	48	9
	243	370	131	324	386	64

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
7:00 - 7:15	8	199	12	10	143	45
7:15 - 7:30	8	229	14	9	192	57
7:30 - 7:45	10	191	26	16	230	77
7:45 - 8:00	6	193	27	15	255	73
8:00 - 8:15	9	157	18	12	197	53
8:15 - 8:30	11	190	18	4	209	51
8:30 - 8:45	9	136	15	6	185	52
8:45 - 9:00	5	141	21	10	173	46
	66	1,436	151	82	1,584	454

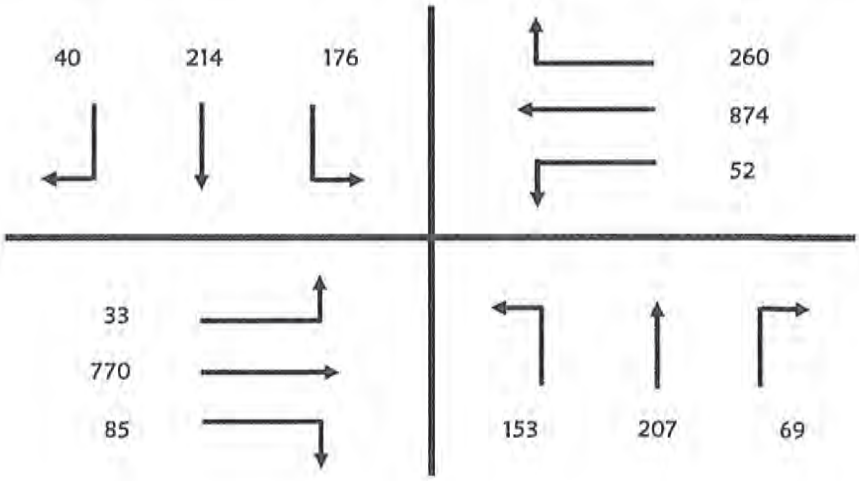
North / South
N Kentucky

East / West
SR 472

Peak Hour
7:15 - 8:15

Peak Hour Factor
0.93

Total Pk Hr Voume
2,933



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky	&	SR 472
Date	February 6, 2014		
Time Period	7:00 to 9:00		Trucks

GMB Project #: 14-017.01

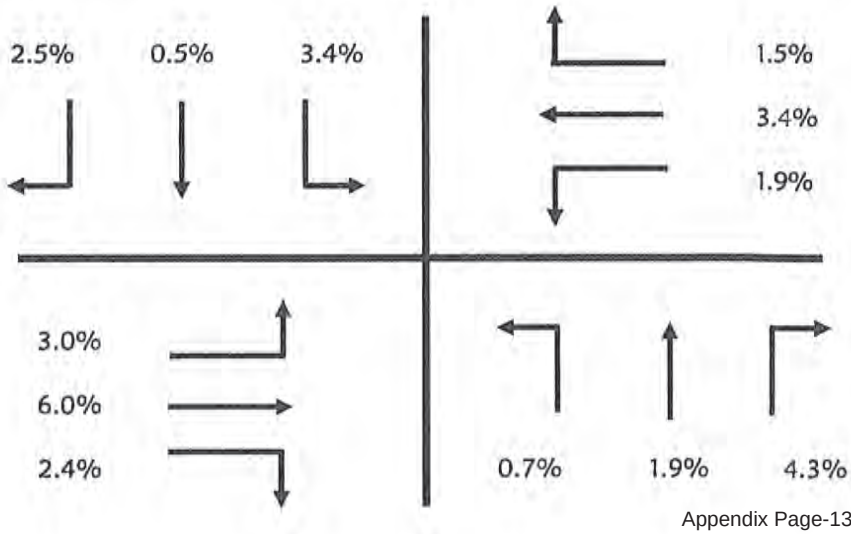
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	1	1	0	0	0	1
7:15 - 7:30	1	1	1	1	1	0
7:30 - 7:45	0	1	0	2	0	1
7:45 - 8:00	0	1	1	1	0	0
8:00 - 8:15	0	1	1	2	0	0
8:15 - 8:30	0	2	0	3	0	1
8:30 - 8:45	0	0	1	1	3	0
8:45 - 9:00	0	0	0	2	1	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	5	2	0	9	2
7:15 - 7:30	0	14	0	0	13	0
7:30 - 7:45	0	13	0	0	3	1
7:45 - 8:00	1	11	1	0	8	2
8:00 - 8:15	0	8	1	1	6	1
8:15 - 8:30	0	8	1	0	16	0
8:30 - 8:45	0	13	0	1	12	3
8:45 - 9:00	0	10	2	3	6	2

North / South
N Kentucky

East / West
SR 472

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky	&	SR 472
Date	February 6, 2014		
Time Period	7:00 to 9:00		U-Turn & RTOR

GMB Project #: 14-017.01

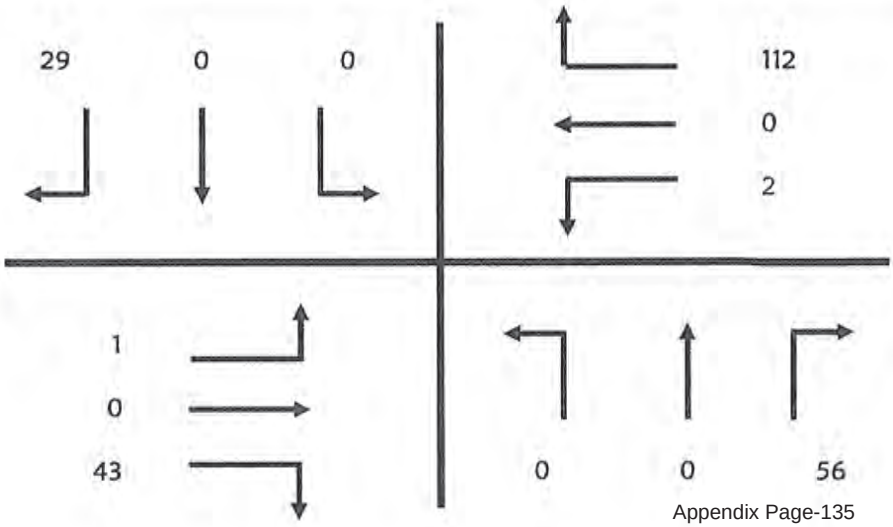
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	22	0	0	3
7:15 - 7:30	0	0	22	0	0	6
7:30 - 7:45	0	0	12	0	0	8
7:45 - 8:00	0	0	14	0	0	7
8:00 - 8:15	0	0	8	0	0	8
8:15 - 8:30	0	0	12	0	0	4
8:30 - 8:45	0	0	8	0	0	3
8:45 - 9:00	0	0	7	0	0	6

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	1	0	4	0	0	13
7:15 - 7:30	1	0	5	1	0	23
7:30 - 7:45	0	0	15	1	0	36
7:45 - 8:00	0	0	12	0	0	31
8:00 - 8:15	0	0	11	0	0	22
8:15 - 8:30	1	0	7	0	0	18
8:30 - 8:45	0	0	6	0	0	17
8:45 - 9:00	0	0	11	0	0	17

North / South
N Kentucky

East / West
SR 472

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky		& SR 472
Date	February 6, 2014		All Vehicles
Time Period	16:00 to 18:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
16:00 - 16:15	13	49	13	55	58	10
16:15 - 16:30	23	43	6	50	56	5
16:30 - 16:45	13	64	14	44	63	11
16:45 - 17:00	19	68	11	60	56	8
17:00 - 17:15	15	67	15	49	73	12
17:15 - 17:30	15	70	10	70	86	8
17:30 - 17:45	16	62	6	70	80	8
17:45 - 18:00	14	65	7	55	72	8
	128	488	82	453	544	70

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
16:00 - 16:15	15	169	39	15	184	52
16:15 - 16:30	9	189	31	29	163	59
16:30 - 16:45	4	224	31	19	152	54
16:45 - 17:00	7	181	23	28	174	62
17:00 - 17:15	11	240	45	25	157	62
17:15 - 17:30	11	204	64	36	166	74
17:30 - 17:45	16	216	49	41	182	64
17:45 - 18:00	14	171	34	28	167	57
	87	1,594	316	221	1,345	484

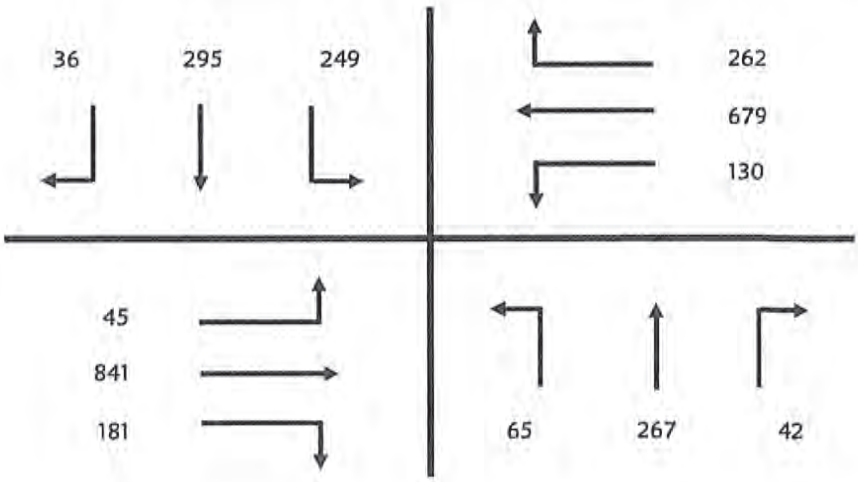
North / South
N Kentucky

East / West
SR 472

Peak Hour
16:45 - 17:45

Peak Hour Factor
0.95

Total Pk Hr Voume
3,092



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky	&	SR 472
Date	February 6, 2014		
Time Period	16:00 to 18:00		Trucks

GMB Project #: 14-017.01

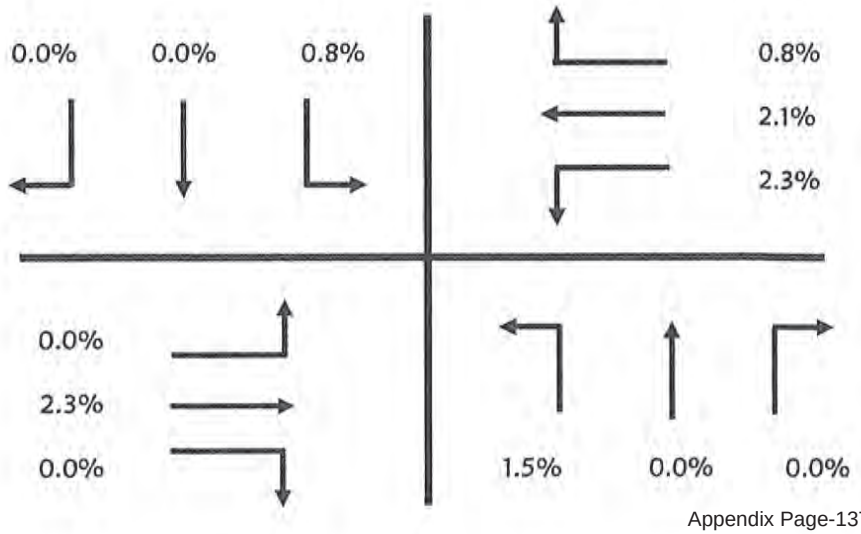
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	1	0
16:15 - 16:30	0	1	0	1	1	1
16:30 - 16:45	0	1	1	0	1	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	1	0	0	1	0	0
17:15 - 17:30	0	0	0	1	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	6	1	1	8	1
16:15 - 16:30	0	4	0	3	9	0
16:30 - 16:45	1	9	0	1	1	0
16:45 - 17:00	0	5	0	0	5	1
17:00 - 17:15	0	4	0	2	4	0
17:15 - 17:30	0	3	0	0	1	1
17:30 - 17:45	0	7	0	1	4	0
17:45 - 18:00	0	0	0	0	4	0

North / South
N Kentucky

East / West
SR 472

Peak Hour
16:45 - 17:45



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky	&	SR 472
Date	February 6, 2014		
Time Period	16:00 to 18:00		U-Turn & RTOR

GMB Project #: 14-017.01

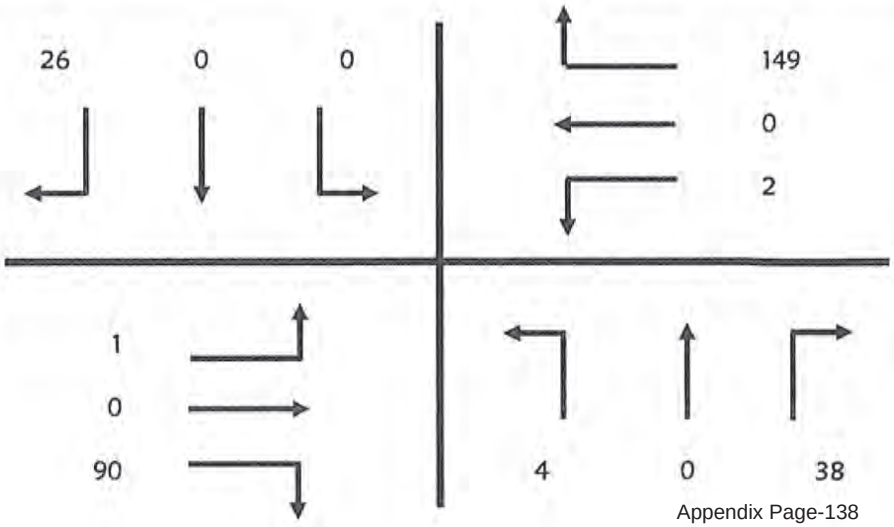
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	11	0	0	8
16:15 - 16:30	0	0	4	0	0	3
16:30 - 16:45	1	0	11	0	0	7
16:45 - 17:00	0	0	10	0	0	7
17:00 - 17:15	0	0	13	0	0	9
17:15 - 17:30	4	0	10	0	0	4
17:30 - 17:45	0	0	5	0	0	6
17:45 - 18:00	0	0	6	0	0	6

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	16	0	0	31
16:15 - 16:30	0	0	12	2	0	37
16:30 - 16:45	0	0	9	0	0	34
16:45 - 17:00	0	0	14	1	0	30
17:00 - 17:15	0	0	24	1	0	38
17:15 - 17:30	0	0	28	0	0	41
17:30 - 17:45	1	0	24	0	0	40
17:45 - 18:00	0	0	12	1	0	38

North / South
N Kentucky

East / West
SR 472

Peak Hour
16:45 - 17:45



Pedestrian & Bicycle Summary

Project #: 14-017.01 NB/SB: N Kentucky * NO PEDS

Date: 2/6/2014 EB/WB: SR 472

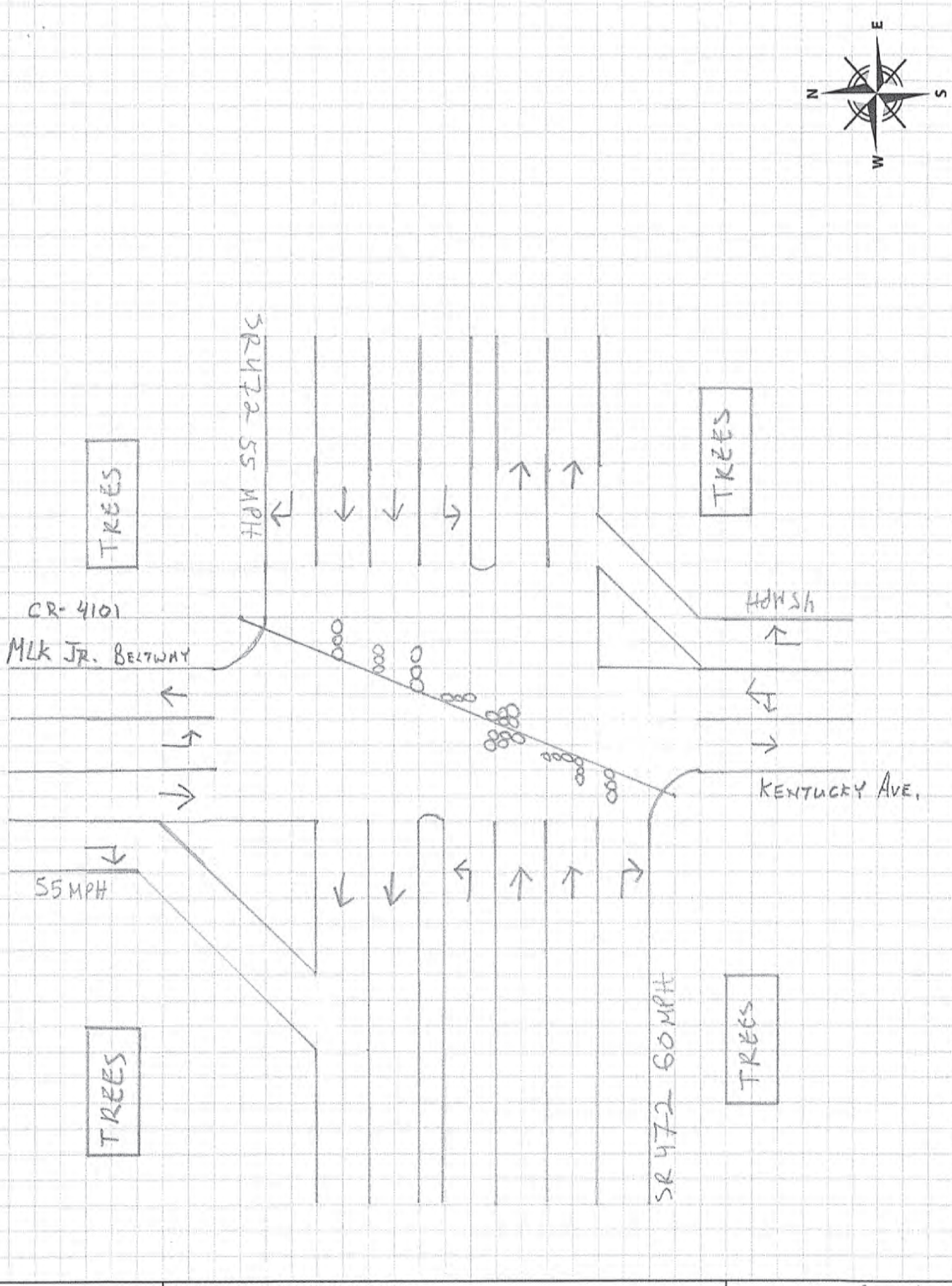
		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

	Southbound		Northbound	
	Ped ▼	Bike	Ped ▲	Bike
7:00				
8:00				
16:00				
17:00				
	0	0	0	0

	Southbound		Northbound		
	Ped ▼	Bike	Ped ▲	Bike	
					7:00
					8:00
					16:00
					17:00
	0	0	0	0	

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

Intersection Sketch



*SPEED LIMITS MUST BE LISTED FOR FOR TRAFFIC ENTERING INTERSECTION

GMB ENGINEERS & PLANNERS, INC.

Additional Notes & Observations:

Date: 2-6-14

Project: 14-017.01 #5

Name: DIEGO

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	**City**	Deltona
Intersection	Veterans Memorial Pkwy.	&	E. Graves Ave.
Date	February 6, 2014		**All Vehicles**
Time Period	16:00 to 18:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
16:00 - 16:15	13	0	74	0	0	0
16:15 - 16:30	13	0	130	0	0	0
16:30 - 16:45	11	0	154	0	0	0
16:45 - 17:00	11	0	136	0	0	0
17:00 - 17:15	12	0	155	0	0	0
17:15 - 17:30	17	0	167	0	0	0
17:30 - 17:45	11	0	129	0	0	0
17:45 - 18:00	9	0	110	0	0	0
	97	0	1,055	0	0	0

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
16:00 - 16:15	0	73	5	81	68	0
16:15 - 16:30	0	50	8	124	72	0
16:30 - 16:45	0	59	6	106	58	0
16:45 - 17:00	0	48	4	123	71	0
17:00 - 17:15	0	65	6	103	57	0
17:15 - 17:30	0	55	3	123	63	0
17:30 - 17:45	0	56	3	143	82	0
17:45 - 18:00	0	50	3	134	71	0
	0	456	38	937	542	0

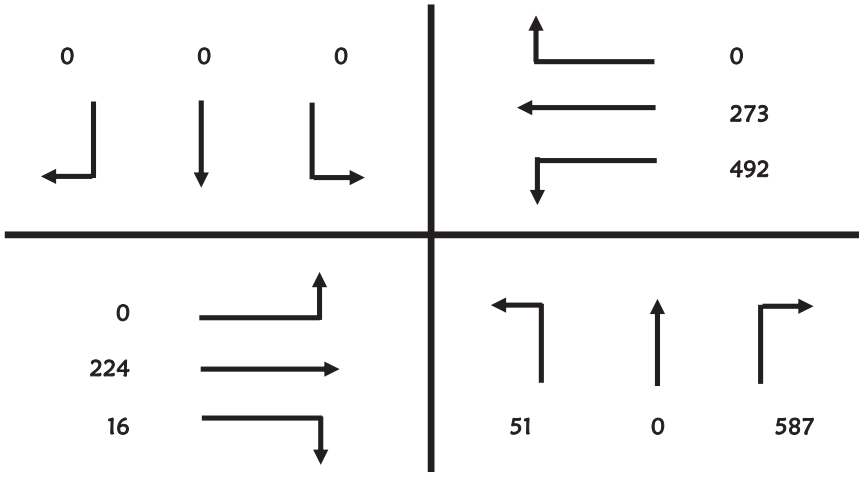
North / South
Veterans Memorial Pkwy.

East / West
E. Graves Ave.

Peak Hour
16:45 - 17:45

Peak Hour Factor
0.96

Total Pk Hr Voume
1,643



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	**City**	Deltona
Intersection	Veterans Memorial Pkwy.	&	E. Graves Ave.
Date	February 6, 2014		
Time Period	16:00 to 18:00		**Trucks**

GMB Project #: 14-017.01

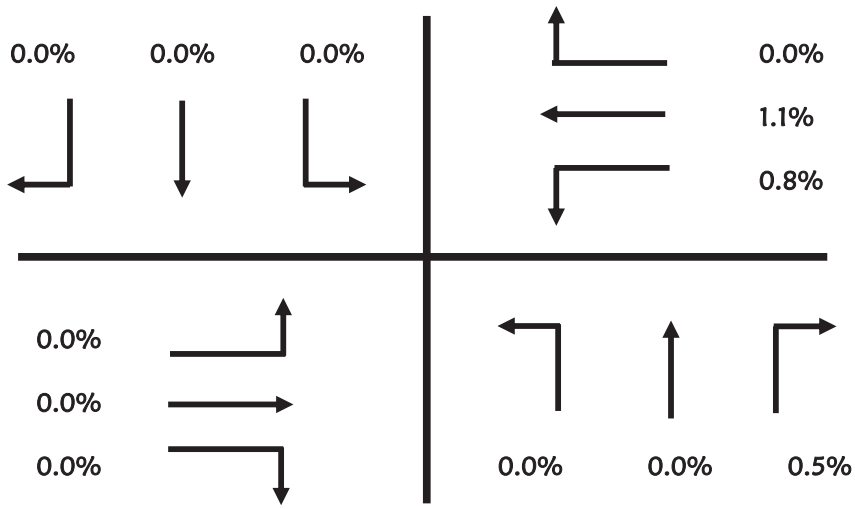
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	1	0	0	0	0	0
16:15 - 16:30	0	0	1	0	0	0
16:30 - 16:45	0	0	2	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	2	0	0	0
17:15 - 17:30	0	0	1	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	4	1	0
16:15 - 16:30	0	1	0	2	0	0
16:30 - 16:45	0	3	0	4	1	0
16:45 - 17:00	0	0	0	1	1	0
17:00 - 17:15	0	0	0	3	0	0
17:15 - 17:30	0	0	0	0	1	0
17:30 - 17:45	0	0	0	0	1	0
17:45 - 18:00	0	0	0	0	0	0

North / South
Veterans Memorial Pkwy.

East / West
E. Graves Ave.

Peak Hour
16:45 - 17:45



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	**City**	Deltona
Intersection	Veterans Memorial Pkwy.	&	E. Graves Ave.
Date	February 6, 2014		
Time Period	16:00 to 18:00		**U-Turn & RTOR**

GMB Project #: 14-017.01

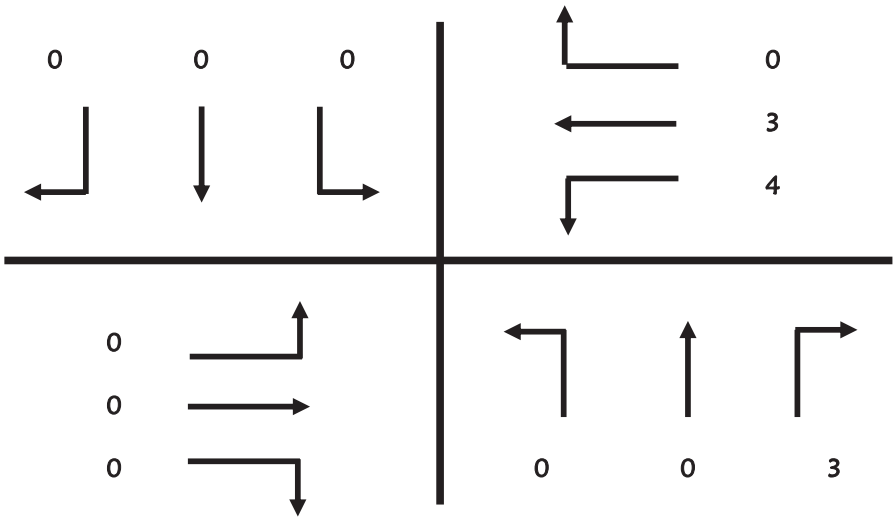
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	1	0	0	0	0	0
16:15 - 16:30	0	0	1	0	0	0
16:30 - 16:45	0	0	2	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	2	0	0	0
17:15 - 17:30	0	0	1	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	4	1	0
16:15 - 16:30	0	1	0	2	0	0
16:30 - 16:45	0	3	0	4	1	0
16:45 - 17:00	0	0	0	1	1	0
17:00 - 17:15	0	0	0	3	0	0
17:15 - 17:30	0	0	0	0	1	0
17:30 - 17:45	0	0	0	0	1	0
17:45 - 18:00	0	0	0	0	0	0

North / South
Veterans Memorial Pkwy.

East / West
E. Graves Ave.

Peak Hour
16:45 - 17:45



Pedestrian & Bicycle Summary

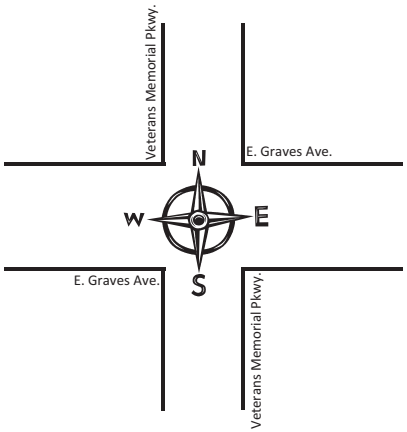
Project #: 14-017.01 **NB/SB:** Veterans Memorial Pkwy.

Date: 2/6/2014 **EB/WB:** E. Graves Ave.

Hour

		7:00	8:00	16:00	17:00					
		1	2	3	4	5	6	7	8	
Eastbound ▶	Bike									0
	Ped									0
Westbound ◀	Bike									0
	Ped									0

Hour	Southbound Ped ▼	Southbound Bike	Northbound Ped ▲	Northbound Bike
1 7:00				
2 8:00				
3 16:00				
4 17:00				
5				
6				
7				
8				
	0	0	0	0



Hour	Southbound Ped ▼	Southbound Bike	Northbound Ped ▲	Northbound Bike
1 7:00				
2 8:00				
3 16:00				
4 17:00				
5				
6				
7				
8				
	0	0	0	0

		7:00	8:00	16:00	17:00					
		1	2	3	4	5	6	7	8	
Eastbound ▶	Bike									0
	Ped									0
Westbound ◀	Bike									0
	Ped									0

Hour

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	**City**	Deltona
Intersection	Veterans Memorial Pkwy	&	E. Graves Ave.
Date	February 6, 2014		**All Vehicles**
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
7:00 - 7:15	7	0	84	0	0	0
7:15 - 7:30	8	0	76	0	0	0
7:30 - 7:45	7	0	82	0	0	0
7:45 - 8:00	4	0	65	0	0	0
8:00 - 8:15	7	0	54	0	0	0
8:15 - 8:30	9	0	53	0	0	0
8:30 - 8:45	5	0	45	0	0	0
8:45 - 9:00	3	0	65	0	0	0
	50	0	524	0	0	0

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
7:00 - 7:15	0	49	9	94	45	0
7:15 - 7:30	0	60	2	104	63	0
7:30 - 7:45	0	49	4	115	66	0
7:45 - 8:00	0	48	13	121	99	0
8:00 - 8:15	0	38	2	120	77	0
8:15 - 8:30	0	41	11	109	51	0
8:30 - 8:45	0	48	15	90	43	0
8:45 - 9:00	0	41	13	140	52	0
	0	374	69	893	496	0

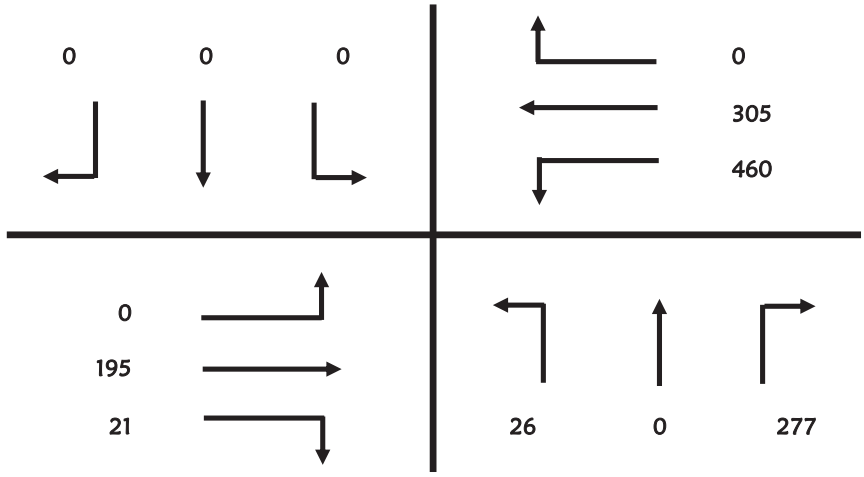
North / South
Veterans Memorial Pkwy

East / West
E. Graves Ave.

Peak Hour
7:15 - 8:15

Peak Hour Factor
0.92

Total Pk Hr Voume
1,284



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	**City**	Deltona
Intersection	Veterans Memorial Pkwy	&	E. Graves Ave.
Date	February 6, 2014		
Time Period	7:00 to 9:00		**Trucks**

GMB Project #: 14-017.01

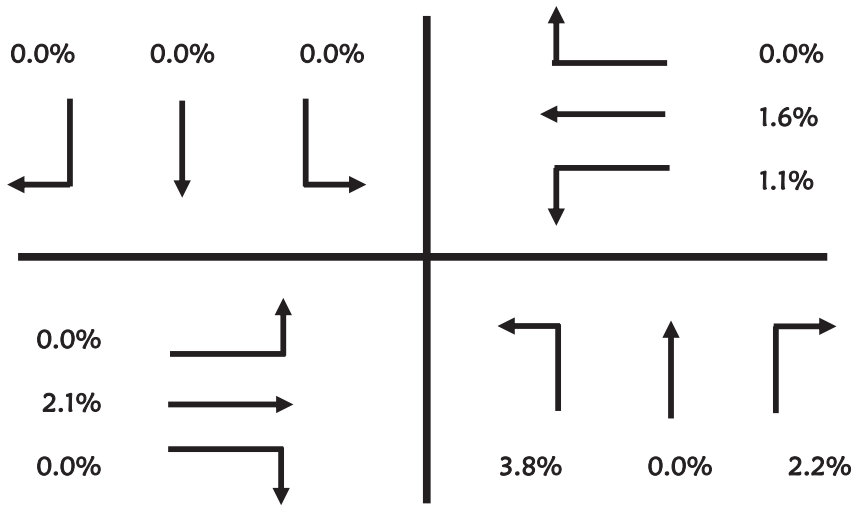
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	1	0	4	0	0	0
7:15 - 7:30	1	0	1	0	0	0
7:30 - 7:45	0	0	1	0	0	0
7:45 - 8:00	0	0	3	0	0	0
8:00 - 8:15	0	0	1	0	0	0
8:15 - 8:30	1	0	2	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	1	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	3	1	0
7:15 - 7:30	0	2	0	3	1	0
7:30 - 7:45	0	1	0	0	2	0
7:45 - 8:00	0	1	0	0	1	0
8:00 - 8:15	0	0	0	2	1	0
8:15 - 8:30	0	1	0	0	1	0
8:30 - 8:45	0	3	0	1	0	0
8:45 - 9:00	0	7	0	7	0	0

North / South
Veterans Memorial Pkwy

East / West
E. Graves Ave.

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	**City**	Deltona
Intersection	Veterans Memorial Pkwy	&	E. Graves Ave.
Date	February 6, 2014		
Time Period	7:00 to 9:00		**U-Turn & RTOR**

GMB Project #: 14-017.01

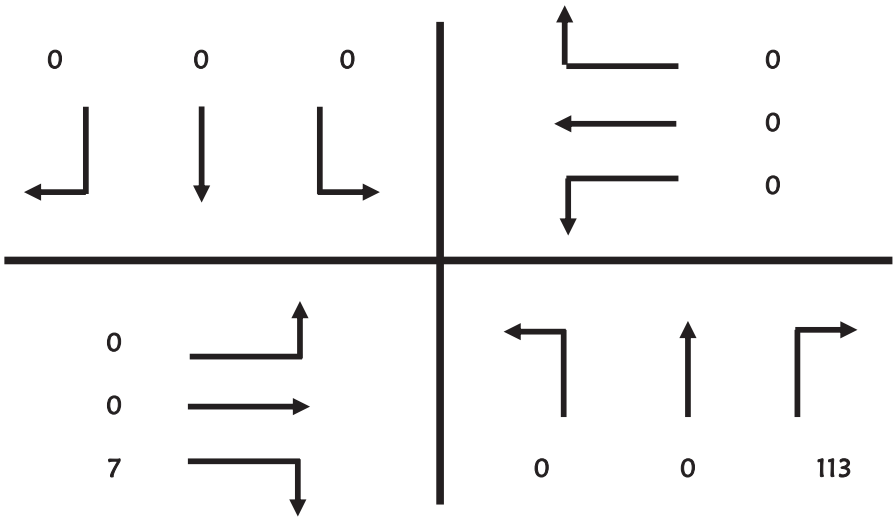
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	30	0	0	0
7:15 - 7:30	0	0	39	0	0	0
7:30 - 7:45	0	0	33	0	0	0
7:45 - 8:00	0	0	22	0	0	0
8:00 - 8:15	0	0	19	0	0	0
8:15 - 8:30	0	0	29	0	0	0
8:30 - 8:45	0	0	24	0	0	0
8:45 - 9:00	0	0	22	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	3	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	6	0	0	0
8:00 - 8:15	0	0	1	0	0	0
8:15 - 8:30	0	0	2	0	0	0
8:30 - 8:45	0	0	4	0	0	0
8:45 - 9:00	0	0	4	0	0	0

North / South
Veterans Memorial Pkwy

East / West
E. Graves Ave.

Peak Hour
7:15 - 8:15



Pedestrian & Bicycle Summary

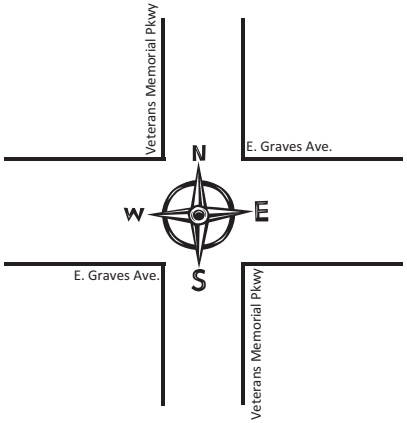
Project #: 14-017.01 **NB/SB:** Veterans Memorial Pkwy

Date: 2/6/2014 **EB/WB:** E. Graves Ave.

Hour

		7:00	8:00	16:00	17:00					
		1	2	3	4	5	6	7	8	
Eastbound ▶	Bike									0
	Ped									0
Westbound ◀	Bike									0
	Ped									0

Hour	Southbound Ped ▼	Southbound Bike	Northbound Ped ▲	Northbound Bike
1 7:00				
2 8:00				
3 16:00				
4 17:00				
5				
6				
7				
8				
	0	0	0	0



Hour	Southbound Ped ▼	Southbound Bike	Northbound Ped ▲	Northbound Bike
1 7:00				
2 8:00				
3 16:00				
4 17:00				
5				
6				
7				
8				
	0	0	0	0

		7:00	8:00	16:00	17:00					
		1	2	3	4	5	6	7	8	
Eastbound ▶	Bike									0
	Ped									0
Westbound ◀	Bike									0
	Ped									0

Hour

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky		& E Graves Ave
Date	February 6, 2014		All Vehicles
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
7:00 - 7:15	5	8	1	9	0	43
7:15 - 7:30	4	6	2	10	2	46
7:30 - 7:45	2	4	2	25	2	57
7:45 - 8:00	8	7	4	23	1	67
8:00 - 8:15	4	4	1	13	1	65
8:15 - 8:30	6	3	3	18	1	44
8:30 - 8:45	3	6	1	14	1	46
8:45 - 9:00	4	4	1	22	1	56
	36	42	15	134	9	424

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
7:00 - 7:15	54	75	1	0	87	31
7:15 - 7:30	57	67	0	1	101	50
7:30 - 7:45	59	72	1	1	125	42
7:45 - 8:00	42	67	1	3	119	42
8:00 - 8:15	37	53	2	1	114	43
8:15 - 8:30	27	65	1	2	96	40
8:30 - 8:45	36	52	1	1	98	34
8:45 - 9:00	35	65	6	2	101	24
	347	516	13	11	841	306

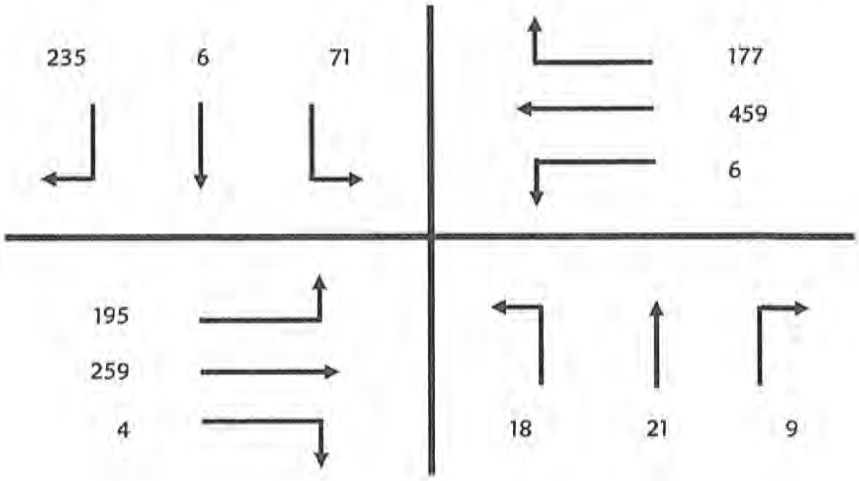
North / South
N Kentucky

East / West
E Graves Ave

Peak Hour
7:15 - 8:15

Peak Hour Factor
0.93

Total Pk Hr Voume
1,460



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky	&	E Graves Ave
Date	February 6, 2014		
Time Period	7:00 to 9:00		Trucks

GMB Project #: 14-017.01

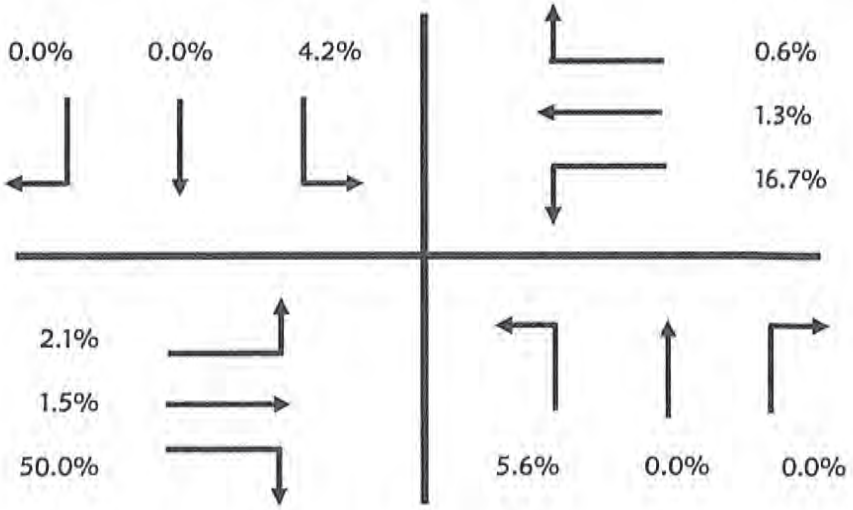
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	1	1	0	0	0	1
7:15 - 7:30	0	0	0	1	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	1	0	0	1	0	0
8:00 - 8:15	0	0	0	1	0	0
8:15 - 8:30	0	0	0	0	0	1
8:30 - 8:45	0	0	0	1	0	2
8:45 - 9:00	0	0	0	1	0	3

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	1	3	1	0	0	0
7:15 - 7:30	0	0	0	0	2	1
7:30 - 7:45	1	2	1	1	2	0
7:45 - 8:00	2	2	1	0	0	0
8:00 - 8:15	1	0	0	0	2	0
8:15 - 8:30	2	2	0	0	0	0
8:30 - 8:45	0	4	0	0	1	1
8:45 - 9:00	0	9	0	0	3	0

North / South
N Kentucky

East / West
E Graves Ave

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky	&	E Graves Ave
Date	February 6, 2014		
Time Period	7:00 to 9:00		U-Turn & RTOR

GMB Project #: 14-017.01

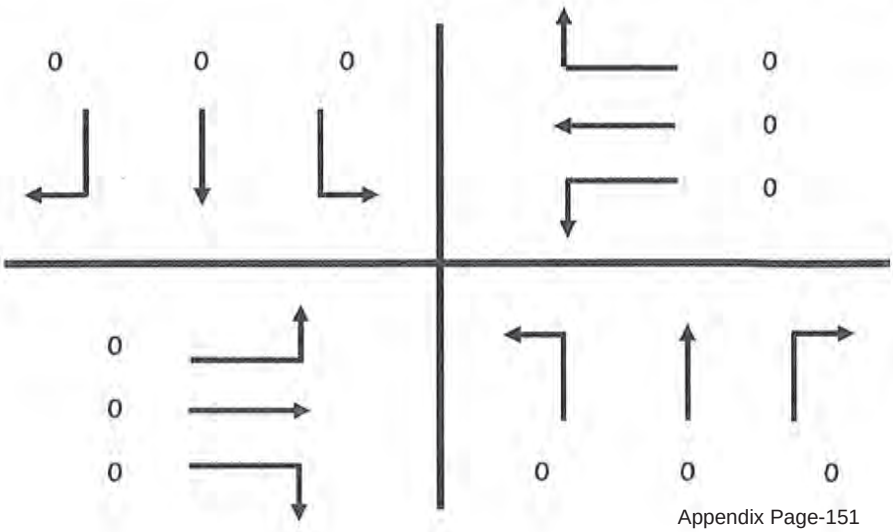
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

North / South
N Kentucky

East / West
E Graves Ave

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky		& E Graves Ave
Date	February 6, 2014		All Vehicles
Time Period	16:00 to 18:00		

GMB Project #: 14-017.01

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	4	6	1	34	6	49
16:15 - 16:30	9	3	3	53	1	67
16:30 - 16:45	1	1	5	31	6	58
16:45 - 17:00	3	1	1	35	8	70
17:00 - 17:15	2	2	2	35	6	72
17:15 - 17:30	3	4	0	71	9	83
17:30 - 17:45	4	5	3	61	2	93
17:45 - 18:00	6	4	1	47	4	77
	32	26	16	367	42	569

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	59	144	9	3	95	12
16:15 - 16:30	49	130	10	9	101	20
16:30 - 16:45	67	151	4	2	92	12
16:45 - 17:00	73	135	3	2	96	14
17:00 - 17:15	65	150	5	1	74	33
17:15 - 17:30	73	138	4	3	94	16
17:30 - 17:45	45	140	9	1	106	16
17:45 - 18:00	62	113	6	2	105	18
	493	1,101	50	23	763	141

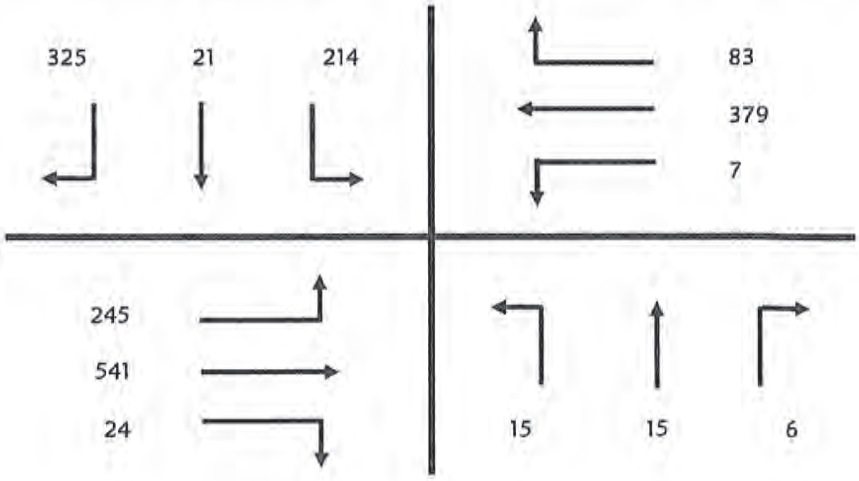
North / South
N Kentucky

East / West
E Graves Ave

Peak Hour
17:00 - 18:00

Peak Hour Factor
0.94

Total Pk Hr Voume
1,875



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky	&	E Graves Ave
Date	February 6, 2014		
Time Period	16:00 to 18:00		Trucks

GMB Project #: 14-017.01

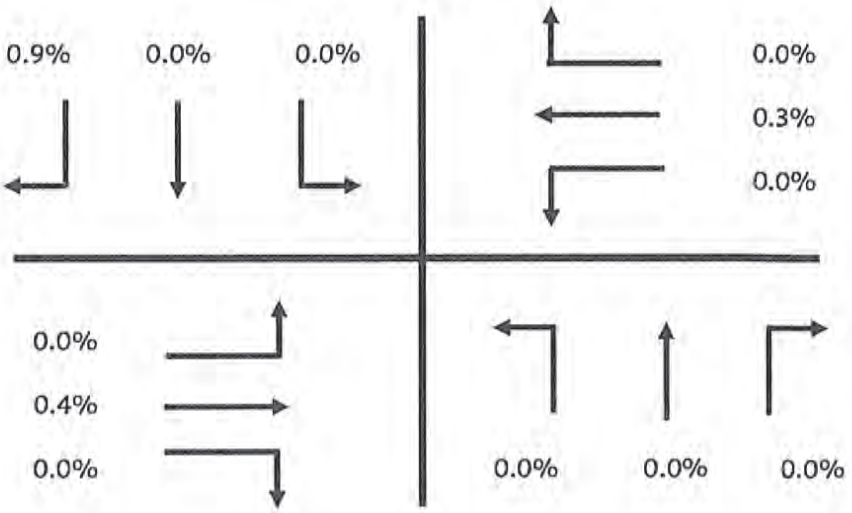
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	4
16:15 - 16:30	0	0	1	0	0	2
16:30 - 16:45	1	0	0	0	0	5
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	2
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	1
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	1	0	0	1	0
16:15 - 16:30	0	1	1	0	1	1
16:30 - 16:45	1	3	0	0	0	1
16:45 - 17:00	0	0	0	0	1	0
17:00 - 17:15	0	1	0	0	1	0
17:15 - 17:30	0	1	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

North / South
N Kentucky

East / West
E Graves Ave

Peak Hour
17:00 - 18:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	N Kentucky	&	E Graves Ave
Date	February 6, 2014		
Time Period	16:00 to 18:00		U-Turn & RTOR

GMB Project #: 14-017.01

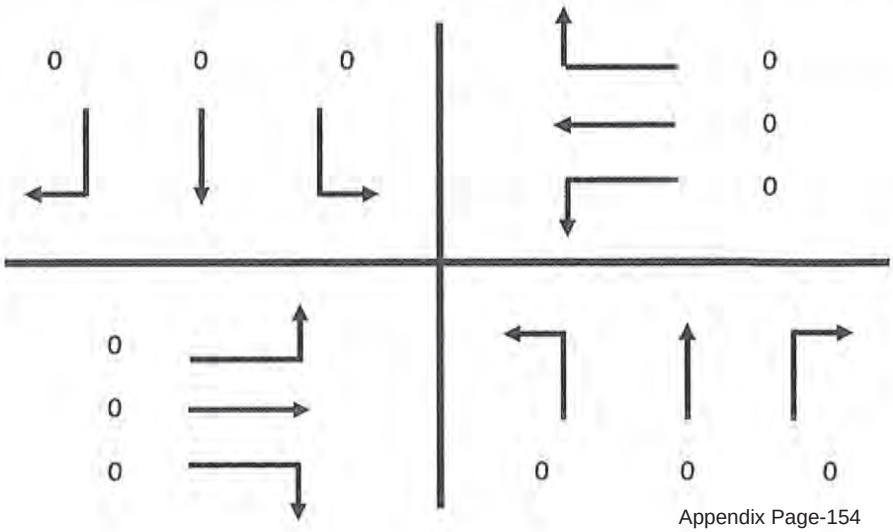
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	3
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

North / South
N Kentucky

East / West
E Graves Ave

Peak Hour
17:00 - 18:00



Pedestrian & Bicycle Summary

Project #: 14-017.01 **NB/SB:** N Kentucky

Date: 2/6/2014 **EB/WB:** E Graves Ave

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

Hour	Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike
7:00				
8:00				
16:00				
17:00				
	0	0	0	0

Southbound Ped	Southbound Bike	Northbound Ped	Northbound Bike	Hour
				7:00
				8:00
				16:00
				17:00
0	0	0	0	

		7:00	8:00	16:00	17:00					
Eastbound	Bike			1	1					2
	Ped									0
Westbound	Bike									0
	Ped									0

Intersection Sketch

*SPEED LIMITS MUST BE LISTED FOR FOR TRAFFIC ENTERING INTERSECTION

GMB ENGINEERS & PLANNERS, INC.

Additional Notes & Observations:

Date: 2-6-14

Project: 14-017.01 #3

Name: DJEW

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Normandy Bv		& E Graves Ave
Date	February 6, 2014		All Vehicles
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	59	0	76	0	0	0
7:15 - 7:30	63	0	85	0	0	0
7:30 - 7:45	69	0	46	0	0	0
7:45 - 8:00	71	0	42	0	0	0
8:00 - 8:15	76	0	48	0	0	0
8:15 - 8:30	43	0	23	0	0	0
8:30 - 8:45	40	0	18	0	0	0
8:45 - 9:00	48	1	34	0	0	0
	469	1	372	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	65	16	8	67	0
7:15 - 7:30	0	58	24	27	80	0
7:30 - 7:45	0	57	38	39	79	0
7:45 - 8:00	0	60	31	27	113	0
8:00 - 8:15	0	42	24	15	80	0
8:15 - 8:30	0	46	22	15	78	0
8:30 - 8:45	0	44	24	16	77	0
8:45 - 9:00	0	58	22	16	94	0
	0	430	201	163	668	0

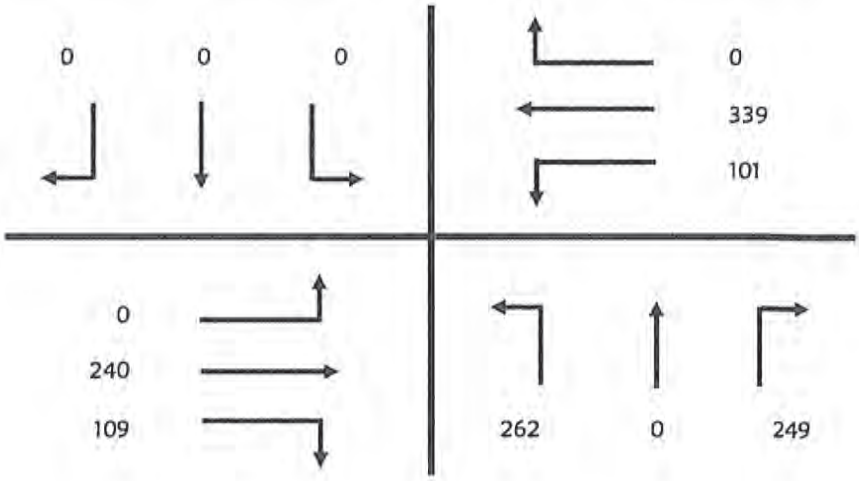
North / South
Normandy Bv

East / West
E Graves Ave

Peak Hour
7:00 - 8:00

Peak Hour Factor
0.95

Total Pk Hr Voume
1,300



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Normandy Bv	&	E Graves Ave
Date	February 6, 2014		
Time Period	7:00 to 9:00		Trucks

GMB Project #: 14-017.01

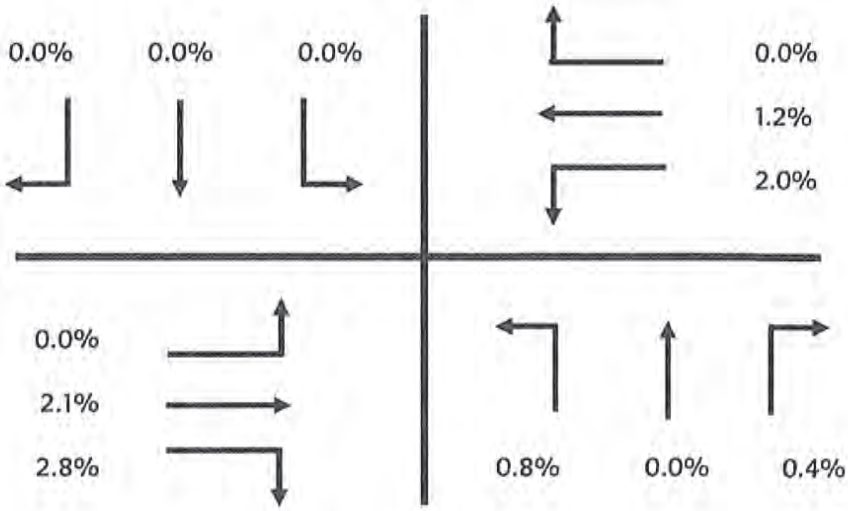
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	2	0	0	0	0	0
7:45 - 8:00	0	0	1	0	0	0
8:00 - 8:15	0	0	1	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	4	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	1	2	1	0	0
7:15 - 7:30	0	1	0	1	3	0
7:30 - 7:45	0	1	1	0	1	0
7:45 - 8:00	0	2	0	0	0	0
8:00 - 8:15	0	0	1	1	3	0
8:15 - 8:30	0	2	0	0	0	0
8:30 - 8:45	0	3	0	0	1	0
8:45 - 9:00	0	9	1	0	3	0

North / South
Normandy Bv

East / West
E Graves Ave

Peak Hour
7:00 - 8:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Normandy Bv	&	E Graves Ave
Date	February 6, 2014		
Time Period	7:00 to 9:00		U-Turn & RTOR

GMB Project #: 14-017.01

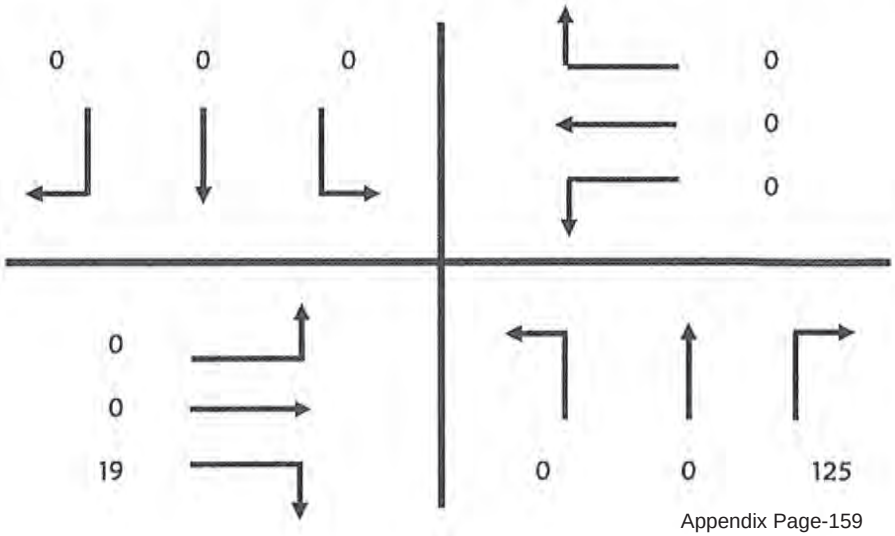
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	34	0	0	0
7:15 - 7:30	0	0	40	0	0	0
7:30 - 7:45	0	0	21	0	0	0
7:45 - 8:00	0	0	30	0	0	0
8:00 - 8:15	0	0	15	0	0	0
8:15 - 8:30	0	0	13	0	0	0
8:30 - 8:45	0	0	2	0	0	0
8:45 - 9:00	0	0	10	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	1	0	0	0
7:15 - 7:30	0	0	9	0	0	0
7:30 - 7:45	0	0	2	0	0	0
7:45 - 8:00	0	0	7	0	0	0
8:00 - 8:15	0	0	3	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	2	0	0	0

North / South
Normandy Bv

East / West
E Graves Ave

Peak Hour
7:00 - 8:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Normandy Bv		& E Graves Ave
Date	February 6, 2014		All Vehicles
Time Period	16:00 to 18:00		

GMB Project #: 14-017.01

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	39	0	25	0	0	0
16:15 - 16:30	45	0	27	0	0	0
16:30 - 16:45	26	0	21	0	0	0
16:45 - 17:00	26	0	28	0	0	0
17:00 - 17:15	42	0	23	0	0	0
17:15 - 17:30	41	0	39	0	0	0
17:30 - 17:45	25	0	26	0	0	0
17:45 - 18:00	27	0	25	0	0	0
	271	0	214	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	112	53	22	74	0
16:15 - 16:30	0	117	65	22	73	0
16:30 - 16:45	0	123	52	34	72	0
16:45 - 17:00	0	133	63	34	76	0
17:00 - 17:15	0	107	55	33	49	0
17:15 - 17:30	0	133	88	40	84	0
17:30 - 17:45	0	117	82	51	78	0
17:45 - 18:00	0	104	66	35	83	0
	0	946	524	271	589	0

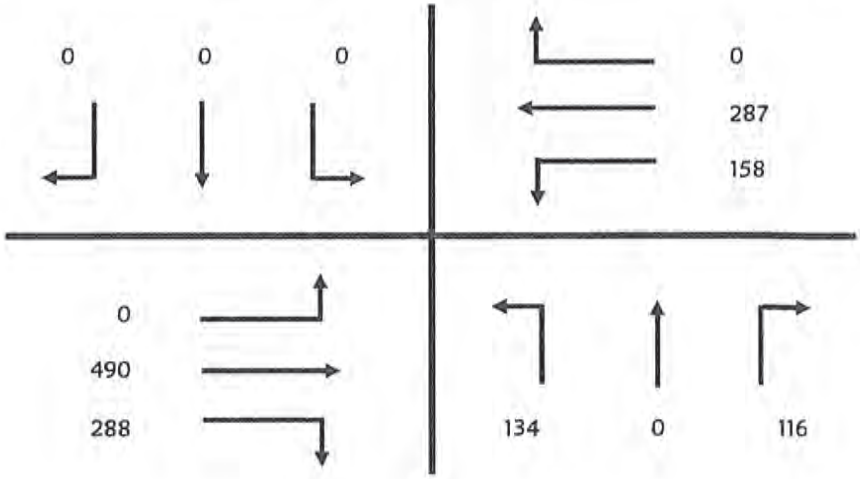
North / South
Normandy Bv

East / West
E Graves Ave

Peak Hour
16:45 - 17:45

Peak Hour Factor
0.87

Total Pk Hr Voume
1,473



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Normandy Bv	&	E Graves Ave
Date	February 6, 2014		
Time Period	16:00 to 18:00		Trucks

GMB Project #: 14-017.01

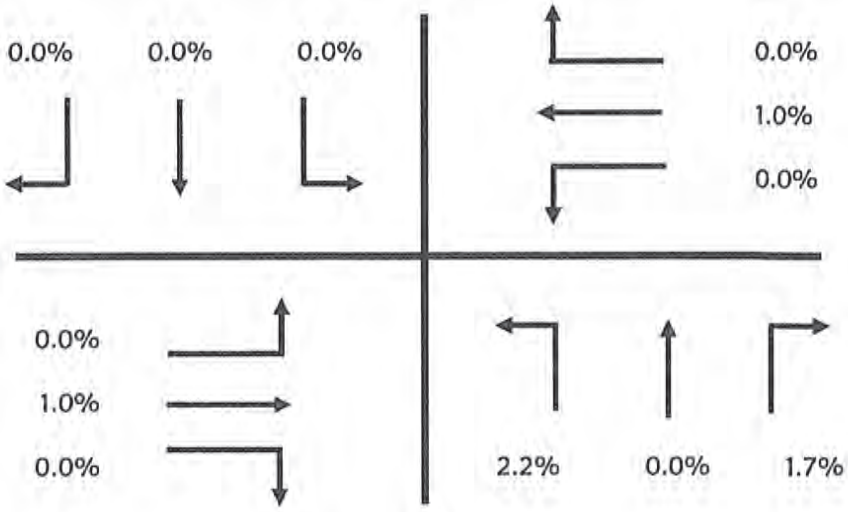
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	1	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	2	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	1	0	2	0	0	0
17:15 - 17:30	2	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	2	0	0	1	0
16:15 - 16:30	0	0	1	0	0	0
16:30 - 16:45	0	5	0	1	0	0
16:45 - 17:00	0	0	0	0	2	0
17:00 - 17:15	0	4	0	0	0	0
17:15 - 17:30	0	1	0	0	0	0
17:30 - 17:45	0	0	0	0	1	0
17:45 - 18:00	0	0	0	0	0	0

North / South
Normandy Bv

East / West
E Graves Ave

Peak Hour
16:45 - 17:45



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	Normandy Bv	&	E Graves Ave
Date	February 6, 2014		
Time Period	16:00 to 18:00		U-Turn & RTOR

GMB Project #: 14-017.01

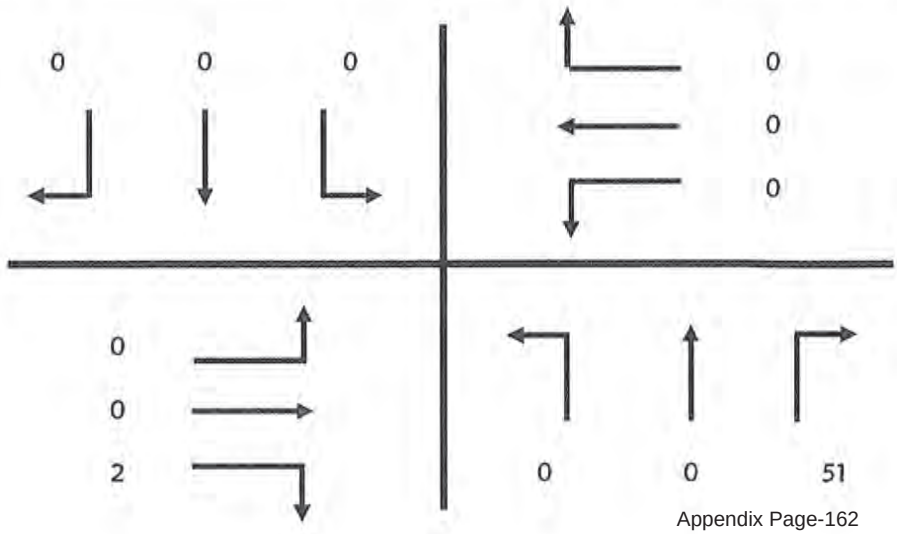
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	8	0	0	0
16:15 - 16:30	0	0	12	0	0	0
16:30 - 16:45	0	0	9	0	0	0
16:45 - 17:00	0	0	8	0	0	0
17:00 - 17:15	0	0	11	0	0	0
17:15 - 17:30	0	0	16	0	0	0
17:30 - 17:45	0	0	16	0	0	0
17:45 - 18:00	0	0	13	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	10	0	0	0
16:15 - 16:30	0	0	4	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	1	0	0	0
17:15 - 17:30	0	0	1	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	3	0	0	0

North / South
Normandy Bv

East / West
E Graves Ave

Peak Hour
16:45 - 17:45



Pedestrian & Bicycle Summary

Project #: 14-017.01 NB/SB: Normandy Bv

Date: 2/6/2014 EB/WB: E Graves Ave

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

Hour	Southbound Ped ▼	Southbound Bike ▼	Northbound Ped ▲	Northbound Bike ▲
7:00				
8:00				
16:00				
17:00				
	0	0	0	0

Hour	Southbound Ped ▼	Southbound Bike ▼	Northbound Ped ▲	Northbound Bike ▲
7:00				
8:00				
16:00				
17:00				
	0	0	0	0

		7:00	8:00	16:00	17:00					
Eastbound	Bike			1	1					2
	Ped									0
Westbound	Bike									0
	Ped									0

Intersection Sketch

*SPEED LIMITS MUST BE LISTED FOR FOR TRAFFIC ENTERING INTERSECTION

GMB ENGINEERS & PLANNERS, INC.

Additional Notes & Observations:

Date: 2-6-14

Project: 14-017,01 #2

Name: DIEGO

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	E Graves		& Howland Bv
Date	February 6, 2014		All Vehicles
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
7:00 - 7:15	42	1	105	1	0	1
7:15 - 7:30	29	1	110	1	0	3
7:30 - 7:45	47	0	54	0	0	1
7:45 - 8:00	49	0	54	0	0	0
8:00 - 8:15	25	0	58	0	0	0
8:15 - 8:30	23	0	56	0	0	0
8:30 - 8:45	16	0	44	0	0	0
8:45 - 9:00	16	0	77	0	0	0
	247	2	558	2	0	5

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
7:00 - 7:15	0	122	4	67	320	1
7:15 - 7:30	0	117	9	113	413	3
7:30 - 7:45	0	106	7	121	503	0
7:45 - 8:00	0	140	14	115	391	0
8:00 - 8:15	1	110	9	83	345	0
8:15 - 8:30	1	76	8	89	260	0
8:30 - 8:45	1	102	11	86	307	0
8:45 - 9:00	0	97	9	98	223	0
	3	870	71	772	2,762	4

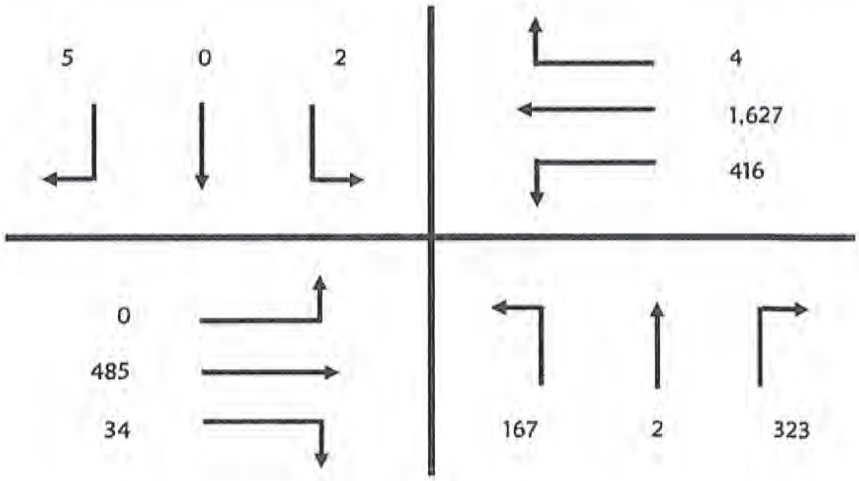
North / South
E Graves

East / West
Howland Bv

Peak Hour
7:00 - 8:00

Peak Hour Factor
0.91

Total Pk Hr Voume
3,065



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	E Graves	&	Howland Bv
Date	February 6, 2014		
Time Period	7:00 to 9:00		Trucks

GMB Project #: 14-017.01

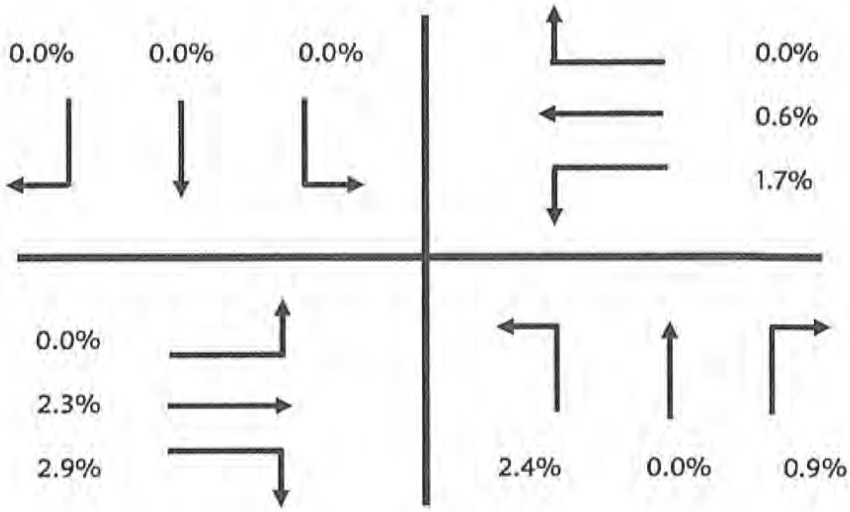
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	1	0	0	0
7:15 - 7:30	0	0	1	0	0	0
7:30 - 7:45	1	0	0	0	0	0
7:45 - 8:00	3	0	1	0	0	0
8:00 - 8:15	2	0	0	0	0	0
8:15 - 8:30	1	0	1	0	0	0
8:30 - 8:45	1	0	2	0	0	0
8:45 - 9:00	0	0	13	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	1	0	1	4	0
7:15 - 7:30	0	2	1	2	0	0
7:30 - 7:45	0	7	0	2	3	0
7:45 - 8:00	0	1	0	2	3	0
8:00 - 8:15	0	3	1	1	5	0
8:15 - 8:30	0	3	0	1	4	0
8:30 - 8:45	0	4	1	0	2	0
8:45 - 9:00	0	2	0	3	0	0

North / South
E Graves

East / West
Howland Bv

Peak Hour
7:00 - 8:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	E Graves	&	Howland Bv
Date	February 6, 2014		
Time Period	7:00 to 9:00		U-Turn & RTOR

GMB Project #: 14-017.01

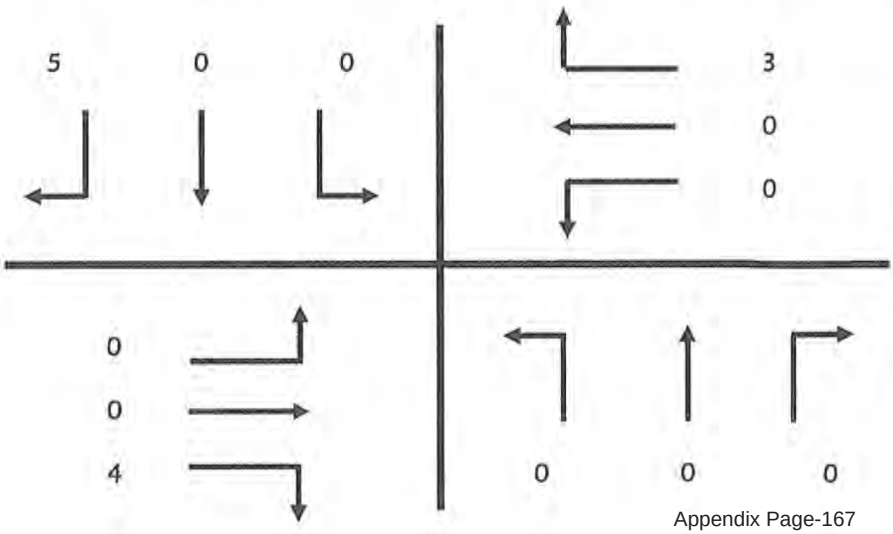
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	1
7:15 - 7:30	0	0	0	0	0	3
7:30 - 7:45	0	0	0	0	0	1
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	1	0	0	1
7:15 - 7:30	0	0	1	0	0	2
7:30 - 7:45	0	0	1	0	0	0
7:45 - 8:00	0	0	1	0	0	0
8:00 - 8:15	1	0	0	0	0	0
8:15 - 8:30	1	0	2	0	0	0
8:30 - 8:45	1	0	2	0	0	0
8:45 - 9:00	0	0	2	0	0	0

North / South
E Graves

East / West
Howland Bv

Peak Hour
7:00 - 8:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	E Graves		& Howland Bv
Date	February 6, 2014		All Vehicles
Time Period	16:00 to 18:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
16:00 - 16:15	19	0	112	0	0	0
16:15 - 16:30	15	0	135	1	0	1
16:30 - 16:45	14	0	132	0	0	1
16:45 - 17:00	25	1	136	1	0	1
17:00 - 17:15	21	0	130	0	0	0
17:15 - 17:30	11	0	158	1	0	1
17:30 - 17:45	18	0	125	0	0	0
17:45 - 18:00	14	0	109	0	0	0
	137	1	1,037	3	0	4

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
16:00 - 16:15	2	238	23	72	163	0
16:15 - 16:30	1	268	23	86	153	0
16:30 - 16:45	1	317	30	85	141	0
16:45 - 17:00	1	310	39	68	152	1
17:00 - 17:15	1	336	24	86	135	0
17:15 - 17:30	1	389	34	105	165	1
17:30 - 17:45	0	400	40	96	165	0
17:45 - 18:00	0	366	33	95	154	0
	7	2,624	246	693	1,228	2

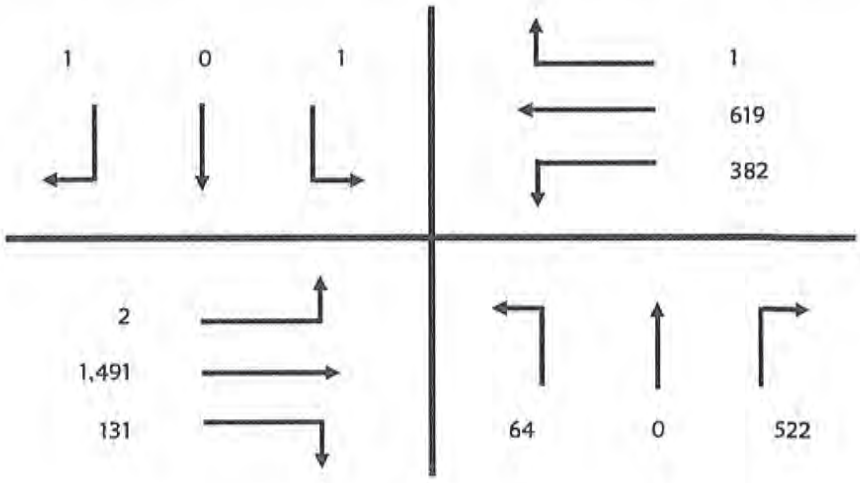
North / South
E Graves

East / West
Howland Bv

Peak Hour
17:00 - 18:00

Peak Hour Factor
0.93

Total Pk Hr Voume
3,214



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	E Graves	&	Howland Bv
Date	February 6, 2014		
Time Period	16:00 to 18:00		Trucks

GMB Project #: 14-017.01

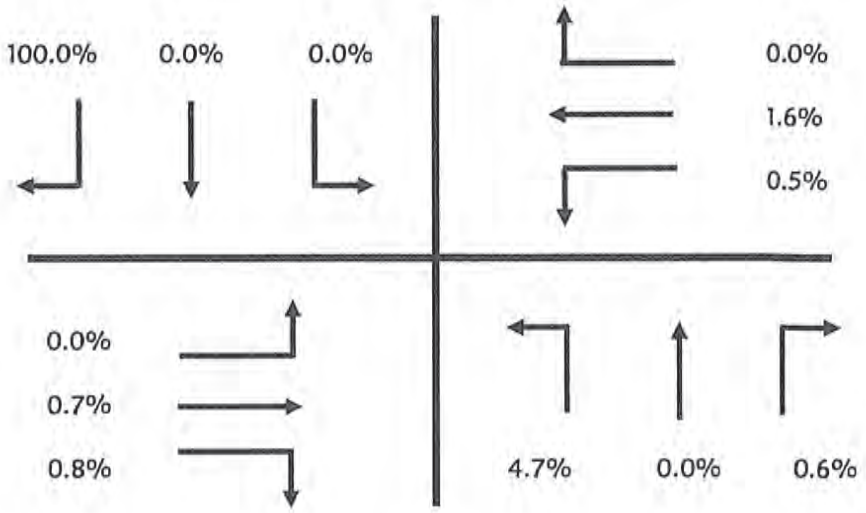
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	1	0	2	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	5	0	0	0
16:45 - 17:00	1	0	0	0	0	0
17:00 - 17:15	2	0	3	0	0	0
17:15 - 17:30	1	0	0	0	0	1
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	1	1	0	3	0
16:15 - 16:30	0	2	0	0	4	0
16:30 - 16:45	0	2	0	0	3	0
16:45 - 17:00	1	4	1	1	2	0
17:00 - 17:15	0	4	0	1	3	0
17:15 - 17:30	0	3	0	1	3	0
17:30 - 17:45	0	1	1	0	1	0
17:45 - 18:00	0	2	0	0	3	0

North / South
E Graves

East / West
Howland Bv

Peak Hour
17:00 - 18:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	City	Deltona
Intersection	E Graves	&	Howland Bv
Date	February 6, 2014		
Time Period	16:00 to 18:00		U-Turn & RTOR

GMB Project #: 14-017.01

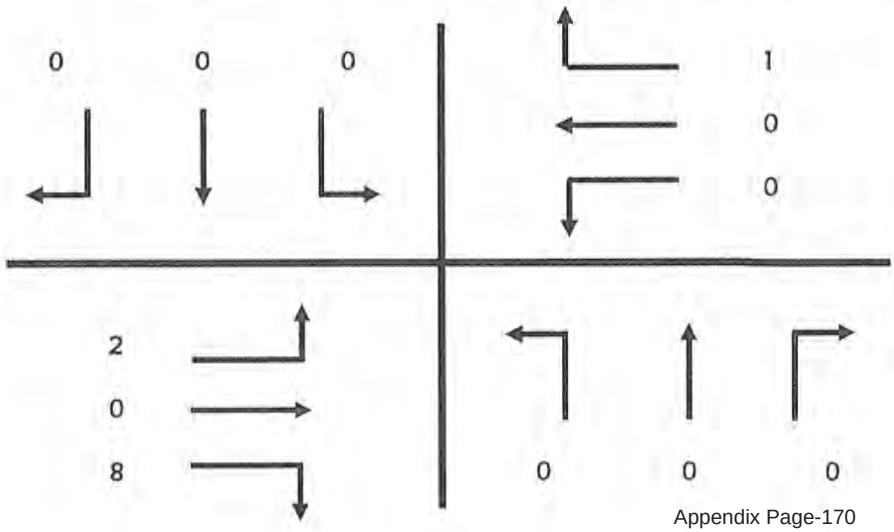
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	1
16:30 - 16:45	0	0	0	0	0	1
16:45 - 17:00	0	0	0	0	0	1
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	3	0	0	0
16:15 - 16:30	1	0	4	0	0	0
16:30 - 16:45	0	0	1	0	0	0
16:45 - 17:00	0	0	3	1	0	0
17:00 - 17:15	1	0	3	0	0	0
17:15 - 17:30	1	0	1	0	0	1
17:30 - 17:45	0	0	3	0	0	0
17:45 - 18:00	0	0	1	0	0	0

North / South
E Graves

East / West
Howland Bv

Peak Hour
17:00 - 18:00



Pedestrian & Bicycle Summary

Project #: 14-017.01
Date: 2/6/2014

NB/SB: E Graves
EB/WB: Howland Bv

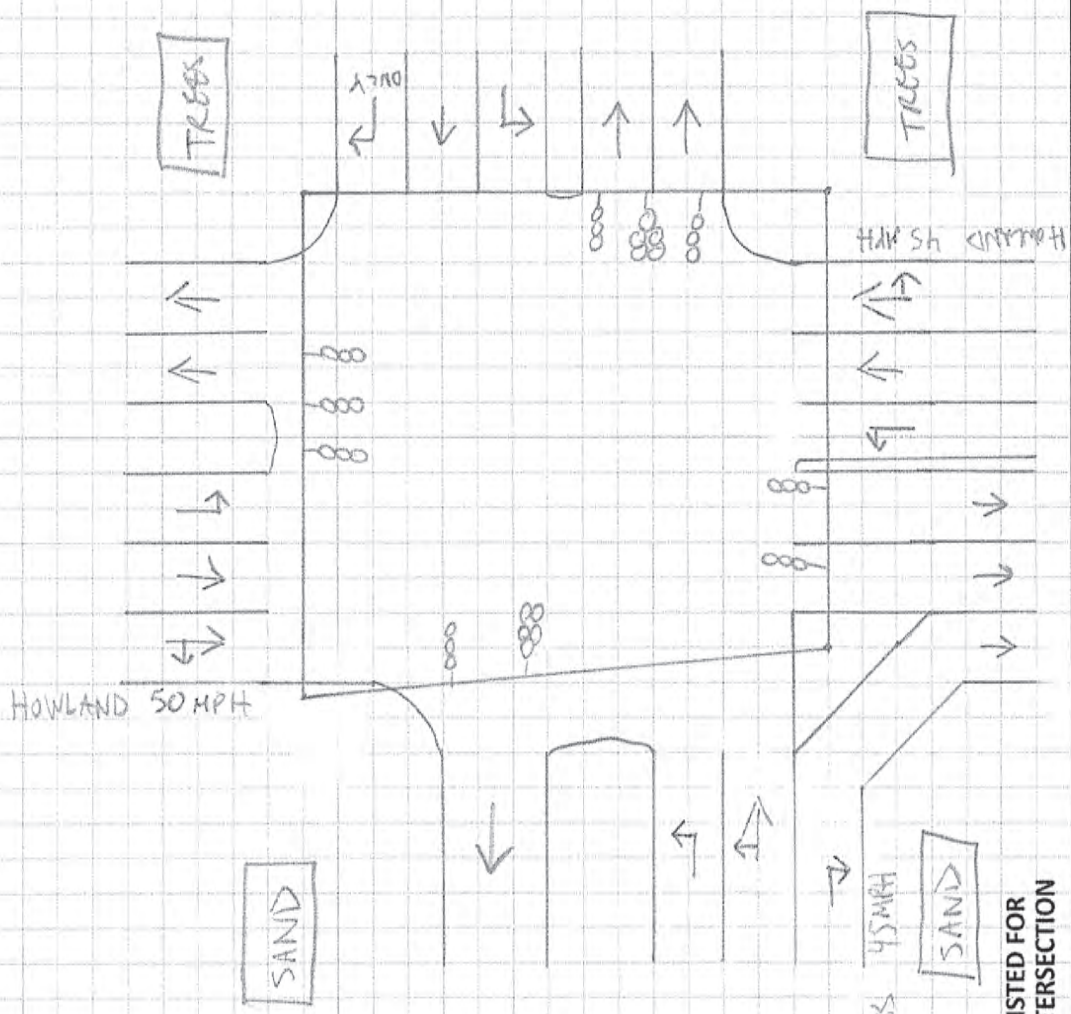
		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped									0

	Southbound		Northbound	
	Ped ▼	Bike	Ped ▲	Bike
7:00				
8:00				
16:00				
17:00				
	0	0	0	0

Southbound		Northbound		
Ped ▼	Bike	Ped ▲	Bike	
				7:00
				8:00
				16:00
				17:00
0	0	0	0	

		7:00	8:00	16:00	17:00					
Eastbound	Bike									0
	Ped									0
Westbound	Bike									0
	Ped			2						2

Intersection Sketch



*SPEED LIMITS MUST BE LISTED FOR FOR TRAFFIC ENTERING INTERSECTION

GMB ENGINEERS & PLANNERS, INC.

Additional Notes & Observations:

Date: 2-6-14

Project: 14-017.01 #1

Name: DIEGO

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Volusia	**City**	Deltona
Intersection	Veterans Memorial Pkwy	&	Rhode Island Ave
Date	February 19, 2014		**All Vehicles**
Time Period	7:00 to 9:00		

GMB Project #: 14-017.01

Time Period	Northbound Left	Northbound Through	Northbound Right	Southbound Left	Southbound Through	Southbound Right
7:00 - 7:15	74	40	0	0	56	49
7:15 - 7:30	43	35	0	0	73	38
7:30 - 7:45	44	50	0	0	112	41
7:45 - 8:00	45	46	0	0	135	44
8:00 - 8:15	46	54	0	0	106	47
8:15 - 8:30	34	41	0	0	107	48
8:30 - 8:45	40	54	0	0	103	36
8:45 - 9:00	43	42	0	0	142	38
	369	362	0	0	834	341

Time Period	Eastbound Left	Eastbound Through	Eastbound Right	Westbound Left	Westbound Through	Westbound Right
7:00 - 7:15	33	0	47	0	0	0
7:15 - 7:30	33	0	52	0	0	0
7:30 - 7:45	41	1	64	0	0	0
7:45 - 8:00	30	0	45	0	0	0
8:00 - 8:15	25	0	54	0	0	0
8:15 - 8:30	30	1	46	0	0	0
8:30 - 8:45	27	0	56	0	0	0
8:45 - 9:00	25	0	59	0	0	0
	244	2	423	0	0	0

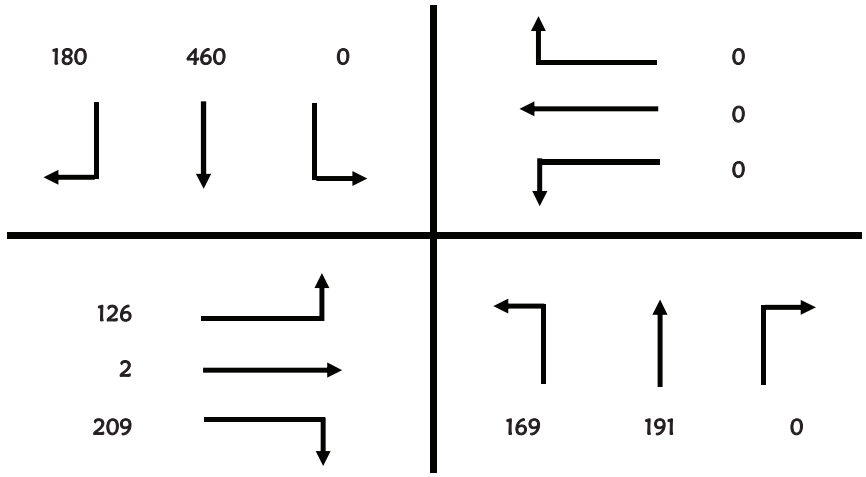
North / South
Veterans Memorial Pkwy

East / West
Rhode Island Ave

Peak Hour
7:30 - 8:30

Peak Hour Factor
0.95

Total Pk Hr Voume
1,337



Traffic Engineering Data Solutions, Inc.

80 Spring Vista Drive
DeBary, FL 32713

File Name : Not Named 2
Site Code : 00000000
Start Date : 5/6/2013
Page No : 1

Groups Printed- All Vehicles

	FINLAND Northbound					FINLAND Southbound					SAXON Eastbound					SAXON Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	23	0	2	0	25	4	3	53	0	60	6	114	6	0	126	5	390	5	0	400	611
07:15 AM	28	1	5	0	34	8	3	43	0	54	7	135	2	0	144	5	474	2	0	481	713
07:30 AM	35	1	9	0	45	3	3	73	0	79	13	165	7	0	185	7	447	4	1	459	768
07:45 AM	25	1	8	0	34	10	2	50	0	62	9	154	2	0	165	8	485	2	0	495	756
Total	111	3	24	0	138	25	11	219	0	255	35	568	17	0	620	25	1796	13	1	1835	2848
08:00 AM	18	0	6	0	24	2	1	61	0	64	7	142	3	0	152	5	476	9	0	490	730
08:15 AM	27	1	4	0	32	4	6	42	1	53	6	126	2	2	136	3	317	3	0	323	544
08:30 AM	18	3	6	0	27	1	4	39	0	44	14	144	12	0	170	5	359	0	0	364	605
08:45 AM	11	3	7	0	21	3	2	45	1	51	16	150	6	0	172	8	330	5	1	344	588
Total	74	7	23	0	104	10	13	187	2	212	43	562	23	2	630	21	1482	17	1	1521	2467
*** BREAK ***																					
04:00 PM	22	16	29	0	67	4	5	39	0	48	34	404	11	0	449	8	193	5	2	208	772
04:15 PM	18	4	19	0	41	6	11	26	1	44	40	392	11	0	443	24	240	5	0	269	797
04:30 PM	23	11	25	0	59	5	11	26	0	42	32	380	6	0	418	9	231	1	0	241	760
04:45 PM	32	8	27	0	67	2	7	25	0	34	39	395	17	0	451	19	220	4	2	245	797
Total	95	39	100	0	234	17	34	116	1	168	145	1571	45	0	1761	60	884	15	4	963	3126
05:00 PM	23	13	35	0	71	1	5	24	1	31	56	435	15	0	506	13	247	2	0	262	870
05:15 PM	23	13	39	0	75	2	6	22	0	30	41	485	16	0	542	13	228	7	2	250	897
05:30 PM	20	15	26	0	61	3	3	19	0	25	49	479	13	2	543	18	242	7	0	267	896
05:45 PM	17	12	32	0	61	2	9	27	0	38	47	437	12	1	497	17	233	5	0	255	851
Total	83	53	132	0	268	8	23	92	1	124	193	1836	56	3	2088	61	950	21	2	1034	3514
Grand Total	363	102	279	0	744	60	81	614	4	759	416	4537	141	5	5099	167	5112	66	8	5353	11955
Apprch %	48.8	13.7	37.5	0		7.9	10.7	80.9	0.5		8.2	89	2.8	0.1		3.1	95.5	1.2	0.1		
Total %	3	0.9	2.3	0	6.2	0.5	0.7	5.1	0	6.3	3.5	38	1.2	0	42.7	1.4	42.8	0.6	0.1	44.8	

	FINLAND Northbound					FINLAND Southbound					SAXON Eastbound					SAXON Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	28	1	5	0	34	8	3	43	0	54	7	135	2	0	144	5	474	2	0	481	713
07:30 AM	35	1	9	0	45	3	3	73	0	79	13	165	7	0	185	7	447	4	1	459	768
07:45 AM	25	1	8	0	34	10	2	50	0	62	9	154	2	0	165	8	485	2	0	495	756
08:00 AM	18	0	6	0	24	2	1	61	0	64	7	142	3	0	152	5	476	9	0	490	730
Total Volume	106	3	28	0	137	23	9	227	0	259	36	596	14	0	646	25	1882	17	1	1925	2967
% App. Total	77.4	2.2	20.4	0		8.9	3.5	87.6	0		5.6	92.3	2.2	0		1.3	97.8	0.9	0.1		
PHF	.757	.750	.778	.000	.761	.575	.750	.777	.000	.820	.692	.903	.500	.000	.873	.781	.970	.472	.250	.972	.966

Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM					07:15 AM					07:15 AM					07:15 PM				
+0 mins.	23	0	2	0	25	8	[illegible]	43	0	54	7	135	2	0	144	5	474	2	0	481
+15 mins.	28	[illegible]	5	0	34	3	3	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	7	447	4	[illegible]	459
+30 mins.	[illegible]	1	[illegible]	0	[illegible]	[illegible]	2	50	0	62	9	154	2	0	165	[illegible]	[illegible]	2	0	[illegible]
+45 mins.	25	1	8	0	34	2	1	61	0	64	7	142	3	0	152	5	476	[illegible]	0	490
Total Volume	111	3	24	0	138	23	9	227	0	259	36	596	14	0	646	25	1882	17	1	1925
% App. Total	80.4	2.2	17.4	0		8.9	3.5	87.6	0		5.6	92.3	2.2	0		1.3	97.8	0.9	0.1	
PHF	.793	.750	.667	.000	.767	.575	.750	.777	.000	.820	.692	.903	.500	.000	.873	.781	.970	.472	.250	.972

Traffic Engineering Data Solutions, Inc.

80 Spring Vista Drive
DeBary, FL 32713

File Name : Not Named 2
Site Code : 00000000
Start Date : 5/6/2013
Page No : 2

	FINLAND Northbound					FINLAND Southbound					SAXON Eastbound					SAXON Westbound					
Start Time	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	23	13	35	0	71	1	5	24	1	31	56	435	15	0	506	13	247	2	0	262	870
05:15 PM	23	13	39	0	75	2	6	22	0	30	41	485	16	0	542	13	228	7	2	250	897
05:30 PM	20	15	26	0	61	3	3	19	0	25	49	479	13	2	543	18	242	7	0	267	896
05:45 PM	17	12	32	0	61	2	9	27	0	38	47	437	12	1	497	17	233	5	0	255	851
Total Volume	83	53	132	0	268	8	23	92	1	124	193	1836	56	3	2088	61	950	21	2	1034	3514
% App. Total	31	19.8	49.3	0		6.5	18.5	74.2	0.8		9.2	87.9	2.7	0.1		5.9	91.9	2	0.2		
PHF	.902	.883	.846	.000	.893	.667	.639	.852	.250	.816	.862	.946	.875	.375	.961	.847	.962	.750	.250	.968	.979

Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM					04:00 PM					05:00 PM					05:00 PM				
+0 mins.	32	8	27	0	67	4	5	29	0	48	56	435	15	0	506	13	247	2	0	262
+15 mins.	23	13	35	0	71	6	11	26	1	44	41	485	16	0	542	13	228	7	2	250
+30 mins.	23	13	39	0	75	5	11	26	0	42	49	479	13	2	543	18	242	7	0	267
+45 mins.	20	15	26	0	61	2	7	25	0	34	47	437	12	1	497	17	233	5	0	255
Total Volume	98	49	127	0	274	17	34	116	1	168	193	1836	56	3	2088	61	950	21	2	1034
% App. Total	35.8	17.9	46.4	0		10.1	20.2	69	0.6		9.2	87.9	2.7	0.1		5.9	91.9	2	0.2	
PHF	.766	.817	.814	.000	.913	.708	.773	.744	.250	.875	.862	.946	.875	.375	.961	.847	.962	.750	.250	.968

Traffic Engineering Data Solutions, Inc.

80 Spring Vista Drive
DeBary, FL 32713

File Name : AM_PM Peak TMC
Site Code : 00000000
Start Date : 5/6/2013
Page No : 1

Groups Printed- Heavy Vehicles

	FINLAND Northbound					FINLAND Southbound					SAXON Eastbound					SAXON Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	1	0	1	0	2	0	0	2	1	8	0	0	9	1	1	0	0	2	14
07:15 AM	0	0	0	0	0	1	0	0	0	1	1	3	0	0	4	0	3	0	0	3	8
07:30 AM	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	4	0	1	5	8
07:45 AM	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	4
Total	2	0	1	0	3	1	2	0	0	3	2	14	0	0	16	1	10	0	1	12	34
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	3	0	0	3	6
08:15 AM	1	0	0	0	1	1	0	0	0	1	0	4	0	2	6	0	1	0	0	1	9
08:30 AM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	3	0	0	3	5
08:45 AM	0	0	1	0	1	0	0	0	1	1	0	4	0	0	4	0	4	1	1	6	12
Total	1	0	1	0	2	1	1	0	1	3	0	12	0	2	14	0	11	1	1	13	32
*** BREAK ***																					
04:00 PM	0	0	0	0	0	1	0	0	0	1	0	5	0	0	5	0	1	0	2	3	9
04:15 PM	1	0	0	0	1	0	0	0	1	1	0	2	0	0	2	0	6	0	0	6	10
04:30 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	5	0	0	5	9
Total	2	0	0	0	2	2	0	0	1	3	0	11	0	0	11	0	15	0	2	17	33
05:00 PM	0	0	0	0	0	0	0	0	1	1	2	4	0	0	6	0	6	0	0	6	13
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2	5	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	1	0	0	1	3
Total	0	0	0	0	0	0	0	0	1	1	2	5	0	1	8	0	12	0	2	14	23
Grand Total	5	0	2	0	7	4	3	0	3	10	4	42	0	3	49	1	48	1	6	56	122
Apprch %	71.4	0	28.6	0		40	30	0	30		8.2	85.7	0	6.1		1.8	85.7	1.8	10.7		
Total %	4.1	0	1.6	0	5.7	3.3	2.5	0	2.5	8.2	3.3	34.4	0	2.5	40.2	0.8	39.3	0.8	4.9	45.9	

	FINLAND Northbound					FINLAND Southbound					SAXON Eastbound					SAXON Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	1	0	1	0	2	0	0	2	1	8	0	0	9	1	1	0	0	2	14
07:15 AM	0	0	0	0	0	1	0	0	0	1	1	3	0	0	4	0	3	0	0	3	8
07:30 AM	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	4	0	1	5	8
07:45 AM	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	4
Total Volume	2	0	1	0	3	1	2	0	0	3	2	14	0	0	16	1	10	0	1	12	34
% App. Total	66.7	0	33.3	0		33.3	66.7	0	0		12.5	87.5	0	0		8.3	83.3	0	8.3		
PHF	.500	.000	.250	.000	.750	.250	.250	.000	.000	.375	.500	.438	.000	.000	.444	.250	.625	.000	.250	.600	.607

Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM					07:00 AM					07:00 AM					07:15 AM				
+0 mins.	0	0	1	0	1	0	2	0	0	2	1	8	0	0	9	0	3	0	0	3
+15 mins.	0	0	0	0	0	1	0	0	0	1	1	3	0	0	4	0	4	0	1	5
+30 mins.	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2
+45 mins.	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3
Total Volume	2	0	1	0	3	1	2	0	0	3	2	14	0	0	16	0	12	0	1	13
% App. Total	66.7	0	33.3	0		33.3	66.7	0	0		12.5	87.5	0	0		0	92.3	0	7.7	
PHF	.500	.000	.250	.000	.750	.250	.250	.000	.000	.375	.500	.438	.000	.000	.444	.000	.750	.000	.250	.650

Traffic Engineering Data Solutions, Inc.

80 Spring Vista Drive
DeBary, FL 32713

File Name : AM_PM Peak TMC
Site Code : 00000000
Start Date : 5/6/2013
Page No : 2

	FINLAND Northbound					FINLAND Southbound					SAXON Eastbound					SAXON Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	1	0	0	0	1	0	0	0	1	1	0	2	0	0	2	0	6	0	0	6	10
04:30 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	5	0	0	5	9
05:00 PM	0	0	0	0	0	0	0	0	1	1	2	4	0	0	6	0	6	0	0	6	13
Total Volume	2	0	0	0	2	1	0	0	2	3	2	10	0	0	12	0	20	0	0	20	37
% App. Total	100	0	0	0		33.3	0	0	66.7		16.7	83.3	0	0		0	100	0	0		
PHF	.500	.000	.000	.000	.500	.250	.000	.000	.500	.750	.250	.625	.000	.000	.500	.000	.833	.000	.000	.833	.712

Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:45 PM					03:45 PM					04:15 PM					04:15 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	,	0	0	,
+15 mins.	0	0	0	0	0	,	0	0	0	,	0	0	0	0	0	0	3	0	0	3
+30 mins.	,	0	0	0	,	0	0	0	,	1	0	,	0	0	4	0	5	0	0	5
+45 mins.	1	0	0	0	1	1	0	0	0	1	,	4	0	0	,	0	6	0	0	6
Total Volume	2	0	0	0	2	2	0	0	1	3	2	10	0	0	12	0	20	0	0	20
% App. Total	100	0	0	0		66.7	0	0	33.3		16.7	83.3	0	0		0	100	0	0	
PHF	.500	.000	.000	.000	.500	.500	.000	.000	.250	.750	.250	.625	.000	.000	.500	.000	.833	.000	.000	.833

Seasonal Factor & Synopsis Reports

2013 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7900 VOLUSIA COUNTYWIDE

MOCF: 0.95

WEEK	DATES	SF	PSCF
1	01/01/2013 - 01/05/2013	1.02	1.07
2	01/06/2013 - 01/12/2013	1.02	1.07
3	01/13/2013 - 01/19/2013	1.02	1.07
4	01/20/2013 - 01/26/2013	1.00	1.05
5	01/27/2013 - 02/02/2013	0.99	1.04
* 6	02/03/2013 - 02/09/2013	0.97	1.02
* 7	02/10/2013 - 02/16/2013	0.96	1.01
* 8	02/17/2013 - 02/23/2013	0.95	1.00
* 9	02/24/2013 - 03/02/2013	0.94	0.99
*10	03/03/2013 - 03/09/2013	0.93	0.98
*11	03/10/2013 - 03/16/2013	0.93	0.98
*12	03/17/2013 - 03/23/2013	0.92	0.97
*13	03/24/2013 - 03/30/2013	0.93	0.98
*14	03/31/2013 - 04/06/2013	0.95	1.00
*15	04/07/2013 - 04/13/2013	0.96	1.01
*16	04/14/2013 - 04/20/2013	0.97	1.02
*17	04/21/2013 - 04/27/2013	0.98	1.03
*18	04/28/2013 - 05/04/2013	0.99	1.04
19	05/05/2013 - 05/11/2013	0.99	1.04
20	05/12/2013 - 05/18/2013	1.00	1.05
21	05/19/2013 - 05/25/2013	1.01	1.06
22	05/26/2013 - 06/01/2013	1.02	1.07
23	06/02/2013 - 06/08/2013	1.03	1.08
24	06/09/2013 - 06/15/2013	1.03	1.08
25	06/16/2013 - 06/22/2013	1.04	1.09
26	06/23/2013 - 06/29/2013	1.05	1.11
27	06/30/2013 - 07/06/2013	1.05	1.11
28	07/07/2013 - 07/13/2013	1.06	1.12
29	07/14/2013 - 07/20/2013	1.06	1.12
30	07/21/2013 - 07/27/2013	1.06	1.12
31	07/28/2013 - 08/03/2013	1.05	1.11
32	08/04/2013 - 08/10/2013	1.05	1.11
33	08/11/2013 - 08/17/2013	1.04	1.09
34	08/18/2013 - 08/24/2013	1.04	1.09
35	08/25/2013 - 08/31/2013	1.03	1.08
36	09/01/2013 - 09/07/2013	1.03	1.08
37	09/08/2013 - 09/14/2013	1.03	1.08
38	09/15/2013 - 09/21/2013	1.03	1.08
39	09/22/2013 - 09/28/2013	1.02	1.07
40	09/29/2013 - 10/05/2013	1.02	1.07
41	10/06/2013 - 10/12/2013	1.01	1.06
42	10/13/2013 - 10/19/2013	1.00	1.05
43	10/20/2013 - 10/26/2013	1.00	1.05
44	10/27/2013 - 11/02/2013	1.01	1.06
45	11/03/2013 - 11/09/2013	1.01	1.06
46	11/10/2013 - 11/16/2013	1.02	1.07
47	11/17/2013 - 11/23/2013	1.02	1.07
48	11/24/2013 - 11/30/2013	1.02	1.07
49	12/01/2013 - 12/07/2013	1.02	1.07
50	12/08/2013 - 12/14/2013	1.02	1.07
51	12/15/2013 - 12/21/2013	1.02	1.07
52	12/22/2013 - 12/28/2013	1.02	1.07
53	12/29/2013 - 12/31/2013	1.02	1.07

* PEAK SEASON

18-FEB-2014 08:46:30 830UPD 5_7900_PKSEASON.TXT

COUNTY: 79
STATION: 0485
DESCRIPTION: ON I-4, 0.4 MI. NE OF SR-472 (ITS)
START DATE: 06/12/2013
START TIME: 0000

	DIRECTION: E					DIRECTION: W					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	126	143	102	105	476	110	99	14	150	373	849
0100	75	88	90	61	314	61	86	79	64	290	604
0200	57	63	61	60	241	55	66	103	66	290	531
0300	65	74	66	87	292	52	85	77	62	276	568
0400	86	102	108	111	407	79	114	95	129	417	824
0500	139	177	249	251	816	138	203	218	280	839	1655
0600	323	495	560	565	1943	333	436	465	515	1749	3692
0700	639	779	791	751	2960	441	513	625	651	2230	5190
0800	698	752	637	615	2702	606	473	445	411	1935	4637
0900	608	637	632	647	2524	443	434	475	437	1789	4313
1000	650	585	623	558	2416	458	441	470	452	1821	4237
1100	505	543	525	519	2092	463	460	497	454	1874	3966
1200	518	552	580	546	2196	453	495	472	504	1924	4120
1300	523	555	547	625	2250	509	708	826	541	2584	4834
1400	559	557	610	557	2283	454	477	257	656	1844	4127
1500	586	580	713	598	2477	799	789	647	689	2924	5401
1600	640	630	590	622	2482	621	636	654	721	2632	5114
1700	647	697	638	622	2604	756	826	844	735	3161	5765
1800	591	629	551	487	2258	670	598	585	488	2341	4599
1900	470	485	456	394	1805	392	417	397	385	1591	3396
2000	406	319	362	287	1374	351	389	342	347	1429	2803
2100	311	295	300	248	1154	291	302	292	298	1183	2337
2200	287	330	261	187	1065	212	218	192	220	842	1907
2300	181	172	120	147	620	136	168	167	133	604	1224
24-HOUR TOTALS:					39751					36942	76693

PEAK VOLUME INFORMATION

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	3019	715	2395	715	5414
P.M.	1645	2604	1700	3161	1700	5765
DAILY	715	3019	1700	3161	1700	5765

GENERATED BY SPS 5.0.45P

COUNTY: 79
STATION: 1003
DESCRIPTION: ON I-4, 1.236 MI. W OF SR-472 (ITS)
START DATE: 06/12/2013
START TIME: 0000

	DIRECTION: E					DIRECTION: W					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	154	168	123	138	583	93	79	16	115	303	886
0100	80	91	99	75	345	58	76	61	60	255	600
0200	64	75	76	74	289	66	51	91	70	278	567
0300	72	88	73	97	330	51	74	84	80	289	619
0400	87	113	93	122	415	90	115	116	177	498	913
0500	129	172	208	245	754	197	283	377	446	1303	2057
0600	293	404	497	536	1730	561	740	796	795	2892	4622
0700	559	648	772	720	2699	733	779	882	869	3263	5962
0800	670	672	597	590	2529	809	723	614	610	2756	5285
0900	601	591	648	649	2489	606	644	630	535	2415	4904
1000	680	623	636	634	2573	582	545	596	574	2297	4870
1100	603	669	644	593	2509	561	581	588	581	2311	4820
1200	620	610	613	642	2485	551	598	606	610	2365	4850
1300	605	600	581	669	2455	614	784	921	597	2916	5371
1400	590	593	684	630	2497	550	570	379	713	2212	4709
1500	633	646	744	679	2702	873	853	728	788	3242	5944
1600	737	763	752	810	3062	665	719	716	771	2871	5933
1700	840	910	836	822	3408	842	876	864	764	3346	6754
1800	736	788	703	615	2842	711	670	642	488	2511	5353
1900	577	565	557	464	2163	458	444	400	396	1698	3861
2000	449	401	433	362	1645	387	366	383	382	1518	3163
2100	346	342	359	299	1346	330	330	349	304	1313	2659
2200	327	387	282	242	1238	245	221	218	216	900	2138
2300	215	192	150	195	752	148	166	159	127	600	1352
24-HOUR TOTALS:					43840					44352	88192

PEAK VOLUME INFORMATION

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	730	2834	715	3339	715	6149
P.M.	1700	3408	1645	3353	1700	6754
DAILY	1700	3408	1645	3353	1700	6754

GENERATED BY SPS 5.0.45P

COUNTY: 79
STATION: 0484
DESCRIPTION: ON I-4, 0.337 MI E. OF ST. JOHNS RIVER BRIDGE (ITS
START DATE: 10/02/2013
START TIME: 0000

	DIRECTION: E					DIRECTION: W					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	135	180	135	96	546	87	67	95	64	313	859
0100	91	91	82	66	330	75	86	50	49	260	590
0200	80	65	52	72	269	49	58	66	80	253	522
0300	78	72	70	59	279	54	91	118	110	373	652
0400	66	90	91	112	359	130	140	213	243	726	1085
0500	122	169	183	249	723	315	477	604	649	2045	2768
0600	265	306	407	501	1479	845	1157	1344	1317	4663	6142
0700	542	644	707	676	2569	1341	1321	1396	1416	5474	8043
0800	673	646	593	646	2558	1371	1124	1039	1040	4574	7132
0900	603	633	582	628	2446	775	797	788	727	3087	5533
1000	550	608	582	614	2354	678	767	690	699	2834	5188
1100	612	594	610	645	2461	649	647	670	631	2597	5058
1200	653	619	625	684	2581	612	682	637	681	2612	5193
1300	697	612	674	702	2685	612	718	708	684	2722	5407
1400	743	774	774	822	3113	643	634	721	717	2715	5828
1500	824	908	1008	1048	3788	749	716	729	762	2956	6744
1600	1110	1279	1315	1407	5111	734	747	793	771	3045	8156
1700	1415	1396	1368	1340	5519	744	897	890	805	3336	8855
1800	1180	1163	949	819	4111	748	603	637	575	2563	6674
1900	767	667	672	660	2766	477	432	430	418	1757	4523
2000	689	563	565	486	2303	343	334	338	321	1336	3639
2100	521	523	419	393	1856	285	294	277	248	1104	2960
2200	381	334	318	268	1301	220	198	206	143	767	2068
2300	253	234	199	193	879	127	134	122	135	518	1397
24-HOUR TOTALS:					52386					52630	105016

PEAK VOLUME INFORMATION

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	730	2702	715	5504	715	8204
P.M.	1645	5586	1715	3340	1645	8888
DAILY	1645	5586	715	5504	1645	8888

GENERATED BY SPS 5.0.45P

COUNTY: 79
STATION: 7002
DESCRIPTION: SAXON BLVD, W OF I-4 (HPMS)
START DATE: 07/30/2013
START TIME: 1515

	DIRECTION: E					DIRECTION: W					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	53	48	36	48	185	41	33	30	24	128	313
0100	25	21	16	23	85	25	14	11	8	58	143
0200	23	26	11	26	86	17	11	14	14	56	142
0300	17	17	16	14	64	16	13	7	20	56	120
0400	14	19	9	17	59	17	9	25	41	92	151
0500	22	22	27	46	117	43	48	74	121	286	403
0600	53	53	79	105	290	83	117	160	202	562	852
0700	119	115	133	136	503	154	184	213	234	785	1288
0800	136	113	141	128	518	210	245	219	229	903	1421
0900	159	150	166	187	662	215	218	225	229	887	1549
1000	179	204	195	197	775	191	219	226	202	838	1613
1100	211	206	215	204	836	199	233	247	243	922	1758
1200	191	198	227	229	845	253	251	249	263	1016	1861
1300	204	201	216	177	798	258	254	252	299	1063	1861
1400	228	212	211	234	885	286	290	295	321	1192	2077
1500	254	250	236	247	987	290	208	212	258	968	1955
1600	256	238	247	261	1002	248	255	236	268	1007	2009
1700	306	257	241	237	1041	227	236	248	213	924	1965
1800	230	211	260	214	915	217	244	227	205	893	1808
1900	210	206	208	207	831	172	188	191	143	694	1525
2000	226	214	196	143	779	129	170	146	152	597	1376
2100	196	178	140	131	645	133	130	129	94	486	1131
2200	119	116	99	81	415	93	108	63	63	327	742
2300	92	92	72	54	310	51	54	44	51	200	510
24-HOUR TOTALS:					13633					14940	28573

PEAK VOLUME INFORMATION

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	845	603	745	908	845	1490
P.M.	1630	1071	1415	1196	1415	2107
DAILY	1630	1071	1415	1196	1415	2107

TRUCK PERCENTAGE 15.26 5.60 10.21

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
E	64	7762	3096	27	563	56	31	942	133	260	0	0	68	0	631	2080	13633
W	129	11959	1965	45	216	113	46	330	58	26	0	0	3	0	50	837	14940

GENERATED BY SPS 5.0.44P

Appendix "C"

Signal Timings

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: Howland Blvd & Providence Blvd
Deltona

ISOLATED: X

DATE: 5/24/2012

SIGNAL #: 236

CO-ORD:

Design By: M. Rodriguez

System #: -

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	-	WB	-	NB	WBL	EB	NBL	SB	
TURN TYPE	-	-	-	-	PERM/PROT	-	PERM/PROT	-	
MIN GREEN		11		7	5	11	5	7	
EXTENSION		4		3	3	4	3	3	
CLEARANCE		5.0		4.0	5.0	5.0	4.0	4.0	
ALL RED		2.0		2.5	2.0	2.0	2.5	2.5	
WALK		7		7	-	7	-	7	
FDW		21		24	-	21	-	24	
MAX 1		55		20	15	55	25	20	
MAX 2		-		-	-	-	-	-	
MAX 3		-		-	-	-	-	-	
ADJUST		-		-	-	-	-	-	
RECALL		MIN		-	-	MIN	-	-	
DETECTOR		LOCK		NON-LOCK	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	
FLASH		YELLOW		RED	-	YELLOW	-	RED	
SET		-		-	-	-	-	-	
CLEAR		-		-	-	-	-	-	

BASE DAY		1	2	3	4	5	6	7
MON #1	TIME	00:01-00:00						
	PLAN	FREE						
TUES#1	TIME	00:01-00:00						
	PLAN	FREE						
WED #1	TIME	00:01-00:00						
	PLAN	FREE						
THU #1	TIME	00:01-00:00						
	PLAN	FREE						
FRI #1	TIME	00:01-00:00						
	PLAN	FREE						
SAT #2	TIME	00:01-00:00						
	PLAN	FREE						
SUN #3	TIME	00:01-00:00						
	PLAN	FREE						

Crosswalk Length
P2
60 Feet
P4
55 Feet
P6
71 Feet
P8
82 Feet

CONTROLLER TYPE		CONDITION OF OVERHEAD	OK	PROM NUMBER		
1880 EL		OVERHEAD STREET NAMES	NO			
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES	92R09	SIGNAL OWNER	
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	County	
CABINET DATE	05/2000	PRE-EMPTION TYPE	N/A	-	LED	YES

REMARKS:

	2		4
5	6	7	8

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: Normandy Blvd & Elkcam Blvd
Deltona

ISOLATED: X

DATE: 5/8/2012

SIGNAL #: 370

CO-ORD:

Design By: M. Rodriguez

System #: -

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	-	SB	-	WB	SBL	NB	-	-	
TURN TYPE	-	-	-	-	PERM/PROT	-	-	-	
MIN GREEN		12		5	5	12			
EXTENSION		3		3	3	3			
CLEARANCE		4.0		4.0	4.0	4.0			
ALL RED		2.5		2.5	2.5	2.5			
WALK		-		7	-	7			
FDW		-		20	-	12			
MAX 1		35		20	15	35			
MAX 2		-		-	-	-			
MAX 3		-		-	-	-			
ADJUST		-		-	-	-			
RECALL		MIN		-	-	MIN			
DETECTOR		LOCK		NON-LOCK	NON-LOCK	LOCK			
FLASH		YELLOW		RED	-	YELLOW			
SET		-		-	-	-			
CLEAR		-		-	-	-			

BASE DAY		1	2	3	4	5	6	7
MON #1	TIME	00:01-00:00						
	PLAN	FREE						
TUES#1	TIME	00:01-00:00						
	PLAN	FREE						
WED #1	TIME	00:01-00:00						
	PLAN	FREE						
THU #1	TIME	00:01-00:00						
	PLAN	FREE						
FRI #1	TIME	00:01-00:00						
	PLAN	FREE						
SAT #2	TIME	00:01-00:00						
	PLAN	FREE						
SUN #3	TIME	00:01-00:00						
	PLAN	FREE						

Crosswalk Length
P2
-
P4
70 Feet
P6
41 Feet
P8
-

CONTROLLER TYPE		CONDITION OF OVERHEAD	Good	PROM NUMBER	
3000E		OVERHEAD STREET NAMES	NO		
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES	8216A 3.6.3	SIGNAL OWNER
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	Deltona
CABINET DATE	07/2007	PRE-EMPTION TYPE	N/A	-	LED YES

REMARKS:

Omit PH 5 when PH 6 is Active

2 4
5 6

VOLUSIA COUNTY TRAFFIC ENGINEERING
SYSTEM INVENTORY

Switch IP.# 10.77.8.11
Controller IP.# 10.77.8.43
Camera IP # -

DATE: 1/25/2013 DESIGNED BY: M. Rodriguez

LOCATION: SR 472 (Howland Blvd) & Graves Ave
CITY: Deltona SIGNAL ID NO: 360 SYSTEM ID: 26

CONTROLLER TIME CHART

MVMNT	MIN	EXT	CLR	A.R.	WALK	FDW	MAX1	MAX2	MAX3	ADJST	REC	DET	FL	SET	CLR
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	17	3	5	2	7	25	35	-	-	-	MIN	L	Y	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	7	3	4.5	3	-	-	20	-	-	-	-	NL	R	-	-
5	5	3	5	2	-	-	25	-	-	-	-	L	R	-	-
6	17	3	5	2	-	-	35	-	-	-	MIN	L	Y	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	5	3	4.5	2.5	-	-	15	-	-	-	-	NL	R	-	-

TP# 1

CO-ORDINATION

PLAN	C1/S1	C2/S1	C3/S1	C4/S1	C5/S1	C6/S1		
CYCLE	140	130	150					
OFF 1	82	73	95					
OFF 2								
OFF 3								
OFF 4								
OFF 5								
PERM	10%	10%	10%	10%	10%	10%	10%	10%

PHASE SPLITS (seconds)

CY/SP	C1/S1	C2/S1	C3/S1	C4/S1	C5/S1	C6/S1		
PH 1	-	-	-	-	-	-		
PH 2	94	84	104	-	-	-		
PH 3	-	-	-	-	-	-		
PH 4	30	30	30	-	-	-		
PH 5	54	39	38	-	-	-		
PH 6	40	45	66	-	-	-		
PH 7	-	-	-	-	-	-		
PH 8	16	16	16	-	-	-		

	2	4	8
5	6		

BASE DAY		1	2	3	4	5	6	7	8	9	10	11
MON #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
TUES#1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
WED #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
THU #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
FRI #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
SAT	TIME	00:01-00:00										
	PLAN	FREE										
SUN	TIME	00:01-00:00										
	PLAN	FREE										

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: SR 472 (Howland Blvd) & Graves Ave
Deltona

ISOLATED:

DATE: 1/25/2013

SIGNAL #: 360

CO-ORD: X

Design By: M. Rodriguez

System #: 26

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	-	WB	-	NB	WBL	EB	-	SB	
TURN TYPE	-	-	-	SPLIT LEAD	PROT	-	-	SPLIT LAG	
MIN GREEN		17		7	5	17		5	
EXTENSION		3		3	3	3		3	
CLEARANCE		5.0		4.5	5.0	5.0		4.5	
ALL RED		2.0		3.0	2.0	2.0		2.5	
WALK		7		-	-	-		-	
FDW		25		-	-	-		-	
MAX 1		35		20	25	35		15	
MAX 2		-		-		-		-	
MAX 3		-		-		-		-	
ADJUST		-		-		-		-	
RECALL		MIN		-	-	MIN		-	
DETECTOR		LOCK		NON-LOCK	LOCK	LOCK		NON-LOCK	
FLASH		YELLOW		RED	RED	YELLOW		RED	
SET		-		-		-		-	
CLEAR		-		-		-		-	

BASE DAY		1	2	3	4	5	6	7
MON #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
TUES#1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
WED #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
THU #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
FRI #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
SAT #2	TIME	00:01-00:00						
	PLAN	FREE						
SUN #3	TIME	00:01-00:00						
	PLAN	FREE						

Crosswalk Length
P2
86 Feet
P4
-
P6
-
P8
-

CONTROLLER TYPE		CONDITION OF OVERHEAD	OK	PROM NUMBER		
3000E		OVERHEAD STREET NAMES	NO			
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES	8216A 3.7.3	SIGNAL OWNER	
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	FDOT	
CABINET DATE	08/2000	PRE-EMPTION TYPE	N/A	10.77.8.43	LED	YES

REMARKS:

	2	4	8
5	6		

VOLUSIA COUNTY TRAFFIC ENGINEERING
SYSTEM INVENTORY

Switch IP.# 10.77.8.10
Controller IP.# 10.77.8.42
Camera IP # -

DATE: 1/25/2013 DESIGNED BY: M. Rodriguez

LOCATION: SR 472 & I-4 EB Ramp
CITY: Deltona ID NO: 359 SYSTEM ID: 26

CONTROLLER TIME CHART

MVMNT	MIN	EXT	CLR	A.R.	WALK	FDW	MAX1	MAX2	MAX3	ADJST	REC	DET	FL	SET	CLR
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	17	3	5.5	2	-	-	40	-	-	-	MIN	L	Y	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	7	3	4.5	2	-	-	25	-	-	-	-	NL	R	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	17	3	5.5	2	-	-	40	-	-	-	MIN	L	Y	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TP# 1

CO-ORDINATION

PLAN	C1/S1	C2/S1	C3/S1	C4/S1	C5/S1	C6/S1		
CYCLE	140	130	150					
OFF 1	103	83	85					
OFF 2								
OFF 3								
OFF 4								
OFF 5								
PERM	10%	10%	10%	10%	10%	10%	10%	10%

PHASE SPLITS (seconds)

CY/SP	C1/S1	C2/S1	C3/S1	C4/S1	C5/S1	C6/S1		
PH 1	-	-	-	-	-	-		
PH 2	80	75	80	-	-	-		
PH 3	-	-	-	-	-	-		
PH 4	60	55	70	-	-	-		
PH 5	-	-	-	-	-	-		
PH 6	80	75	80	-	-	-		
PH 7	-	-	-	-	-	-		
PH 8	60	55	70	-	-	-		

2	4
6	

BASE DAY		1	2	3	4	5	6	7	8	9	10	11
MON #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
TUES#1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
WED #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
THU #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
FRI #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
SAT	TIME	00:01-00:00										
	PLAN	FREE										
SUN	TIME	00:01-00:00										
	PLAN	FREE										

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: SR 472 & I-4 EB Ramp
Deltona

ISOLATED:

DATE: 1/25/2013

SIGNAL #: 359

CO-ORD: X

Design By: M. Rodriguez

System #: 26

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	-	WB	-	NB	-	EB	-	-	
TURN TYPE	-	-	-	-	-	-	-	-	
MIN GREEN		17		7		17			
EXTENSION		3		3		3			
CLEARANCE		5.5		4.5		5.5			
ALL RED		2.0		2.0		2.0			
WALK		-		-		-			
FDW		-		-		-			
MAX 1		40		25		40			
MAX 2		-		-		-			
MAX 3		-		-		-			
ADJUST		-		-		-			
RECALL		MIN		-		MIN			
DETECTOR		LOCK		NON-LOCK		LOCK			
FLASH		YELLOW		RED		YELLOW			
SET		-		-		-			
CLEAR		-		-		-			

BASE DAY		1	2	3	4	5	6	7	Crosswalk Length
MON #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00			
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE			P2
TUES#1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00			
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE			-
WED #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00			
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE			P4
THU #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00			
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE			-
FRI #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00			
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE			P6
SAT #2	TIME	00:01-00:00							
	PLAN	FREE							-
SUN #3	TIME	00:01-00:00							
	PLAN	FREE							P8

CONTROLLER TYPE		CONDITION OF OVERHEAD	OK	PROM NUMBER	
3000E		OVERHEAD STREET NAMES	NO		-
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES	8216A 3.7.3	SIGNAL OWNER
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	FDOT
CABINET DATE	03/2008	PRE-EMPTION TYPE	N/A	10.77.8.42	LED YES

REMARKS:

2 4
6

VOLUSIA COUNTY TRAFFIC ENGINEERING
SYSTEM INVENTORY

Switch IP.# 10.77.8.9
Controller IP.# 10.77.8.41
Camera IP # -

DATE: 1/25/2013 DESIGNED BY: M. Rodriguez

LOCATION: SR 472 & I-4 WB Ramp
CITY: Deltona ID NO: 358 SYSTEM ID: 26

CONTROLLER TIME CHART

MVMNT	MIN	EXT	CLR	A.R.	WALK	FDW	MAX1	MAX2	MAX3	ADJST	REC	DET	FL	SET	CLR
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	17	3	5	2	7	19	40	-	-	-	MIN	L	Y	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	6	3	5	2	-	-	25	-	60	10	-	NL	R	2	2
6	17	3	5	2	-	-	40	-	-	-	MIN	L	Y	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	7	3	4.5	3	-	-	25	-	-	-	-	L	R	-	-

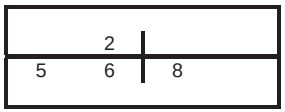
TP# 1

CO-ORDINATION

PLAN	C1/S1	C2/S1	C3/S1	C4/S1	C5/S1	C6/S1		
CYCLE	140	130	150					
OFF 1	32	23	36					
OFF 2								
OFF 3								
OFF 4								
OFF 5								
PERM	10%	10%	10%	10%	10%	10%	10%	10%

PHASE SPLITS (seconds)

CY/SP	C1/S1	C2/S1	C3/S1	C4/S1	C5/S1	C6/S1		
PH 1	-	-	-	-	-	-		
PH 2	110	95	110	-	-	-		
PH 3	30	35	40	-	-	-		
PH 4	-	-	-	-	-	-		
PH 5	70	45	45	-	-	-		
PH 6	40	50	65	-	-	-		
PH 7	-	-	-	-	-	-		
PH 8	30	35	40	-	-	-		



BASE DAY		1	2	3	4	5	6	7	8	9	10	11
MON #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
TUES#1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
WED #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
THU #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
FRI #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
SAT	TIME	00:01-00:00										
	PLAN	FREE										
SUN	TIME	00:01-00:00										
	PLAN	FREE										

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: SR 472 & I-4 WB Ramp
Deltona

ISOLATED:

DATE: 1/25/2013

SIGNAL #: 358

CO-ORD: X

Design By: M. Rodriguez

System #: 26

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	-	WB	-	-	WBL	EB	-	SB	
TURN TYPE	-	-	-	-	PROT	-	-	-	
MIN GREEN		17			6	17		7	
EXTENSION		3			3	3		3	
CLEARANCE		5.0			5.0	5.0		4.5	
ALL RED		2.0			2.0	2.0		3.0	
WALK		7			-	-		-	
FDW		19			-	-		-	
MAX 1		40			25	40		25	
MAX 2		-			-	-		-	
MAX 3		-			60	-		-	
ADJUST		-			10	-		-	
RECALL		MIN			-	MIN		-	
DETECTOR		LOCK			NON-LOCK	LOCK		LOCK	
FLASH		YELLOW			RED	YELLOW		RED	
SET		-			2	-		-	
CLEAR		-			2	-		-	

BASE DAY		1	2	3	4	5	6	7	Crosswalk Length
MON #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00			
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE			P2
TUES#1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00			
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE			66 Feet
WED #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00			
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE			P4
THU #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00			
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE			-
FRI #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00			
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE			P6
SAT #2	TIME	00:01-00:00							
	PLAN	FREE							-
SUN #3	TIME	00:01-00:00							
	PLAN	FREE							P8

CONTROLLER TYPE		CONDITION OF OVERHEAD	Poor	PROM NUMBER	
3000E		OVERHEAD STREET NAMES	NO		-
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES	8216A 3.7.3	SIGNAL OWNER
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	FDOT
CABINET DATE	08/2000	PRE-EMPTION TYPE	N/A	10.77.8.41	LED YES

REMARKS:

2
5 6 8

VOLUSIA COUNTY TRAFFIC ENGINEERING
SYSTEM INVENTORY

Switch IP.# 10.77.8.14
Controller IP.# 10..77.8.46
Camera IP # -

DATE: 1/25/2013 DESIGNED BY: M. Rodriguez

LOCATION: Howland Blvd & Wolf Pack Run
CITY: Deltona ID NO: 354 SYSTEM ID: 26

CONTROLLER TIME CHART

MVMNT	MIN	EXT	CLR	A.R.	WALK	FDW	MAX1	MAX2	MAX3	ADJST	REC	DET	FL	SET	CLR
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	12	3	4.5	2.5	-	-	45	-	-	-	MIN	L	Y	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	7	3	4	2.5	7	20	25	-	-	-	-	NL	R	-	-
5	5	3	4.5	2.5	-	-	20	-	-	-	-	NL	-	-	-
6	12	3	4.5	2.5	7	20	45	-	-	-	MIN	L	Y	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TP# 1

CO-ORDINATION

PLAN	C1/S1	C2/S1	C3/S1	C4/S1	C5/S1	C6/S1		
CYCLE	140	130	150					
OFF 1	78	81	108					
OFF 2								
OFF 3								
OFF 4								
OFF 5								
PERM	10%	10%	10%	10%	10%	10%	10%	10%

PHASE SPLITS (seconds)

CY/SP	C1/S1	C2/S1	C3/S1	C4/S1	C5/S1	C6/S1		
PH 1	-	-	-	-	-	-		
PH 2	95	90	100	-	-	-		
PH 3	-	-	-	-	-	-		
PH 4	45	40	50	-	-	-		
PH 5	45	30	40	-	-	-		
PH 6	50	60	60	-	-	-		
PH 7	-	-	-	-	-	-		
PH 8	45	40	50	-	-	-		

	2	4	
5	6		

BASE DAY		1	2	3	4	5	6	7	8	9	10	11
MON #1	TIME	00:01-06:30	06:30-09:00	09:00-14:30	14:30-15:30	15:30-19:00	19:00-00:00					
	PLAN	FREE	C1O1S1	FREE	C2O1S1	C3O1S1	FREE					
TUES#1	TIME	00:01-06:30	06:30-09:00	09:00-14:30	14:30-15:30	15:30-19:00	19:00-00:00					
	PLAN	FREE	C1O1S1	FREE	C2O1S1	C3O1S1	FREE					
WED #1	TIME	00:01-06:30	06:30-09:00	09:00-14:30	14:30-15:30	15:30-19:00	19:00-00:00					
	PLAN	FREE	C1O1S1	FREE	C2O1S1	C3O1S1	FREE					
THU #1	TIME	00:01-06:30	06:30-09:00	09:00-14:30	14:30-15:30	15:30-19:00	19:00-00:00					
	PLAN	FREE	C1O1S1	FREE	C2O1S1	C3O1S1	FREE					
FRI #1	TIME	00:01-06:30	06:30-09:00	09:00-14:30	14:30-15:30	15:30-19:00	19:00-00:00					
	PLAN	FREE	C1O1S1	FREE	C2O1S1	C3O1S1	FREE					
SAT	TIME	00:01-00:00										
	PLAN	FREE										
SUN	TIME	00:01-00:00										
	PLAN	FREE										

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: Howland Blvd & Wolf Pack Run
Deltona

ISOLATED:

DATE: 1/25/2013

SIGNAL #: 354

CO-ORD: X

Design By: M. Rodriguez

System #: 26

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	-	WB	-	NB	WBL	EB	-	-	
TURN TYPE	-	-	-	-	PERM/PROT	-	-	-	
MIN GREEN		12		7	5	12			
EXTENSION		3		3	3	3			
CLEARANCE		4.5		4.0	4.5	4.5			
ALL RED		2.5		2.5	2.5	2.5			
WALK		-		7	-	7			
FDW		-		20	-	20			
MAX 1		45		25	20	45			
MAX 2		-		-	-	-			
MAX 3		-		-	-	-			
ADJUST		-		-	-	-			
RECALL		MIN		-	-	MIN			
DETECTOR		LOCK		NON-LOCK	NON-LOCK	LOCK			
FLASH		YELLOW		RED	-	YELLOW			
SET		-		-	-	-			
CLEAR		-		-	-	-			

BASE DAY		1	2	3	4	5	6	7
MON #1	TIME	00:01-06:30	06:30-09:00	09:00-14:30	14:30-15:30	15:30-19:00	19:00-00:00	
	PLAN	FREE	C1O1S1	FREE	C2O1S1	C3O1S1	FREE	
TUES#1	TIME	00:01-06:30	06:30-09:00	09:00-14:30	14:30-15:30	15:30-19:00	19:00-00:00	
	PLAN	FREE	C1O1S1	FREE	C2O1S1	C3O1S1	FREE	
WED #1	TIME	00:01-06:30	06:30-09:00	09:00-14:30	14:30-15:30	15:30-19:00	19:00-00:00	
	PLAN	FREE	C1O1S1	FREE	C2O1S1	C3O1S1	FREE	
THU #1	TIME	00:01-06:30	06:30-09:00	09:00-14:30	14:30-15:30	15:30-19:00	19:00-00:00	
	PLAN	FREE	C1O1S1	FREE	C2O1S1	C3O1S1	FREE	
FRI #1	TIME	00:01-06:30	06:30-09:00	09:00-14:30	14:30-15:30	15:30-19:00	19:00-00:00	
	PLAN	FREE	C1O1S1	FREE	C2O1S1	C3O1S1	FREE	
SAT #2	TIME	00:01-00:00						
	PLAN	FREE						
SUN #3	TIME	00:01-00:00						
	PLAN	FREE						

Crosswalk Length
P2
-
P4
70 Feet
P6
71 Feet
P8
-

CONTROLLER TYPE		CONDITION OF OVERHEAD	OK	PROM NUMBER		
3000E		OVERHEAD STREET NAMES	NO			
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES	8216A 3.7.3	SIGNAL OWNER	
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	COUNTY	
CABINET DATE	11/1999	PRE-EMPTION TYPE	N/A	10..77.8.46	LED	YES

REMARKS:

Omit Phase 5 when Phase 6 is Active

	2	4
5	6	

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: Graves Ave & Veterans Memorial Pkwy
Orange City

ISOLATED: X

DATE: 9/12/2012

SIGNAL #: 350

CO-ORD:

Design By: M. Rodriguez

System #: -

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	WBL	EB	-	-	-	WB	-	NB	
TURN TYPE	PERM/PROT	-	-	-	-	-	-	-	
MIN GREEN	7	11				11		7	
EXTENSION	3	4				4		3	
CLEARANCE	4.5	4.5				4.5		5.0	
ALL RED	2.5	2.5				2.5		2.0	
WALK	-	7				-		7	
FDW	-	27				-		16	
MAX 1	20	30				30		25	
MAX 2	-	-				-		-	
MAX 3	35	-				-		-	
ADJUST	5	-				-		-	
RECALL	MIN	-				MIN		-	
DETECTOR	NON-LOCK	LOCK				LOCK		NON-LOCK	
FLASH	-	YELLOW				YELLOW		RED	
SET	2	-				-		-	
CLEAR	2	-				-		-	

BASE DAY		1	2	3	4	5	6	7	Crosswalk Length
MON #1	TIME	00:00-00:00							
	PLAN	FREE							P2
TUES#1	TIME	00:00-00:00							
	PLAN	FREE							94 Feet
WED #1	TIME	00:00-00:00							
	PLAN	FREE							P4
THU #1	TIME	00:00-00:00							
	PLAN	FREE							-
FRI #1	TIME	00:00-00:00							
	PLAN	FREE							P6
SAT #2	TIME	00:00-00:00							
	PLAN	FREE							-
SUN #3	TIME	00:00-00:00							
	PLAN	FREE							P8

CONTROLLER TYPE		CONDITION OF OVERHEAD	OK	PROM NUMBER	
3000E		OVERHEAD STREET NAMES	YES		-
PHASES:	8Φ	ILLUMINATED STREET NAMES	NO	8216A 3.7.3	SIGNAL OWNER
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	County
CABINET DATE	11/1998	PRE-EMPTION TYPE	N/A	-	LED YES

REMARKS:

1 & 8R 2
6 8

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: N. Normandy Blvd & Deltona Blvd
Deltona

FREE: X

DATE: 10/30/2012

SIGNAL #: 283

CO-ORD:

Design By: M. Rodriguez

System #: -

Controller Timing Chart

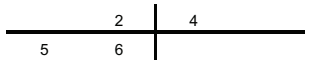
PHASE	1	2	3	4	5	6	7	8	
DIRECTION	-	NB	-	EB	NBL	SB	-	-	
TURN TYPE	-	-	-	-	PERM/PROT	-	-	-	
MIN GREEN		10		4	3	10			
EXTENSION		3		2.5	2.5	3			
CLEARANCE		4.0		4.0	4.0	4.0			
ALL RED		2.5		2.0	2.5	2.5			
WALK		-		7	-	7			
FDW		-		18	-	21			
MAX 1		25		20	15	25			
MAX 2		-		-	-	-			
MAX 3		-		-	-	-			
ADJUST		-		-	-	-			
RECALL		MIN		-	-	MIN			
DETECTOR		LOCK		NON-LOCK	NON-LOCK	LOCK			
FLASH		YELLOW		RED	-	YELLOW			
SET		-		-	-	-			
CLEAR		-		-	-	-			

BASE DAY		1	2	3	4	5	6	7
MON #1	TIME	00:00-00:00						
	PLAN	FREE						
TUES#1	TIME	00:00-00:00						
	PLAN	FREE						
WED #1	TIME	00:00-00:00						
	PLAN	FREE						
THU #1	TIME	00:00-00:00						
	PLAN	FREE						
FRI #1	TIME	00:00-00:00						
	PLAN	FREE						
SAT #2	TIME	00:00-00:00						
	PLAN	FREE						
SUN #3	TIME	00:00-00:00						
	PLAN	FREE						

Crosswalk Length
P2
-
P4
63 Feet
P6
73 Feet
P8
-

CONTROLLER TYPE		CONDITION OF OVERHEAD		PROM NUMBER		
3000E		OVERHEAD STREET NAMES	YES			
PHASES:	8Φ	ILLUMINATED STREET NAMES	NO	8216A 3.6.4	SIGNAL OWNER	
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	Deltona	
CABINET DATE	-	PRE-EMPTION TYPE	N/A	-	LED	YES

REMARKS:



COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: Howland Blvd & Catalina Blvd
Deltona

ISOLATED: X

DATE: 10/8/2012

SIGNAL #: 250

CO-ORD:

Design By: M. Rodriguez

System #: -

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	EBL	WB	-	NB	WBL	EB	NBL	SB	
TURN TYPE	PERM/PROT	-	-	-	PERM/PROT	-	PERM/PROT	-	
MIN GREEN	5	11		7	5	11	5	7	
EXTENSION	3	4		3	3	4	4	3	
CLEARANCE	5.0	5.0		4.0	5.0	5.0	4.0	4.0	
ALL RED	2.0	2.0		2.5	2.0	2.0	2.5	2.5	
WALK	-	7		7	-	7	-	7	
FDW	-	23		23	-	23	-	23	
MAX 1	30	40		20	15	40	15	20	
MAX 2	15	45		30	15	45	15	30	
MAX 3	-	-		-	-	-	-	50	
ADJUST	-	-		-	-	-	-	5	
RECALL	-	MIN		-	-	MIN	-	-	
DETECTOR	NON-LOCK	LOCK		NON-LOCK	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	
FLASH	-	YELLOW		RED	-	YELLOW	-	RED	
SET	-	-		-	-	-	-	2	
CLEAR	-	-		-	-	-	-	2	

BASE DAY		1	2	3	4	5	6	7	Crosswalk Length
MON #1	TIME	00:01-05:00	05:00-11:00	11:00-00:00					
	PLAN	FREE / MAX 1	FREE / MAX 2	FREE / MAX 1					P2
TUES#1	TIME	00:01-05:00	05:00-11:00	11:00-00:00					
	PLAN	FREE / MAX 1	FREE / MAX 2	FREE / MAX 1					80 Feet
WED #1	TIME	00:01-05:00	05:00-11:00	11:00-00:00					
	PLAN	FREE / MAX 1	FREE / MAX 2	FREE / MAX 1					P4
THU #1	TIME	00:01-05:00	05:00-11:00	11:00-00:00					
	PLAN	FREE / MAX 1	FREE / MAX 2	FREE / MAX 1					76 Feet
FRI #1	TIME	00:01-05:00	05:00-11:00	11:00-00:00					
	PLAN	FREE / MAX 1	FREE / MAX 2	FREE / MAX 1					P6
SAT #2	TIME	00:01-05:00	05:00-11:00	11:00-00:00					
	PLAN	FREE / MAX 1	FREE / MAX 2	FREE / MAX 1					78 Feet
SUN #3	TIME	00:01-05:00	05:00-11:00	11:00-00:00					
	PLAN	FREE / MAX 1	FREE / MAX 2	FREE / MAX 1					P8

CONTROLLER TYPE		CONDITION OF OVERHEAD	Good	PROM NUMBER	
1880 EL		OVERHEAD STREET NAMES	NO		76 Feet
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES	92R09	SIGNAL OWNER
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	County
CABINET DATE	11/1999	PRE-EMPTION TYPE	N/A	-	LED YES

REMARKS:

1	2	4	
5	6	7	8

Volume Density PH 2 and PH 6

Max Int = 20 seconsa

Added Int = 3 seconds

Min Gap = 4 Seconds

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: Elkcam Blvd & Providence Blvd
Deltona

ISOLATED: X

DATE: 5/23/2012

SIGNAL #: 235

CO-ORD:

Design By: M. Rodriguez

System #: -

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	WBL	EB	NBL	SB	EBL	WB	SBL	NB	
TURN TYPE	PERM/PROT	-	PERM/PROT	-	PERM/PROT	-	PERM/PROT	-	
MIN GREEN	5	6	5	6	5	6	5	6	
EXTENSION	3	4	3	4	3	4	3	4	
CLEARANCE	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
ALL RED	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
WALK	-	10	-	10	-	10	-	10	
FDW	-	20	-	17	-	20	-	17	
MAX 1	15	30	15	30	15	30	15	30	
MAX 2	-	-	-	-	-	-	-	-	
MAX 3	-	-	-	-	-	-	-	-	
ADJUST	-	-	-	-	-	-	-	-	
RECALL	-	MIN	-	-	-	MIN	-	-	
DETECTOR	NON-LOCK	NON-LOCK	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	NON-LOCK	LOCK	
FLASH	-	YELLOW	-	RED	-	YELLOW	-	RED	
SET	-	-	-	-	-	-	-	-	
CLEAR	-	-	-	-	-	-	-	-	

BASE DAY		1	2	3	4	5	6	7
MON #1	TIME	00:01-00:00						
	PLAN	FREE						
TUES#1	TIME	00:01-00:00						
	PLAN	FREE						
WED #1	TIME	00:01-00:00						
	PLAN	FREE						
THU #1	TIME	00:01-00:00						
	PLAN	FREE						
FRI #1	TIME	00:01-00:00						
	PLAN	FREE						
SAT #2	TIME	00:01-00:00						
	PLAN	FREE						
SUN #3	TIME	00:01-00:00						
	PLAN	FREE						

Crosswalk Length
P2
59 Feet
P4
53 Feet
P6
69 Feet
P8
59 Feet

CONTROLLER TYPE		CONDITION OF OVERHEAD	Fair	PROM NUMBER	
3000E		OVERHEAD STREET NAMES	YES		
PHASES:	8Φ	ILLUMINATED STREET NAMES	NO	8216A 3.7.3	SIGNAL OWNER
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	County
CABINET DATE	11/2000	PRE-EMPTION TYPE	N/A	-	LED YES

REMARKS:

Speed Limit is 35 MPH

1	2	3	4
5	6	7	8

VOLUSIA COUNTY TRAFFIC ENGINEERING
SYSTEM INVENTORY

Switch IP.# _____
Controller IP.# -
Camera IP # _____

DATE: 6/13/2012 DESIGNED BY: M. Rodriguez

LOCATION: Graves Avenue & Kentucky Avenu
CITY: Orange City SIGNAL ID NO: 229 SYSTEM ID: -

CONTROLLER TIME CHART

MVMNT	MIN	EXT	CLR	A.R.	WALK	FDW	MAX1	MAX2	MAX3	ADJST	REC	DET	FL	SET	CLR
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	11	4	5	2	-	-	30	35	-	-	MIN	L	Y	-	-
3	7	3	5	2	-	-	25	50	-	-	-	NL	R	-	-
4	7	3	4.5	3.5	7	25	15	15	-	-	-	NL	R	-	-
5	5	3	5	2	-	-	15	15	60	10	-	NL	-	2	2
6	11	4	5	2	7	25	30	35	-	-	MIN	L	Y	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

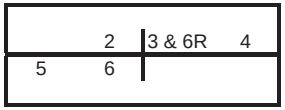
TP# XX

CO-ORDINATION

PLAN	C1/S1	C2/S1	C3/S1	C4/S1	C5/S1	C6/S1		
CYCLE								
OFF 1								
OFF 2								
OFF 3								
OFF 4								
OFF 5								
PERM	10%	10%	10%	10%	10%	10%	10%	10%

PHASE SPLITS (seconds)

CY/SP	C1/S1	C2/S1	C3/S1	C4/S1	C5/S1	C6/S1		
PH 1	-	-	-	-	-	-		
PH 2	-	-	-	-	-	-		
PH 3	-	-	-	-	-	-		
PH 4	-	-	-	-	-	-		
PH 5	-	-	-	-	-	-		
PH 6	-	-	-	-	-	-		
PH 7	-	-	-	-	-	-		
PH 8	-	-	-	-	-	-		



BASE DAY		1	2	3	4	5	6	7	8	9	10	11	
MON #1	TIME	00:01-00:00											
	PLAN	FREE											
TUES#1	TIME	00:01-00:00											
	PLAN	FREE											
WED #1	TIME	00:01-00:00											
	PLAN	FREE											
THU #1	TIME	00:01-00:00											
	PLAN	FREE											
FRI #1	TIME	00:01-00:00											
	PLAN	FREE											
SAT	TIME	00:01-15:00	15:00-19:00	19:00-00:00									
	PLAN	FREE / MAX 1	FREE / MAX 2	FREE / MAX 1									
SUN	TIME	00:01-15:00	15:00-19:00	19:00-00:00									
	PLAN	FREE / MAX 1	FREE / MAX 2	FREE / MAX 1									

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: Graves Avenue & Kentucky Avenue
Orange City

ISOLATED:

DATE: 6/13/2012

SIGNAL #: 229

CO-ORD: X

Design By: M. Rodriguez

System #: -

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	-	EB	SB	NB	EBL	WB	-	-	
TURN TYPE	-	-	SPLIT LEAD	SPLIT LAG	PERM/PROT	-	-	-	
MIN GREEN		11	7	7	5	11			
EXTENSION		4	3	3	3	4			
CLEARANCE		5.0	5.0	4.5	5.0	5.0			
ALL RED		2.0	2.0	3.5	2.0	2.0			
WALK		-	-	7	-	7			
FDW		-	-	25	-	25			
MAX 1		30	25	15	15	30			
MAX 2		35	50	15	15	35			
MAX 3		-	-	-	60	-			
ADJUST		-	-	-	10	-			
RECALL		MIN	-	-	-	MIN			
DETECTOR		LOCK	NON-LOCK	NON-LOCK	NON-LOCK	LOCK			
FLASH		YELLOW	RED	RED	-	YELLOW			
SET		-	-	-	2	-			
CLEAR		-	-	-	2	-			

BASE DAY		1	2	3	4	5	6	7
MON #1	TIME	00:01-00:00						
	PLAN	FREE						
TUES#1	TIME	00:01-00:00						
	PLAN	FREE						
WED #1	TIME	00:01-00:00						
	PLAN	FREE						
THU #1	TIME	00:01-00:00						
	PLAN	FREE						
FRI #1	TIME	00:01-00:00						
	PLAN	FREE						
SAT #2	TIME	00:01-15:00	15:00-19:00	19:00-00:00				
	PLAN	FREE / MAX 1	FREE / MAX 2	FREE / MAX 1				
SUN #3	TIME	00:01-15:00	15:00-19:00	19:00-00:00				
	PLAN	FREE / MAX 1	FREE / MAX 2	FREE / MAX 1				

Crosswalk Length
P2
-
P4
71 Feet
P6
76 Feet
P8
-

CONTROLLER TYPE		CONDITION OF OVERHEAD	New - 2011	PROM NUMBER		
1880 EL		OVERHEAD STREET NAMES	YES			
PHASES:	8Φ	ILLUMINATED STREET NAMES	NO	92R09	SIGNAL OWNER	
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	County	
CABINET DATE	02/1988	PRE-EMPTION TYPE	N/A	-	LED	YES

REMARKS:

	2	3 & 6R	4
5	6		

VOLUSIA COUNTY TRAFFIC ENGINEERING
SYSTEM INVENTORY

Switch IP.# 10.77.8.8
Controller IP.# 10.77.8.40
Camera IP # -

DATE: 1/25/2013 DESIGNED BY: M. Rodriguez

LOCATION: SR 472 & CR 4101 (MLK Beltway)
CITY: Orange City ID NO: 222 SYSTEM ID: 26

CONTROLLER TIME CHART

MVMNT	MIN	EXT	CLR	A.R.	WALK	FDW	MAX1	MAX2	MAX3	ADJST	REC	DET	FL	SET	CLR
1	5	3	5.5	2	-	-	20	-	-	-	-	NL	R	-	-
2	17	3	5.5	2.5	-	-	35	-	60	10	MIN	L	Y	2	2
3	7	3	5.5	2.5	-	-	35	-	-	-	-	NL	R	-	-
4	7	3	4.5	3	-	-	25	-	35	10	-	NL	R	2	2
5	5	3	5.5	2	-	-	20	-	-	-	-	NL	R	-	-
6	17	3	5.5	2.5	-	-	35	-	60	10	MIN	L	Y	2	2
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TP# 1

CO-ORDINATION

PLAN	C1/S1	C2/S1	C3/S1	C4/S1	C5/S1	C6/S1		
CYCLE	140	130	150					
OFF 1	0	116	0					
OFF 2								
OFF 3								
OFF 4								
OFF 5								
PERM	10%	10%	10%	10%	10%	10%	10%	10%

PHASE SPLITS (seconds)

CY/SP	C1/S1	C2/S1	C3/S1	C4/S1	C5/S1	C6/S1		
PH 1	25	20	26	-	-	-		
PH 2	45	40	51	-	-	-		
PH 3	35	31	40	-	-	-		
PH 4	35	39	33	-	-	-		
PH 5	25	20	26	-	-	-		
PH 6	45	40	51	-	-	-		
PH 7	-	-	-	-	-	-		
PH 8	70	70	73	-	-	-		

1 2	3	4
5 6		

BASE DAY		1	2	3	4	5	6	7	8	9	10	11
	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
MON #1	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
TUES#1	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
WED #1	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
THU #1	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00						
FRI #1	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE						
	TIME	00:01-00:00										
SAT	PLAN	FREE										
	TIME	00:01-00:00										
SUN	PLAN	FREE										

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: SR 472 & CR 4101 (MLK Beltway)
Orange City

ISOLATED:

DATE: 1/25/2013

SIGNAL #: 222

CO-ORD: X

Design By: M. Rodriguez

System #: 26

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8
DIRECTION	EBL	WB	SB	NB	WBL	EB	-	-
TURN TYPE	PROT	-	SPLIT LEAD	SPLIT LAG	PROT	-	-	-
MIN GREEN	5	17	7	7	5	17		
EXTENSION	3	3	3	3	3	3		
CLEARANCE	5.5	5.5	5.5	4.5	5.5	5.5		
ALL RED	2.0	2.5	2.5	3.0	2.0	2.5		
WALK	-	-	-	-	-	-		
FDW	-	-	-	-	-	-		
MAX 1	20	35	35	25	20	35		
MAX 2	-	-	-	-	-	-		
MAX 3	-	60	-	35	-	60		
ADJUST	-	10	-	10	-	10		
RECALL	-	MIN	-	-	-	MIN		
DETECTOR	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	NON-LOCK	LOCK		
FLASH	RED	YELLOW	RED	RED	RED	YELLOW		
SET	-	2	-	2	-	2		
CLEAR	-	2	-	2	-	2		

BASE DAY		1	2	3	4	5	6	7
MON #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
TUES#1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
WED #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
THU #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
FRI #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
SAT #2	TIME	00:01-00:00						
	PLAN	FREE						
SUN #3	TIME	00:01-00:00						
	PLAN	FREE						

Crosswalk Length
P2
-
P4
-
P6
-
P8
-

CONTROLLER TYPE		CONDITION OF OVERHEAD	Good	PROM NUMBER	
3000E		OVERHEAD STREET NAMES	NO		
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES	8216A 3.7.3	SIGNAL OWNER
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	FDOT
CABINET DATE	03/2000	PRE-EMPTION TYPE	N/A	10.77.8.40	LED YES

REMARKS:
EB Blankout Sign - No Right Turns on Red

1	2	3	4
5	6		

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: Howland Blvd & Elkcam Blvd
Deltona

ISOLATED: X

DATE: 5/21/2012

SIGNAL #: 162

CO-ORD:

Design By: M. Rodriguez

System #: -

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	WBL	EB	NBL	SB	EBL	WB	SBL	NB	
TURN TYPE	PERM/PROT	-	PERM/PROT	-	PERM/PROT	-	PERM/PROT	-	
MIN GREEN	5	12	5	7	5	12	5	7	
EXTENSION	3	3	3	3	3	3	3	3	
CLEARANCE	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
ALL RED	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
WALK	-	10	-	10	-	10	-	10	
FDW	-	20	-	25	-	20	-	25	
MAX 1	20	30	20	35	20	30	20	35	
MAX 2	-	-	-	-	-	-	-	-	
MAX 3	-	-	-	-	-	-	-	-	
ADJUST	-	-	-	-	-	-	-	-	
RECALL	-	MIN	-	-	-	MIN	-	-	
DETECTOR	NON-LOCK	LOCK	NON-LOCK	LOCK	NON-LOCK	LOCK	NON-LOCK	LOCK	
FLASH		YELLOW	-	RED	-	YELLOW	-	RED	
SET	-	-	-	-	-	-	-	-	
CLEAR	-	-	-	-	-	-	-	-	

BASE DAY		1	2	3	4	5	6	7
MON #1	TIME	00:01-00:00						
	PLAN	FREE						
TUES#1	TIME	00:01-00:00						
	PLAN	FREE						
WED #1	TIME	00:01-00:00						
	PLAN	FREE						
THU #1	TIME	00:01-00:00						
	PLAN	FREE						
FRI #1	TIME	00:01-00:00						
	PLAN	FREE						
SAT #2	TIME	00:01-00:00						
	PLAN	FREE						
SUN #3	TIME	00:01-00:00						
	PLAN	FREE						

Crosswalk Length
P2
65 Feet
P4
86 Feet
P6
70 Feet
P8
86 Feet

CONTROLLER TYPE		CONDITION OF OVERHEAD	New	PROM NUMBER		
3000E		OVERHEAD STREET NAMES	NO			
PHASES:	8Φ	ILLUMINATED STREET NAMES	YES	8216A 3.7.3	SIGNAL OWNER	
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS	County	
CABINET DATE	06/2007	PRE-EMPTION TYPE	N/A	-	LED	YES

REMARKS:

1	2	3	4
5	6	7	8

Appendix "D"

SYNCHRO Intersection Summary Sheets

SYNCHRO Intersections Summary Sheets
(Existing AM peak hour)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	747	82	50	848	252	148	201	67	171	208	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	8.0	8.0	7.5	8.0	8.0		7.5	4.0	8.0	8.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1824	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583		1824	1583	1770	1863	1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	34	803	88	54	912	271	159	216	72	184	224	42
RTOR Reduction (vph)	0	0	59	0	0	141	0	0	0	0	0	0
Lane Group Flow (vph)	34	803	29	54	912	130	0	375	72	184	224	42
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Free	Split	NA	Free
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases			6			2			Free			Free
Actuated Green, G (s)	5.7	46.1	46.1	8.5	48.9	48.9		32.8	140.0	21.6	21.6	140.0
Effective Green, g (s)	5.7	46.1	46.1	8.5	48.9	48.9		32.8	140.0	21.6	21.6	140.0
Actuated g/C Ratio	0.04	0.33	0.33	0.06	0.35	0.35		0.23	1.00	0.15	0.15	1.00
Clearance Time (s)	7.5	8.0	8.0	7.5	8.0	8.0		7.5		8.0	8.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	72	1165	521	107	1236	552		427	1583	273	287	1583
v/s Ratio Prot	0.02	0.23		c0.03	c0.26			c0.21		0.10	c0.12	
v/s Ratio Perm			0.02			0.08			0.05			0.03
v/c Ratio	0.47	0.69	0.06	0.50	0.74	0.24		0.88	0.05	0.67	0.78	0.03
Uniform Delay, d1	65.7	40.7	32.1	63.7	39.9	32.3		51.7	0.0	55.9	56.9	0.0
Progression Factor	1.00	1.00	1.00	0.95	0.91	1.63		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.8	3.3	0.2	3.4	3.7	0.9		18.1	0.1	6.4	12.9	0.0
Delay (s)	70.5	44.1	32.3	64.1	40.1	53.5		69.8	0.1	62.3	69.8	0.0
Level of Service	E	D	C	E	D	D		E	A	E	E	A
Approach Delay (s)		43.9			44.1			58.5			60.2	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	48.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	189	251	4	6	445	172	17	20	9	69	6	228
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0	7.0		8.0		7.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98		0.95	1.00	1.00
Satd. Flow (prot)	1770	1859		1770	1863	1583		1780		1770	1863	1583
Flt Permitted	0.37	1.00		0.59	1.00	1.00		0.98		0.95	1.00	1.00
Satd. Flow (perm)	698	1859		1101	1863	1583		1780		1770	1863	1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	203	270	4	6	478	185	18	22	10	74	6	245
RTOR Reduction (vph)	0	0	0	0	0	67	0	8	0	0	0	225
Lane Group Flow (vph)	203	274	0	6	478	118	0	42	0	74	6	20
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		4	4		3	3	
Permitted Phases	2			6		6						3
Actuated Green, G (s)	102.6	102.6		84.5	84.5	84.5		7.8		11.6	11.6	11.6
Effective Green, g (s)	102.6	102.6		84.5	84.5	84.5		7.8		11.6	11.6	11.6
Actuated g/C Ratio	0.71	0.71		0.59	0.59	0.59		0.05		0.08	0.08	0.08
Clearance Time (s)	7.0	7.0		7.0	7.0	7.0		8.0		7.0	7.0	7.0
Vehicle Extension (s)	3.0	4.0		4.0	4.0	4.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	579	1324		646	1093	928		96		142	150	127
v/s Ratio Prot	c0.03	0.15			c0.26			c0.02		c0.04	0.00	
v/s Ratio Perm	0.22			0.01		0.07						0.01
v/c Ratio	0.35	0.21		0.01	0.44	0.13		0.44		0.52	0.04	0.16
Uniform Delay, d1	8.8	7.0		12.4	16.5	13.3		66.0		63.5	61.1	61.6
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1		0.0	1.3	0.3		3.2		3.4	0.1	0.6
Delay (s)	9.2	7.1		12.4	17.8	13.6		69.2		67.0	61.2	62.2
Level of Service	A	A		B	B	B		E		E	E	E
Approach Delay (s)		8.0			16.6			69.2			63.3	
Approach LOS		A			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	25.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	144.0	Sum of lost time (s)	29.0
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	470	33	404	1578	4	162	2	313	2	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		7.0	7.0		7.5	7.5	4.0	7.0		7.0
Lane Util. Factor		0.95		1.00	0.95		0.95	0.95	1.00	1.00		1.00
Frt		0.99		1.00	1.00		1.00	1.00	0.85	1.00		0.85
Flt Protected		1.00		0.95	1.00		0.95	0.95	1.00	0.95		1.00
Satd. Flow (prot)		3505		1770	3538		1681	1687	1583	1770		1583
Flt Permitted		1.00		0.95	1.00		0.95	0.95	1.00	0.95		1.00
Satd. Flow (perm)		3505		1770	3538		1681	1687	1583	1770		1583
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	516	36	444	1734	4	178	2	344	2	0	5
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	0	5
Lane Group Flow (vph)	0	549	0	444	1738	0	91	89	344	2	0	0
Turn Type	Perm	NA		Prot	NA		Split	NA	Free	Split		Perm
Protected Phases		6		5	2		4	4		8	8	
Permitted Phases	6								Free			8
Actuated Green, G (s)		57.1		40.2	104.3		12.9	12.9	140.0	1.3		1.3
Effective Green, g (s)		57.1		40.2	104.3		12.9	12.9	140.0	1.3		1.3
Actuated g/C Ratio		0.41		0.29	0.74		0.09	0.09	1.00	0.01		0.01
Clearance Time (s)		7.0		7.0	7.0		7.5	7.5		7.0		7.0
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0		3.0		3.0
Lane Grp Cap (vph)		1429		508	2635		154	155	1583	16		14
v/s Ratio Prot		0.16		c0.25	c0.49		c0.05	0.05		0.00		
v/s Ratio Perm									c0.22			0.00
v/c Ratio		0.38		0.87	0.66		0.59	0.57	0.22	0.12		0.00
Uniform Delay, d1		29.1		47.5	8.9		61.0	60.9	0.0	68.8		68.7
Progression Factor		0.47		1.10	0.72		1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2		0.2		13.8	1.2		6.0	5.1	0.3	3.5		0.1
Delay (s)		13.7		65.9	7.6		67.0	66.0	0.3	72.3		68.8
Level of Service		B		E	A		E	E	A	E		E
Approach Delay (s)		13.7			19.4			23.0			69.8	
Approach LOS		B			B			C			E	

Intersection Summary			
HCM 2000 Control Delay	19.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	28.5
Intersection Capacity Utilization	87.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	233	106	98	329	254	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		6.5	6.5	6.5	6.5
Lane Util. Factor	0.95		1.00	1.00	1.00	1.00
Frt	0.95		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3373		1770	1863	1770	1583
Flt Permitted	1.00		0.35	1.00	0.95	1.00
Satd. Flow (perm)	3373		660	1863	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	245	112	103	346	267	255
RTOR Reduction (vph)	76	0	0	0	0	189
Lane Group Flow (vph)	281	0	103	346	267	66
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Actuated Green, G (s)	12.5		22.7	22.7	12.5	12.5
Effective Green, g (s)	12.5		22.7	22.7	12.5	12.5
Actuated g/C Ratio	0.26		0.47	0.47	0.26	0.26
Clearance Time (s)	6.5		6.5	6.5	6.5	6.5
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	874		396	877	459	410
v/s Ratio Prot	0.08		0.02	c0.19	c0.15	
v/s Ratio Perm			0.10			0.04
v/c Ratio	0.32		0.26	0.39	0.58	0.16
Uniform Delay, d1	14.4		7.7	8.3	15.6	13.8
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2		0.4	0.3	1.9	0.2
Delay (s)	14.6		8.0	8.6	17.4	14.0
Level of Service	B		A	A	B	B
Approach Delay (s)	14.6			8.4	15.8	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	48.2	Sum of lost time (s)	19.5
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	227	194	94	133	364	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	6.5		6.5	6.5
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.91		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	3229		1770	3539
Flt Permitted	0.95	1.00	1.00		0.39	1.00
Satd. Flow (perm)	1770	1583	3229		720	3539
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	255	218	106	149	409	204
RTOR Reduction (vph)	0	163	112	0	0	0
Lane Group Flow (vph)	255	55	143	0	409	204
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	12.3	12.3	12.1		23.6	23.6
Effective Green, g (s)	12.3	12.3	12.1		23.6	23.6
Actuated g/C Ratio	0.25	0.25	0.25		0.48	0.48
Clearance Time (s)	6.5	6.5	6.5		6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	445	398	798		454	1707
v/s Ratio Prot	c0.14		0.04		c0.09	0.06
v/s Ratio Perm		0.03			c0.34	
v/c Ratio	0.57	0.14	0.18		0.90	0.12
Uniform Delay, d1	16.0	14.2	14.5		11.2	6.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.8	0.2	0.1		20.7	0.0
Delay (s)	17.8	14.3	14.6		31.9	7.0
Level of Service	B	B	B		C	A
Approach Delay (s)	16.2		14.6			23.6
Approach LOS	B		B			C

Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	48.9	Sum of lost time (s)	19.5
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	356	174	0	1747	486	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	4.0		7.5	6.5	4.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1583		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1583		3539	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	396	193	0	1941	540	143
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	396	193	0	1941	540	143
Turn Type	NA	Free		NA	Prot	Free
Protected Phases	6			2	4	
Permitted Phases		Free				Free
Actuated Green, G (s)	98.1	140.0		98.1	27.9	140.0
Effective Green, g (s)	98.1	140.0		98.1	27.9	140.0
Actuated g/C Ratio	0.70	1.00		0.70	0.20	1.00
Clearance Time (s)	7.5			7.5	6.5	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	2479	1583		2479	684	1583
v/s Ratio Prot	0.11			c0.55	c0.16	
v/s Ratio Perm		0.12				0.09
v/c Ratio	0.16	0.12		0.78	0.79	0.09
Uniform Delay, d1	7.1	0.0		13.9	53.3	0.0
Progression Factor	3.24	1.00		0.71	1.00	1.00
Incremental Delay, d2	0.0	0.1		2.1	6.0	0.1
Delay (s)	22.9	0.1		12.0	59.3	0.1
Level of Service	C	A		B	E	A
Approach Delay (s)	15.4			12.0	46.9	
Approach LOS	B			B	D	

Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	189	20	446	296	25	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.40	1.00	0.95	1.00
Satd. Flow (perm)	1863	1583	747	1863	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	205	22	485	322	27	292
RTOR Reduction (vph)	0	16	0	0	0	244
Lane Group Flow (vph)	205	6	485	322	27	48
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	12.3	12.3	26.3	26.3	7.9	7.9
Effective Green, g (s)	12.3	12.3	26.3	26.3	7.9	7.9
Actuated g/C Ratio	0.26	0.26	0.55	0.55	0.16	0.16
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	4.0	4.0	3.0	4.0	3.0	3.0
Lane Grp Cap (vph)	475	403	556	1016	290	259
v/s Ratio Prot	0.11		c0.13	0.17	0.02	
v/s Ratio Perm		0.00	c0.35			c0.03
v/c Ratio	0.43	0.01	0.87	0.32	0.09	0.18
Uniform Delay, d1	15.0	13.4	8.6	6.0	17.1	17.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	0.0	14.1	0.2	0.1	0.3
Delay (s)	15.9	13.4	22.7	6.3	17.2	17.7
Level of Service	B	B	C	A	B	B
Approach Delay (s)	15.6			16.1	17.7	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	16.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	48.2	Sum of lost time (s)	21.0
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	121	491	38	29	992	22	187	89	53	125	45	519
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.94		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3501		1770	3528		1770	1759		1770	1605	
Flt Permitted	0.11	1.00		0.39	1.00		0.11	1.00		0.66	1.00	
Satd. Flow (perm)	205	3501		728	3528		204	1759		1229	1605	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	130	528	41	31	1067	24	201	96	57	134	48	558
RTOR Reduction (vph)	0	5	0	0	1	0	0	21	0	0	155	0
Lane Group Flow (vph)	130	564	0	31	1090	0	201	132	0	134	451	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	1	6		5	2		7	4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	44.1	36.3		37.1	32.8		45.5	45.5		30.0	30.0	
Effective Green, g (s)	44.1	36.3		37.1	32.8		45.5	45.5		30.0	30.0	
Actuated g/C Ratio	0.41	0.34		0.35	0.31		0.43	0.43		0.28	0.28	
Clearance Time (s)	7.0	7.0		7.0	7.0		6.5	6.5		6.5	6.5	
Vehicle Extension (s)	3.0	4.0		3.0	4.0		4.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	199	1192		295	1085		219	750		345	451	
v/s Ratio Prot	c0.05	0.16		0.00	c0.31		c0.08	0.07			c0.28	
v/s Ratio Perm	c0.22			0.03			0.31			0.11		
v/c Ratio	0.65	0.47		0.11	1.00		0.92	0.18		0.39	1.00	
Uniform Delay, d1	24.8	27.6		23.1	36.9		25.3	18.9		30.9	38.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.5	0.4		0.2	28.4		39.0	0.1		0.7	41.9	
Delay (s)	32.2	28.0		23.3	65.3		64.3	19.0		31.6	80.2	
Level of Service	C	C		C	E		E	B		C	F	
Approach Delay (s)		28.8			64.1			44.8			71.4	
Approach LOS		C			E			D			E	

Intersection Summary			
HCM 2000 Control Delay	55.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	106.6	Sum of lost time (s)	27.0
Intersection Capacity Utilization	102.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	552	182	156	1433	297	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	6.5	
Lane Util. Factor	0.95		1.00	0.95	0.97	
Frt	0.96		1.00	1.00	0.97	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	3408		1770	3539	3377	
Flt Permitted	1.00		0.29	1.00	0.96	
Satd. Flow (perm)	3408		540	3539	3377	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	607	200	171	1575	326	73
RTOR Reduction (vph)	12	0	0	0	16	0
Lane Group Flow (vph)	795	0	171	1575	383	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	88.9		105.3	105.3	21.2	
Effective Green, g (s)	88.9		105.3	105.3	21.2	
Actuated g/C Ratio	0.64		0.75	0.75	0.15	
Clearance Time (s)	7.0		7.0	7.0	6.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2164		488	2661	511	
v/s Ratio Prot	0.23		0.02	c0.45	c0.11	
v/s Ratio Perm			0.24			
v/c Ratio	0.37		0.35	0.59	0.75	
Uniform Delay, d1	12.2		6.0	7.8	56.9	
Progression Factor	1.95		1.00	1.00	1.00	
Incremental Delay, d2	0.1		0.4	1.0	6.0	
Delay (s)	23.8		6.4	8.7	62.8	
Level of Service	C		A	A	E	
Approach Delay (s)	23.8			8.5	62.8	
Approach LOS	C			A	E	

Intersection Summary			
HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	797	1	4	292	316	1	0	5	298	1	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0		6.5	6.5			6.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	0.92		1.00	0.85			0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.96	
Satd. Flow (prot)	1770	1863	1583	1770	1717		1770	1583			1753	
Flt Permitted	0.30	1.00	1.00	0.06	1.00		0.71	1.00			0.75	
Satd. Flow (perm)	557	1863	1583	113	1717		1328	1583			1376	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	88	839	1	4	307	333	1	0	5	314	1	51
RTOR Reduction (vph)	0	0	1	0	29	0	0	3	0	0	4	0
Lane Group Flow (vph)	88	839	0	4	611	0	1	2	0	0	362	0
Turn Type	Perm	NA	Perm	pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases		6		5	2		7	4			8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	59.1	59.1	59.1	66.9	66.9		44.5	44.5			37.2	
Effective Green, g (s)	59.1	59.1	59.1	66.9	66.9		44.5	44.5			37.2	
Actuated g/C Ratio	0.47	0.47	0.47	0.54	0.54		0.36	0.36			0.30	
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0		6.5	6.5			6.5	
Vehicle Extension (s)	4.0	4.0	4.0	3.0	4.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	263	881	749	71	919		475	563			409	
v/s Ratio Prot		c0.45		0.00	c0.36		0.00	c0.00				
v/s Ratio Perm	0.16		0.00	0.03			0.00				c0.26	
v/c Ratio	0.33	0.95	0.00	0.06	0.66		0.00	0.00			0.88	
Uniform Delay, d1	20.6	31.5	17.3	26.8	20.9		28.1	25.9			41.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	1.0	19.8	0.0	0.3	2.0		0.0	0.0			19.7	
Delay (s)	21.6	51.3	17.3	27.1	22.9		28.1	25.9			61.5	
Level of Service	C	D	B	C	C		C	C			E	
Approach Delay (s)		48.5			22.9			26.3			61.5	
Approach LOS		D			C			C			E	

Intersection Summary			
HCM 2000 Control Delay	42.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	124.9	Sum of lost time (s)	27.0
Intersection Capacity Utilization	89.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	423	640	783	1115	0	0	0	0	110	0	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	4.0	7.0	7.0					7.5		7.5
Lane Util. Factor		0.95	1.00	1.00	0.95					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3539	1583	1770	3539					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		3539	1583	1770	3539					3433		1583
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	465	703	860	1225	0	0	0	0	121	0	92
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	85
Lane Group Flow (vph)	0	465	703	860	1225	0	0	0	0	121	0	7
Turn Type		NA	Free	Prot	NA					Prot		Prot
Protected Phases		6		5	2					8		8
Permitted Phases			Free									
Actuated Green, G (s)		34.2	140.0	74.0	115.2					10.3		10.3
Effective Green, g (s)		34.2	140.0	74.0	115.2					10.3		10.3
Actuated g/C Ratio		0.24	1.00	0.53	0.82					0.07		0.07
Clearance Time (s)		7.0		7.0	7.0					7.5		7.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		864	1583	935	2912					252		116
v/s Ratio Prot		c0.13		c0.49	0.35					0.04		0.00
v/s Ratio Perm			c0.44									
v/c Ratio		0.54	0.44	0.92	0.42					0.48		0.06
Uniform Delay, d1		46.0	0.0	30.3	3.4					62.3		60.3
Progression Factor		1.07	1.00	0.96	1.45					1.00		1.00
Incremental Delay, d2		2.0	0.8	10.3	0.3					1.4		0.2
Delay (s)		51.4	0.8	39.4	5.2					63.7		60.5
Level of Service		D	A	D	A					E		E
Approach Delay (s)		20.9			19.3			0.0			62.4	
Approach LOS		C			B			A			E	

Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	21.5
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	245	31	115	483	17	66	142	82	46	179	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.99		1.00	0.95		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3480		1770	3521		1770	1761		1770	1759	
Flt Permitted	0.36	1.00		0.57	1.00		0.42	1.00		0.60	1.00	
Satd. Flow (perm)	669	3480		1053	3521		784	1761		1109	1759	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	71	272	34	128	537	19	73	158	91	51	199	117
RTOR Reduction (vph)	0	10	0	0	2	0	0	22	0	0	22	0
Lane Group Flow (vph)	71	296	0	128	554	0	73	227	0	51	294	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	22.2	18.6		22.2	18.6		24.3	20.7		22.3	19.7	
Effective Green, g (s)	22.2	18.6		22.2	18.6		24.3	20.7		22.3	19.7	
Actuated g/C Ratio	0.29	0.25		0.29	0.25		0.32	0.27		0.30	0.26	
Clearance Time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	249	857		343	867		299	482		350	458	
v/s Ratio Prot	0.01	0.09		c0.02	c0.16		c0.01	0.13		0.01	c0.17	
v/s Ratio Perm	0.07			0.09			0.07			0.04		
v/c Ratio	0.29	0.35		0.37	0.64		0.24	0.47		0.15	0.64	
Uniform Delay, d1	19.7	23.4		20.3	25.4		18.3	22.8		19.3	24.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	0.2		0.7	1.6		0.4	0.7		0.2	3.1	
Delay (s)	20.3	23.7		21.0	27.0		18.7	23.6		19.5	27.8	
Level of Service	C	C		C	C		B	C		B	C	
Approach Delay (s)		23.0			25.9			22.5			26.7	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	30.0
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	90	26	451	38	13	335
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	108	31	543	46	16	404
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	978	543			589	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	978	543			589	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	60	94			98	
cM capacity (veh/h)	273	539			986	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	108	31	543	46	16	404
Volume Left	108	0	0	0	16	0
Volume Right	0	31	0	46	0	0
cSH	273	539	1700	1700	986	1700
Volume to Capacity	0.40	0.06	0.32	0.03	0.02	0.24
Queue Length 95th (ft)	45	5	0	0	1	0
Control Delay (s)	26.6	12.1	0.0	0.0	8.7	0.0
Lane LOS	D	B			A	
Approach Delay (s)	23.3		0.0		0.3	
Approach LOS	C					

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		

SYNCHRO Intersections Summary Sheets
(Existing PM peak hour)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	816	176	126	659	254	63	259	41	242	286	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	8.0	8.0	7.5	8.0	8.0		7.5	4.0	8.0	8.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1845	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00		0.99	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583		1845	1583	1770	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	46	859	185	133	694	267	66	273	43	255	301	37
RTOR Reduction (vph)	0	0	103	0	0	175	0	0	0	0	0	0
Lane Group Flow (vph)	46	859	82	133	694	92	0	339	43	255	301	37
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Free	Split	NA	Free
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases			6			2			Free			Free
Actuated Green, G (s)	8.2	44.3	44.3	15.6	51.7	51.7		30.8	150.0	28.3	28.3	150.0
Effective Green, g (s)	8.2	44.3	44.3	15.6	51.7	51.7		30.8	150.0	28.3	28.3	150.0
Actuated g/C Ratio	0.05	0.30	0.30	0.10	0.34	0.34		0.21	1.00	0.19	0.19	1.00
Clearance Time (s)	7.5	8.0	8.0	7.5	8.0	8.0		7.5		8.0	8.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	96	1045	467	184	1219	545		378	1583	333	351	1583
v/s Ratio Prot	0.03	c0.24		c0.08	c0.20			c0.18		0.14	c0.16	
v/s Ratio Perm			0.05			0.06			0.03			0.02
v/c Ratio	0.48	0.82	0.18	0.72	0.57	0.17		0.90	0.03	0.77	0.86	0.02
Uniform Delay, d1	68.8	49.2	39.3	65.1	40.1	34.2		58.1	0.0	57.7	58.9	0.0
Progression Factor	1.00	1.00	1.00	0.73	1.31	4.48		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.7	7.3	0.8	12.6	1.9	0.6		22.9	0.0	10.1	18.3	0.0
Delay (s)	72.6	56.5	40.1	60.0	54.5	153.9		80.9	0.0	67.8	77.2	0.0
Level of Service	E	E	D	E	D	F		F	A	E	E	A
Approach Delay (s)		54.4			79.4			71.8			68.3	
Approach LOS		D			E			E			E	

Intersection Summary			
HCM 2000 Control Delay	67.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	238	525	23	7	368	81	15	15	6	208	20	315
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0	7.0		8.0		7.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98		0.95	1.00	1.00
Satd. Flow (prot)	1770	1851		1770	1863	1583		1785		1770	1863	1583
Flt Permitted	0.29	1.00		0.44	1.00	1.00		0.98		0.95	1.00	1.00
Satd. Flow (perm)	535	1851		828	1863	1583		1785		1770	1863	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	253	559	24	7	391	86	16	16	6	221	21	335
RTOR Reduction (vph)	0	1	0	0	0	56	0	6	0	0	0	278
Lane Group Flow (vph)	253	582	0	7	391	30	0	32	0	221	21	57
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		4	4		3	3	
Permitted Phases	2			6		6						3
Actuated Green, G (s)	90.3	90.3		49.9	49.9	49.9		7.1		24.6	24.6	24.6
Effective Green, g (s)	90.3	90.3		49.9	49.9	49.9		7.1		24.6	24.6	24.6
Actuated g/C Ratio	0.63	0.63		0.35	0.35	0.35		0.05		0.17	0.17	0.17
Clearance Time (s)	7.0	7.0		7.0	7.0	7.0		8.0		7.0	7.0	7.0
Vehicle Extension (s)	3.0	4.0		4.0	4.0	4.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	621	1160		286	645	548		88		302	318	270
v/s Ratio Prot	0.09	c0.31			c0.21			c0.02		c0.12	0.01	
v/s Ratio Perm	0.16			0.01		0.02						0.04
v/c Ratio	0.41	0.50		0.02	0.61	0.05		0.37		0.73	0.07	0.21
Uniform Delay, d1	14.9	14.6		31.0	38.9	31.3		66.3		56.6	50.1	51.4
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.4	0.5		0.2	4.2	0.2		2.6		8.8	0.1	0.4
Delay (s)	15.3	15.1		31.2	43.1	31.5		68.9		65.4	50.2	51.8
Level of Service	B	B		C	D	C		E		E	D	D
Approach Delay (s)		15.1			40.9			68.9			56.9	
Approach LOS		B			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	35.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	144.0	Sum of lost time (s)	29.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	1446	127	371	600	1	62	0	506	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		7.5	7.5	4.0	7.0		7.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00		1.00
Frt	1.00	0.99		1.00	1.00		1.00	1.00	0.85	1.00		0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.95	1.00	0.95		1.00
Satd. Flow (prot)	1770	3496		1770	3538		1681	1681	1583	1770		1583
Flt Permitted	0.41	1.00		0.95	1.00		0.95	0.95	1.00	0.95		1.00
Satd. Flow (perm)	757	3496		1770	3538		1681	1681	1583	1770		1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	2	1555	137	399	645	1	67	0	544	1	0	1
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	0	1
Lane Group Flow (vph)	2	1688	0	399	646	0	33	34	544	1	0	0
Turn Type	Perm	NA		Prot	NA		Split	NA	Free	Split		Perm
Protected Phases		6		5	2		4	4		8	8	
Permitted Phases	6								Free			8
Actuated Green, G (s)	67.2	67.2		45.7	119.9		7.4	7.4	150.0	1.2		1.2
Effective Green, g (s)	67.2	67.2		45.7	119.9		7.4	7.4	150.0	1.2		1.2
Actuated g/C Ratio	0.45	0.45		0.30	0.80		0.05	0.05	1.00	0.01		0.01
Clearance Time (s)	7.0	7.0		7.0	7.0		7.5	7.5		7.0		7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0		3.0
Lane Grp Cap (vph)	339	1566		539	2828		82	82	1583	14		12
v/s Ratio Prot		c0.48		c0.23	0.18		0.02	0.02		0.00		
v/s Ratio Perm	0.00								c0.34			0.00
v/c Ratio	0.01	1.08		0.74	0.23		0.40	0.41	0.34	0.07		0.00
Uniform Delay, d1	22.9	41.4		46.8	3.7		69.2	69.2	0.0	73.8		73.8
Progression Factor	0.54	0.91		1.08	0.85		1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	0.0	45.6		5.3	0.2		3.2	3.4	0.6	2.2		0.0
Delay (s)	12.4	83.5		55.7	3.3		72.4	72.6	0.6	76.0		73.8
Level of Service	B	F		E	A		E	E	A	E		E
Approach Delay (s)		83.4			23.3			8.5			74.9	
Approach LOS		F			C			A			E	

Intersection Summary			
HCM 2000 Control Delay	51.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	28.5
Intersection Capacity Utilization	90.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	475	279	153	278	130	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		6.5	6.5	6.5	6.5
Lane Util. Factor	0.95		1.00	1.00	1.00	1.00
Frt	0.94		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3343		1770	1863	1770	1583
Flt Permitted	1.00		0.17	1.00	0.95	1.00
Satd. Flow (perm)	3343		316	1863	1770	1583
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	546	321	176	320	149	130
RTOR Reduction (vph)	111	0	0	0	0	106
Lane Group Flow (vph)	756	0	176	320	149	24
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Actuated Green, G (s)	17.1		28.6	28.6	9.6	9.6
Effective Green, g (s)	17.1		28.6	28.6	9.6	9.6
Actuated g/C Ratio	0.33		0.56	0.56	0.19	0.19
Clearance Time (s)	6.5		6.5	6.5	6.5	6.5
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1116		318	1040	331	296
v/s Ratio Prot	c0.23		c0.05	0.17	c0.08	
v/s Ratio Perm			0.25			0.02
v/c Ratio	0.68		0.55	0.31	0.45	0.08
Uniform Delay, d1	14.7		7.4	6.0	18.5	17.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7		2.1	0.2	1.0	0.1
Delay (s)	16.3		9.5	6.2	19.4	17.3
Level of Service	B		A	A	B	B
Approach Delay (s)	16.3			7.3	18.4	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	51.2	Sum of lost time (s)	19.5
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	158	282	150	253	188	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	6.5		6.5	6.5
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.91		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	3206		1770	3539
Flt Permitted	0.95	1.00	1.00		0.33	1.00
Satd. Flow (perm)	1770	1583	3206		608	3539
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	168	300	160	269	200	83
RTOR Reduction (vph)	0	237	199	0	0	0
Lane Group Flow (vph)	168	63	230	0	200	83
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	9.8	9.8	12.1		23.6	23.6
Effective Green, g (s)	9.8	9.8	12.1		23.6	23.6
Actuated g/C Ratio	0.21	0.21	0.26		0.51	0.51
Clearance Time (s)	6.5	6.5	6.5		6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	373	334	836		434	1800
v/s Ratio Prot	c0.09		0.07		c0.05	0.02
v/s Ratio Perm		0.04			c0.18	
v/c Ratio	0.45	0.19	0.28		0.46	0.05
Uniform Delay, d1	16.0	15.0	13.7		6.9	5.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.9	0.3	0.2		0.8	0.0
Delay (s)	16.8	15.3	13.8		7.7	5.7
Level of Service	B	B	B		A	A
Approach Delay (s)	15.9		13.8			7.1
Approach LOS	B		B			A

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	46.4	Sum of lost time (s)	19.5
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	865	71	0	729	529	527
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	4.0		7.5	6.5	4.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1583		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1583		3539	3433	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	911	75	0	767	557	555
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	911	75	0	767	557	555
Turn Type	NA	Free		NA	Prot	Free
Protected Phases	6			2	5	
Permitted Phases		Free				Free
Actuated Green, G (s)	44.9	150.0		55.1	28.5	150.0
Effective Green, g (s)	44.9	150.0		55.1	28.5	150.0
Actuated g/C Ratio	0.30	1.00		0.37	0.19	1.00
Clearance Time (s)	7.5			7.5	6.5	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	1059	1583		1299	652	1583
v/s Ratio Prot	c0.26			c0.22	c0.16	
v/s Ratio Perm		0.05				0.35
v/c Ratio	0.86	0.05		0.59	0.85	0.35
Uniform Delay, d1	49.6	0.0		38.3	58.7	0.0
Progression Factor	1.38	1.00		0.93	1.00	1.00
Incremental Delay, d2	6.9	0.1		2.0	10.6	0.6
Delay (s)	75.1	0.1		37.7	69.3	0.6
Level of Service	E	A		D	E	A
Approach Delay (s)	69.4			37.7	35.0	
Approach LOS	E			D	D	

Intersection Summary			
HCM 2000 Control Delay	47.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	21.5
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	217	16	477	265	49	569
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.41	1.00	0.95	1.00
Satd. Flow (perm)	1863	1583	755	1863	1770	1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	226	17	497	276	51	593
RTOR Reduction (vph)	0	13	0	0	0	480
Lane Group Flow (vph)	226	4	497	276	51	113
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	13.4	13.4	27.6	27.6	9.8	9.8
Effective Green, g (s)	13.4	13.4	27.6	27.6	9.8	9.8
Actuated g/C Ratio	0.26	0.26	0.54	0.54	0.19	0.19
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	4.0	4.0	3.0	4.0	3.0	3.0
Lane Grp Cap (vph)	485	412	547	1000	337	301
v/s Ratio Prot	0.12		c0.13	0.15	0.03	
v/s Ratio Perm		0.00	c0.36			c0.07
v/c Ratio	0.47	0.01	0.91	0.28	0.15	0.38
Uniform Delay, d1	16.0	14.1	9.9	6.5	17.3	18.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.0	18.8	0.2	0.2	0.8
Delay (s)	17.0	14.1	28.7	6.7	17.5	18.9
Level of Service	B	B	C	A	B	B
Approach Delay (s)	16.8			20.9	18.8	
Approach LOS	B			C	B	

Intersection Summary			
HCM 2000 Control Delay	19.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	51.4	Sum of lost time (s)	21.0
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	485	1033	74	30	579	74	81	98	24	99	70	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.97		1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3504		1770	3479		1770	1807		1770	1658	
Flt Permitted	0.19	1.00		0.20	1.00		0.18	1.00		0.67	1.00	
Satd. Flow (perm)	359	3504		372	3479		338	1807		1248	1658	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	539	1148	82	33	643	82	90	109	27	110	78	212
RTOR Reduction (vph)	0	4	0	0	8	0	0	9	0	0	100	0
Lane Group Flow (vph)	539	1226	0	33	717	0	90	127	0	110	190	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	1	6		5	2		7	4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	56.2	46.5		32.2	29.5		26.0	26.0		15.8	15.8	
Effective Green, g (s)	56.2	46.5		32.2	29.5		26.0	26.0		15.8	15.8	
Actuated g/C Ratio	0.59	0.49		0.34	0.31		0.27	0.27		0.17	0.17	
Clearance Time (s)	7.0	7.0		7.0	7.0		6.5	6.5		6.5	6.5	
Vehicle Extension (s)	3.0	4.0		3.0	4.0		4.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	501	1702		164	1072		147	490		206	273	
v/s Ratio Prot	c0.22	0.35		0.01	0.21		c0.02	0.07			0.11	
v/s Ratio Perm	c0.41			0.06			c0.14			0.09		
v/c Ratio	1.08	0.72		0.20	0.67		0.61	0.26		0.53	0.70	
Uniform Delay, d1	22.0	19.5		21.5	28.8		28.2	27.3		36.6	37.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	62.1	1.6		0.6	1.8		8.4	0.3		2.6	7.5	
Delay (s)	84.1	21.1		22.1	30.6		36.6	27.6		39.2	45.2	
Level of Service	F	C		C	C		D	C		D	D	
Approach Delay (s)		40.3			30.2			31.2			43.5	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	37.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	95.7	Sum of lost time (s)	27.0
Intersection Capacity Utilization	87.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1479	276	85	730	132	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	6.5	
Lane Util. Factor	0.95		1.00	0.95	0.97	
Frt	0.98		1.00	1.00	0.96	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	3456		1770	3539	3353	
Flt Permitted	1.00		0.06	1.00	0.96	
Satd. Flow (perm)	3456		114	3539	3353	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	1625	303	93	802	145	48
RTOR Reduction (vph)	4	0	0	0	29	0
Lane Group Flow (vph)	1924	0	93	802	164	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	109.4		123.8	123.8	12.7	
Effective Green, g (s)	109.4		123.8	123.8	12.7	
Actuated g/C Ratio	0.73		0.83	0.83	0.08	
Clearance Time (s)	7.0		7.0	7.0	6.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2520		175	2920	283	
v/s Ratio Prot	c0.56		c0.03	0.23	c0.05	
v/s Ratio Perm			0.41			
v/c Ratio	0.76		0.53	0.27	0.58	
Uniform Delay, d1	12.4		19.0	3.0	66.1	
Progression Factor	1.32		1.00	1.00	1.00	
Incremental Delay, d2	0.8		3.1	0.2	2.9	
Delay (s)	17.1		22.1	3.2	68.9	
Level of Service	B		C	A	E	
Approach Delay (s)	17.1			5.2	68.9	
Approach LOS	B			A	E	

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	77.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	47	457	0	10	754	358	2	0	6	249	1	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		6.5	6.5			6.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00		1.00	0.95		1.00	0.85			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.96	
Satd. Flow (prot)	1770	1863		1770	1773		1770	1583			1745	
Flt Permitted	0.14	1.00		0.23	1.00		0.71	1.00			0.76	
Satd. Flow (perm)	255	1863		438	1773		1324	1583			1384	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	51	497	0	11	820	389	2	0	7	271	1	63
RTOR Reduction (vph)	0	0	0	0	16	0	0	5	0	0	10	0
Lane Group Flow (vph)	51	497	0	11	1193	0	2	2	0	0	325	0
Turn Type	Perm	NA	Perm	pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases		6		5	2		7	4			8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	29.2	29.2		36.9	36.9		27.4	27.4			20.2	
Effective Green, g (s)	29.2	29.2		36.9	36.9		27.4	27.4			20.2	
Actuated g/C Ratio	0.38	0.38		0.47	0.47		0.35	0.35			0.26	
Clearance Time (s)	7.0	7.0		7.0	7.0		6.5	6.5			6.5	
Vehicle Extension (s)	4.0	4.0		3.0	4.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	95	699		219	840		470	557			359	
v/s Ratio Prot		0.27		0.00	c0.67		0.00	c0.00				
v/s Ratio Perm	0.20			0.02			0.00				c0.24	
v/c Ratio	0.54	0.71		0.05	1.42		0.00	0.00			0.91	
Uniform Delay, d1	19.0	20.7		13.1	20.4		18.0	16.4			27.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	7.3	3.7		0.1	196.2		0.0	0.0			25.4	
Delay (s)	26.3	24.4		13.1	216.7		18.0	16.4			53.3	
Level of Service	C	C		B	F		B	B			D	
Approach Delay (s)		24.5			214.8			16.7			53.3	
Approach LOS		C			F			B			D	

Intersection Summary			
HCM 2000 Control Delay	139.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	77.8	Sum of lost time (s)	27.0
Intersection Capacity Utilization	96.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	651	589	271	874	0	0	0	0	312	0	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	4.0	7.0	7.0					7.5		7.5
Lane Util. Factor		0.95	1.00	1.00	0.95					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3539	1583	1770	3539					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		3539	1583	1770	3539					3433		1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	678	614	282	910	0	0	0	0	325	0	172
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	150
Lane Group Flow (vph)	0	678	614	282	910	0	0	0	0	325	0	22
Turn Type		NA	Free	Prot	NA					Prot		Prot
Protected Phases		6		5	2					8		8
Permitted Phases			Free									
Actuated Green, G (s)		79.9	150.0	29.1	116.0					19.5		19.5
Effective Green, g (s)		79.9	150.0	29.1	116.0					19.5		19.5
Actuated g/C Ratio		0.53	1.00	0.19	0.77					0.13		0.13
Clearance Time (s)		7.0		7.0	7.0					7.5		7.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1885	1583	343	2736					446		205
v/s Ratio Prot		0.19		c0.16	0.26					c0.09		0.01
v/s Ratio Perm			c0.39									
v/c Ratio		0.36	0.39	0.82	0.33					0.73		0.11
Uniform Delay, d1		20.3	0.0	58.0	5.2					62.7		57.6
Progression Factor		1.50	1.00	0.56	0.00					1.00		1.00
Incremental Delay, d2		0.4	0.5	11.2	0.2					5.9		0.2
Delay (s)		30.8	0.5	43.9	0.3					68.6		57.8
Level of Service		C	A	D	A					E		E
Approach Delay (s)		16.4			10.6			0.0			64.9	
Approach LOS		B			B			A			E	

Intersection Summary			
HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	21.5
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	176	464	43	150	333	56	57	238	100	88	195	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.96		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3494		1770	3463		1770	1780		1770	1779	
Flt Permitted	0.46	1.00		0.33	1.00		0.45	1.00		0.34	1.00	
Satd. Flow (perm)	860	3494		618	3463		832	1780		633	1779	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	198	521	48	169	374	63	64	267	112	99	219	94
RTOR Reduction (vph)	0	7	0	0	14	0	0	16	0	0	16	0
Lane Group Flow (vph)	198	562	0	169	423	0	64	363	0	99	297	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	24.3	19.0		24.3	19.0		25.4	21.7		25.4	21.7	
Effective Green, g (s)	24.3	19.0		24.3	19.0		25.4	21.7		25.4	21.7	
Actuated g/C Ratio	0.30	0.24		0.30	0.24		0.32	0.27		0.32	0.27	
Clearance Time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	322	832		265	825		308	484		254	484	
v/s Ratio Prot	0.04	c0.16		c0.04	0.12		0.01	c0.20		c0.02	0.17	
v/s Ratio Perm	0.15			0.15			0.06			0.11		
v/c Ratio	0.61	0.68		0.64	0.51		0.21	0.75		0.39	0.61	
Uniform Delay, d1	22.2	27.6		21.9	26.3		19.3	26.5		20.0	25.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.5	2.2		5.0	0.5		0.3	6.3		1.0	2.3	
Delay (s)	25.6	29.7		26.8	26.9		19.7	32.8		21.0	27.6	
Level of Service	C	C		C	C		B	C		C	C	
Approach Delay (s)		28.7			26.9			30.9			26.1	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	28.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	79.7	Sum of lost time (s)	30.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	45	27	485	81	34	524
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	50	30	539	90	38	582
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1197	539			629	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1197	539			629	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	75	94			96	
cM capacity (veh/h)	197	543			953	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	50	30	539	90	38	582
Volume Left	50	0	0	0	38	0
Volume Right	0	30	0	90	0	0
cSH	197	543	1700	1700	953	1700
Volume to Capacity	0.25	0.06	0.32	0.05	0.04	0.34
Queue Length 95th (ft)	24	4	0	0	3	0
Control Delay (s)	29.3	12.0	0.0	0.0	8.9	0.0
Lane LOS	D	B			A	
Approach Delay (s)	22.8		0.0		0.5	
Approach LOS	C					

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		

SYNCHRO Intersections Summary Sheets
(YR 2020 AM peak hour)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	898	87	71	933	290	157	213	126	251	220	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	8.0	8.0	7.5	8.0	8.0		7.5	4.0	8.0	8.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1824	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583		1824	1583	1770	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	36	945	92	75	982	305	165	224	133	264	232	43
RTOR Reduction (vph)	0	0	63	0	0	201	0	0	0	0	0	0
Lane Group Flow (vph)	36	945	29	75	982	104	0	389	133	264	232	43
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Free	Split	NA	Free
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases			6			2			Free			Free
Actuated Green, G (s)	7.2	43.8	43.8	11.0	47.6	47.6		31.1	140.0	23.1	23.1	140.0
Effective Green, g (s)	7.2	43.8	43.8	11.0	47.6	47.6		31.1	140.0	23.1	23.1	140.0
Actuated g/C Ratio	0.05	0.31	0.31	0.08	0.34	0.34		0.22	1.00	0.17	0.17	1.00
Clearance Time (s)	7.5	8.0	8.0	7.5	8.0	8.0		7.5		8.0	8.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	91	1107	495	139	1203	538		405	1583	292	307	1583
v/s Ratio Prot	0.02	0.27		c0.04	c0.28			c0.21		c0.15	0.12	
v/s Ratio Perm			0.02			0.07			0.08			0.03
v/c Ratio	0.40	0.85	0.06	0.54	0.82	0.19		0.96	0.08	0.90	0.76	0.03
Uniform Delay, d1	64.3	45.1	33.7	62.1	42.2	32.6		53.8	0.0	57.4	55.8	0.0
Progression Factor	1.00	1.00	1.00	0.95	1.62	6.72		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.8	8.4	0.2	3.6	5.7	0.7		34.4	0.1	29.1	10.1	0.0
Delay (s)	67.1	53.5	33.9	62.5	73.9	220.0		88.3	0.1	86.5	65.9	0.0
Level of Service	E	D	C	E	E	F		F	A	F	E	A
Approach Delay (s)		52.3			106.0			65.8			70.7	
Approach LOS		D			F			E			E	

Intersection Summary			
HCM 2000 Control Delay	78.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	89.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	356	4	7	501	200	19	22	12	130	6	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0	7.0		8.0		7.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98		0.95	1.00	1.00
Satd. Flow (prot)	1770	1860		1770	1863	1583		1773		1770	1863	1583
Flt Permitted	0.32	1.00		0.54	1.00	1.00		0.98		0.95	1.00	1.00
Satd. Flow (perm)	601	1860		1000	1863	1583		1773		1770	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	211	375	4	7	527	211	20	23	13	137	6	255
RTOR Reduction (vph)	0	0	0	0	0	78	0	9	0	0	0	227
Lane Group Flow (vph)	211	379	0	7	527	133	0	47	0	137	6	28
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		4	4		3	3	
Permitted Phases	2			6		6						3
Actuated Green, G (s)	98.3	98.3		79.2	79.2	79.2		8.1		15.6	15.6	15.6
Effective Green, g (s)	98.3	98.3		79.2	79.2	79.2		8.1		15.6	15.6	15.6
Actuated g/C Ratio	0.68	0.68		0.55	0.55	0.55		0.06		0.11	0.11	0.11
Clearance Time (s)	7.0	7.0		7.0	7.0	7.0		8.0		7.0	7.0	7.0
Vehicle Extension (s)	3.0	4.0		4.0	4.0	4.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	508	1269		550	1024	870		99		191	201	171
v/s Ratio Prot	c0.03	0.20			c0.28			c0.03		c0.08	0.00	
v/s Ratio Perm	0.25			0.01		0.08						0.02
v/c Ratio	0.42	0.30		0.01	0.51	0.15		0.47		0.72	0.03	0.16
Uniform Delay, d1	11.5	9.1		14.7	20.3	15.9		65.9		62.1	57.4	58.3
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.6	0.2		0.0	1.8	0.4		3.5		12.1	0.1	0.4
Delay (s)	12.1	9.3		14.7	22.2	16.3		69.4		74.2	57.5	58.7
Level of Service	B	A		B	C	B		E		E	E	E
Approach Delay (s)		10.3			20.4			69.4			64.0	
Approach LOS		B			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	28.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	144.0	Sum of lost time (s)	29.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	283	488	35	428	1665	217	172	300	332	76	104	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.0	7.0	7.0	7.0		7.0	7.5	4.0	7.0	7.0	7.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3478		1681	1765	1583	1770	1863	1583
Flt Permitted	0.09	1.00	1.00	0.95	1.00		0.38	0.99	1.00	0.55	1.00	1.00
Satd. Flow (perm)	162	3539	1583	1770	3478		666	1744	1583	1025	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	298	514	37	451	1753	228	181	316	349	80	109	108
RTOR Reduction (vph)	0	0	25	0	7	0	0	0	0	0	0	99
Lane Group Flow (vph)	298	514	12	451	1974	0	163	334	349	80	109	9
Turn Type	pm+pt	NA	Perm	Prot	NA		pm+pt	NA	Free	Perm	NA	Perm
Protected Phases	1	6		5	2		7	4			8	
Permitted Phases	6		6				4		Free	8		8
Actuated Green, G (s)	63.0	46.0	46.0	40.0	72.0		32.5	32.5	140.0	11.8	11.8	11.8
Effective Green, g (s)	63.0	46.0	46.0	40.0	72.0		32.5	32.5	140.0	11.8	11.8	11.8
Actuated g/C Ratio	0.45	0.33	0.33	0.29	0.51		0.23	0.23	1.00	0.08	0.08	0.08
Clearance Time (s)	4.0	7.0	7.0	7.0	7.0		7.0	7.5		7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	268	1162	520	505	1788		257	406	1583	86	157	133
v/s Ratio Prot	c0.13	0.15		0.25	c0.57		0.06	c0.08			0.06	
v/s Ratio Perm	0.37		0.01				0.08	c0.11	0.22	0.08		0.01
v/c Ratio	1.11	0.44	0.02	0.89	1.10		0.63	0.82	0.22	0.93	0.69	0.07
Uniform Delay, d1	44.1	36.9	31.8	47.9	34.0		46.0	51.0	0.0	63.7	62.3	59.0
Progression Factor	1.34	0.99	1.00	1.03	0.89		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	76.0	0.2	0.0	15.4	54.4		5.0	12.6	0.3	73.9	12.5	0.2
Delay (s)	135.1	36.7	31.8	64.6	84.5		51.0	63.7	0.3	137.6	74.9	59.3
Level of Service	F	D	C	E	F		D	E	A	F	E	E
Approach Delay (s)		71.0			80.8			35.1			86.1	
Approach LOS		E			F			D			F	

Intersection Summary			
HCM 2000 Control Delay	70.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	111.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	401	112	147	399	269	388
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		6.5	6.5	6.5	6.5
Lane Util. Factor	0.95		1.00	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3423		1770	1863	1770	1583
Flt Permitted	1.00		0.30	1.00	0.95	1.00
Satd. Flow (perm)	3423		560	1863	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	422	118	155	420	283	408
RTOR Reduction (vph)	36	0	0	0	0	245
Lane Group Flow (vph)	504	0	155	420	283	163
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Actuated Green, G (s)	14.5		24.7	24.7	14.1	14.1
Effective Green, g (s)	14.5		24.7	24.7	14.1	14.1
Actuated g/C Ratio	0.28		0.48	0.48	0.27	0.27
Clearance Time (s)	6.5		6.5	6.5	6.5	6.5
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	958		353	888	481	430
v/s Ratio Prot	0.15		0.03	c0.23	c0.16	
v/s Ratio Perm			0.18			0.10
v/c Ratio	0.53		0.44	0.47	0.59	0.38
Uniform Delay, d1	15.7		8.3	9.2	16.3	15.3
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5		0.9	0.4	1.8	0.6
Delay (s)	16.3		9.2	9.6	18.2	15.9
Level of Service	B		A	A	B	B
Approach Delay (s)	16.3			9.5	16.8	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	51.8	Sum of lost time (s)	19.5
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	241	216	195	141	390	224
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	6.5		6.5	6.5
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.94		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	3317		1770	3539
Flt Permitted	0.95	1.00	1.00		0.35	1.00
Satd. Flow (perm)	1770	1583	3317		659	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	254	227	205	148	411	236
RTOR Reduction (vph)	0	170	111	0	0	0
Lane Group Flow (vph)	254	57	242	0	411	236
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	12.3	12.3	12.3		23.8	23.8
Effective Green, g (s)	12.3	12.3	12.3		23.8	23.8
Actuated g/C Ratio	0.25	0.25	0.25		0.48	0.48
Clearance Time (s)	6.5	6.5	6.5		6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	443	396	830		432	1715
v/s Ratio Prot	c0.14		0.07		c0.10	0.07
v/s Ratio Perm		0.04			c0.36	
v/c Ratio	0.57	0.14	0.29		0.95	0.14
Uniform Delay, d1	16.1	14.3	14.9		11.5	7.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.8	0.2	0.2		31.0	0.0
Delay (s)	17.9	14.5	15.1		42.5	7.0
Level of Service	B	B	B		D	A
Approach Delay (s)	16.3		15.1			29.6
Approach LOS	B		B			C

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	49.1	Sum of lost time (s)	19.5
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	589	184	0	1920	516	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	4.0		7.5	6.5	4.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1583		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1583		3539	3433	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	620	194	0	2021	543	208
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	620	194	0	2021	543	208
Turn Type	NA	Free		NA	Prot	Free
Protected Phases	6			2	4	
Permitted Phases		Free				Free
Actuated Green, G (s)	23.5	140.0		74.5	20.5	140.0
Effective Green, g (s)	23.5	140.0		74.5	20.5	140.0
Actuated g/C Ratio	0.17	1.00		0.53	0.15	1.00
Clearance Time (s)	7.5			7.5	6.5	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	594	1583		1883	502	1583
v/s Ratio Prot	c0.18			c0.57	c0.16	
v/s Ratio Perm		0.12				0.13
v/c Ratio	1.04	0.12		1.07	1.08	0.13
Uniform Delay, d1	58.2	0.0		32.8	59.8	0.0
Progression Factor	0.48	1.00		0.29	1.00	1.00
Incremental Delay, d2	45.0	0.1		34.2	64.0	0.2
Delay (s)	73.3	0.1		43.5	123.8	0.2
Level of Service	E	A		D	F	A
Approach Delay (s)	55.9			43.5	89.5	
Approach LOS	E			D	F	

Intersection Summary			
HCM 2000 Control Delay	56.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	21.5
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	237	22	490	326	27	338
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.40	1.00	0.95	1.00
Satd. Flow (perm)	1863	1583	740	1863	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	249	23	516	343	28	356
RTOR Reduction (vph)	0	17	0	0	0	297
Lane Group Flow (vph)	249	6	516	343	28	59
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	13.4	13.4	27.5	27.5	8.3	8.3
Effective Green, g (s)	13.4	13.4	27.5	27.5	8.3	8.3
Actuated g/C Ratio	0.27	0.27	0.55	0.55	0.17	0.17
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	4.0	4.0	3.0	4.0	3.0	3.0
Lane Grp Cap (vph)	501	425	555	1028	295	263
v/s Ratio Prot	0.13		c0.13	0.18	0.02	
v/s Ratio Perm		0.00	c0.38			c0.04
v/c Ratio	0.50	0.01	0.93	0.33	0.09	0.23
Uniform Delay, d1	15.4	13.4	9.4	6.1	17.6	18.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	0.0	22.0	0.3	0.1	0.4
Delay (s)	16.4	13.4	31.4	6.4	17.7	18.4
Level of Service	B	B	C	A	B	B
Approach Delay (s)	16.2			21.4	18.4	
Approach LOS	B			C	B	

Intersection Summary			
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	49.8	Sum of lost time (s)	21.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	145	557	45	31	1167	24	215	95	57	133	47	598
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.94		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3500		1770	3529		1770	1758		1770	1604	
Flt Permitted	0.08	1.00		0.33	1.00		0.08	1.00		0.66	1.00	
Satd. Flow (perm)	155	3500		616	3529		155	1758		1221	1604	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	153	586	47	33	1228	25	226	100	60	140	49	629
RTOR Reduction (vph)	0	4	0	0	1	0	0	17	0	0	126	0
Lane Group Flow (vph)	153	629	0	33	1252	0	226	143	0	140	552	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	1	6		5	2		7	4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	56.2	48.2		49.4	44.8		59.5	59.5		41.5	41.5	
Effective Green, g (s)	56.2	48.2		49.4	44.8		59.5	59.5		41.5	41.5	
Actuated g/C Ratio	0.42	0.36		0.37	0.34		0.45	0.45		0.31	0.31	
Clearance Time (s)	7.0	7.0		7.0	7.0		6.5	6.5		6.5	6.5	
Vehicle Extension (s)	3.0	4.0		3.0	4.0		4.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	162	1270		269	1190		209	787		381	501	
v/s Ratio Prot	c0.06	0.18		0.00	c0.35		c0.09	0.08			0.34	
v/s Ratio Perm	c0.34			0.04			c0.39			0.11		
v/c Ratio	0.94	0.50		0.12	1.05		1.08	0.18		0.37	1.10	
Uniform Delay, d1	32.2	32.9		27.0	44.0		38.9	22.0		35.5	45.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	54.0	0.4		0.2	40.8		85.6	0.1		0.6	71.1	
Delay (s)	86.2	33.3		27.2	84.8		124.5	22.1		36.1	116.7	
Level of Service	F	C		C	F		F	C		D	F	
Approach Delay (s)		43.6			83.4			82.0			102.9	
Approach LOS		D			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	78.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	132.8	Sum of lost time (s)	27.0
Intersection Capacity Utilization	114.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	648	195	166	1713	320	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	6.5	
Lane Util. Factor	0.95		1.00	0.95	0.97	
Frt	0.96		1.00	1.00	0.97	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	3412		1770	3539	3378	
Flt Permitted	1.00		0.27	1.00	0.96	
Satd. Flow (perm)	3412		505	3539	3378	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	95%	100%	100%	100%	100%	100%
Adj. Flow (vph)	648	205	175	1803	337	74
RTOR Reduction (vph)	12	0	0	0	16	0
Lane Group Flow (vph)	841	0	175	1803	395	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	87.8		104.8	104.8	21.7	
Effective Green, g (s)	87.8		104.8	104.8	21.7	
Actuated g/C Ratio	0.63		0.75	0.75	0.15	
Clearance Time (s)	7.0		7.0	7.0	6.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2139		468	2649	523	
v/s Ratio Prot	0.25		0.03	c0.51	c0.12	
v/s Ratio Perm			0.25			
v/c Ratio	0.39		0.37	0.68	0.76	
Uniform Delay, d1	12.9		6.4	9.0	56.6	
Progression Factor	2.30		1.00	1.00	1.00	
Incremental Delay, d2	0.1		0.5	1.4	6.1	
Delay (s)	29.8		6.9	10.5	62.7	
Level of Service	C		A	B	E	
Approach Delay (s)	29.8			10.1	62.7	
Approach LOS	C			B	E	

Intersection Summary			
HCM 2000 Control Delay	22.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	867	16	4	378	335	47	0	5	316	1	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0		6.5	6.5			6.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	0.93		1.00	0.85			0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.96	
Satd. Flow (prot)	1770	1863	1583	1770	1731		1770	1583			1753	
Flt Permitted	0.22	1.00	1.00	0.05	1.00		0.74	1.00			0.75	
Satd. Flow (perm)	402	1863	1583	102	1731		1370	1583			1376	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	94	913	17	4	398	353	49	0	5	333	1	54
RTOR Reduction (vph)	0	0	9	0	23	0	0	3	0	0	4	0
Lane Group Flow (vph)	94	913	8	4	728	0	49	2	0	0	384	0
Turn Type	Perm	NA	Perm	pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases		6		5	2		7	4			8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	66.3	66.3	66.3	74.2	74.2		47.4	47.4			37.0	
Effective Green, g (s)	66.3	66.3	66.3	74.2	74.2		47.4	47.4			37.0	
Actuated g/C Ratio	0.49	0.49	0.49	0.55	0.55		0.35	0.35			0.27	
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0		6.5	6.5			6.5	
Vehicle Extension (s)	4.0	4.0	4.0	3.0	4.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	197	914	776	67	950		492	555			376	
v/s Ratio Prot		c0.49		0.00	c0.42		c0.00	0.00				
v/s Ratio Perm	0.23		0.01	0.03			0.03				c0.28	
v/c Ratio	0.48	1.00	0.01	0.06	0.77		0.10	0.00			1.02	
Uniform Delay, d1	22.9	34.4	17.6	31.6	23.7		32.0	28.5			49.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	2.5	29.3	0.0	0.4	4.0		0.1	0.0			51.7	
Delay (s)	25.4	63.7	17.6	31.9	27.7		32.1	28.5			100.7	
Level of Service	C	E	B	C	C		C	C			F	
Approach Delay (s)		59.4			27.7			31.8			100.7	
Approach LOS		E			C			C			F	

Intersection Summary			
HCM 2000 Control Delay	55.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	135.1	Sum of lost time (s)	27.0
Intersection Capacity Utilization	94.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	650	679	830	1247	0	0	0	0	148	0	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	4.0	7.0	7.0					7.5		7.5
Lane Util. Factor		0.95	1.00	1.00	0.95					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3539	1583	1770	3539					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		3539	1583	1770	3539					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	684	715	874	1313	0	0	0	0	156	0	94
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	86
Lane Group Flow (vph)	0	684	715	874	1313	0	0	0	0	156	0	8
Turn Type		NA	Free	Prot	NA					Prot		Prot
Protected Phases		6		5	2					8		8
Permitted Phases			Free									
Actuated Green, G (s)		40.2	140.0	66.6	113.8					11.7		11.7
Effective Green, g (s)		40.2	140.0	66.6	113.8					11.7		11.7
Actuated g/C Ratio		0.29	1.00	0.48	0.81					0.08		0.08
Clearance Time (s)		7.0		7.0	7.0					7.5		7.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1016	1583	842	2876					286		132
v/s Ratio Prot		c0.19		c0.49	0.37					0.05		0.00
v/s Ratio Perm			c0.45									
v/c Ratio		0.67	0.45	1.04	0.46					0.55		0.06
Uniform Delay, d1		44.1	0.0	36.7	3.9					61.6		59.1
Progression Factor		1.59	1.00	1.45	1.50					1.00		1.00
Incremental Delay, d2		2.3	0.6	21.3	0.0					2.1		0.2
Delay (s)		72.3	0.6	74.6	5.9					63.7		59.3
Level of Service		E	A	E	A					E		E
Approach Delay (s)		35.7			33.3			0.0			62.0	
Approach LOS		D			C			A			E	

Intersection Summary			
HCM 2000 Control Delay	36.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	21.5
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	EBR2	NWL2	NWL	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	71	274	34	122	554	18	73	150	87	48	189	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Lane Util. Factor	1.00	0.88		1.00	0.97		1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	1.00		1.00	0.94		1.00	0.94	
Flt Protected	0.95	1.00		0.95	0.95		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	2787		1770	3431		1770	1760		1770	1753	
Flt Permitted	0.31	1.00		0.54	0.95		0.41	1.00		0.60	1.00	
Satd. Flow (perm)	586	2787		1010	3431		773	1760		1125	1753	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	75	288	36	128	583	19	77	158	92	51	199	129
RTOR Reduction (vph)	0	158	0	0	158	0	0	22	0	0	24	0
Lane Group Flow (vph)	75	166	0	128	444	0	77	228	0	51	304	0
Turn Type	pm+pt	Prot		pm+pt	Prot		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	19.7	16.1		19.7	16.1		24.1	20.5		22.1	19.5	
Effective Green, g (s)	19.7	16.1		19.7	16.1		24.1	20.5		22.1	19.5	
Actuated g/C Ratio	0.27	0.22		0.27	0.22		0.33	0.28		0.30	0.27	
Clearance Time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	217	616		310	758		305	495		364	469	
v/s Ratio Prot	0.02	0.06		c0.02	c0.13		c0.01	0.13		0.00	c0.17	
v/s Ratio Perm	0.08			0.09			0.07			0.04		
v/c Ratio	0.35	0.27		0.41	0.59		0.25	0.46		0.14	0.65	
Uniform Delay, d1	20.4	23.5		20.9	25.4		17.2	21.6		18.2	23.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.2		0.9	1.2		0.4	0.7		0.2	3.1	
Delay (s)	21.3	23.7		21.8	26.5		17.7	22.3		18.4	26.7	
Level of Service	C	C		C	C		B	C		B	C	
Approach Delay (s)	23.3				25.7			21.2			25.6	
Approach LOS	C				C			C			C	

Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	72.8	Sum of lost time (s)	30.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	110	28	496	44	13	409
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	116	29	522	46	14	431
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	980	522			568	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	980	522			568	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	58	95			99	
cM capacity (veh/h)	273	555			1004	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	116	29	522	46	14	431
Volume Left	116	0	0	0	14	0
Volume Right	0	29	0	46	0	0
cSH	273	555	1700	1700	1004	1700
Volume to Capacity	0.42	0.05	0.31	0.03	0.01	0.25
Queue Length 95th (ft)	50	4	0	0	1	0
Control Delay (s)	27.5	11.9	0.0	0.0	8.6	0.0
Lane LOS	D	B			A	
Approach Delay (s)	24.3		0.0		0.3	
Approach LOS	C					

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	38.9%	ICU Level of Service	A
Analysis Period (min)	15		

SYNCHRO Intersections Summary Sheets
(YR 2020 PM peak hour)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	901	186	182	791	330	67	275	62	280	303	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5	7.5	8.0	8.0		8.0	4.0	8.0	8.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1845	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00		0.99	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583		1845	1583	1770	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	48	948	196	192	833	347	71	289	65	295	319	39
RTOR Reduction (vph)	0	0	106	0	0	191	0	0	0	0	0	0
Lane Group Flow (vph)	48	948	90	192	833	156	0	360	65	295	319	39
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Free	Split	NA	Free
Protected Phases	1	6		5	2		4	4		3	3	
Permitted Phases			6			2			Free			Free
Actuated Green, G (s)	8.3	43.2	43.2	18.0	52.4	52.4		28.5	150.0	29.3	29.3	150.0
Effective Green, g (s)	8.3	43.2	43.2	18.0	52.4	52.4		28.5	150.0	29.3	29.3	150.0
Actuated g/C Ratio	0.06	0.29	0.29	0.12	0.35	0.35		0.19	1.00	0.20	0.20	1.00
Clearance Time (s)	7.5	7.5	7.5	7.5	8.0	8.0		8.0		8.0	8.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	97	1019	455	212	1236	552		350	1583	345	363	1583
v/s Ratio Prot	0.03	c0.27		c0.11	c0.24			c0.20		0.17	c0.17	
v/s Ratio Perm			0.06			0.10			0.04			0.02
v/c Ratio	0.49	0.93	0.20	0.91	0.67	0.28		1.03	0.04	0.86	0.88	0.02
Uniform Delay, d1	68.8	51.9	40.3	65.2	41.5	35.2		60.8	0.0	58.3	58.6	0.0
Progression Factor	1.00	1.00	1.00	0.75	1.18	2.84		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.9	15.7	1.0	34.8	2.7	1.2		55.6	0.0	18.3	20.7	0.0
Delay (s)	72.7	67.6	41.3	83.4	51.6	101.1		116.4	0.0	76.6	79.3	0.0
Level of Service	E	E	D	F	D	F		F	A	E	E	A
Approach Delay (s)		63.5			68.6			98.6			73.3	
Approach LOS		E			E			F			E	

Intersection Summary			
HCM 2000 Control Delay	71.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	31.5
Intersection Capacity Utilization	94.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	252	587	25	9	469	135	15	15	7	240	22	334
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0	7.0		8.0		7.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98		0.95	1.00	1.00
Satd. Flow (prot)	1770	1851		1770	1863	1583		1781		1770	1863	1583
Flt Permitted	0.28	1.00		0.42	1.00	1.00		0.98		0.95	1.00	1.00
Satd. Flow (perm)	517	1851		783	1863	1583		1781		1770	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	265	618	26	9	494	142	16	16	7	253	23	352
RTOR Reduction (vph)	0	1	0	0	0	79	0	7	0	0	0	295
Lane Group Flow (vph)	265	643	0	9	494	63	0	32	0	253	23	57
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		4	4		3	3	
Permitted Phases	2			6		6						3
Actuated Green, G (s)	91.7	91.7		64.1	64.1	64.1		7.1		23.2	23.2	23.2
Effective Green, g (s)	91.7	91.7		64.1	64.1	64.1		7.1		23.2	23.2	23.2
Actuated g/C Ratio	0.64	0.64		0.45	0.45	0.45		0.05		0.16	0.16	0.16
Clearance Time (s)	7.0	7.0		7.0	7.0	7.0		8.0		7.0	7.0	7.0
Vehicle Extension (s)	3.0	4.0		4.0	4.0	4.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	508	1178		348	829	704		87		285	300	255
v/s Ratio Prot	0.07	c0.35			c0.27			c0.02		c0.14	0.01	
v/s Ratio Perm	0.26			0.01		0.04						0.04
v/c Ratio	0.52	0.55		0.03	0.60	0.09		0.37		0.89	0.08	0.22
Uniform Delay, d1	15.7	14.6		22.4	30.2	23.1		66.3		59.1	51.3	52.6
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	1.0	0.7		0.1	3.1	0.3		2.7		26.5	0.1	0.4
Delay (s)	16.6	15.2		22.6	33.3	23.3		69.0		85.6	51.4	53.0
Level of Service	B	B		C	C	C		E		F	D	D
Approach Delay (s)		15.6			31.0			69.0			66.1	
Approach LOS		B			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	35.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	144.0	Sum of lost time (s)	29.0
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	1523	135	393	628	79	66	109	537	186	258	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.0	7.0	7.0	7.0		7.0	7.5	4.0	7.0	7.0	7.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3480		1681	1765	1583	1770	1863	1583
Flt Permitted	0.37	1.00	1.00	0.95	1.00		0.20	0.95	1.00	0.67	1.00	1.00
Satd. Flow (perm)	688	3539	1583	1770	3480		350	1684	1583	1257	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	112	1603	142	414	661	83	69	115	565	196	272	260
RTOR Reduction (vph)	0	0	83	0	6	0	0	0	0	0	0	214
Lane Group Flow (vph)	112	1603	59	414	738	0	62	122	565	196	272	46
Turn Type	pm+pt	NA	Perm	Prot	NA		pm+pt	NA	Free	Perm	NA	Perm
Protected Phases	1	6		5	2		7	4			8	
Permitted Phases	6		6				4		Free	8		8
Actuated Green, G (s)	69.6	62.6	62.6	23.7	82.3		42.2	42.2	150.0	26.5	26.5	26.5
Effective Green, g (s)	69.6	62.6	62.6	23.7	82.3		42.2	42.2	150.0	26.5	26.5	26.5
Actuated g/C Ratio	0.46	0.42	0.42	0.16	0.55		0.28	0.28	1.00	0.18	0.18	0.18
Clearance Time (s)	4.0	7.0	7.0	7.0	7.0		7.0	7.5		7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	369	1476	660	279	1909		180	478	1583	222	329	279
v/s Ratio Prot	0.01	c0.45		c0.23	0.21		0.02	0.02			0.15	
v/s Ratio Perm	0.13		0.04				0.08	0.06	c0.36	c0.16		0.03
v/c Ratio	0.30	1.09	0.09	1.48	0.39		0.34	0.26	0.36	0.88	0.83	0.16
Uniform Delay, d1	23.0	43.7	26.5	63.1	19.4		41.9	41.7	0.0	60.2	59.5	52.4
Progression Factor	0.43	0.57	0.01	1.09	0.86		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	48.4	0.0	235.6	0.6		1.2	0.3	0.6	31.1	15.5	0.3
Delay (s)	10.3	73.5	0.3	304.3	17.3		43.1	42.0	0.6	91.3	75.0	52.6
Level of Service	B	E	A	F	B		D	D	A	F	E	D
Approach Delay (s)		64.1			119.9			10.9			71.4	
Approach LOS		E			F			B			E	

Intersection Summary			
HCM 2000 Control Delay	70.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	107.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	557	296	277	430	138	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		6.5	6.5	6.5	6.5
Lane Util. Factor	0.95		1.00	1.00	1.00	1.00
Frt	0.95		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3355		1770	1863	1770	1583
Flt Permitted	1.00		0.16	1.00	0.95	1.00
Satd. Flow (perm)	3355		307	1863	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	586	312	292	453	145	173
RTOR Reduction (vph)	89	0	0	0	0	141
Lane Group Flow (vph)	809	0	292	453	145	32
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Actuated Green, G (s)	17.8		29.3	29.3	9.5	9.5
Effective Green, g (s)	17.8		29.3	29.3	9.5	9.5
Actuated g/C Ratio	0.34		0.57	0.57	0.18	0.18
Clearance Time (s)	6.5		6.5	6.5	6.5	6.5
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1152		314	1053	324	290
v/s Ratio Prot	0.24		c0.09	0.24	c0.08	
v/s Ratio Perm			c0.44			0.02
v/c Ratio	0.70		0.93	0.43	0.45	0.11
Uniform Delay, d1	14.7		8.6	6.5	18.8	17.6
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	2.0		32.6	0.3	1.0	0.2
Delay (s)	16.7		41.2	6.7	19.8	17.8
Level of Service	B		D	A	B	B
Approach Delay (s)	16.7			20.2	18.7	
Approach LOS	B			C	B	

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	51.8	Sum of lost time (s)	19.5
Intersection Capacity Utilization	64.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	167	303	192	268	209	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	6.5		6.5	6.5
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.91		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	3230		1770	3539
Flt Permitted	0.95	1.00	1.00		0.31	1.00
Satd. Flow (perm)	1770	1583	3230		583	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	176	319	202	282	220	176
RTOR Reduction (vph)	0	251	207	0	0	0
Lane Group Flow (vph)	176	68	277	0	220	176
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	10.1	10.1	12.5		24.0	24.0
Effective Green, g (s)	10.1	10.1	12.5		24.0	24.0
Actuated g/C Ratio	0.21	0.21	0.27		0.51	0.51
Clearance Time (s)	6.5	6.5	6.5		6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	379	339	857		423	1803
v/s Ratio Prot	c0.10		0.09		c0.06	0.05
v/s Ratio Perm		0.04			c0.21	
v/c Ratio	0.46	0.20	0.32		0.52	0.10
Uniform Delay, d1	16.1	15.2	13.9		7.1	6.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.9	0.3	0.2		1.2	0.0
Delay (s)	17.0	15.5	14.1		8.2	6.0
Level of Service	B	B	B		A	A
Approach Delay (s)	16.0		14.1			7.2
Approach LOS	B		B			A

Intersection Summary			
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	47.1	Sum of lost time (s)	19.5
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	988	76	0	956	561	580
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	4.0		7.5	6.5	4.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1583		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1583		3539	3433	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1040	80	0	1006	591	611
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	1040	80	0	1006	591	611
Turn Type	NA	Free		NA	Prot	Free
Protected Phases	6			2	5	
Permitted Phases		Free				Free
Actuated Green, G (s)	48.7	150.0		50.4	29.4	150.0
Effective Green, g (s)	48.7	150.0		50.4	29.4	150.0
Actuated g/C Ratio	0.32	1.00		0.34	0.20	1.00
Clearance Time (s)	7.5			7.5	6.5	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	1148	1583		1189	672	1583
v/s Ratio Prot	c0.29			c0.28	c0.17	
v/s Ratio Perm		0.05				0.39
v/c Ratio	0.91	0.05		0.85	0.88	0.39
Uniform Delay, d1	48.5	0.0		46.2	58.6	0.0
Progression Factor	1.47	1.00		0.82	1.00	1.00
Incremental Delay, d2	9.4	0.1		7.0	12.6	0.7
Delay (s)	80.6	0.1		45.0	71.1	0.7
Level of Service	F	A		D	E	A
Approach Delay (s)	74.8			45.0	35.3	
Approach LOS	E			D	D	

Intersection Summary			
HCM 2000 Control Delay	51.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	21.5
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	230	16	523	297	49	587
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.40	1.00	0.95	1.00
Satd. Flow (perm)	1863	1583	754	1863	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	242	17	551	313	52	618
RTOR Reduction (vph)	0	12	0	0	0	484
Lane Group Flow (vph)	242	5	551	313	52	134
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	13.9	13.9	28.1	28.1	10.3	10.3
Effective Green, g (s)	13.9	13.9	28.1	28.1	10.3	10.3
Actuated g/C Ratio	0.27	0.27	0.54	0.54	0.20	0.20
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	4.0	4.0	3.0	4.0	3.0	3.0
Lane Grp Cap (vph)	494	419	543	999	347	311
v/s Ratio Prot	0.13		c0.14	0.17	0.03	
v/s Ratio Perm		0.00	c0.40			c0.08
v/c Ratio	0.49	0.01	1.01	0.31	0.15	0.43
Uniform Delay, d1	16.3	14.2	11.4	6.8	17.4	18.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.0	42.4	0.2	0.2	1.0
Delay (s)	17.3	14.2	53.7	7.0	17.6	19.4
Level of Service	B	B	D	A	B	B
Approach Delay (s)	17.1			36.8	19.3	
Approach LOS	B			D	B	

Intersection Summary			
HCM 2000 Control Delay	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	52.4	Sum of lost time (s)	21.0
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	556	1196	93	32	654	78	92	104	26	105	74	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.97		1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3501		1770	3483		1770	1807		1770	1654	
Flt Permitted	0.17	1.00		0.14	1.00		0.17	1.00		0.67	1.00	
Satd. Flow (perm)	322	3501		262	3483		321	1807		1248	1654	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	585	1259	98	34	688	82	97	109	27	111	78	232
RTOR Reduction (vph)	0	5	0	0	8	0	0	9	0	0	109	0
Lane Group Flow (vph)	585	1352	0	34	762	0	97	127	0	111	201	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	1	6		5	2		7	4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	57.1	47.4		33.2	30.5		27.0	27.0		16.7	16.7	
Effective Green, g (s)	57.1	47.4		33.2	30.5		27.0	27.0		16.7	16.7	
Actuated g/C Ratio	0.59	0.49		0.34	0.31		0.28	0.28		0.17	0.17	
Clearance Time (s)	7.0	7.0		7.0	7.0		6.5	6.5		6.5	6.5	
Vehicle Extension (s)	3.0	4.0		3.0	4.0		4.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	479	1700		130	1088		145	499		213	283	
v/s Ratio Prot	c0.25	0.39		0.01	0.22		c0.03	0.07			0.12	
v/s Ratio Perm	c0.47			0.08			c0.16			0.09		
v/c Ratio	1.22	0.80		0.26	0.70		0.67	0.25		0.52	0.71	
Uniform Delay, d1	23.7	21.0		22.1	29.5		29.6	27.5		36.8	38.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	117.2	2.8		1.1	2.2		12.2	0.3		2.3	8.2	
Delay (s)	140.9	23.9		23.2	31.7		41.7	27.7		39.1	46.4	
Level of Service	F	C		C	C		D	C		D	D	
Approach Delay (s)		59.1			31.4			33.6			44.4	
Approach LOS		E			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	49.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	97.6	Sum of lost time (s)	27.0
Intersection Capacity Utilization	96.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1738	298	90	841	142	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0	7.0	6.5	
Lane Util. Factor	0.95		1.00	0.95	0.97	
Frt	0.98		1.00	1.00	0.96	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	3461		1770	3539	3355	
Flt Permitted	1.00		0.04	1.00	0.96	
Satd. Flow (perm)	3461		68	3539	3355	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1829	314	95	885	149	48
RTOR Reduction (vph)	4	0	0	0	27	0
Lane Group Flow (vph)	2139	0	95	885	170	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	109.1		123.6	123.6	12.9	
Effective Green, g (s)	109.1		123.6	123.6	12.9	
Actuated g/C Ratio	0.73		0.82	0.82	0.09	
Clearance Time (s)	7.0		7.0	7.0	6.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2517		141	2916	288	
v/s Ratio Prot	c0.62		c0.03	0.25	c0.05	
v/s Ratio Perm			0.52			
v/c Ratio	0.85		0.67	0.30	0.59	
Uniform Delay, d1	14.6		40.5	3.1	66.0	
Progression Factor	1.19		1.00	1.00	1.00	
Incremental Delay, d2	1.3		12.0	0.3	3.1	
Delay (s)	18.7		52.5	3.4	69.1	
Level of Service	B		D	A	E	
Approach Delay (s)	18.7			8.1	69.1	
Approach LOS	B			A	E	

Intersection Summary			
HCM 2000 Control Delay	18.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	544	40	11	824	380	18	0	6	264	1	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	6.5	7.0	7.0		6.5	6.5			6.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.85			0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.96	
Satd. Flow (prot)	1770	1863	1583	1770	1775		1770	1583			1745	
Flt Permitted	0.10	1.00	1.00	0.18	1.00		0.70	1.00			0.76	
Satd. Flow (perm)	196	1863	1583	335	1775		1302	1583			1385	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	52	573	42	12	867	400	19	0	6	278	1	64
RTOR Reduction (vph)	0	0	24	0	16	0	0	4	0	0	9	0
Lane Group Flow (vph)	52	573	18	12	1251	0	19	2	0	0	334	0
Turn Type	Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases		6	7	5	2		7	4			8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	38.1	38.1	41.1	46.1	46.1		36.4	36.4			26.9	
Effective Green, g (s)	38.1	38.1	41.1	46.1	46.1		36.4	36.4			26.9	
Actuated g/C Ratio	0.40	0.40	0.43	0.48	0.48		0.38	0.38			0.28	
Clearance Time (s)	7.0	7.0	6.5	7.0	7.0		6.5	6.5			6.5	
Vehicle Extension (s)	4.0	4.0	3.0	3.0	4.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	77	739	677	175	852		508	600			388	
v/s Ratio Prot		0.31	0.00	0.00	c0.71		c0.00	0.00				
v/s Ratio Perm	0.27		0.01	0.03			0.01				c0.24	
v/c Ratio	0.68	0.78	0.03	0.07	1.47		0.04	0.00			0.86	
Uniform Delay, d1	23.9	25.2	15.9	16.9	24.9		20.6	18.5			32.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	38.5	7.8	0.0	0.2	217.4		0.0	0.0			17.0	
Delay (s)	62.3	33.0	15.9	17.1	242.3		20.6	18.5			49.8	
Level of Service	E	C	B	B	F		C	B			D	
Approach Delay (s)		34.2			240.2			20.1			49.8	
Approach LOS		C			F			C			D	

Intersection Summary			
HCM 2000 Control Delay	150.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	96.0	Sum of lost time (s)	27.0
Intersection Capacity Utilization	102.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	760	624	287	1103	0	0	0	0	342	0	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	4.0	7.0	7.0					7.5		7.5
Lane Util. Factor		0.95	1.00	1.00	0.95					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3539	1583	1770	3539					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		3539	1583	1770	3539					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	800	657	302	1161	0	0	0	0	360	0	184
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	101
Lane Group Flow (vph)	0	800	657	302	1161	0	0	0	0	360	0	83
Turn Type		NA	Free	Prot	NA					Prot		Prot
Protected Phases		6		5	2					8		8
Permitted Phases			Free									
Actuated Green, G (s)		76.8	150.0	30.7	114.5					21.0		21.0
Effective Green, g (s)		76.8	150.0	30.7	114.5					21.0		21.0
Actuated g/C Ratio		0.51	1.00	0.20	0.76					0.14		0.14
Clearance Time (s)		7.0		7.0	7.0					7.5		7.5
Vehicle Extension (s)		3.0		3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1811	1583	362	2701					480		221
v/s Ratio Prot		0.23		c0.17	c0.33					c0.10		0.05
v/s Ratio Perm			0.41									
v/c Ratio		0.44	0.42	0.83	0.43					0.75		0.38
Uniform Delay, d1		23.1	0.0	57.2	6.3					62.0		58.6
Progression Factor		1.37	1.00	0.58	0.14					1.00		1.00
Incremental Delay, d2		0.5	0.5	8.5	0.3					6.5		1.1
Delay (s)		32.0	0.5	41.6	1.1					68.5		59.6
Level of Service		C	A	D	A					E		E
Approach Delay (s)		17.8			9.5			0.0			65.5	
Approach LOS		B			A			A			E	

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	21.5
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	196	528	49	159	367	59	61	252	106	94	206	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.96		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3494		1770	3466		1770	1780		1770	1776	
Flt Permitted	0.45	1.00		0.30	1.00		0.44	1.00		0.34	1.00	
Satd. Flow (perm)	841	3494		564	3466		816	1780		629	1776	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	206	556	52	167	386	62	64	265	112	99	217	98
RTOR Reduction (vph)	0	7	0	0	13	0	0	16	0	0	17	0
Lane Group Flow (vph)	206	601	0	167	435	0	64	361	0	99	298	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	25.4	20.1		25.4	20.1		25.6	21.9		25.6	21.9	
Effective Green, g (s)	25.4	20.1		25.4	20.1		25.6	21.9		25.6	21.9	
Actuated g/C Ratio	0.31	0.25		0.31	0.25		0.32	0.27		0.32	0.27	
Clearance Time (s)	7.5	7.5		7.5	7.5		7.5	7.5		7.5	7.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	324	867		255	860		301	481		250	480	
v/s Ratio Prot	0.04	c0.17		c0.04	0.13		0.01	c0.20		c0.02	0.17	
v/s Ratio Perm	0.16			0.16			0.06			0.11		
v/c Ratio	0.64	0.69		0.65	0.51		0.21	0.75		0.40	0.62	
Uniform Delay, d1	22.3	27.7		21.8	26.2		19.8	27.0		20.5	25.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.1	2.4		5.9	0.5		0.4	6.5		1.0	2.5	
Delay (s)	26.3	30.1		27.7	26.7		20.2	33.5		21.6	28.4	
Level of Service	C	C		C	C		C	C		C	C	
Approach Delay (s)		29.1			26.9			31.6			26.8	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	30.0
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	52	29	561	97	36	574
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	55	31	591	102	38	604
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1271	591			693	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1271	591			693	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	69	94			96	
cM capacity (veh/h)	178	507			903	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	55	31	591	102	38	604
Volume Left	55	0	0	0	38	0
Volume Right	0	31	0	102	0	0
cSH	178	507	1700	1700	903	1700
Volume to Capacity	0.31	0.06	0.35	0.06	0.04	0.36
Queue Length 95th (ft)	31	5	0	0	3	0
Control Delay (s)	34.1	12.6	0.0	0.0	9.2	0.0
Lane LOS	D	B			A	
Approach Delay (s)	26.4		0.0		0.5	
Approach LOS	D					

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	40.2%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix "E"

Intersection Analysis Summary Sheets (AM & PM)

Table E-1 (1 of 4)

Halifax Crossings BPUD

Phase I - AM Peak 2020 Intersection Analysis Summary

S.R. 472 at MLK Jr. Bltwy (W. Volusia Bltwy)				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	32	34			0		34
1.00%	Thru	747	792	I	13.89%	106		898
	Right	82	87			0		87
WB								
Rate	Left	50	53	O	7.16%	18		71
1.00%	Thru	848	899	O	13.89%	34		933
	Right	252	267	O	9.16%	23		290
NB								
Rate	Left	148	157			0		157
1.00%	Thru	201	213			0		213
	Right	67	71	I	7.16%	55		126
SB								
Rate	Left	171	181	I	9.16%	70		251
1.00%	Thru	208	220			0		220
	Right	39	41			0		41

S.R. 472 at I-4 SB Ramps				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	0	0			0		0
1.00%	Thru	423	448	I	26.48%	202		650
	Right	640	679			0		679
WB								
Rate	Left	783	830			0		830
1.00%	Thru	1,115	1,181	O	26.48%	66		1,247
	Right	0	0			0		0
NB								
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0
SB								
Rate	Left	110	116	I	4.17%	32		148
1.00%	Thru	0	0			0		0
	Right	84	89			0		89

Howland Blvd at I-4 NB Ramps				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	0	0			0		0
1.00%	Thru	356	378	I	27.60%	211		589
	Right	174	184			0		184
WB								
Rate	Left	0	0			0		0
1.00%	Thru	1,747	1,852	O	27.60%	68		1,920
	Right	0	0			0		0
NB								
Rate	Left	486	516			0		516
1.00%	Thru	0	0			0		0
	Right	129	137	I	8.03%	61		198
SB								
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0

Howland Blvd at E. Graves Ave				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	0	0	I	35.63%	272	11	283
1.00%	Thru	470	499			0	-11	488
	Right	33	35			0		35
WB								
Rate	Left	404	428			0		428
1.00%	Thru	1,578	1,673			0	-8	1,665
	Right	4	4	I	26.83%	205	8	217
NB								
Rate	Left	162	172			0		172
1.00%	Thru	2	2	I	37.43%	286	12	300
	Right	313	332			0		332
SB								
Rate	Left	2	2	O	26.83%	66	8	76
1.00%	Thru	0	0	O	37.43%	93	11	104
	Right	5	5	O	35.63%	88	10	103

Table E-1 (2 of 4)

Halifax Crossings BPUD

Phase I - AM Peak 2020 Intersection Analysis Summary

Howland Blvd at Wolf Pack Run				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	0	0			0		0
1.00%	Thru	552	585	O	25.38%	63		648
	Right	182	193	O	0.70%	2		195
WB								
Rate	Left	156	166			0		166
1.00%	Thru	1,433	1,519	I	25.38%	194		1,713
	Right	0	0			0		0
NB								
Rate	Left	297	315	I	0.70%	5		320
1.00%	Thru	0	0			0		0
	Right	66	70			0		70
SB								
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0

Howland Blvd at Catalina Blvd				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	121	129	O	6.33%	16		145
1.00%	Thru	491	520	O	15.09%	37		557
	Right	38	40	O	2.20%	5		45
WB								
Rate	Left	29	31			0		31
1.00%	Thru	992	1,052	I	15.09%	115		1,167
	Right	22	24			0		24
NB								
Rate	Left	187	198	I	2.20%	17		215
1.00%	Thru	89	95			0		95
	Right	53	57			0		57
SB								
Rate	Left	125	133			0		133
1.00%	Thru	45	47			0		47
	Right	519	550	I	6.33%	48		598

Howland Blvd at Providence Blvd				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	84	89			0		89
1.00%	Thru	797	845	O	9.05%	22		867
	Right	1	1	O	6.03%	15		16
WB								
Rate	Left	4	4			0		4
1.00%	Thru	292	309	I	9.05%	69		378
	Right	316	335			0		335
NB								
Rate	Left	1	1	I	6.03%	46		47
1.00%	Thru	0	0			0		0
	Right	5	5			0		5
SB								
Rate	Left	298	316			0		316
1.00%	Thru	1	1			0		1
	Right	48	51			0		51

Howland Blvd at Elkcam Blvd				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	64	67	O	1.47%	4		71
1.00%	Thru	245	260	O	5.55%	14		274
	Right	31	33	O	0.55%	1		34
WB								
Rate	Left	115	122			0		122
1.00%	Thru	483	512	I	5.55%	42		554
	Right	17	18			0		18
NB								
Rate	Left	66	69	I	0.55%	4		73
1.00%	Thru	142	150			0		150
	Right	82	87			0		87
SB								
Rate	Left	46	48			0		48
1.00%	Thru	179	189			0		189
	Right	105	112	I	1.47%	11		123

Table E-1 (3 of 4)

Halifax Crossings BPUD

Phase-I AM Peak 2020 Intersection Analysis Summary

E. Graves Ave at Normandy Blvd				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	0	0			0		0
1.00%	Thru	233	247	I	20.18%	154		401
	Right	106	112			0		112
WB								
Rate	Left	98	104	O	17.22%	43		147
1.00%	Thru	329	349	O	20.18%	50		399
	Right	0	0			0		0
NB								
Rate	Left	254	269			0		269
1.00%	Thru	0	0			0		0
	Right	242	256	I	17.22%	132		388
SB								
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0

E. Graves Ave at MLK (N. Kentucky Ave)				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	189	200			0		200
1.00%	Thru	251	266	I	11.79%	90		356
	Right	4	4			0		4
WB								
Rate	Left	6	6	O	0.34%	1		7
1.00%	Thru	445	472	O	11.79%	29		501
	Right	172	182	O	7.45%	18		200
NB								
Rate	Left	17	19			0		19
1.00%	Thru	20	22			0		22
	Right	9	9	I	0.34%	3		12
SB								
Rate	Left	69	73	I	7.45%	57		130
1.00%	Thru	6	6			0		6
	Right	228	242			0		242

MLK Jr. Bltwy (W. Volusia Bltwy) at Cassadaga Rd.				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0
WB								
Rate	Left	90	96	I	1.80%	14		110
1.00%	Thru	0	0			0		0
	Right	26	28			0		28
NB								
Rate	Left	0	0			0		0
1.00%	Thru	451	478	O	7.07%	18		496
	Right	38	40	O	1.80%	4		44
SB								
Rate	Left	13	13			0		13
1.00%	Thru	335	355	I	7.07%	54		409
	Right	0	0			0		0

Normandy Blvd at Elkcam Blvd				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0
WB								
Rate	Left	227	241			0		241
1.00%	Thru	4	0			0		0
	Right	194	205	I	1.44%	11		216
NB								
Rate	Left	0	0			0		0
1.00%	Thru	94	100	I	12.50%	95		195
	Right	133	141			0		141
SB								
Rate	Left	364	386	O	1.44%	4		390
1.00%	Thru	182	193	O	12.50%	31		224
	Right	0	0			0		0

Table E-1 (3 of 4)

Halifax Crossings BPUD

Phase-I AM Peak 2020 Intersection Analysis Summary

E. Graves Ave at Veterans Memorial Pkwy				Project			Passby	AM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
	EB							
Rate	Left	0	0			0		0
1.00%	Thru	189	200	I	4.85%	37		237
	Right	20	22			0		22
	WB							
Rate	Left	446	473	O	6.95%	17		490
1.00%	Thru	296	314	O	4.85%	12		326
	Right	0	0			0		0
	NB							
Rate	Left	25	27			0		27
1.00%	Thru	0	0			0		0
	Right	269	285	I	6.95%	53		338
	SB							
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0

Table E-2 (1 of 4)

Halifax Crossings BPUD

Phase-I PM Peak 2020 Intersection Analysis Summary

S.R. 472 at MLK Jr. Bltwy (W. Volusia Bltwy)				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	44	46			0		46
1.00%	Thru	816	865	I	13.89%	36		901
	Right	176	186			0		186
WB								
Rate	Left	126	134	O	7.16%	48		182
1.00%	Thru	659	698	O	13.89%	93		791
	Right	254	269	O	9.16%	61		330
NB								
Rate	Left	63	67			0		67
1.00%	Thru	259	275			0		275
	Right	41	43	I	7.16%	19		62
SB								
Rate	Left	242	256	I	9.16%	24		280
1.00%	Thru	286	303			0		303
	Right	35	37			0		37

S.R. 472 at I-4 SB Ramps				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	0	0			0		0
1.00%	Thru	651	690	I	26.48%	70		760
	Right	589	624			0		624
WB								
Rate	Left	271	287			0		287
1.00%	Thru	874	926	O	26.48%	177		1,103
	Right	0	0			0		0
NB								
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0
SB								
Rate	Left	312	331	I	4.17%	11		342
1.00%	Thru	0	0			0		0
	Right	165	175			0		175

Howland Blvd at I-4 NB Ramps				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	0	0			0		0
1.00%	Thru	865	916	I	27.60%	72		988
	Right	71	76			0		76
WB								
Rate	Left	0	0			0		0
1.00%	Thru	729	772	O	27.60%	184		956
	Right	0	0			0		0
NB								
Rate	Left	529	561			0		561
1.00%	Thru	0	0			0		0
	Right	527	559	I	8.03%	21		580
SB								
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0

Howland Blvd at E. Graves Ave				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	2	2	I	35.63%	94	10	106
1.00%	Thru	1,446	1,533			0	-10	1,523
	Right	127	135			0		135
WB								
Rate	Left	371	393			0		393
1.00%	Thru	600	636			0	-8	628
	Right	1	1	I	26.83%	70	8	79
NB								
Rate	Left	62	66			0		66
1.00%	Thru	0	0	I	37.43%	98	11	109
	Right	506	537			0		537
SB								
Rate	Left	1	1	O	26.83%	179	6	186
1.00%	Thru	0	0	O	37.43%	250	8	258
	Right	1	1	O	35.63%	238	8	247

Table E-2 (2 of 4)

Halifax Crossings BPUD

Phase-I PM Peak 2020 Intersection Analysis Summary

Howland Blvd at Wolf Pack Run				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
	EB							
Rate	Left	0	0			0		0
1.00%	Thru	1,479	1,568	O	25.38%	170		1,738
	Right	276	293	O	0.70%	5		298
	WB							
Rate	Left	85	90			0		90
1.00%	Thru	730	774	I	25.38%	67		841
	Right	0	0			0		0
	NB							
Rate	Left	132	140	I	0.70%	2		142
1.00%	Thru	0	0			0		0
	Right	44	46			0		46
	SB							
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0

Howland Blvd at Catalina Blvd				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
	EB							
Rate	Left	485	514	O	6.33%	42		556
1.00%	Thru	1,033	1,095	O	15.09%	101		1,196
	Right	74	78	O	2.20%	15		93
	WB							
Rate	Left	30	32			0		32
1.00%	Thru	579	614	I	15.09%	40		654
	Right	74	78			0		78
	NB							
Rate	Left	81	86	I	2.20%	6		92
1.00%	Thru	98	104			0		104
	Right	24	26			0		26
	SB							
Rate	Left	99	105			0		105
1.00%	Thru	70	74			0		74
	Right	191	203	I	6.33%	17		220

Howland Blvd at Providence Blvd				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
	EB							
Rate	Left	47	49			0		49
1.00%	Thru	457	484	O	9.05%	60		544
	Right	0	0	O	6.03%	40		40
	WB							
Rate	Left	10	11			0		11
1.00%	Thru	754	800	I	9.05%	24		824
	Right	358	380			0		380
	NB							
Rate	Left	2	2	I	6.03%	16		18
1.00%	Thru	0	0			0		0
	Right	6	6			0		6
	SB							
Rate	Left	249	264			0		264
1.00%	Thru	1	1			0		1
	Right	58	61			0		61

Howland Blvd at Elkcam Blvd				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
	EB							
Rate	Left	176	186	O	1.47%	10		196
1.00%	Thru	464	491	O	5.55%	37		528
	Right	43	45	O	0.55%	4		49
	WB							
Rate	Left	150	159			0		159
1.00%	Thru	333	352	I	5.55%	15		367
	Right	56	59			0		59
	NB							
Rate	Left	57	60	I	0.55%	1		61
1.00%	Thru	238	252			0		252
	Right	100	106			0		106
	SB							
Rate	Left	88	94			0		94
1.00%	Thru	195	206			0		206
	Right	84	89	I	1.47%	4		93

Table E-2 (3 of 4)

Halifax Crossings BPUD

Phase-I PM Peak 2020 Intersection Analysis Summary

E. Graves Ave at Normandy Blvd				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
	EB							
Rate	Left	0	0			0		0
1.00%	Thru	475	504	I	20.18%	53		557
	Right	279	296			0		296
	WB							
Rate	Left	153	162	O	17.22%	115		277
1.00%	Thru	278	295	O	20.18%	135		430
	Right	0	0			0		0
	NB							
Rate	Left	130	138			0		138
1.00%	Thru	0	0			0		0
	Right	113	119	I	17.22%	45		164
	SB							
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0

E. Graves Ave at MLK (N. Kentucky Ave)				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
	EB							
Rate	Left	238	252			0		252
1.00%	Thru	525	556	I	11.79%	31		587
	Right	23	25			0		25
	WB							
Rate	Left	7	7	O	0.34%	2		9
1.00%	Thru	368	390	O	11.79%	79		469
	Right	81	85	O	7.45%	50		135
	NB							
Rate	Left	15	15			0		15
1.00%	Thru	15	15			0		15
	Right	6	6	I	0.34%	1		7
	SB							
Rate	Left	208	220	I	7.45%	20		240
1.00%	Thru	20	22			0		22
	Right	315	334			0		334

MLK Jr. Bltwy (W. Volusia Bltwy) at Cassadaga Rd.				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
	EB							
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0
	WB							
Rate	Left	45	47	I	1.80%	5		52
1.00%	Thru	0	0			0		0
	Right	27	29			0		29
	NB							
Rate	Left	0	0			0		0
1.00%	Thru	485	514	O	7.07%	47		561
	Right	81	85	O	1.80%	12		97
	SB							
Rate	Left	34	36			0		36
1.00%	Thru	524	555	I	7.07%	19		574
	Right	0	0			0		0

Normandy Blvd at Elkcam Blvd				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
	EB							
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0
	WB							
Rate	Left	158	167			0		167
1.00%	Thru	0	0			0		0
	Right	282	299	I	1.44%	4		303
	NB							
Rate	Left	0	0			0		0
1.00%	Thru	150	159	I	12.50%	33		192
	Right	253	268			0		268
	SB							
Rate	Left	188	199	O	1.44%	10		209
1.00%	Thru	78	83	O	12.50%	84		167
	Right	0	0			0		0

Table E-2 (3 of 4)

Halifax Crossings BPUD

Phase-I PM Peak 2020 Intersection Analysis Summary

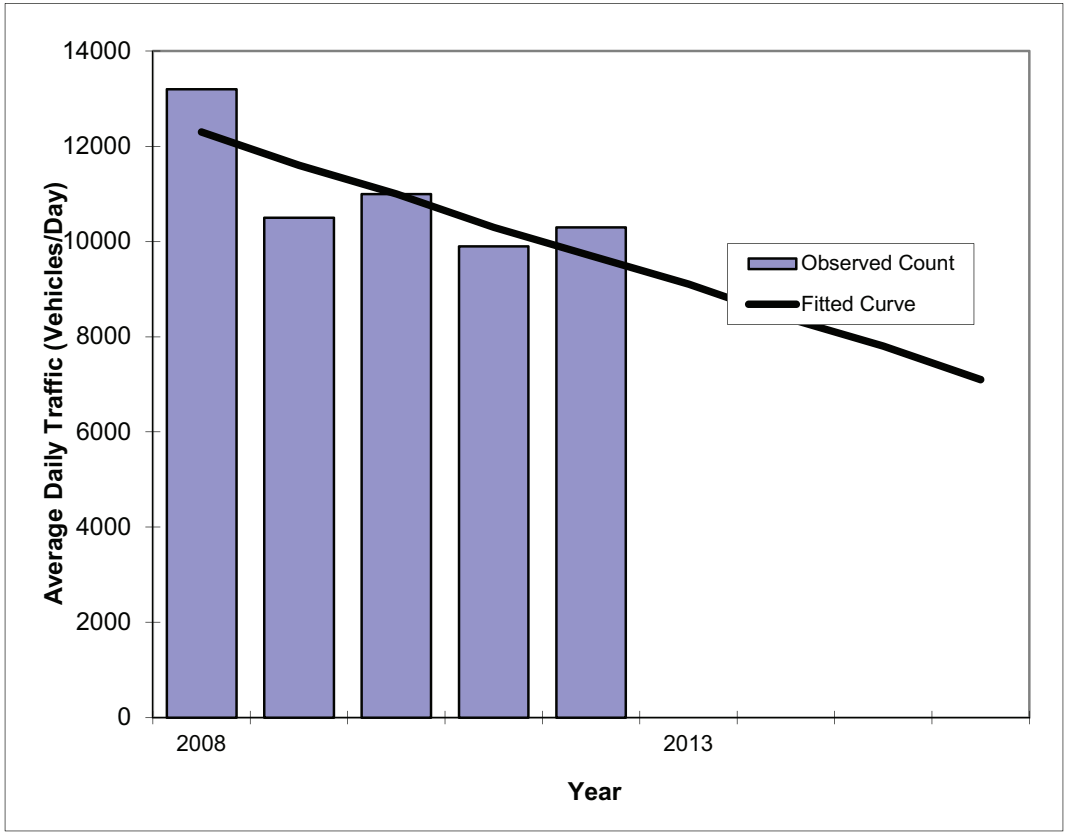
E. Graves Ave at Veterans Memorial Pkwy				Project			Passby	PM
		Existing	Background	In / Out	Dist.	Traffic	Trips	Total
EB								
Rate	Left	0	0			0		0
1.00%	Thru	217	217	I	4.85%	13		230
	Right	16	16			0		16
WB								
Rate	Left	477	477	O	6.95%	46		523
1.00%	Thru	265	265	O	4.85%	32		297
	Right	0	0			0		0
NB								
Rate	Left	49	49			0		49
1.00%	Thru	0	0			0		0
	Right	569	569	I	6.95%	18		587
SB								
Rate	Left	0	0			0		0
1.00%	Thru	0	0			0		0
	Right	0	0			0		0

Appendix "F"
Historical Growth Rate Trends

TRAFFIC TRENDS

W. Volusia Bltwy. (Dr MLK Jr.) -- Orange Camp Rd. to Cassadaga Rd.

County:	Volusia
Highway:	W. Volusia Bltwy. (Dr MLK Jr.)



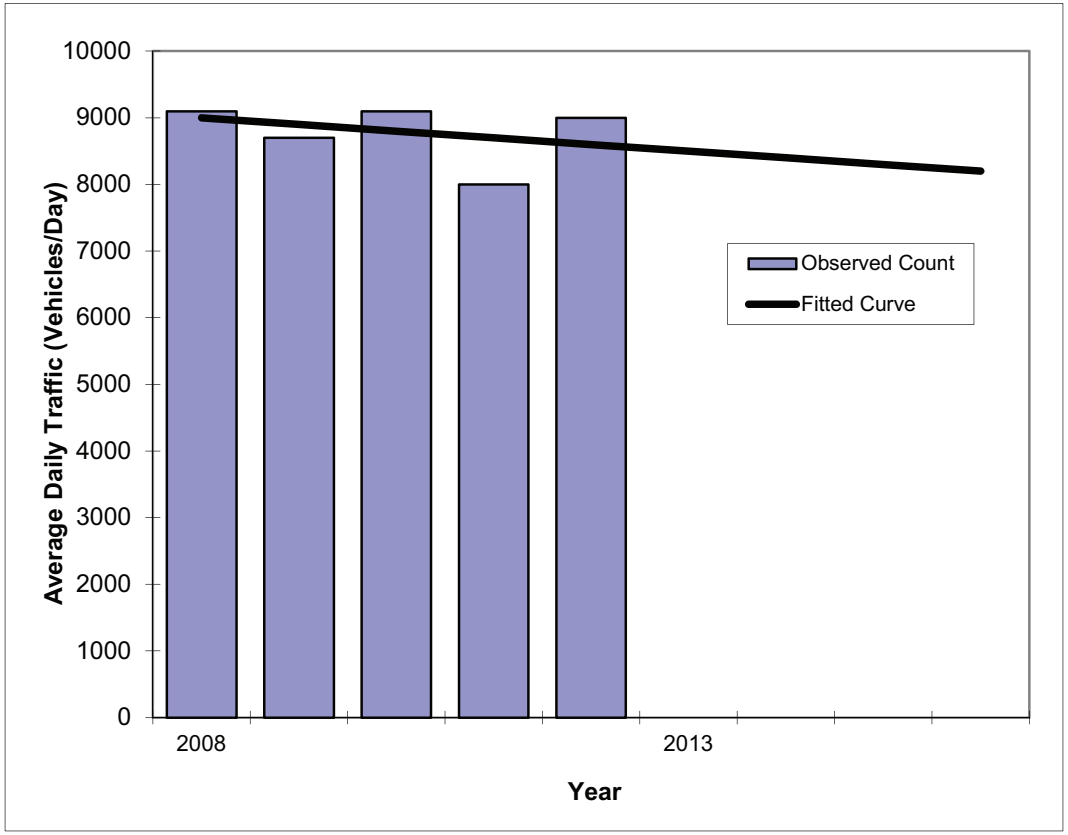
Year	Traffic (ADT) Count*	Trend**
2008	13200	12300
2009	10500	11600
2010	11000	11000
2011	9900	10300
2012	10300	9700
2014	Opening	8400
2015	Mid Year	7800
2016	Design Year	7100

*Axle-Adjusted	
** Annual ADT Increase:	-640
Trend R-squared:	60.3%
Trend Annual Growth Rate	-5.3%
Growth Rate (2012 to Design Year)	-6.7%
Printed	21-Mar-14

TRAFFIC TRENDS

W. Volusia Bltwy. (Dr MLK Jr.) -- SR 472 to Graves Ave.

County:	Volusia
Highway:	W. Volusia Bltwy. (Dr MLK Jr.)



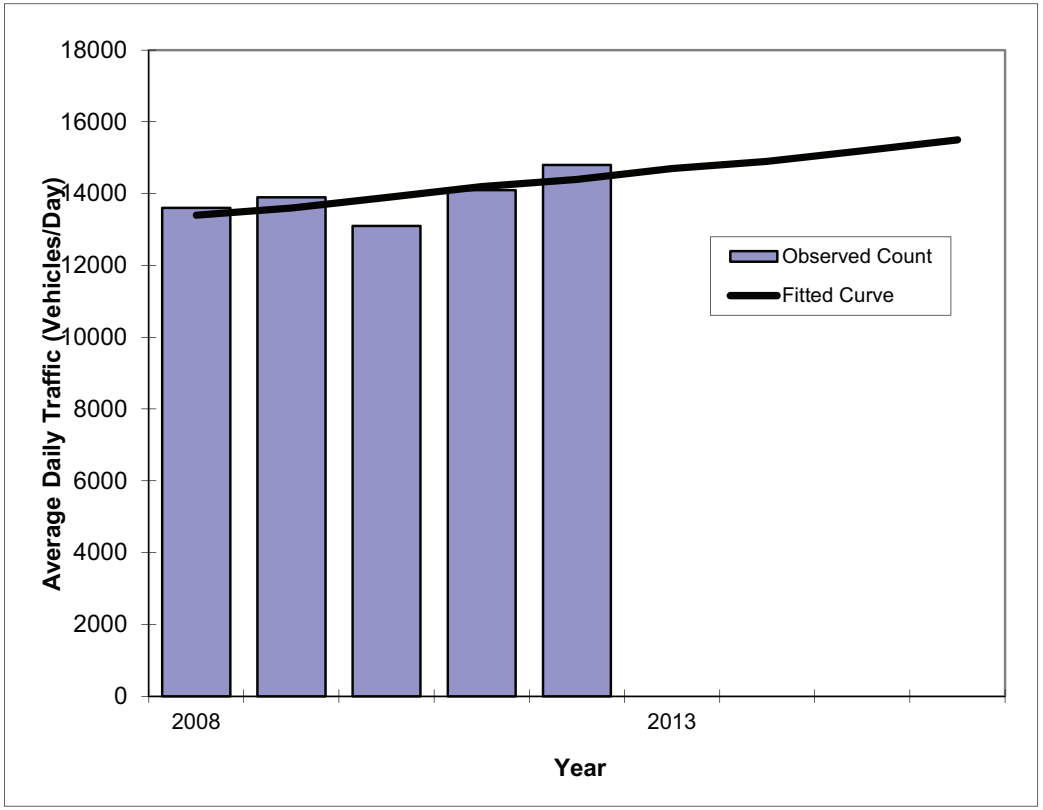
Year	Traffic (ADT) Count*	Trend**
2008	9100	9000
2009	8700	8900
2010	9100	8800
2011	8000	8700
2012	9000	8600
2014	Opening	8400
2015	Mid Year	8300
2016	Design Year	8200

*Axle-Adjusted	
** Annual ADT Increase:	-90
Trend R-squared:	9.3%
Trend Annual Growth Rate	-1.1%
Growth Rate (2012 to Design Year)	-1.2%
Printed	21-Mar-14

TRAFFIC TRENDS

W. Volusia Bltwy. (Veteran's Memorial) -- Graves Ave. to Rhode Island Ave

County:	Volusia
Highway:	W. Volusia Bltwy. (Veteran's Memorial)



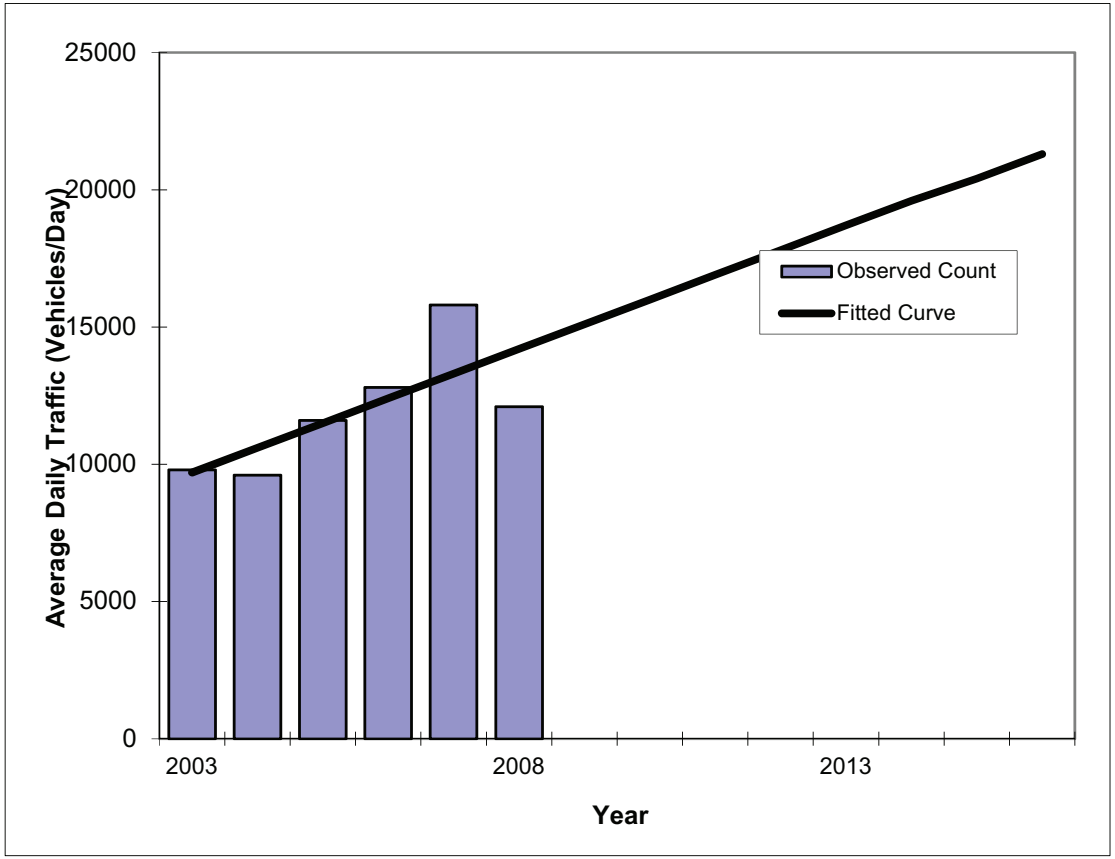
Year	Traffic (ADT) Count*	Trend**
2008	13600	13400
2009	13900	13600
2010	13100	13900
2011	14100	14200
2012	14800	14400
2014	Opening	14900
2015	Mid Year	15200
2016	Design Year	15500

*Axle-Adjusted	
** Annual ADT Increase:	260
Trend R-squared:	42.8%
Trend Annual Growth Rate	1.9%
Growth Rate (2012 to Design Year)	1.9%
Printed	21-Mar-14

TRAFFIC TRENDS

Catalina Blvd. -- Howland Blvd. to Sixma Rd.

County:	Volusia
Highway:	Catalina Blvd.



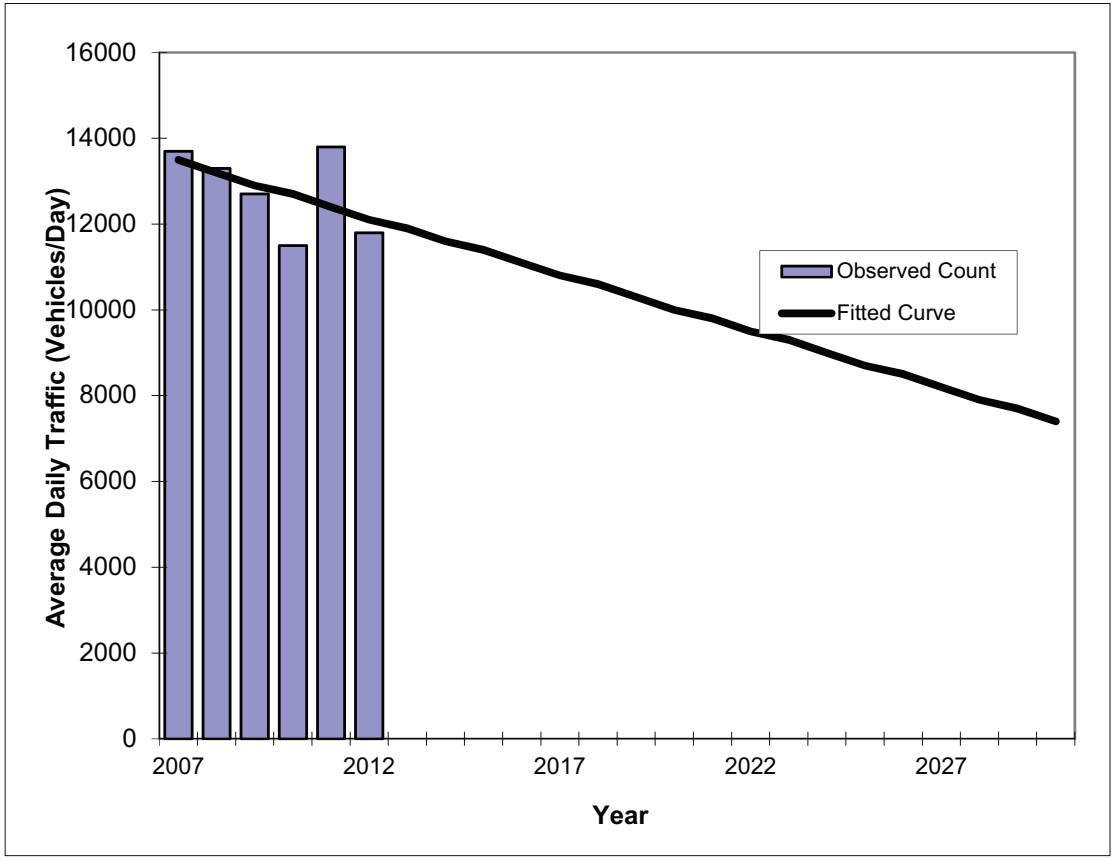
Year	Traffic (ADT) Count*	Trend**
2003	9800	9700
2004	9600	10600
2005	11600	11500
2006	12800	12400
2007	15800	13300
2008	12100	14200
2014	Opening	19600
2015	Mid Year	20400
2016	Design Year	21300

*Axle-Adjusted	
** Annual ADT Increase:	894
Trend R-squared:	54.2%
Trend Annual Growth Rate	9.3%
Growth Rate (2008 to Design Year)	6.3%
Printed	20-Mar-14

TRAFFIC TRENDS

Graves Av./CR 4145 -- Kentucky Ave. to Howland Blvd.

County:	Volusia
Highway:	Graves Av./CR 4145



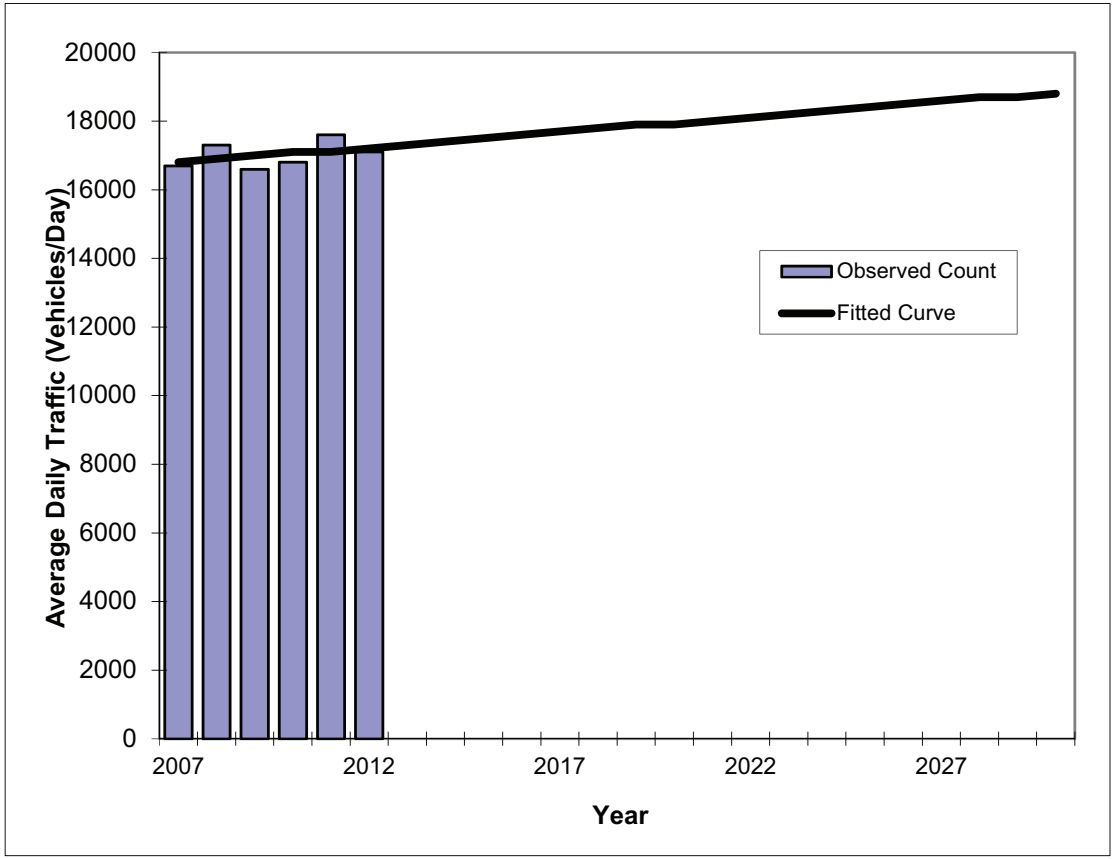
Year	Traffic (ADT) Count*	Trend**
2007	13700	13500
2008	13300	13200
2009	12700	12900
2010	11500	12700
2011	13800	12400
2012	11800	12100
2019	Opening	10300
2025	Mid Year	8700
2030	Design Year	7400

*Axle-Adjusted	
** Annual ADT Increase:	-263
Trend R-squared:	25.4%
Trend Annual Growth Rate	-2.1%
Growth Rate (2012 to Design Year)	-2.2%
Printed	21-Mar-14

TRAFFIC TRENDS

Graves Av./CR 4145 -- Veteran's Memorial Pkwy. to Kentucky Ave.

County:	Volusia
Highway:	Graves Av./CR 4145



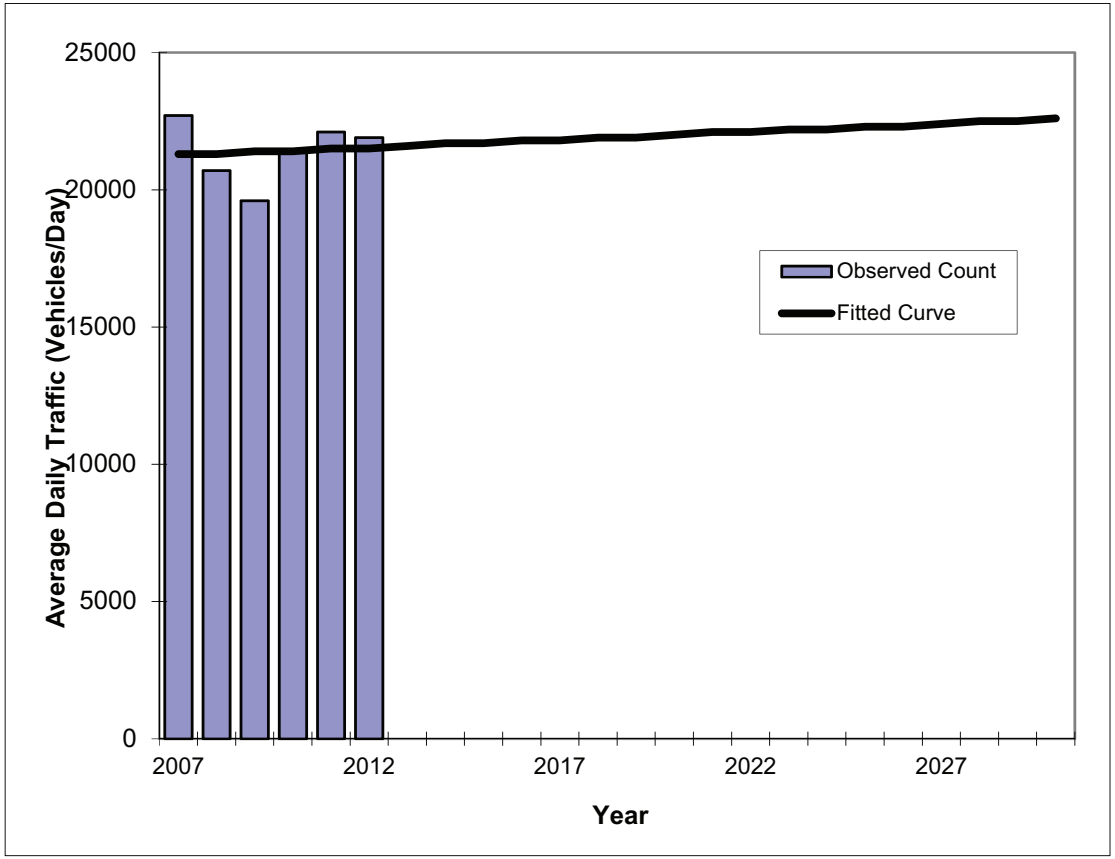
Year	Traffic (ADT) Count*	Trend**
2007	16700	16800
2008	17300	16900
2009	16600	17000
2010	16800	17100
2011	17600	17100
2012	17100	17200
2019	Opening	17900
2025	Mid Year	18400
2030	Design Year	18800

*Axle-Adjusted	
** Annual ADT Increase:	89
Trend R-squared:	18.3%
Trend Annual Growth Rate	0.5%
Growth Rate (2012 to Design Year)	0.5%
Printed	21-Mar-14

TRAFFIC TRENDS

Howland Blvd. -- Catalina Blvd. to Providence Blvd.

County:	Volusia
Highway:	Howland Blvd.



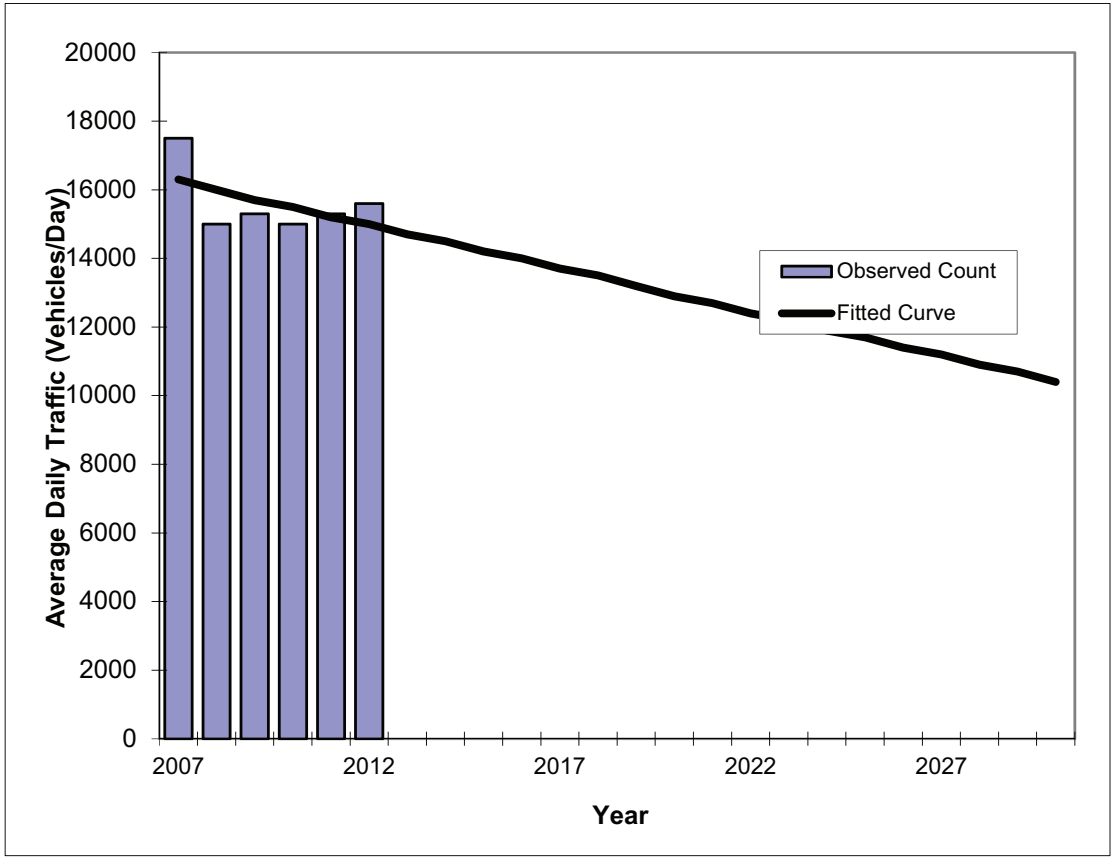
Year	Traffic (ADT) Count*	Trend**
2007	22700	21300
2008	20700	21300
2009	19600	21400
2010	21400	21400
2011	22100	21500
2012	21900	21500
2019	Opening	21900
2025	Mid Year	22300
2030	Design Year	22600

*Axle-Adjusted	
** Annual ADT Increase:	57
Trend R-squared:	0.9%
Trend Annual Growth Rate	0.2%
Growth Rate (2012 to Design Year)	0.3%
Printed	21-Mar-14

TRAFFIC TRENDS

Howland Blvd. -- Elkcam Blvd. to Lake Helen-Osteen Rd.

County:	Volusia
Highway:	Howland Blvd.



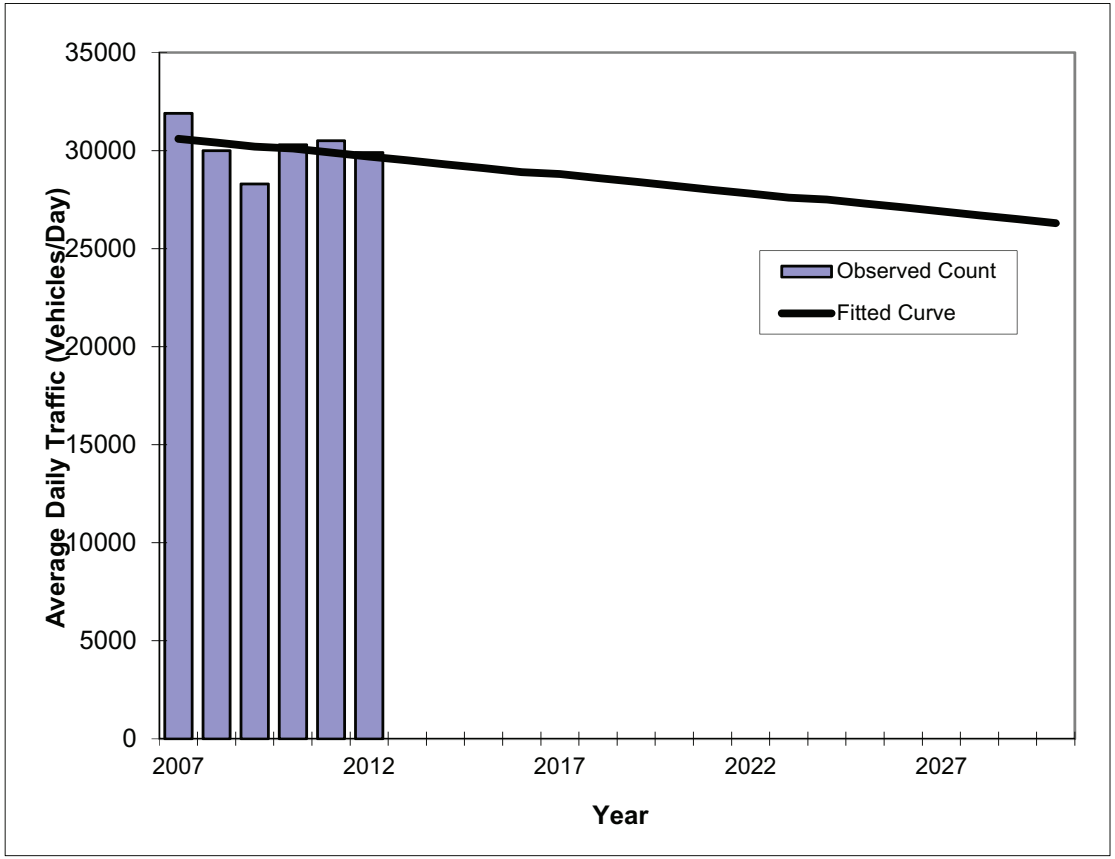
Year	Traffic (ADT) Count*	Trend**
2007	17500	16300
2008	15000	16000
2009	15300	15700
2010	15000	15500
2011	15300	15200
2012	15600	15000
2019	Opening	13200
2025	Mid Year	11700
2030	Design Year	10400

*Axle-Adjusted	
** Annual ADT Increase:	-254
Trend R-squared:	25.1%
Trend Annual Growth Rate	-1.6%
Growth Rate (2012 to Design Year)	-1.7%
Printed	21-Mar-14

TRAFFIC TRENDS

Howland Blvd. -- I-4/SR 472 to Wolf Pack Run

County:	Volusia
Highway:	Howland Blvd.



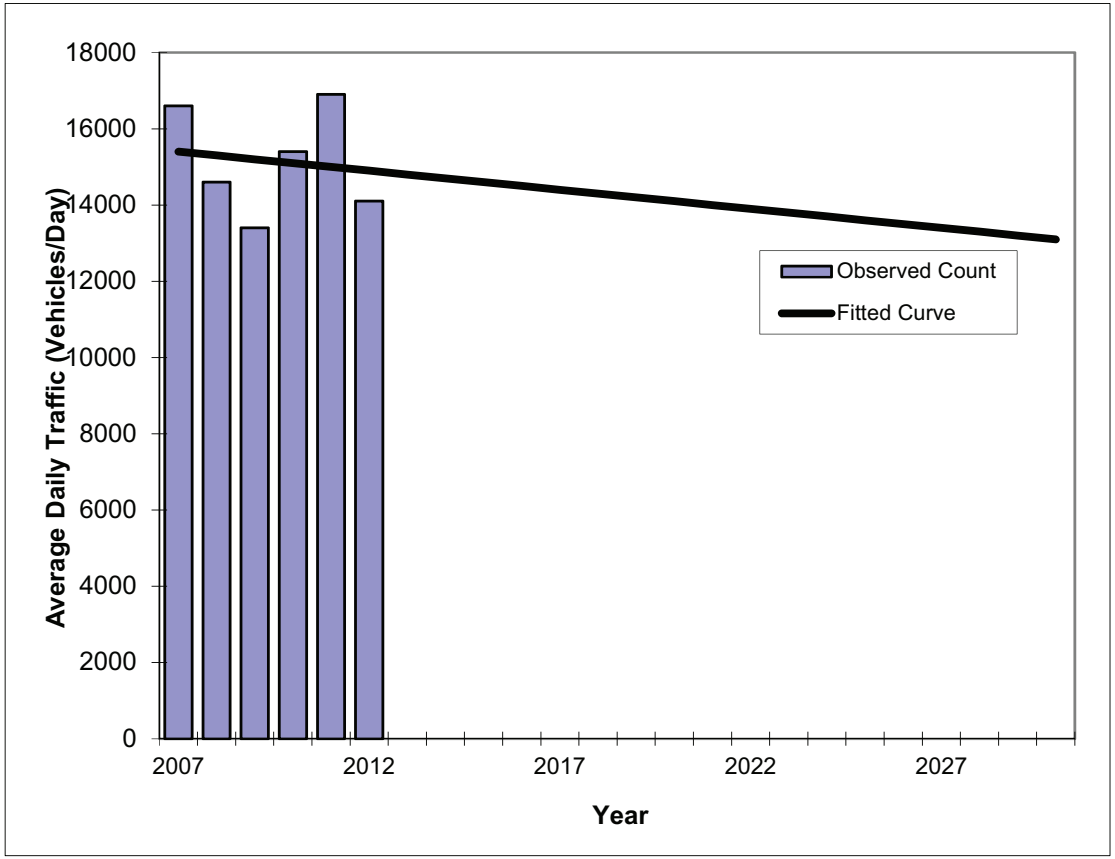
Year	Traffic (ADT) Count*	Traffic (ADT) Trend**
2007	31900	30600
2008	30000	30400
2009	28300	30200
2010	30300	30100
2011	30500	29900
2012	29900	29700
2019	Opening	28400
2025	Mid Year	27300
2030	Design Year	26300

*Axle-Adjusted	
** Annual ADT Increase:	-186
Trend R-squared:	9.0%
Trend Annual Growth Rate	-0.6%
Growth Rate (2012 to Design Year)	-0.6%
Printed	21-Mar-14

TRAFFIC TRENDS

Howland Blvd. -- Providence Blvd. to Elkcam Blvd.

County:	Volusia
Highway:	Howland Blvd.



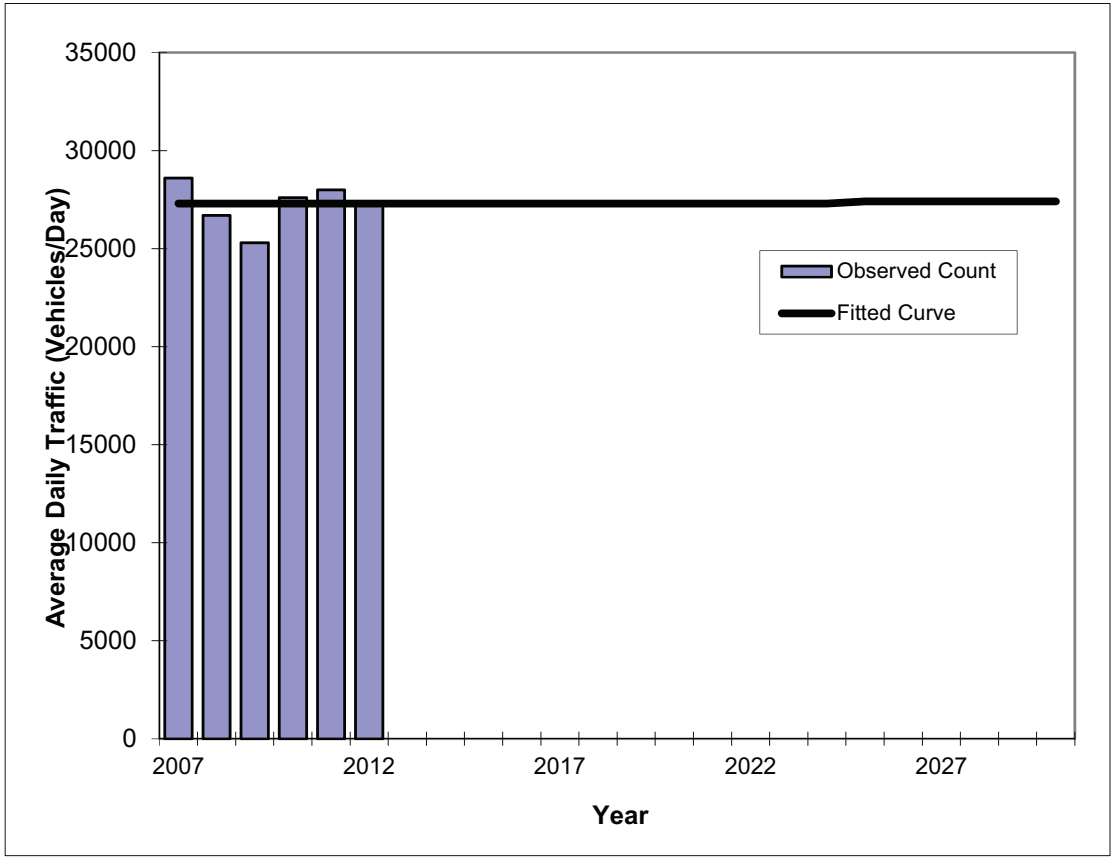
Year	Traffic (ADT) Count*	Trend**
2007	16600	15400
2008	14600	15300
2009	13400	15200
2010	15400	15100
2011	16900	15000
2012	14100	14900
2019	Opening	14200
2025	Mid Year	13600
2030	Design Year	13100

*Axle-Adjusted	
** Annual ADT Increase:	-103
Trend R-squared:	1.9%
Trend Annual Growth Rate	-0.6%
Growth Rate (2012 to Design Year)	-0.7%
Printed	21-Mar-14

TRAFFIC TRENDS

Howland Blvd. -- Wolf Pack Run to Catalina Blvd.

County:	Volusia
Highway:	Howland Blvd.



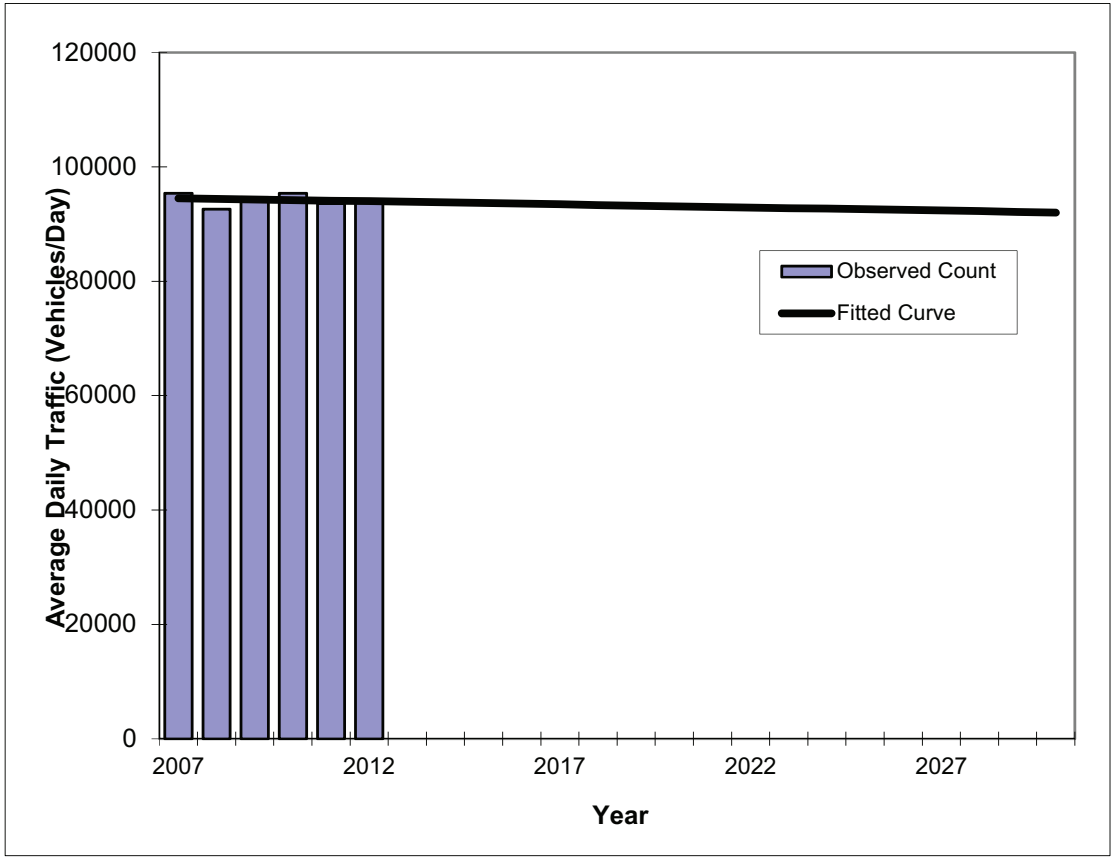
Year	Traffic (ADT) Count*	Traffic (ADT) Trend**
2007	28600	27300
2008	26700	27300
2009	25300	27300
2010	27600	27300
2011	28000	27300
2012	27400	27300
2019	Opening	27300
2025	Mid Year	27400
2030	Design Year	27400

*Axle-Adjusted	
** Annual ADT Increase:	6
Trend R-squared:	0.0%
Trend Annual Growth Rate	0.0%
Growth Rate (2012 to Design Year)	0.0%
Printed	21-Mar-14

TRAFFIC TRENDS

I-4 -- Dirksen Dr. to Saxon Blvd.

County:	Volusia
Highway:	I-4



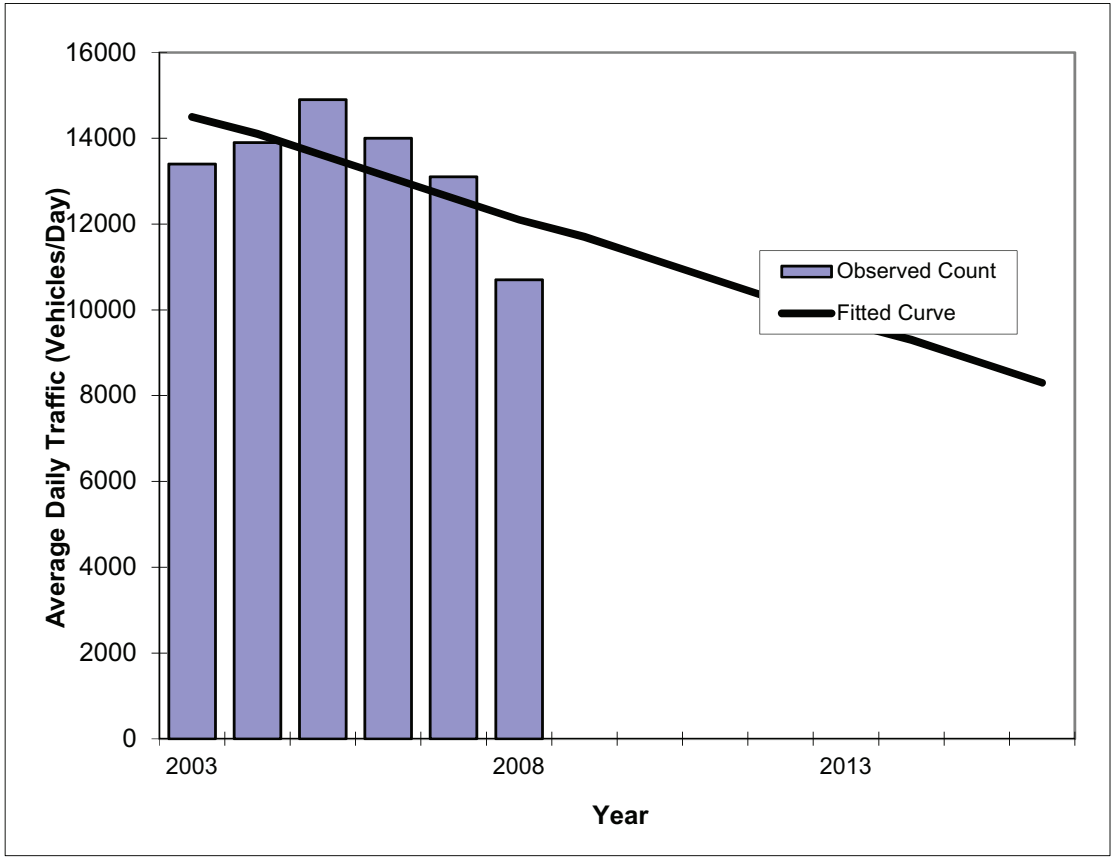
Year	Traffic (ADT) Count*	Trend**
2007	95400	94500
2008	92600	94400
2009	94700	94300
2010	95400	94200
2011	93600	94100
2012	93900	94000
2019	Opening	93200
2025	Mid Year	92600
2030	Design Year	92000

*Axle-Adjusted	
** Annual ADT Increase:	-109
Trend R-squared:	3.4%
Trend Annual Growth Rate	-0.1%
Growth Rate (2012 to Design Year)	-0.1%
Printed	21-Mar-14

TRAFFIC TRENDS

Normandy Blvd. -- Elkcam Blvd. to Saxon Blvd.

County:	Volusia
Highway:	Normandy Blvd.



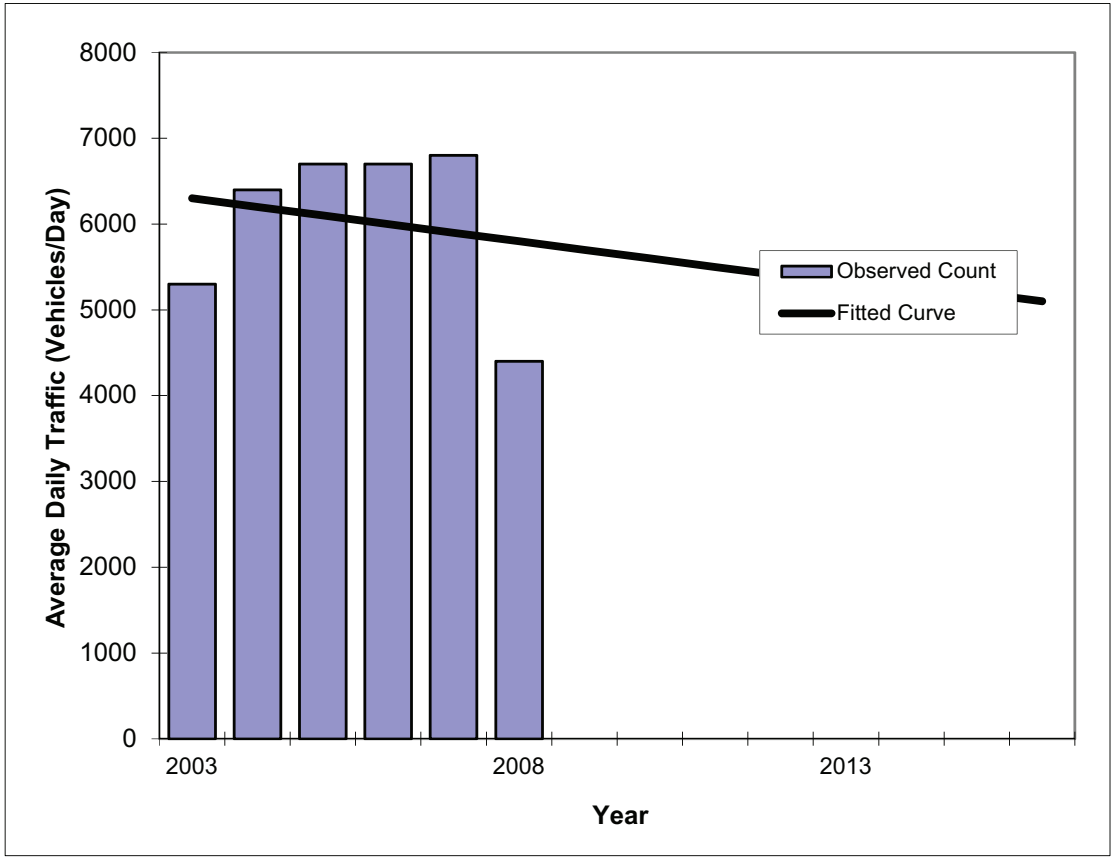
Year	Traffic (ADT) Count*	Trend**
2003	13400	14500
2004	13900	14100
2005	14900	13600
2006	14000	13100
2007	13100	12600
2008	10700	12100
2014	Opening	9300
2015	Mid Year	8800
2016	Design Year	8300

*Axle-Adjusted	
** Annual ADT Increase:	-480
Trend R-squared:	39.5%
Trend Annual Growth Rate	-3.3%
Growth Rate (2008 to Design Year)	-3.9%
Printed	20-Mar-14

TRAFFIC TRENDS

Normandy Blvd. -- Graves (old Howland) to Rhode Island Ave.

County:	Volusia
Highway:	Normandy Blvd.



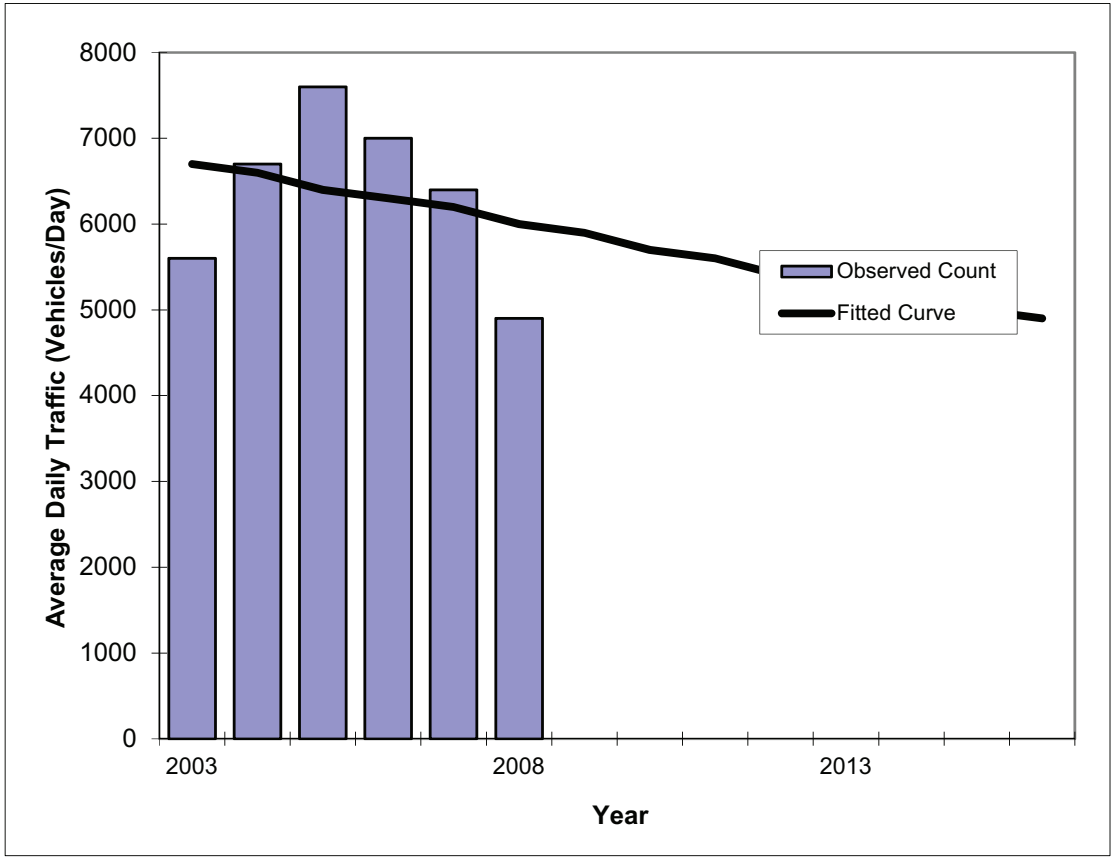
Year	Traffic (ADT) Count*	Trend**
2003	5300	6300
2004	6400	6200
2005	6700	6100
2006	6700	6000
2007	6800	5900
2008	4400	5800
2014	Opening	5200
2015	Mid Year	5200
2016	Design Year	5100

*Axle-Adjusted	
** Annual ADT Increase:	-94
Trend R-squared:	3.2%
Trend Annual Growth Rate	-1.6%
Growth Rate (2008 to Design Year)	-1.5%
Printed	20-Mar-14

TRAFFIC TRENDS

Normandy Blvd. -- Rhode Island Ave. to Elkcam Blvd.

County:	Volusia
Highway:	Normandy Blvd.



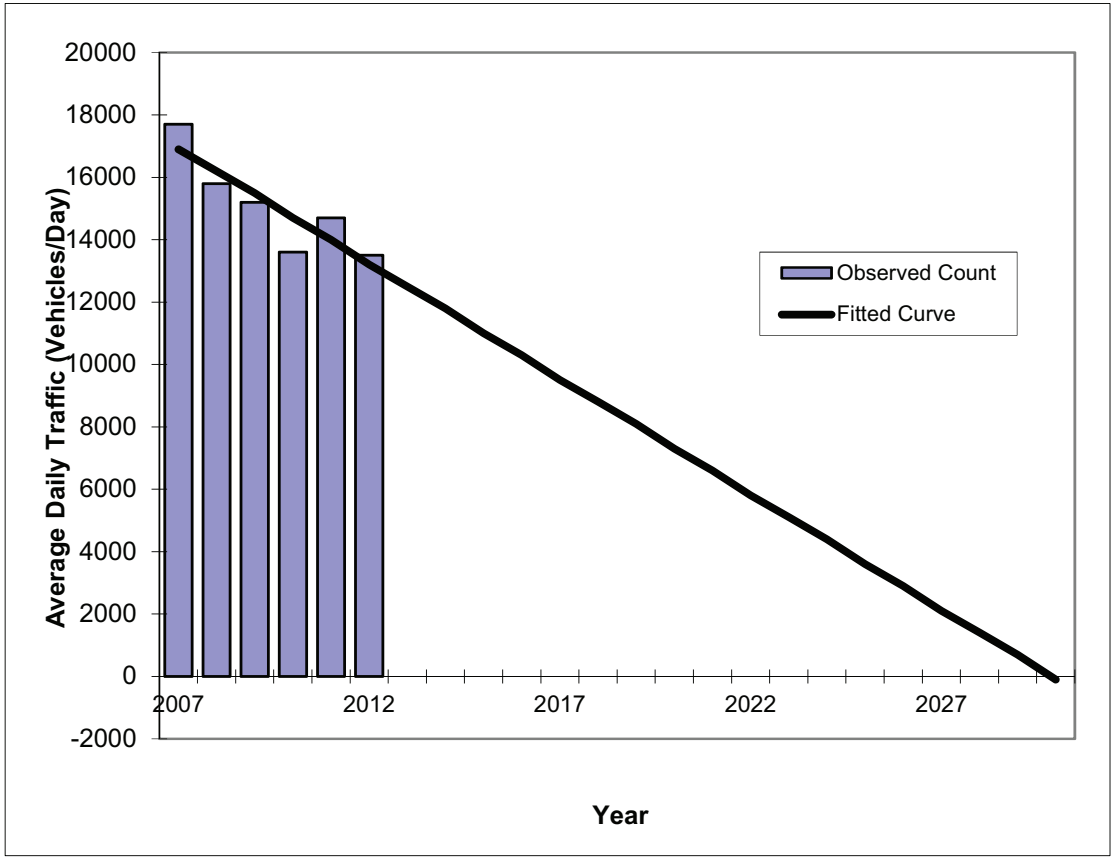
Year	Traffic (ADT) Count*	Trend**
2003	5600	6700
2004	6700	6600
2005	7600	6400
2006	7000	6300
2007	6400	6200
2008	4900	6000
2014	Opening	5200
2015	Mid Year	5000
2016	Design Year	4900

*Axle-Adjusted	
** Annual ADT Increase:	-143
Trend R-squared:	7.5%
Trend Annual Growth Rate	-2.1%
Growth Rate (2008 to Design Year)	-2.3%
Printed	20-Mar-14

TRAFFIC TRENDS

Providence Blvd. -- Elkcam Blvd. to Ft. Smith Blvd.

County:	Volusia
Highway:	Providence Blvd.



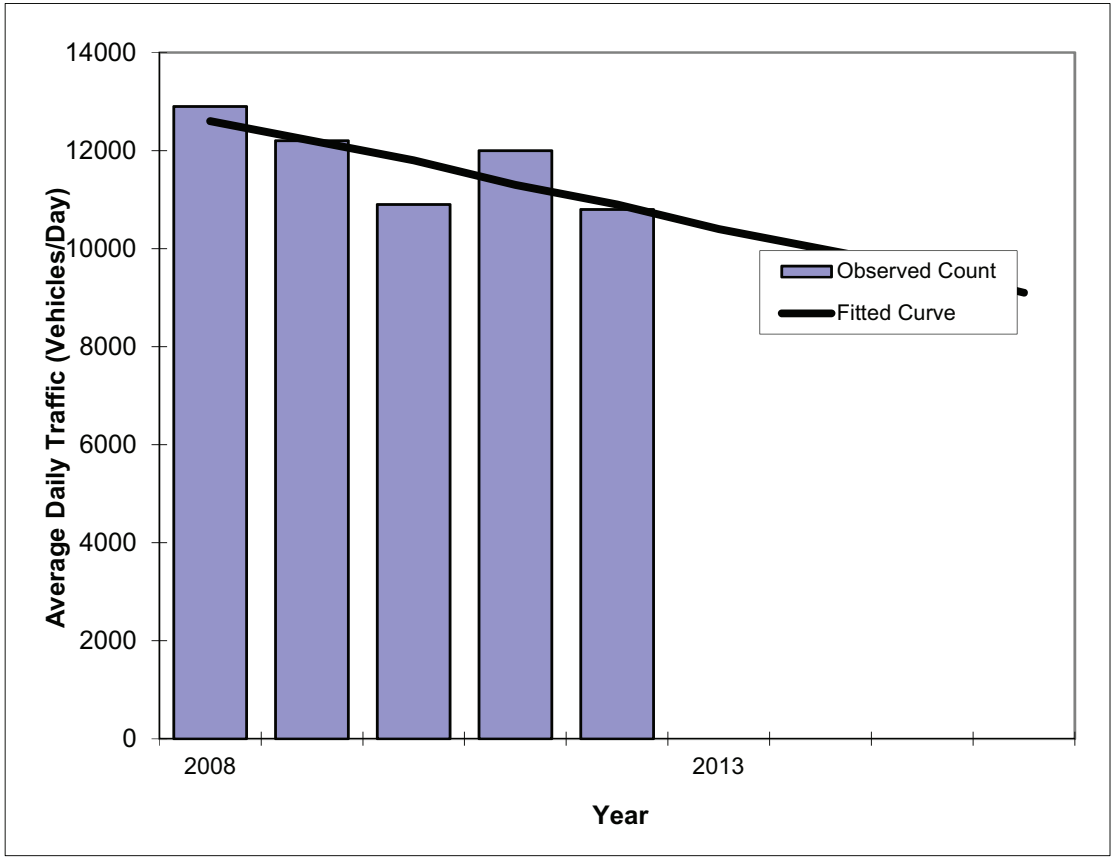
Year	Traffic (ADT) Count*	Trend**
2007	17700	16900
2008	15800	16200
2009	15200	15500
2010	13600	14700
2011	14700	14000
2012	13500	13200
2019	Opening	8100
2025	Mid Year	3600
2030	Design Year	-100

*Axle-Adjusted	
** Annual ADT Increase:	-740
Trend R-squared:	78.4%
Trend Annual Growth Rate	-4.4%
Growth Rate (2012 to Design Year)	-5.6%
Printed	21-Mar-14

TRAFFIC TRENDS

Providence Blvd. -- Howland Blvd. to Elkcam Blvd.

County:	Volusia
Highway:	Providence Blvd.



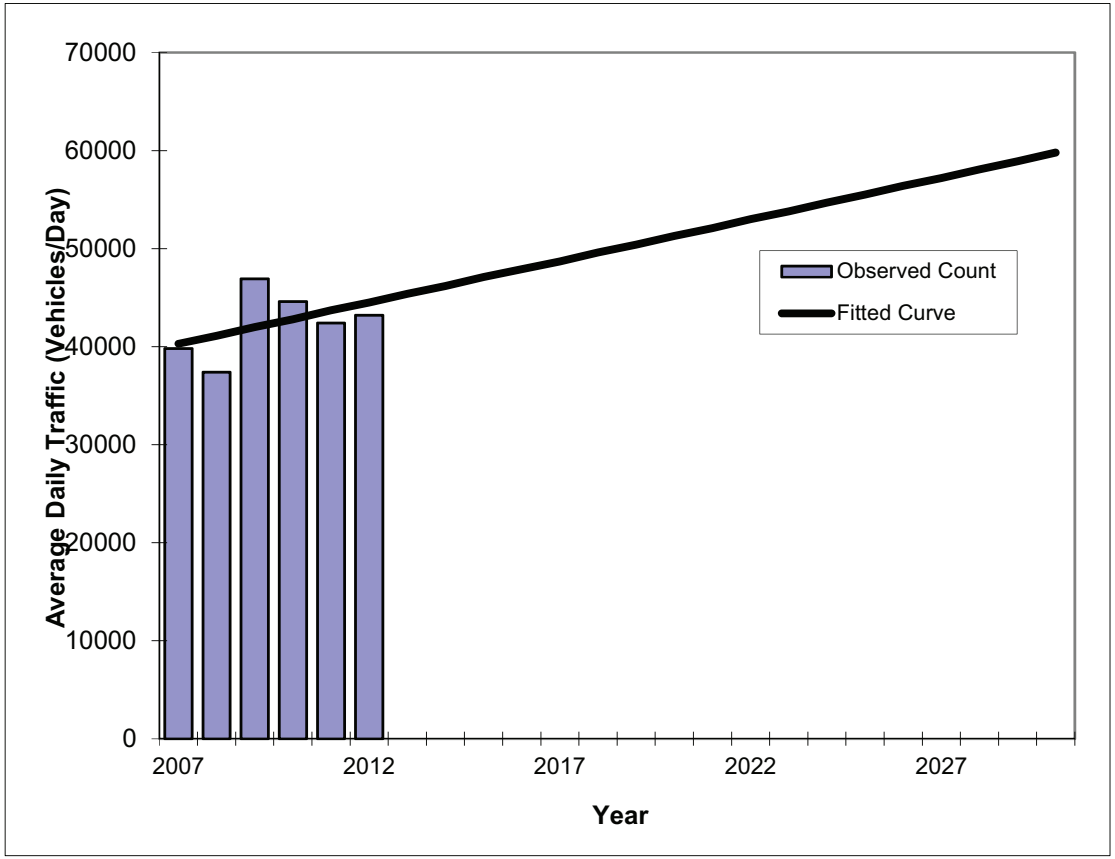
Year	Traffic (ADT) Count*	Trend**
2008	12900	12600
2009	12200	12200
2010	10900	11800
2011	12000	11300
2012	10800	10900
2014	Opening	10000
2015	Mid Year	9600
2016	Design Year	9100

*Axle-Adjusted	
** Annual ADT Increase:	-440
Trend R-squared:	60.3%
Trend Annual Growth Rate	-3.4%
Growth Rate (2012 to Design Year)	-4.1%
Printed	20-Mar-14

TRAFFIC TRENDS

Saxon Blvd. -- FDOT Park & Ride to I-4

County:	Volusia
Highway:	Saxon Blvd.



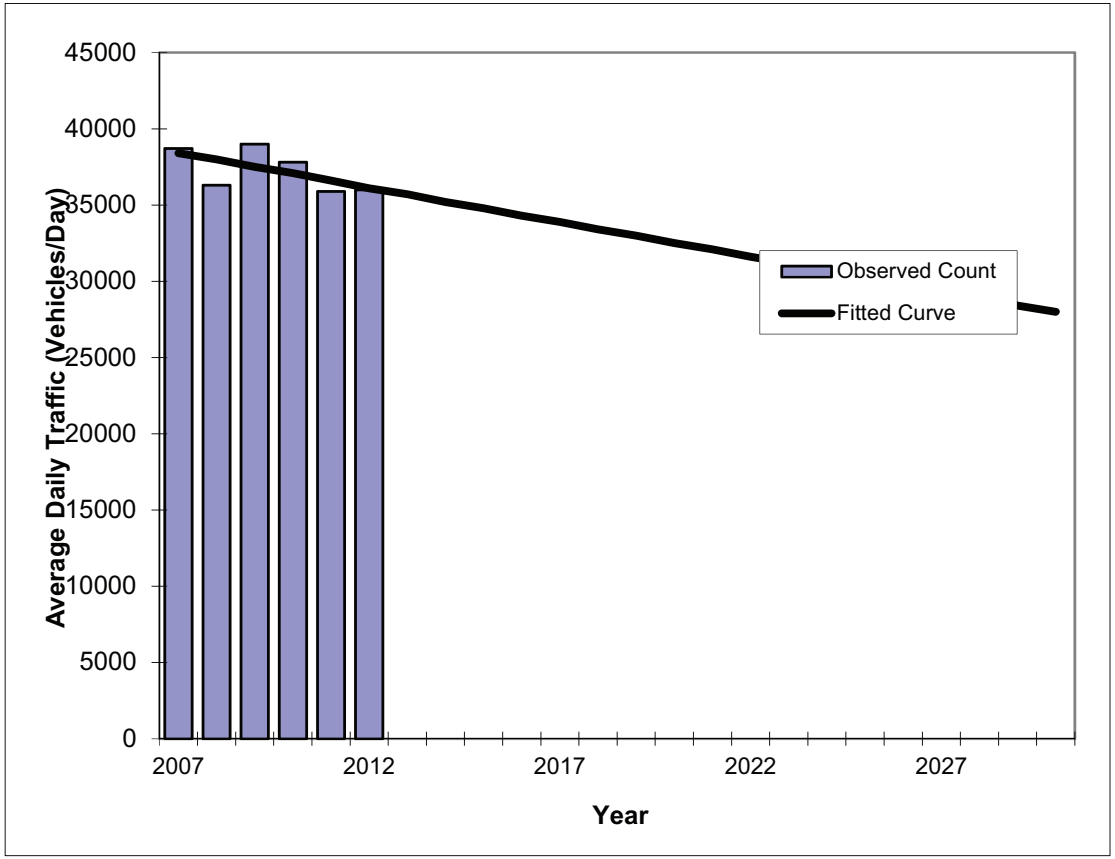
Year	Traffic (ADT) Count*	Traffic (ADT) Trend**
2007	39800	40300
2008	37400	41100
2009	46900	42000
2010	44600	42800
2011	42400	43700
2012	43200	44500
2019	Opening	50400
2025	Mid Year	55500
2030	Design Year	59800

*Axle-Adjusted	
** Annual ADT Increase:	849
Trend R-squared:	21.9%
Trend Annual Growth Rate	2.1%
Growth Rate (2012 to Design Year)	1.9%
Printed	21-Mar-14

TRAFFIC TRENDS

Saxon Blvd. -- Finland Dr. to Normandy Blvd.

County:	Volusia
Highway:	Saxon Blvd.



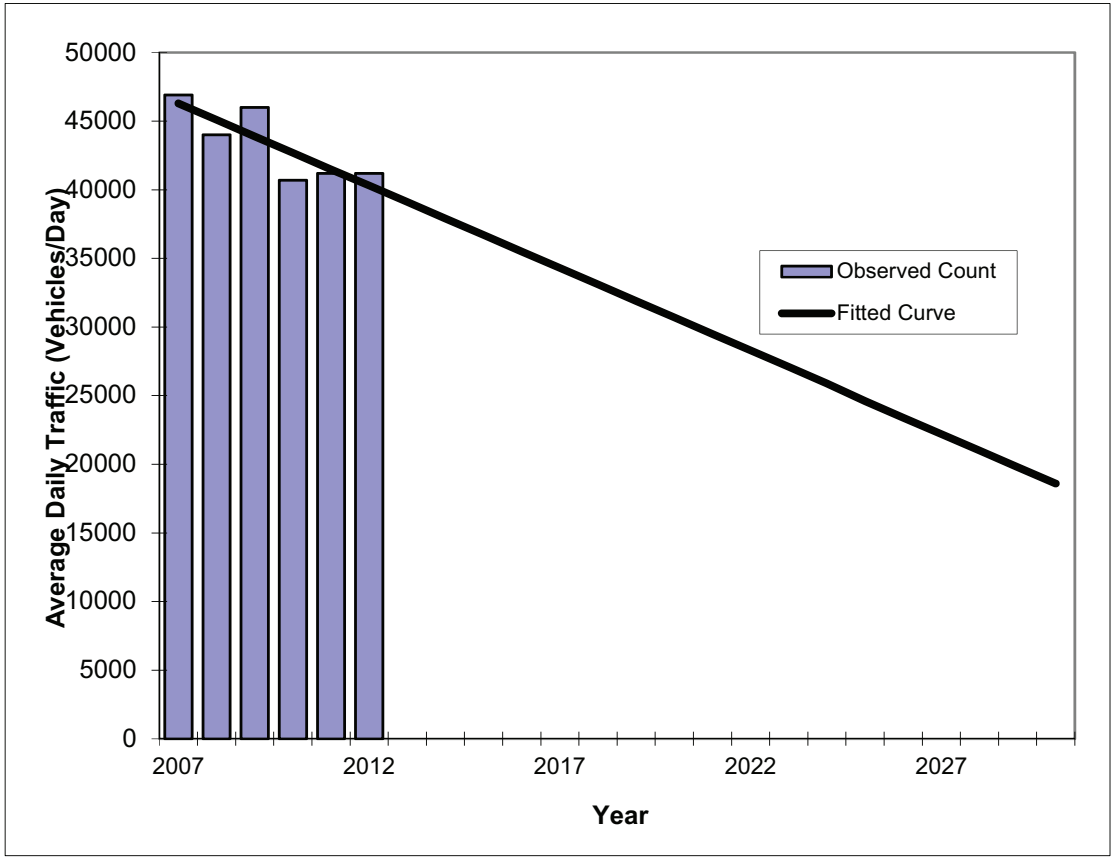
Year	Traffic (ADT) Count*	Trend**
2007	38700	38400
2008	36300	38000
2009	39000	37500
2010	37800	37100
2011	35900	36600
2012	36000	36100
2019	Opening	33000
2025	Mid Year	30200
2030	Design Year	28000

*Axle-Adjusted	
** Annual ADT Increase:	-454
Trend R-squared:	37.0%
Trend Annual Growth Rate	-1.2%
Growth Rate (2012 to Design Year)	-1.2%
Printed	21-Mar-14

TRAFFIC TRENDS

Saxon Blvd. -- I-4 to Finland Dr.

County:	Volusia
Highway:	Saxon Blvd.



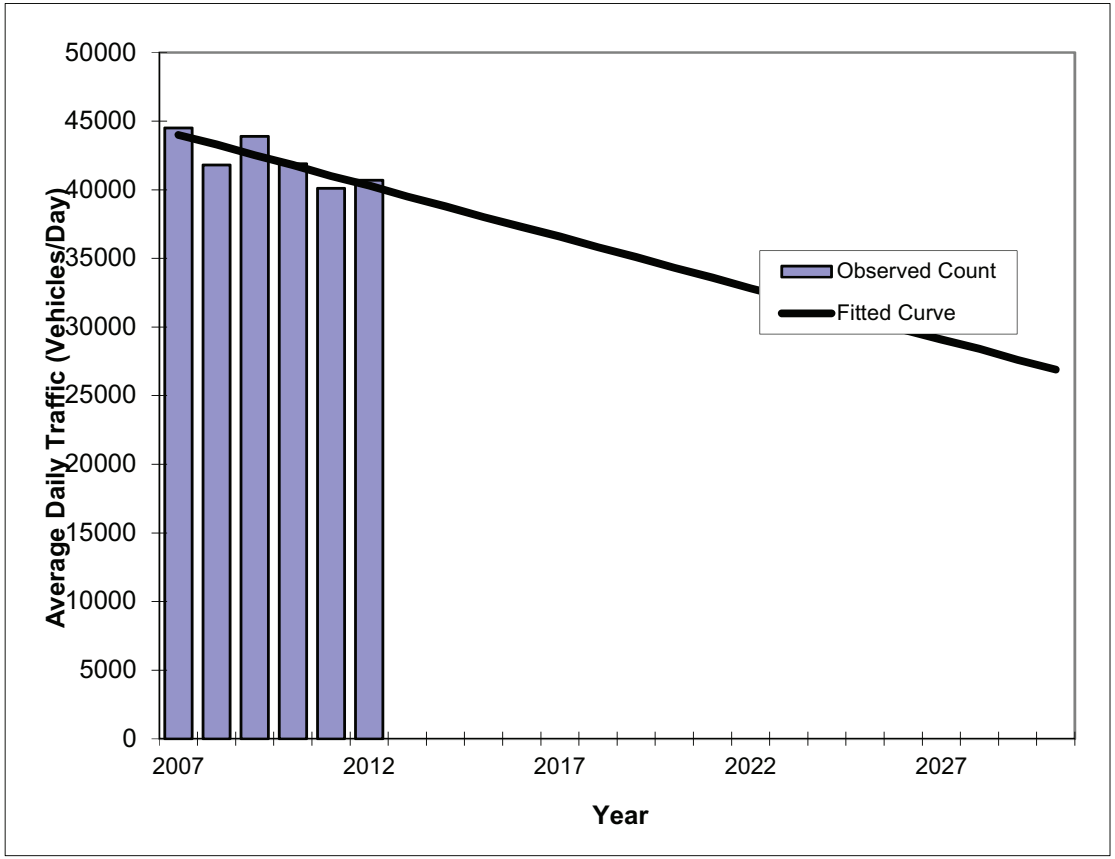
Year	Traffic (ADT) Count*	Trend**
2007	46900	46300
2008	44000	45100
2009	46000	43900
2010	40700	42700
2011	41200	41500
2012	41200	40300
2019	Opening	31900
2025	Mid Year	24600
2030	Design Year	18600

*Axle-Adjusted	
** Annual ADT Increase:	-1,206
Trend R-squared:	70.1%
Trend Annual Growth Rate	-2.6%
Growth Rate (2012 to Design Year)	-3.0%
Printed	21-Mar-14

TRAFFIC TRENDS

Saxon Blvd. -- VMP to FDOT Park & Ride

County:	Volusia
Highway:	Saxon Blvd.



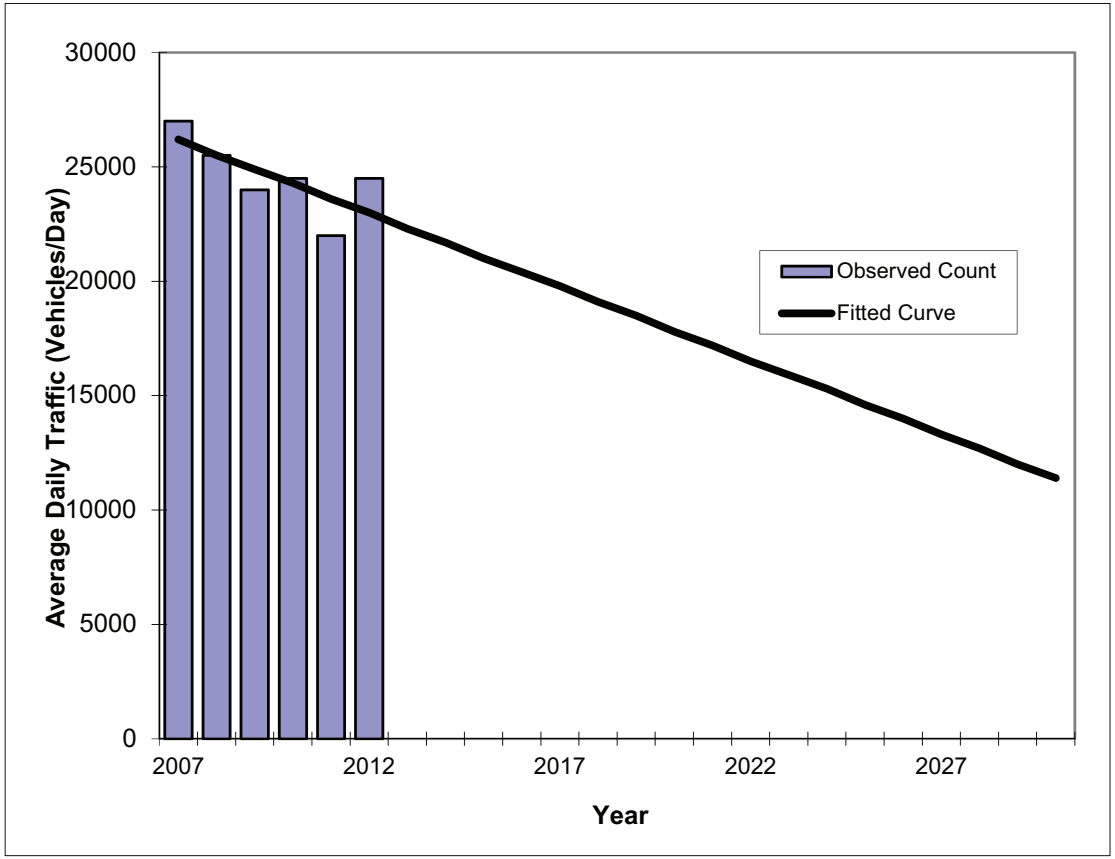
Year	Traffic (ADT) Count*	Trend**
2007	44500	44000
2008	41800	43300
2009	43900	42500
2010	41900	41800
2011	40100	41000
2012	40700	40300
2019	Opening	35100
2025	Mid Year	30600
2030	Design Year	26900

*Axle-Adjusted	
** Annual ADT Increase:	-746
Trend R-squared:	64.6%
Trend Annual Growth Rate	-1.7%
Growth Rate (2012 to Design Year)	-1.8%
Printed	21-Mar-14

TRAFFIC TRENDS

SR 472 -- MLK Blvd. to I-4 (end of state road)

County:	Volusia
Highway:	SR 472



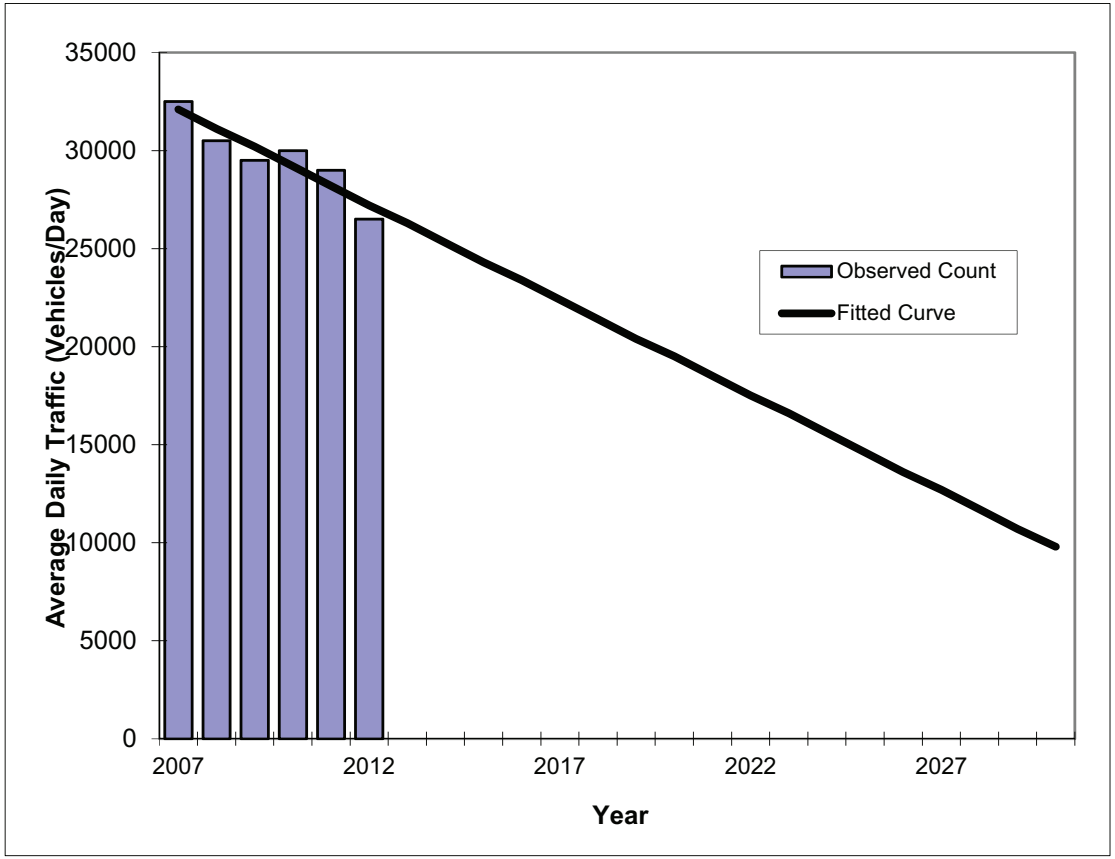
Year	Traffic (ADT) Count*	Trend**
2007	27000	26200
2008	25500	25500
2009	24000	24900
2010	24500	24300
2011	22000	23600
2012	24500	23000
2019	Opening	18500
2025	Mid Year	14600
2030	Design Year	11400

*Axle-Adjusted	
** Annual ADT Increase:	-643
Trend R-squared:	52.8%
Trend Annual Growth Rate	-2.4%
Growth Rate (2012 to Design Year)	-2.8%
Printed	21-Mar-14

TRAFFIC TRENDS

US 17/92 -- Graves Ave. to Rhode Island Ave.

County:	Volusia
Highway:	US 17/92



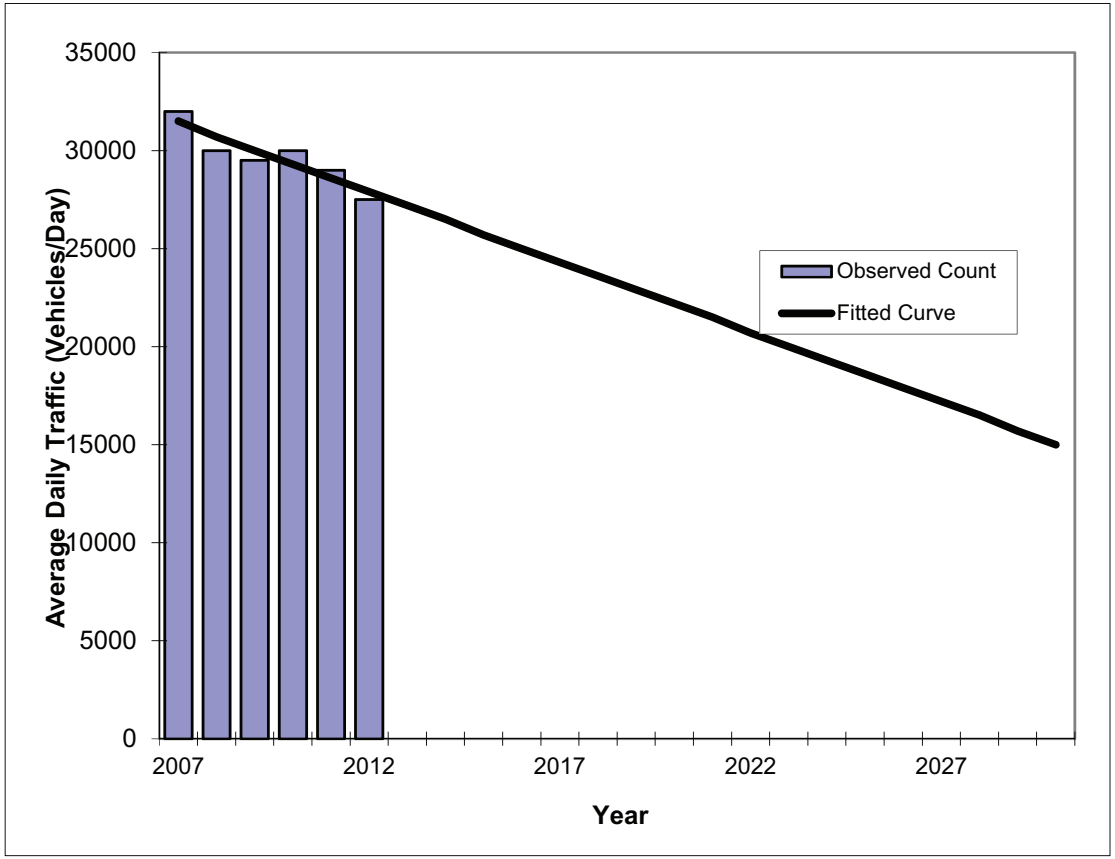
Year	Traffic (ADT) Count*	Traffic (ADT) Trend**
2007	32500	32100
2008	30500	31100
2009	29500	30200
2010	30000	29200
2011	29000	28200
2012	26500	27200
2019	Opening	20400
2025	Mid Year	14600
2030	Design Year	9800

*Axle-Adjusted	
** Annual ADT Increase:	-971
Trend R-squared:	85.4%
Trend Annual Growth Rate	-3.1%
Growth Rate (2012 to Design Year)	-3.6%
Printed	21-Mar-14

TRAFFIC TRENDS

US 17/92 -- New York Ave. to Graves Ave.

County:	Volusia
Highway:	US 17/92



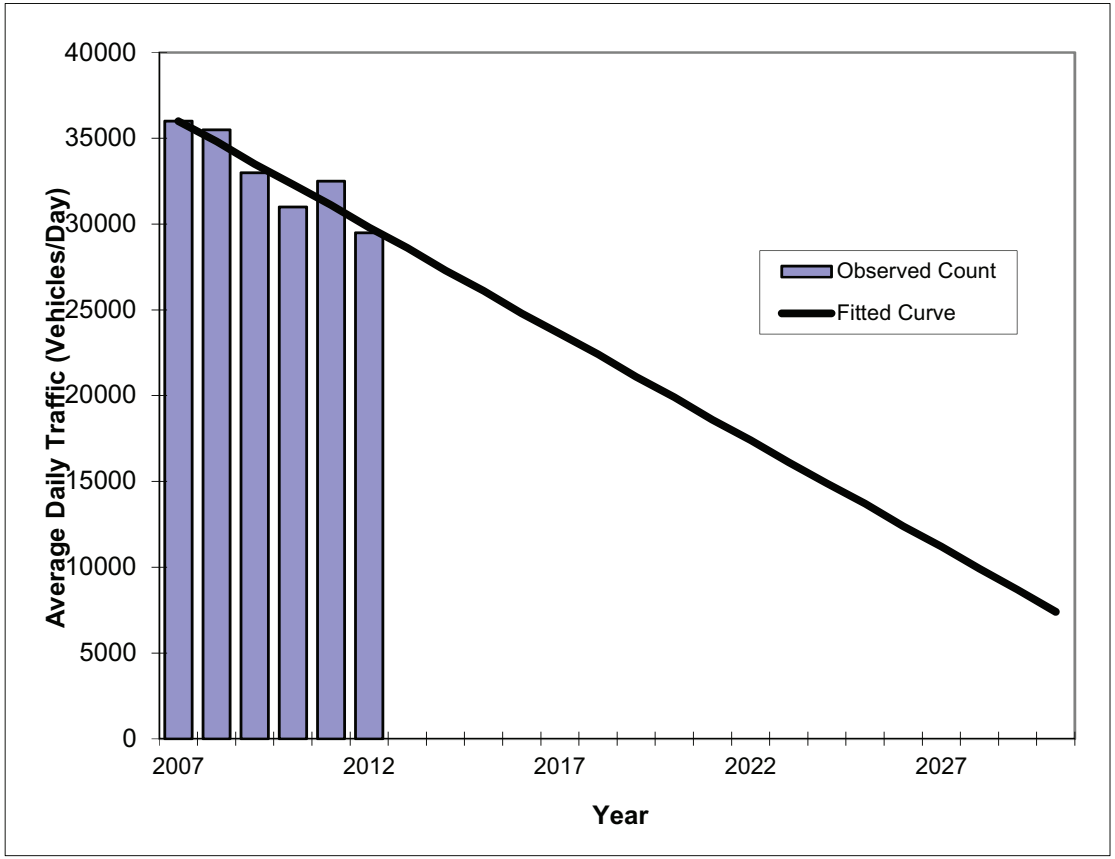
Year	Traffic (ADT) Count*	Traffic (ADT) Trend**
2007	32000	31500
2008	30000	30700
2009	29500	30000
2010	30000	29300
2011	29000	28600
2012	27500	27900
2019	Opening	22900
2025	Mid Year	18600
2030	Design Year	15000

*Axle-Adjusted	
** Annual ADT Increase:	-714
Trend R-squared:	82.4%
Trend Annual Growth Rate	-2.3%
Growth Rate (2012 to Design Year)	-2.6%
Printed	21-Mar-14

TRAFFIC TRENDS

US 17/92 -- Rhode Island Ave. to Enterprise Rd.

County:	Volusia
Highway:	US 17/92



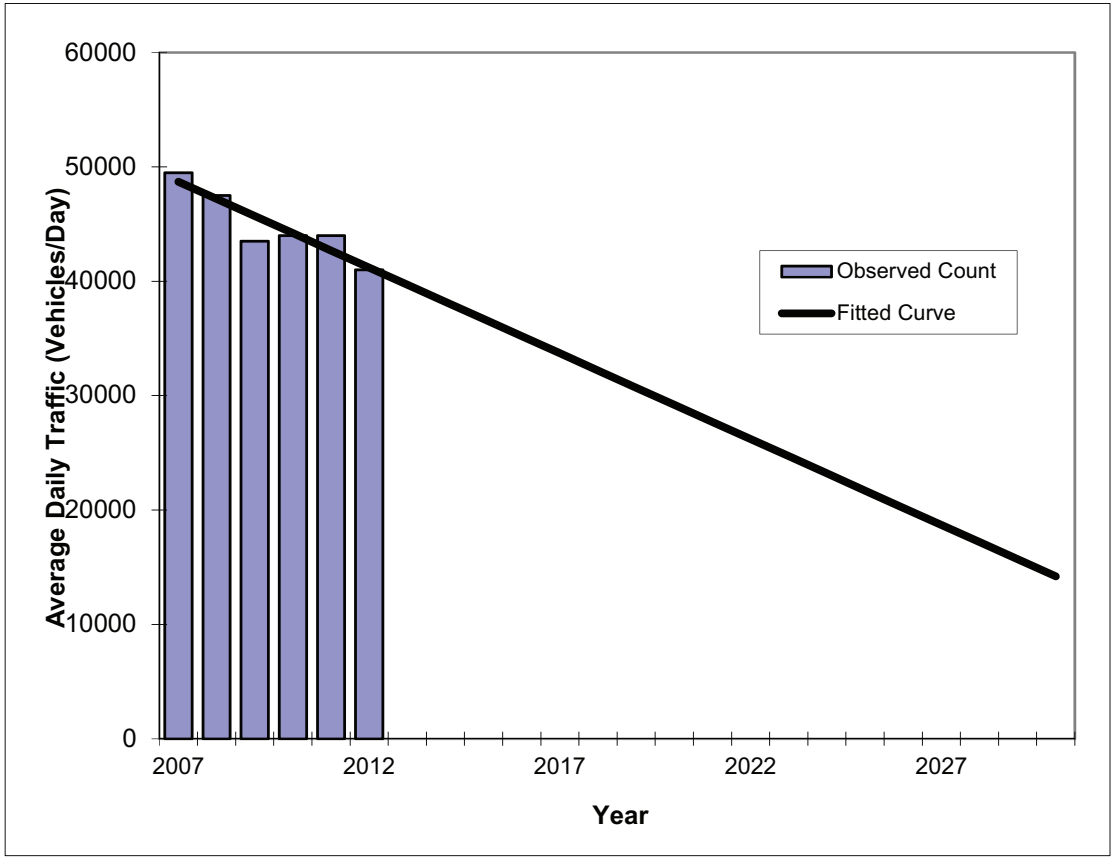
Year	Traffic (ADT) Count*	Traffic (ADT) Trend**
2007	36000	36000
2008	35500	34800
2009	33000	33500
2010	31000	32300
2011	32500	31100
2012	29500	29800
2019	Opening	21100
2025	Mid Year	13700
2030	Design Year	7400

*Axle-Adjusted	
** Annual ADT Increase:	-1,243
Trend R-squared:	85.3%
Trend Annual Growth Rate	-3.4%
Growth Rate (2012 to Design Year)	-4.2%
Printed	21-Mar-14

TRAFFIC TRENDS

US 17/92 -- SR 15A (Taylor Rd.) to SR 472

County:	Volusia
Highway:	US 17/92



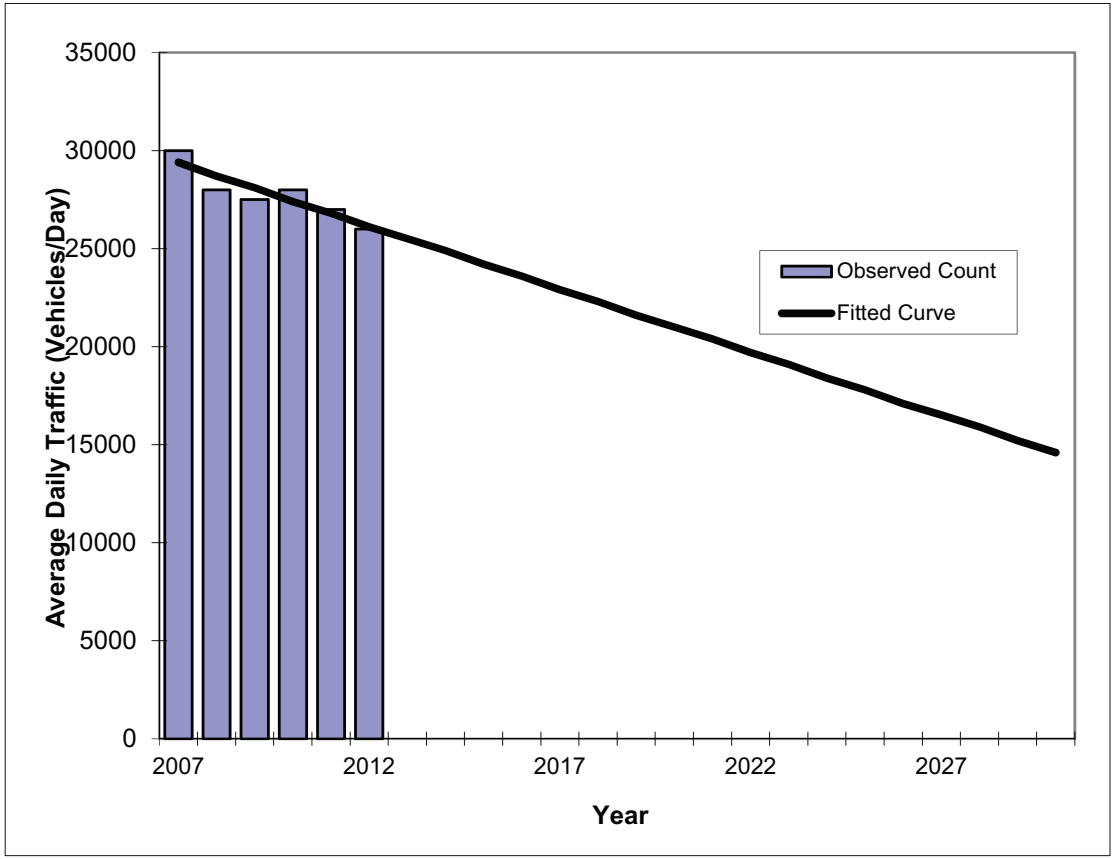
Year	Traffic (ADT) Count*	Trend**
2007	49500	48700
2008	47500	47200
2009	43500	45700
2010	44000	44200
2011	44000	42700
2012	41000	41200
2019	Opening	30700
2025	Mid Year	21700
2030	Design Year	14200

*Axle-Adjusted	
** Annual ADT Increase:	-1,500
Trend R-squared:	84.3%
Trend Annual Growth Rate	-3.1%
Growth Rate (2012 to Design Year)	-3.6%
Printed	21-Mar-14

TRAFFIC TRENDS

US 17/92 -- SR 472 to New York Ave.

County:	Volusia
Highway:	US 17/92



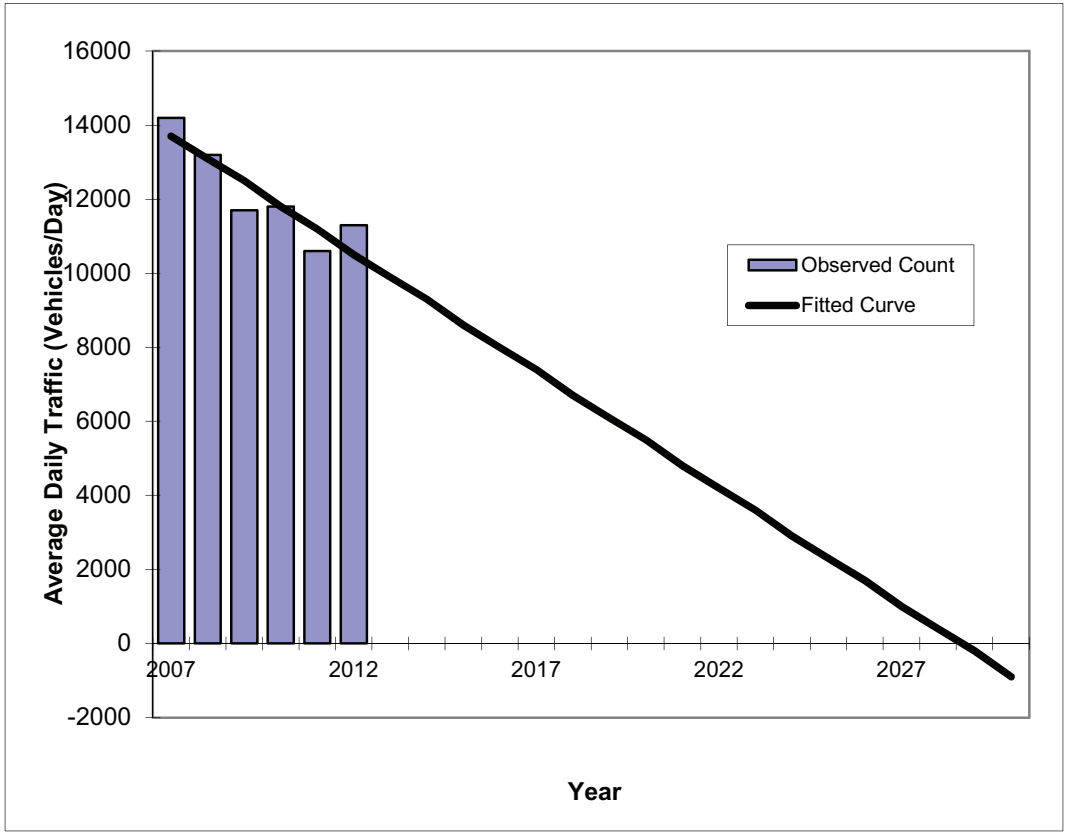
Year	Traffic (ADT) Count*	Traffic (ADT) Trend**
2007	30000	29400
2008	28000	28700
2009	27500	28100
2010	28000	27400
2011	27000	26800
2012	26000	26100
2019	Opening	21600
2025	Mid Year	17800
2030	Design Year	14600

*Axle-Adjusted	
** Annual ADT Increase:	-643
Trend R-squared:	81.5%
Trend Annual Growth Rate	-2.2%
Growth Rate (2012 to Design Year)	-2.4%
Printed	21-Mar-14

TRAFFIC TRENDS

W. Volusia Bltwy (Dr. MLK Jr.) -- Cassadaga Rd. to SR 472

County:	Volusia
Highway:	W. Volusia Bltwy (Dr. MLK Jr.)



Year	Traffic (ADT) Count*	Trend**
2007	14200	13700
2008	13200	13100
2009	11700	12500
2010	11800	11800
2011	10600	11200
2012	11300	10500
2019	Opening	6100
2025	Mid Year	2300
2030	Design Year	-900

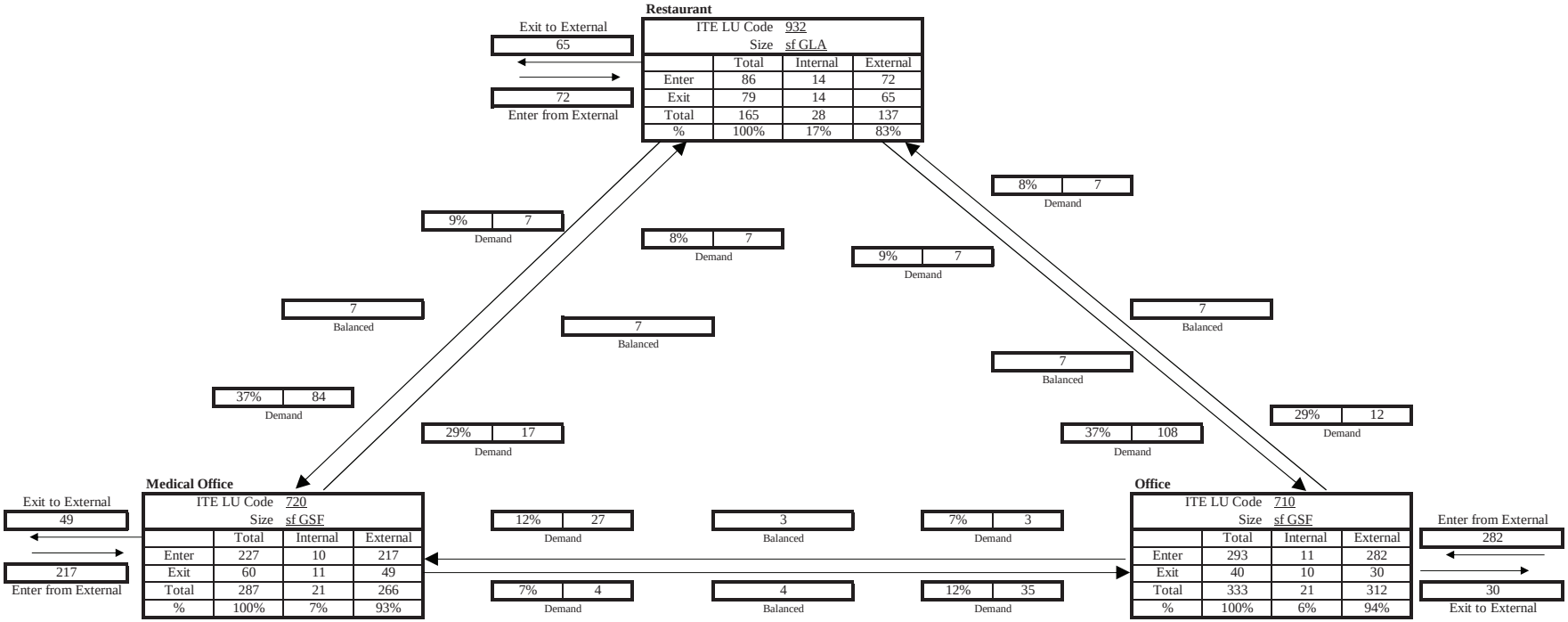
*Axle-Adjusted	
** Annual ADT Increase:	-634
Trend R-squared:	80.4%
Trend Annual Growth Rate	-4.7%
Growth Rate (2012 to Design Year)	-6.0%
Printed	21-Mar-14

Appendix “G”

Internal Capture Volumes Worksheet

Figure

PM Peak Hour Internal Capture

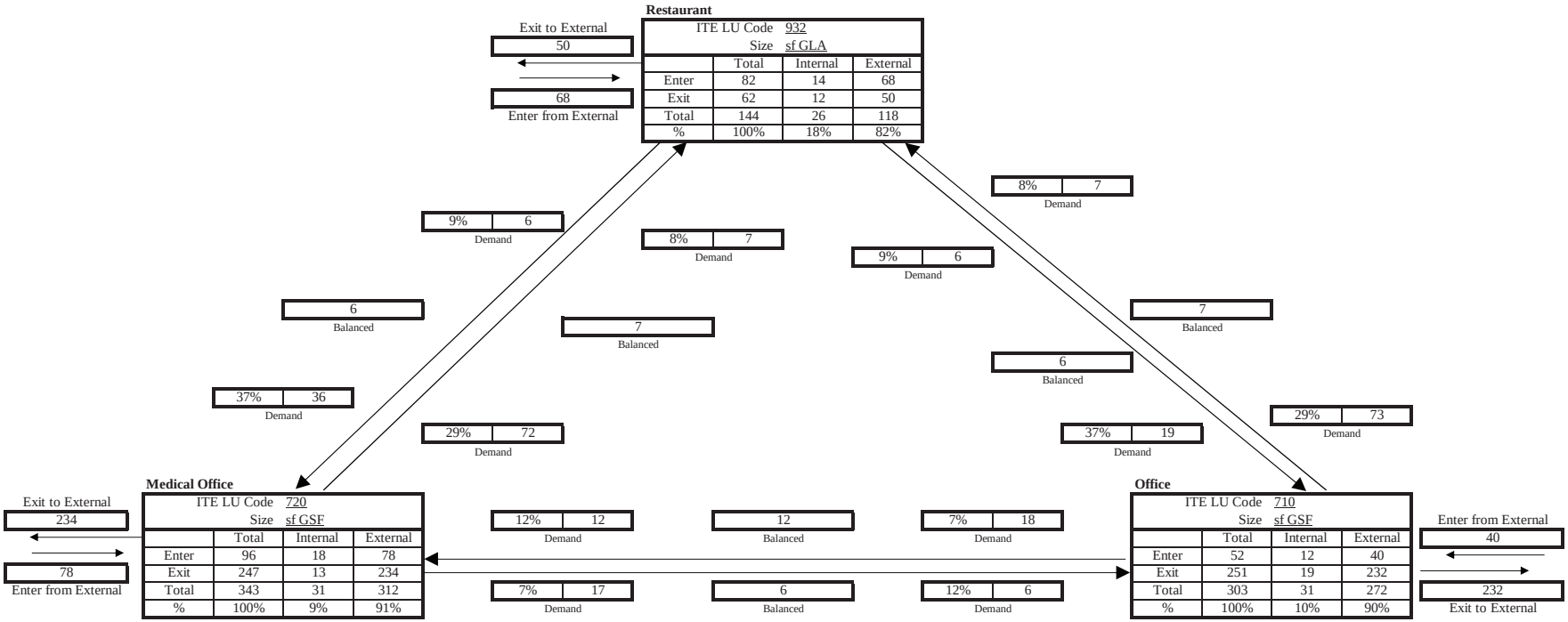


Source: GMB Engineers & Planners, Inc.
ITE Trip Generation Handbook, Figure 7.3

April 30, 2014

Figure

PM Peak Hour Internal Capture

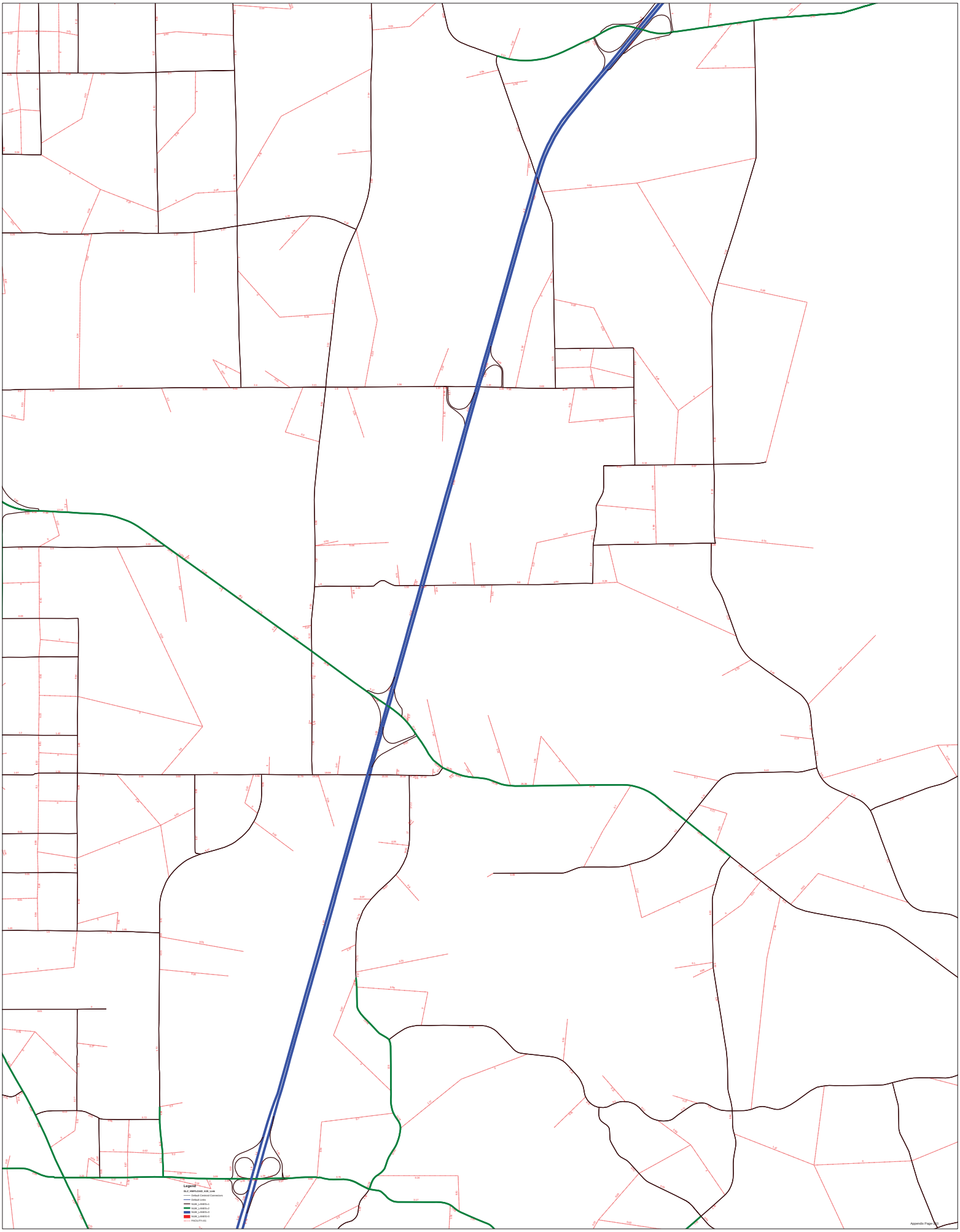


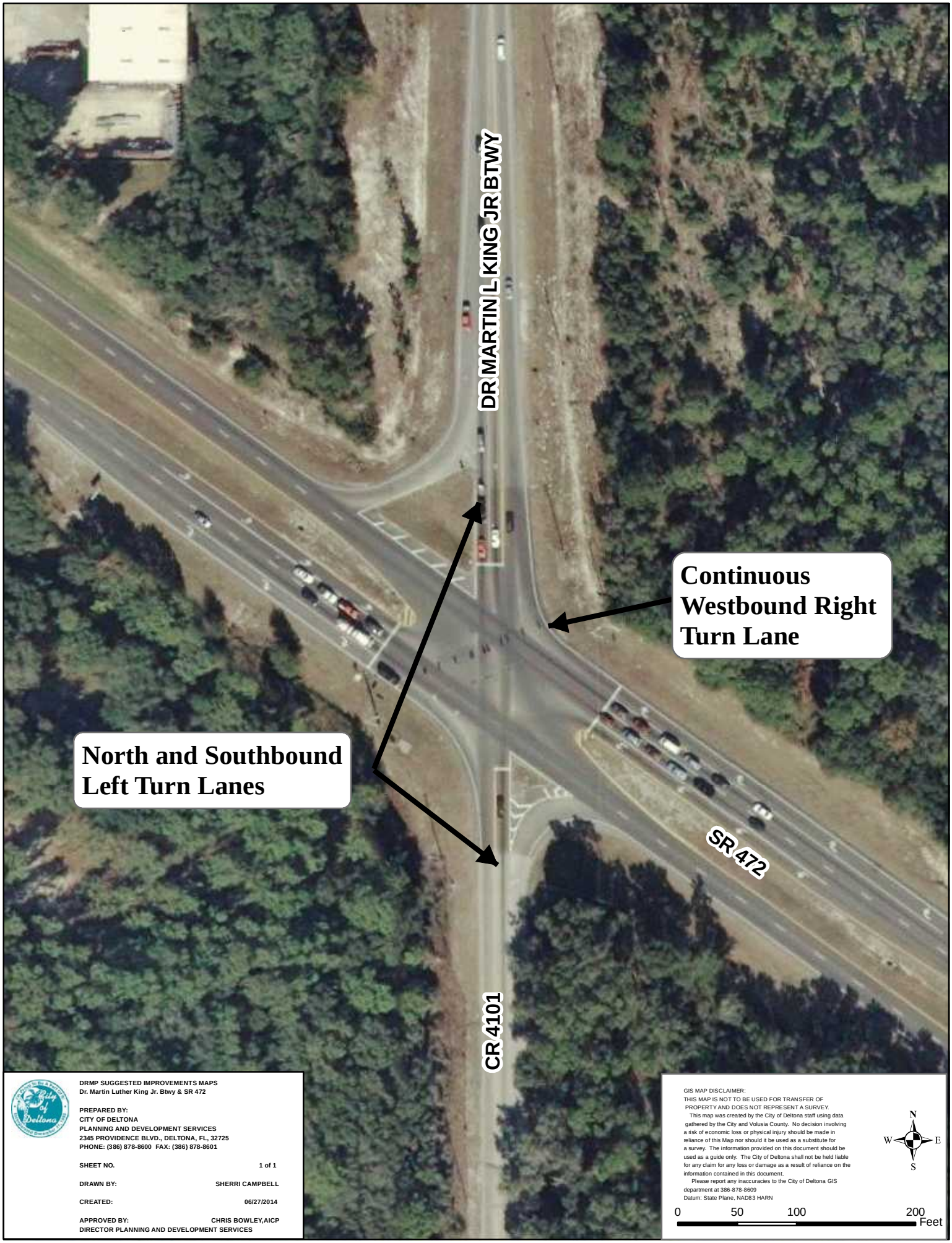
Source: GMB Engineers & Planners, Inc.
ITE Trip Generation Handbook, Figure 7.3

April 30, 2014

Appendix "H"

CFRPM Model Plot


Legend
SLZ_HWRLOAD_A36_Link
Default Centroid Connectors
Default Links
NUM_LANES=1
NUM_LANES=2
NUM_LANES=3
NUM_LANES=0
FACILITY=A3



DRMP SUGGESTED IMPROVEMENTS MAPS
Dr. Martin Luther King Jr. Btwy & SR 472

PREPARED BY:
CITY OF DELTONA
PLANNING AND DEVELOPMENT SERVICES
2345 PROVIDENCE BLVD., DELTONA, FL, 32725
PHONE: (386) 878-8600 FAX: (386) 878-8601

SHEET NO. **1 of 1**

DRAWN BY: **SHERRI CAMPBELL**

CREATED: **06/27/2014**

APPROVED BY: **CHRIS BOWLEY,AICP**
DIRECTOR PLANNING AND DEVELOPMENT SERVICES

GIS MAP DISCLAIMER:
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Datum: State Plane, NAD83 HARN

DRMP SUGGESTED IMPROVEMENTS MAPS
Howland Blvd. & Graves Ave.

PREPARED BY:
CITY OF DELTONA
PLANNING AND DEVELOPMENT SERVICES
2345 PROVIDENCE BLVD., DELTONA, FL, 32725
PHONE: (386) 878-8600 FAX: (386) 878-8601

SHEET NO. 1 of 1

DRAWN BY: SHERRI CAMPBELL

CREATED: 06/27/2014

APPROVED BY: CHRIS BOWLEY,AICP
DIRECTOR PLANNING AND DEVELOPMENT SERVICES

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DRMP SUGGESTED IMPROVEMENTS MAPS
Howland Blvd & Catalina Blvd.

PREPARED BY:
CITY OF DELTONA
PLANNING AND DEVELOPMENT SERVICES
2345 PROVIDENCE BLVD., DELTONA, FL, 32725
PHONE: (386) 878-8600 FAX: (386) 878-8601

SHEET NO. 1 of 1

DRAWN BY: SHERRI CAMPBELL

CREATED: 06/27/2014

APPROVED BY: CHRIS BOWLEY,AICP
DIRECTOR PLANNING AND DEVELOPMENT SERVICES

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Please report any inaccuracies to the City of Deltona GIS department at 386-878-8609
Datum: State Plane, NAD83 HARN

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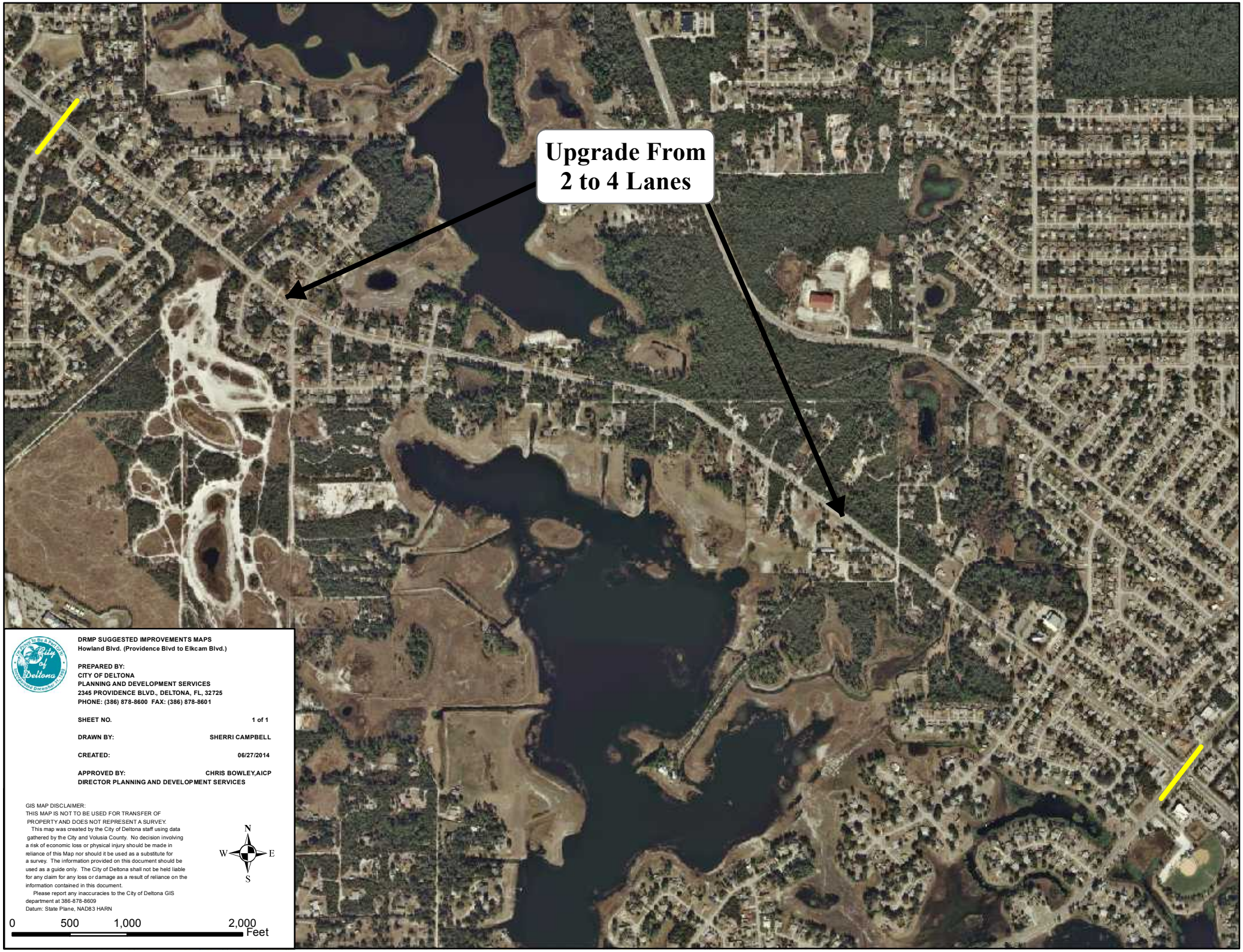
0 50 100 200 Feet


Upgrade From
2 to 4 Lanes
DRMP SUGGESTED IMPROVEMENTS MAPS
Howland Blvd. (Providence Blvd to Elkcam Blvd.)
PREPARED BY:
CITY OF DELTONA
PLANNING AND DEVELOPMENT SERVICES
2345 PROVIDENCE BLVD., DELTONA, FL, 32725
PHONE: (386) 878-8600 FAX: (386) 878-8601
SHEET NO. 1 of 1
DRAWN BY: SHERRI CAMPBELL
CREATED: 06/27/2014
APPROVED BY: CHRIS BOWLEY,AICP
DIRECTOR PLANNING AND DEVELOPMENT SERVICES
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Please report any inaccuracies to the City of Deltona GIS department at 386-878-8609
Datum: State Plane, NAD83 HARN
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AGENDA MEMO

TO:	Planning and Zoning Board	**AGENDA DATE:** July 16, 2014	
FROM:	Chris Bowley, AICP, Director Planning and Development Services	**AGENDA ITEM:**	**6-B**
SUBJECT:	Conditional Use No. CU14-003 to allow a house of worship with a maximum of 210 fixed seats, located in an RE-1 zoning district. Applicant: IMED Church		

LOCATION:	2745 Lake Helen Osteen Road
BACKGROUND:	In 2011, IMED church filed a conditional use application that was approved to allow a church comprising a maximum of 700 seats. The applicant for conditional use application #CU 14-003 now requests approval for a church with a maximum of 210 seats that would occupy an existing ±21,461 square foot building located on a ±24.73 acre lot.
ORIGINATING DEPARTMENT:	Department of Planning & Development Services
REVIEWED AND PRESENTED BY:	Reviewed by Chris Bowley, AICP, Director of Planning & Development Services. Presented by Thomas Pauls, AICP, Planning Manager
STAFF RECOMMENDATION:	Staff recommends approval of application No. CU14-003 subject to the conditions, in part per Sections 110.817 of the Land Development Code, that require buildings be no closer than 50 feet from any property line and that off–street parking areas meet the landscape buffer and parking surface requirements. In addition, the maximum capacity of the church per this conditional use application shall be limited to no more than 210 seats; which is 490 seats less than that previously approved.
POTENTIAL MOTION:	**"I hereby make a motion to recommend that the City Commission approve Conditional Use Application CU14-003, subject to the conditions outlined in this Agenda Memo**."
ATTACHMENTS:	Staff Report Resolution No. 2014-08 I.M.E.D. Plan

PLANNING & ZONING BOARD / STAFF REPORT

IMED House of Worship

Conditional Use Application

To:	**Planning and Zoning Board**
From:	**Chris Bowley, Director, AICP**
Via:	**Tom Pauls, Planning Manager, AICP**
Date:	**July 1, 2014**
P&Z Board Hearing Date:	**July 16, 2014**
Subject:	**I.M.E.D. CHURCH - Conditional Use Application**
	Project No. CU14-003 - Resolution No. 2014-08

I. Summary

I.M.E.D. Church is applying for a Conditional Use to allow a church with 210 fixed seats to be located at 2745 Lake Helen Osteen Road. The property is owned by the Iglesia Misionera Eslabon de Dios, Inc.

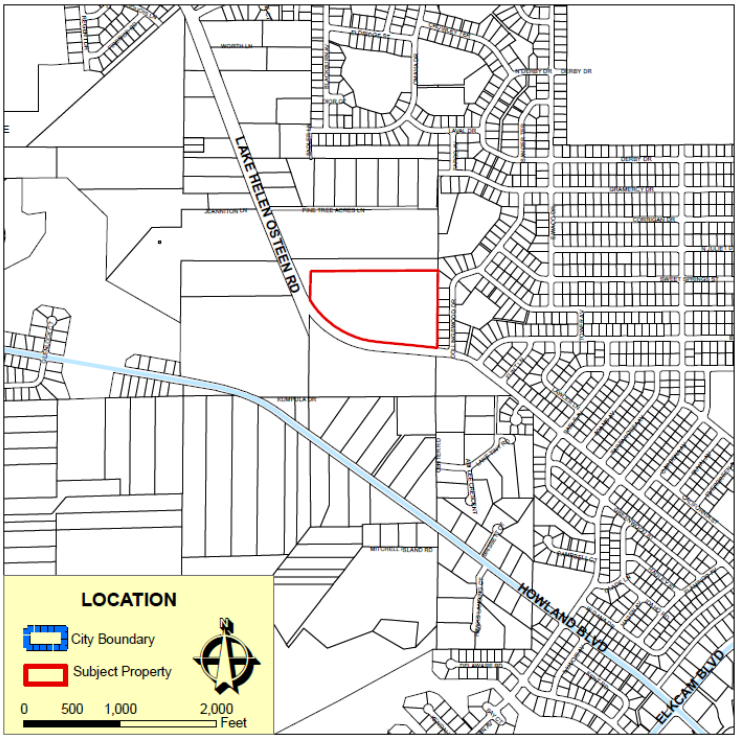
A. Site Information

1. **Tax Parcel No.**: 10-18-31-00-00-0160
2. **Property Addresses:** 2745 Lake Helen Osteen, Deltona, FL
3. **Property Area:** ±24.73 acres
4. **Property Legal Description:**

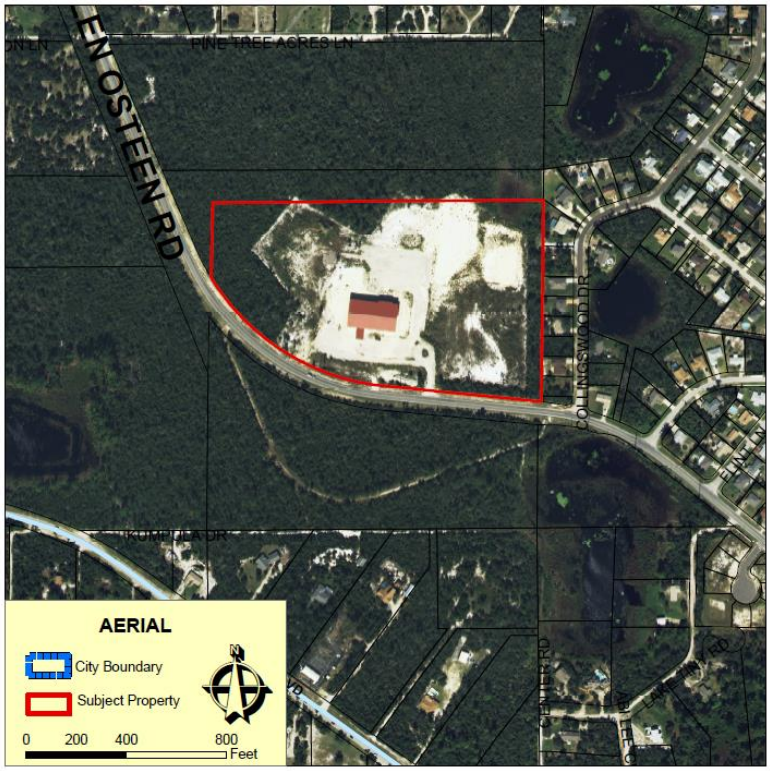
   10-18-31 SE ¼ OF SE ¼ PER OR 1790 PG 88 LYING N OF LAKE HELEN OSTEEN RD PER OR 4779 PG 2378 PER OR 4779 PG 2390
5. **Property Location:**

   North of Lake Helen Osteen Road, approximately 100 feet west of Collingswood Drive.

Location Map



Aerial Photo



B. Existing Land Uses

1. **Subject Property:** No Current Use of Property

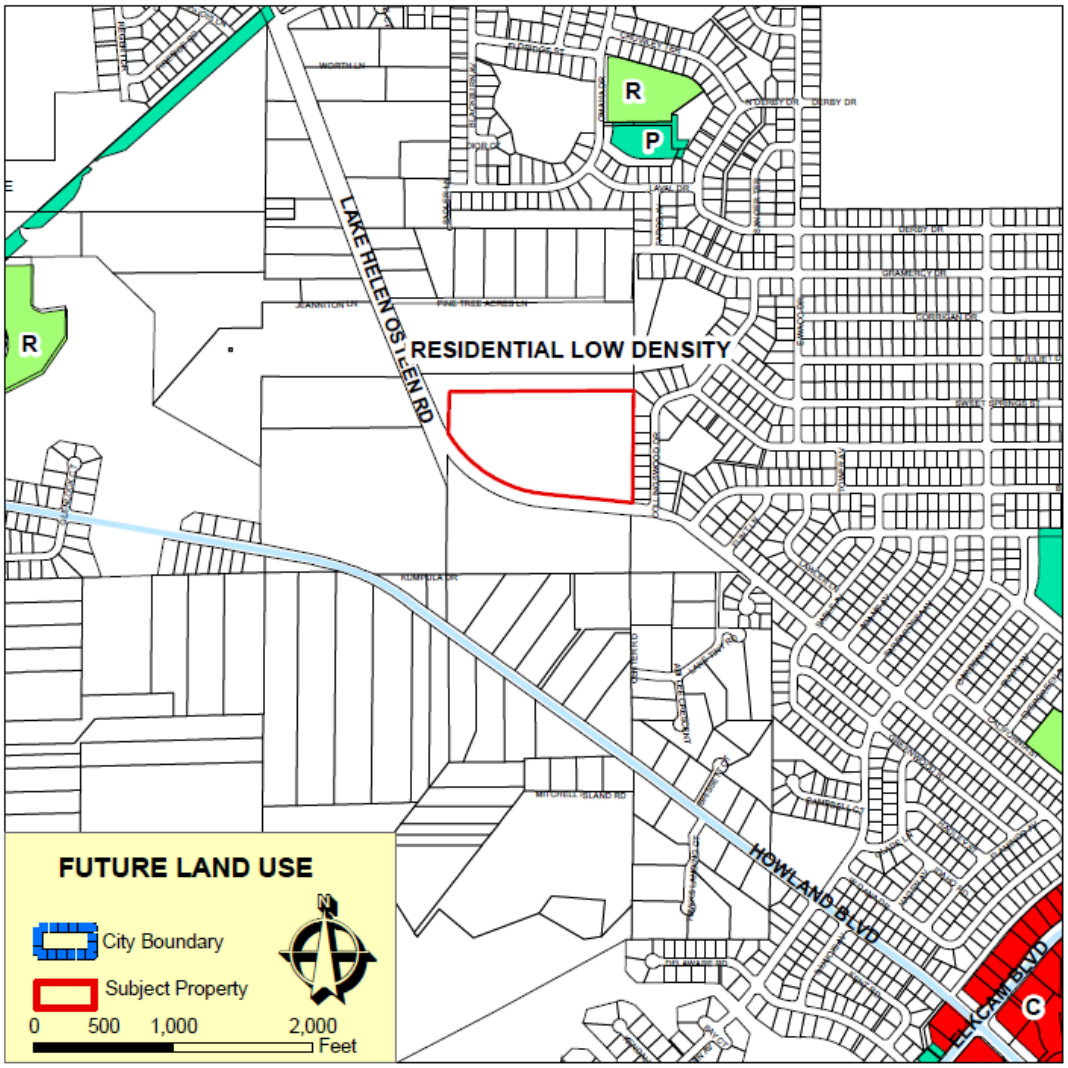
2. **Adjacent to Subject Property:**
   North: Vacant
   South: Vacant, across Lake Helen Osteen Road
   East: Single Family Residential
   West: Vacant

C. Future Land Use

1. **Subject Property:** Residential Low Density

2. **Adjacent to Subject Property:**
   North: Residential Low Density
   South: Residential Low Density
   East: Residential Low Density
   West: Residential Low Density

Future Land Use Map

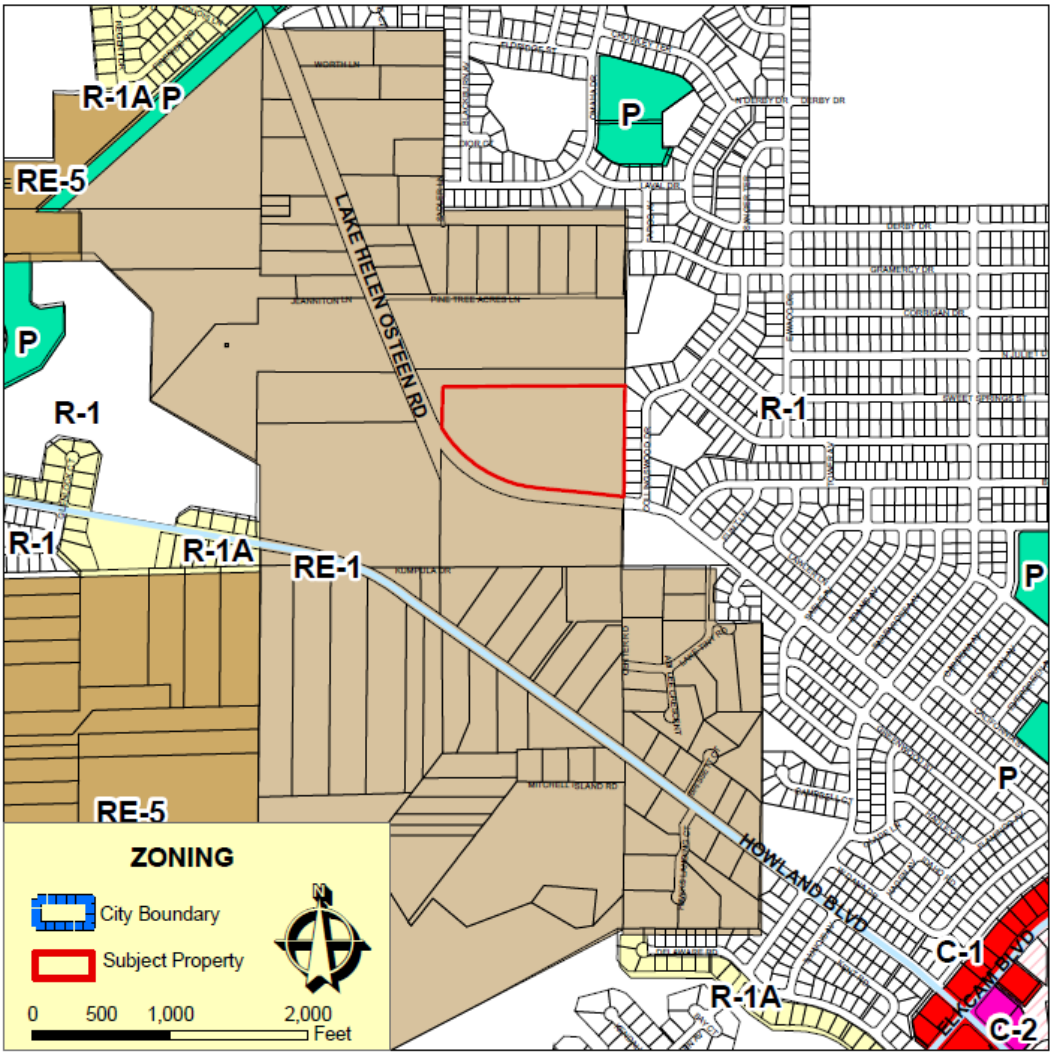


D. Zoning

1. Subject Property: RE-1, Residential Estate One

2. Adjacent Properties:
North: RE-1, Residential Estate One
South: RE-1, Residential Estate One
East: R-1, Single Family Residential
West: RE-1, Residential Estate One

Zoning Map



II. Background

1. **Is the proposed use consistent with the intent of this chapter?**

   Yes, a house of worship is cited as a conditional use in residential zoning district RE-1 and the proposed use is consistent with the purpose and intent of the City's Land Development Code.

2. **Is the proposed use consistent with the Comprehensive Plan?**

   Yes, the Comprehensive Plan recommends low density residential uses for this site and the proposed house of worship is consistent with conditional uses allowed within such district.

3. **Will the proposal adversely affect the public interest?**

   No, on the contrary, the proposed church would be an asset that serves the local community and advance the public interest.

4. **Can the applicant meet the expressed requirements of applicable City Conditional Use regulations?**

   Yes, the expressed requirements of this conditional use application per Land Development Code Section 110-1102, including all legal documents, surveys, site plans and other related material and information, as outlined in the Land Development Code, will be met.

5. **Will the applicant be able to meet all requirements imposed by federal, state or local governments?**

   Yes, it is understood that the applicant will be able to meet and, prior to a subsequent site plan approval, will need to demonstrate adherence to all such requirements.

6. **Will the proposed use generate undue traffic congestion?**

   No. According to the 9th Addition to the ITE Manual, a church would generate 36.63 trips per 1,000 on a Sunday. Using this factor, the 21,461 square foot church would generate approximately 786 trips per day. The 2013 Volusia County traffic counts for the segment of Lake Helen Osteen from Haulover to Elkcam Boulevards, where the house of worship is proposed to be located, carries 9,570 Average Annual Daily Traffic. At the LOS E threshold, the subject segment has a capacity of 13,640 daily trips available. Therefore, there is sufficient capacity to serve the proposed house of worship.

7. **Will the proposed use create a hazard, public nuisance or be dangerous?**

   No, the church use of this property will not cause any hazard, public nuisance or danger.

8. **Will the proposed use materially alter the character of surrounding neighborhoods or adversely affect the value of surrounding land, structures or buildings?**

   No, churches are typically viewed as good neighbors within residential areas. This use is proposed to be located on a lot that is more than 20 acres in size and there exists a significant setback and buffer area between the structure and adjacent residential properties.

9. **Will the proposed use adversely affect the natural environment, natural resources or scenic beauty or cause excessive pollution?**

   No, the natural setting will be not be adversely affected by this use. On the contrary, the additional landscaping, appropriate stormwater management system and adherence to all federal, state and local environmental provisions prior to issuance of a related final site plan development order will ensure environmental compatibility.

III. Public Notice

The applicable public notice requirements were met. Publication of notice including the day, time, place and purpose, place within the City where the change may be inspected by the public and that interested parties may appear at the meeting and be heard with respect to the proposed change. Said notice was published at least ten days prior to the date of such public hearing. Notice was published in the *Orlando Sentinel*, a local newspaper. Notice setting forth the time, day, place and purpose of the hearing was mailed by U.S. Mail at least ten days prior to the date of the Planning and Zoning Board public hearing by the applicant to the last known address of the owners of the property within 300 feet of the property lines of the property involved in the variance request, as sworn to on the Affidavit of Compliance, provided by the Applicant. Public notice signs consistent with the requirements of the City Code were also posted on the subject property.

IV. Staff Findings and Recommendation

Staff finds that the requested Conditional Use application conforms to the provisions of the Land Development Code per Sections 110-1102 and 110-1202 (c).

Staff recommends that this Conditional Use request for a house of worship (File No. CU 14-003 and Resolution No.2014-08) be approved subject to the conditions cited under Section 110-817 of the Land Development Code that require buildings be no closer than 50 feet from any property line and that off–street parking areas meet the landscape buffer and parking surface requirements. In addition, the maximum capacity of the church per this Conditional Use application shall be limited to no more than 210 seats.

RESOLUTION NO. 2014-08

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA; GRANTING A CONDITIONAL USE TO PERMIT A HOUSE OF WORSHIP WITHIN AN RE-1, RESIDENTIAL ESTATE ZONING DISTRICT FOR THE PROPERTY LOCATED AT 2745 LAKE HELEN OSTEEN ROAD, WITHIN THE CITY OF DELTONA; PROVIDING CONDITIONS AND AN EFFECTIVE DATE.

WHEREAS, Iglesia Misionera Eslabon de Dios has submitted an application for Conditional Use, CU14-003, to a conditional use to permit a house of worship within an RE-1, Residential Estate zoning district; and

WHEREAS, in accordance with Section 110-1102 Deltona City Code, the City of Deltona held a public hearing after due public notice to review the proposed Conditional Use Application, Project Number CU14-003.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DELTONA FLORIDA, AS FOLLOWS:

SECTION 1. In accordance with the Code of the City of Deltona, Section 110-1102, the Deltona City Commission hereby grants a Conditional Use, CU14-003, for the construction and operation of a house of worship at 2745 Lake Helen Osteen Road, subject to the conditions, in part per Sections 110-817 of the Land Development Code that require buildings be no closer than 50 feet from any property line and that off-street parking areas meet the landscape buffer and parking surface requirements. In addition, the maximum capacity of the church per this Conditional Use application shall be limited to no more than 210 seats.

SECTION 2. This Resolution shall become effective immediately upon its adoption and is valid for a period not to exceed twelve (12) months from the date of adoption.

PASSED AND RESOLVED THIS _____ DAY OF _____, 2014, BY THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA.

BY: _____
JOHN C. MASIARCZYK, SR., Mayor

ATTEST:

_____
JOYCE RAFTERY, City Clerk

Approved as to form and legality
for use and reliance of the City of
Deltona, Florida

_____
GRETCHEN R. H. VOSE, City Attorney

CONDITIONAL USE PLAN FOR IGLESIA MISIONERA ESLABON DE DIOS

2745 LAKE HELEN OSTEEN ROAD, DELTONA FLORIDA

TAX PARCEL #: 8110-00-00-0160 & 0141

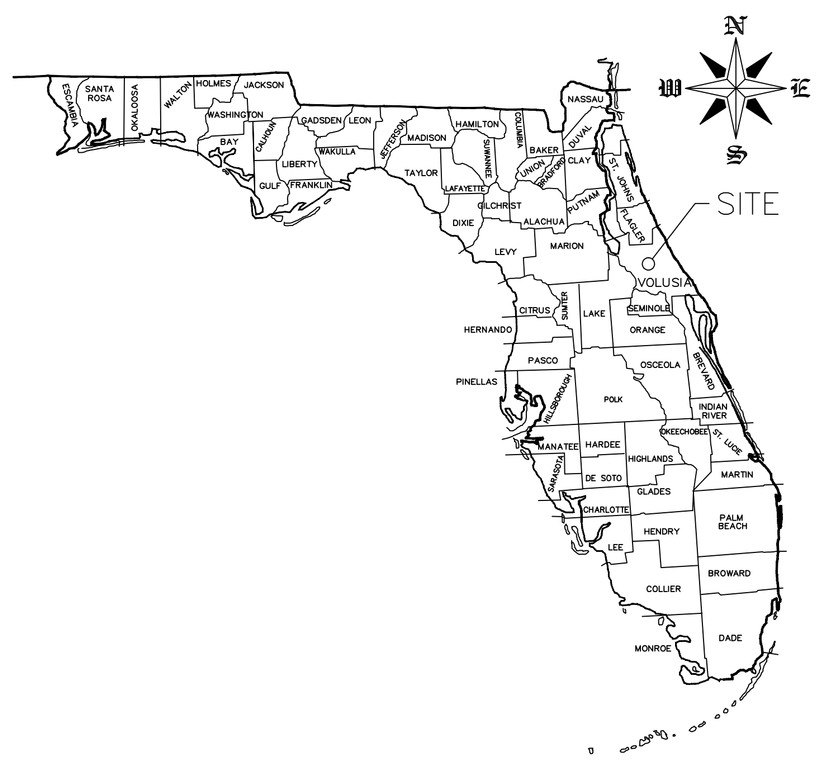
JUNE 11, 2014

CONTACTS:

Owner: Iglesia Misionera Eslabon de Dios
Pastor Kelly Santos
PO Box 6047
Deltona FL 32728
(386) 956-6391
Email: kellydeltona@yahoo.com

Engineer: John M. Schultheis, P.E.
Registration #57863
896 Pine Tree Terrace
DeLand, FL 32724
(386) 717-7546
Email: john@schultheiseng.com

Surveyor: Efird Surveying and Mapping
Registration #5823
(386) 740-4144 phone
Email: lefird@bellsouth.net



INDEX:

SHEET C-1 TITLE PAGE

SHEET C-2 OVERALL SITE PLAN

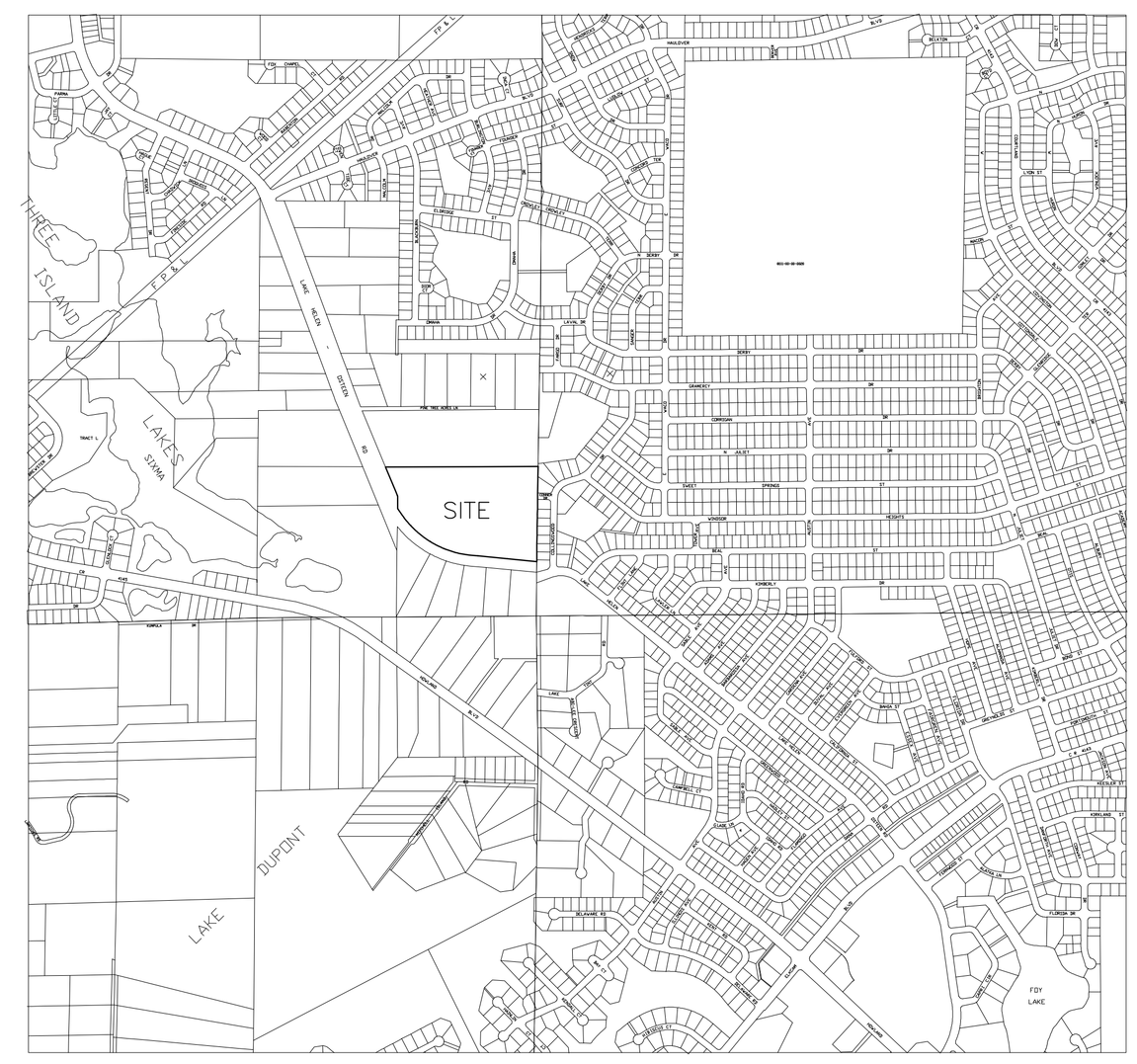
SHEET C-3 SITE PLAN

DESCRIPTION:

THAT PART OF THE SOTUHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 10, TOWNSHIP 18 SOUTH, RANGE 31 EAST, VOLUSIA COUNTY, FLORIDA, LYING NORTHERLY AND EASTERLY OF THE LAKE HELEN - OSTEEN ROAD RIGHT-OF-WAY AS DESCRIBED IN O.R. BOOK 2906, PAGE 1263, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.

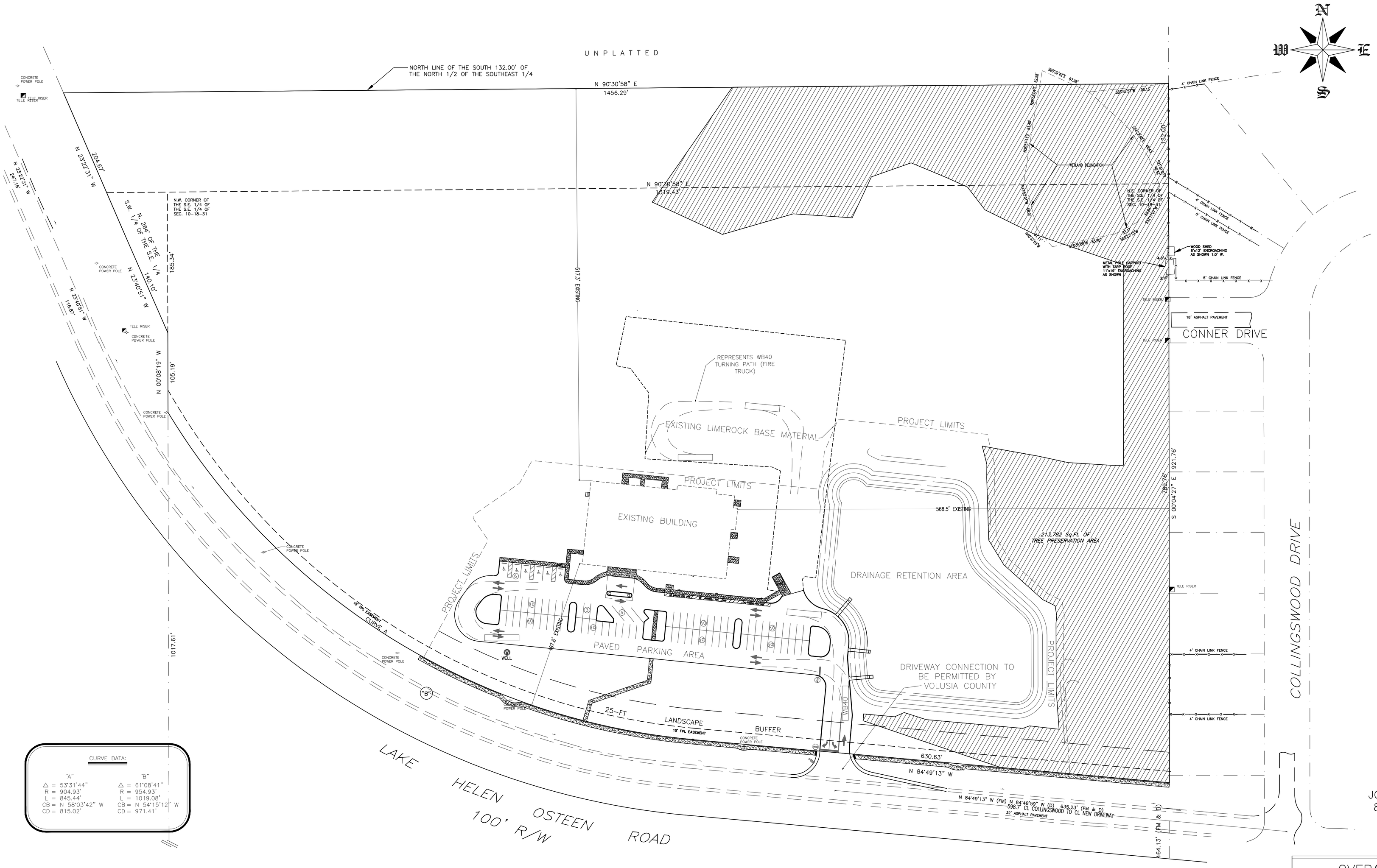
AND

THAT PORTION OF THE SOUTH 132 FEET OF THE NORTH 1/2 OF THE SOUTHEAST 1/4 OF SECTION 10, TOWNSHIP 18 SOUTH, RANGE 31 EAST, VOLUSIA COUNTY, FLORIDA, LYING EAST OF LAKE HELEN - OSTEEN ROAD, AND THAT PORTION OF THE NORTH 264 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 10, TOWNSHIP 18 SOUTH, RANGE 31 EAST, VOLUSIA COUNTY, FLORIDA, LYING EAST OF LAKE HELEN - OSTEEN ROAD.



n.t.s.

LOCATION MAP



CURVE DATA:

"A"	"B"
Δ = 53°31'44"	Δ = 61°08'41"
R = 904.93'	R = 954.93'
L = 845.44'	L = 1019.08'
CB = N 58°03'42" W	CB = N 54°15'12" W
CD = 815.02'	CD = 971.41'

JOHN M. SCHULTHEIS, P.E.
896 PINE TREE TERRACE
DELAND FL 32724
386-717-7546

THIS DRAWING IS NOT VALID UNLESS IT HAS THE ENGINEER'S ORIGINAL DATED SIGNATURE & IS EMBOSSED WITH HIS SEAL

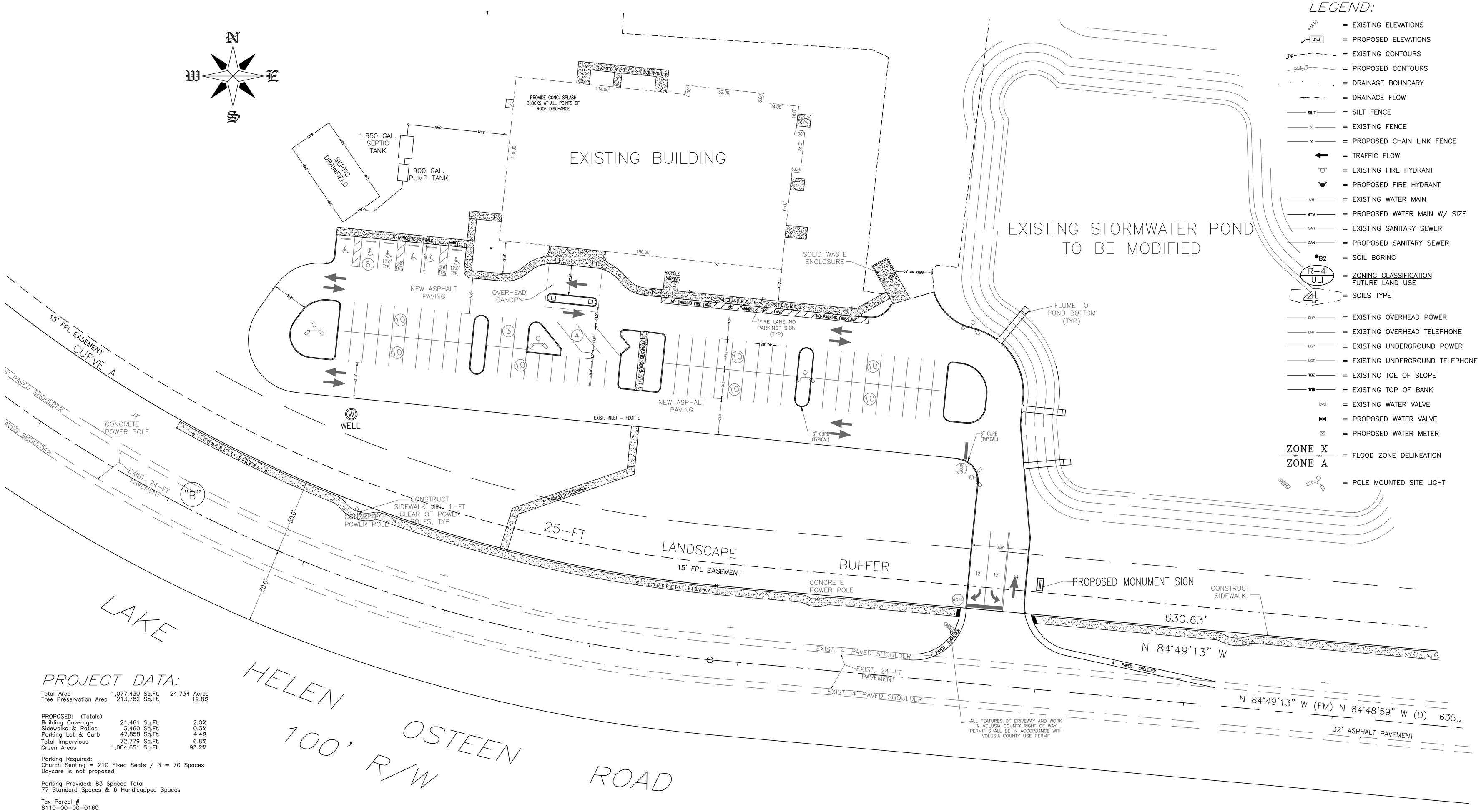
JOHN M. SCHULTHEIS, P.E. #57863

OVERALL SITE PLAN FOR IGLESIA MISIONERA ESLABON DE DIOS

2745 LAKE HELEN OSTEEN ROAD, DELTONA FLORIDA

DATE	REVISED	BY
6/2014	PER CITY COMMENTS	JMS

PROJECT #	IMED	SCALE: 1"=60'	SHEET C-2
DATE:	MAY 1, 2014	DRAWN: JMS	



LEGEND:

- = EXISTING ELEVATIONS
- = PROPOSED ELEVATIONS
- = EXISTING CONTOURS
- = PROPOSED CONTOURS
- = DRAINAGE BOUNDARY
- = DRAINAGE FLOW
- = SILT FENCE
- = EXISTING FENCE
- = PROPOSED CHAIN LINK FENCE
- = TRAFFIC FLOW
- = EXISTING FIRE HYDRANT
- = PROPOSED FIRE HYDRANT
- = EXISTING WATER MAIN
- = PROPOSED WATER MAIN W/ SIZE
- = EXISTING SANITARY SEWER
- = PROPOSED SANITARY SEWER
- = SOIL BORING
- = ZONING CLASSIFICATION / FUTURE LAND USE
- = SOILS TYPE
- = EXISTING OVERHEAD POWER
- = EXISTING OVERHEAD TELEPHONE
- = EXISTING UNDERGROUND POWER
- = EXISTING UNDERGROUND TELEPHONE
- = EXISTING TOE OF SLOPE
- = EXISTING TOP OF BANK
- = EXISTING WATER VALVE
- = PROPOSED WATER VALVE
- = PROPOSED WATER METER
- = FLOOD ZONE DELINEATION
- = POLE MOUNTED SITE LIGHT

PROJECT DATA:

Total Area	1,077,430	Sq.Ft.	24.734 Acres
Tree Preservation Area	213,782	Sq.Ft.	19.8%

PROPOSED: (Totals)

Building Coverage	21,461	Sq.Ft.	2.0%
Sidewalks & Patios	3,460	Sq.Ft.	0.3%
Parking Lot & Curb	47,858	Sq.Ft.	4.4%
Total Impervious	72,779	Sq.Ft.	6.8%
Green Areas	1,004,651	Sq.Ft.	93.2%

Parking Required:
Church Seating = 210 Fixed Seats / 3 = 70 Spaces
Daycare is not proposed

Parking Provided: 83 Spaces Total
77 Standard Spaces & 6 Handicapped Spaces

Tax Parcel #
8110-00-00-0160

Project Zoning: RE-1 (seeking Conditional Use for House of Worship)

Proposed Project Use: Church

Water Provider: City of Deltona Water (existing 8" line available at front of parcel)

Sewer Provider: Septic Tank - Drainfield

Solid Waste Service Provider: Private

All utilities construction shall be undergound.

Site is mapped Flood Zone X, FIRM 12127C0630J & 12127C0640J effective date 2/19/2014

Soils - S.C.S. #42, Paola Fine Sand, 0-8% slopes

Site has no known archeologic or historic resources.

Existing vegetation - Sand Pine & Scrub Oak

Owner or their successors will be responsible for maintenance to storm drainage system as approved for construction. Recommend minimum weekly check for debris clogging outfall, bi-annual flush of pipe and mow DRA and remove clippings as required.

Prior to receiving a Certificate Of Occupancy The Engineer Of Record shall submit a signed & sealed letter upon completion of construction, to certify all improvements have been installed and completed in accordance with the Approved Plans.

The owner, & his successors, will be responsible for the maintenance of all open space, landscaping, drainage retention areas, and other facilities.

All known easements, covenants & rights-of-way are depicted on the plan.

Utility conduit & utility panels/boxes shall be painted to match the color of the building on which they are placed.

THESE PLANS ARE SUBJECT TO APPROVAL BY THE FOLLOWING AGENCIES AND ARE NOT VALID FOR CONSTRUCTION WITHOUT THEIR DOCUMENTED APPROVAL. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR ANY DAMAGES INCURRED WITHOUT SUCH DOCUMENTATION.

CITY OF DELTONA
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FOR POTABLE WATER)
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FOR SANITARY SEWER)
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FOR N.P.D.E.S.)
VOLUSIA COUNTY R/W USE PERMIT
VOLUSIA COUNTY HEALTH DEPARTMENT FOR SEPTIC SYSTEMS

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SITE PLAN FOR IGLESIA MISIONERA ESLABON DE DIOS

2745 LAKE HELEN OSTEEN ROAD, DELTONA, FLORIDA

DATE	REVISED	BY
6/2014	PER CITY OF DELTONA STAFF COMMENTS	JMS

PROJECT #	IMED	SCALE: 1"=30'	SHEET
DATE:	MAY 1 2014	DRAWN: JMS	C-3