$\qquad$
Application Fee: \$
Filing Date: $\qquad$
Acceptance Date:
Review Type: P\&Z; CC

## Special Exception Permit Application

## Reference City of Alachua Land Development Regulations Article 2.4.4

## A. PROJECT

1. Project Name: Walmart \#3873-00
2. Address of Subject Property: SE quadrant of the Intersection of US 441 \& I-75
3. Parcel ID Number(s): 03869-013-000
4. Existing Use of Property: Vacant
5. Future Land Use Map Designation : COMM
6. Zoning Designation: Commercial Intensive
7. Acreage: 37.94
B. APPLICANT
8. Applicant's Status

- Owner (title holder)

Agent
2. Name of Applicant(s) or Contact Person(s): Michael Thomas

Title: Director, Proj. Design \& Mang.
Company (if applicable): Walmart Stores East, LP
Mailing address: 2001 SE 10th Street
City: Bentonville
Telephone: ( ) 479-204-2186 F State: Arkansas

ZIP: 72716-5510
3. If the applicant is agent for the property owner*:

Name of Owner (title holder): N/A
Mailing Address: $\qquad$

City: $\qquad$ State: $\qquad$ ZIP: $\qquad$

* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.
C. ADDITIONAL INFORMATION

1. Is there any additional contact for sale of, or options to purchase, the subject property?
If yes, list names of all parties involved:
If yes, is the contract/option contingent or absolute?Contingent
$\square$ Absolute

## D. ATTACHMENTS

1. Statement of proposed special exception including the identification of the provision of the Land Development Regulations under which the special exception permit is sought, and stating the grounds on which it is requested.
2. Analysis of compliance with the Standards for a Special Exception, as defined in Section 2.4.4 of the Land Development Regulations (LDRs), and listed below:
a. Complies with Use Specific Regulations
b. Compatibility
c. Design Minimizes Adverse Impact
d. Design Minimizes Environmental Impact
e. Roads and Other Public Facilities
f. Not Injure Neighboring Land or Property Values
g. Site Plan
h. Complies will All Other Relevant Laws and Ordinances
3. Materials which demonstrate that the special exception permit would promote the public health, safety, morals, order, comfort, convenience, appearance, prosperity or the general welfare, which shall include (at a minimum):
a. A site plan showing the proposed placement of structures on the property; provisions for ingress and egress, off-street parking and off-street loading areas, and refuse and service areas; and required yards and other open spaces;
b. Access and points of connection to utilities (electric, potable water, sanitary sewer, gas, etc.)
c. Plans for screening and buffering with reference to type, character and dimensions;
d. Proposed landscaping, signs and lighting, including type, dimensions and character;
e. Any specific requirements of the zoning district.
4. Two (2) sets of labels for all property owners within 400 feet of the subject property boundaries - even if property within 400 feet falls outside of City limits. (Obtain from the Alachua County Property Appraiser).
5. Neighborhood Meeting Materials, including:
i. Copy of the required published notice (advertisement) - must be published a newspaper of general circulation, as defined in Article 10 of the City's Land Development Regulations
ii. Copy of written notice (letter) sent to all property owners within 400 feet, and mailing labels or list of those who received written notice
iii. Written summary of meeting - must include (1) those in attendance; (2) a summary of the issues related to the development proposal discussed; (3) comments by those in attendance about the development proposal; and, (4) any other information deemed appropriate.
6. Map of the subject property and surrounding area with zoning.
7. Legal description with tax parcel number.
8. Proof of ownership.
9. Proof of payment of taxes.
10. Fee. Please see fee schedule for fee determination. No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any necessary technical review will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any legislative and/or quasijudicial action of any kind on the petition, appeal, or development application.

All 10 attachments are required for a complete application. A completeness review of the application will be conducted within 5 business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

Signature of Applicant

Signature of Co-applicant

Michael Thomas; Director Proj. Design \& Many.
Typed or printed name and title of applicant

State of $\qquad$ County o $\qquad$
Typed or printed name of co-applicant

The foregoing application is acknowledged before me this $\qquad$ day of March ,20/6 by $\qquad$ MichaeL ThomAS, who is/are personally known to me, or who has/have produced $\qquad$ N/A
as identification.


| IN PAYMENT | WAL-MART STORES, INC. |
| :--- | :--- | :---: | :---: |
| OF INVOICES TO | 702 SW 8th Street |$\quad$| CHECK DATE | CHECK NUMBER |
| :---: | :---: | :---: |
| $1 / 1$ |  | Bentonville, Arkansas 72716


| INVOICE DATE | INVOICE NUMBER | STORE NO. | DOCUMENT | TYPE | GROSS AMOUNT | DISCOUNTS | NET AMOUNT |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $02 / 24 / 16$ |  | 224162 | $05-9000$ |  |  |  |  |

THE BACK OF THIS DOCUMENT CONTAINS AN ARTIFICIAL WATERMARK - HOLD AT AN ANGLE TO VIEW

WAL-MART STORES, INC.
702 SW 8th Street
Bentonville, Arkansas 72716


## Attachment 1 - Statement of proposed special exception

A special exception is sought for Large-scale retail establishments $>/=80,000$ sf in accordance with the standards of Section 2.4.4, Special exception permit, as allowed by the use-specific standards for the specific zone district ( Cl - Commercial Intensive) set forth in Table 4.1-1.

Walmart \#3873-00

# COMPLIANCE with Standards for a Special Exception <br> Large Scale Retail Establishments >l= 80,000 SF 

## JUSTIFICATION / RESPONSES

Presented to:
City of Alachua
Planning \& Community Development
PO Box 9
Alachua, Florida 32616

Prepared by:
CPH, Inc.
5200 Belfort Road
Suite 220
Jacksonville, FL 32256

November 17, 2016


Walmart \#3873-00
COMPLIANCE with Standards for a Special Exception
Large Scale Retail Establishments>|=80,000 SF

As required by Section 2.4.4(D) of the City of Alachua's Land Development Regulations ("LDRs"), an applicant must demonstrate that the following standards have been satisfied prior to approval of a special exception permit:
(1) Complies with use specific regulations. The proposed Special Exception complies with all relevant standards in Section 4.3, Use specific standards.

## RESPONSE: Refer to Attachment A.

(2) Compatibility. The proposed special exception is appropriate for its location and is compatible with the character of surrounding lands and the uses permitted in the zoning district.

## RESPONSE:

Pursuant to Section 163.3164(9), Florida Statutes, "compatibility" is defined as "a condition in which land uses or conditions can coexist in relative proximity to each other in a stable fashion over time such that no use or condition is unduly negatively impacted directly or indirectly by another use or condition." For the following reasons, the proposed Walmart Supercenter will be compatible with the uses on adjacent and nearby properties.

The subject site has a Future Land Use Designation of COMM: Commercial. According to the City of Alachua's Comprehensive Plan Future Land Use Element, the "Commercial land use category is established to provide for general commercial uses, as well as more intense commercial and highway commercial uses. This is the land use category in which large-scale, regional commercial uses may locate." Retail sales and services are allowed within the Commercial future land use category.

The subject site is zoned Cl : Commercial Intensive. According to the City of Alachua's Land Development Regulations, the "Cl district is established and intended to provide lands and facilitate highway-oriented development opportunities within the City, for uses that require high public visibility and an accessible location. The CI district should be located along major arterials or highways and at the US 441/Interstate-75 interchange." Large scale retail establishments greater than 80,000 square feet are allowed within the Commercial Intensive zoning district upon approval of a Special Exception Permit.

The Future Land Use designations and zoning districts for the subject and adjacent properties are as follows:

|  | USE | FUTURE LAND <br> USE <br> DESIGNATION | ZONING |
| :---: | :---: | :---: | :---: |
| SUBJECT SITE | WALMART <br> (PROPOSED) | Commercial | Commercial <br> Intensive |
| NORTH | McDonalds / BP <br> Gas Station / <br> Quality Inn Hotel | Commercial | Commercial <br> Intensive |
| EAST | Vacant | Commercial | Commercial <br> Intensive |
| SOUTH | Vacant | Commercial | Commercial <br> Intensive |
| WEST | Interstate 75 | N/A | N/A |

The proposed use is appropriately located southeast of the intersection of two significant roadways (Interstate 75 and US Highway 441) in an area designated for a mixture of general, intense, and highway commercial uses.

The site is surrounded on three (3) sides by properties with the same Future Land Use designation and zoning. Existing uses on the adjacent properties to the north include a McDonalds, a BP gas station, and a Quality Inn motel.

The proposed use for the subject property is a Walmart Supercenter with a building area of approximately 160,000 square feet. The building will provide a front setback of $+/-707$ feet, a rear setback of $+/-223$ feet, an east side setback of $+/-265$ feet, and a west side setback of $+/-181$ feet. The building coverage and floor area ratio are approximately twelve percent (12\%).

Other nearby properties also have similar floor area ratios (F.A.R.) when compared to the proposed Walmart Supercenter:

| SITE | LOCATION | F.A.R. |
| :---: | :---: | :---: |
| WALMART <br> (PROPOSED) | SUBJECT SITE | 0.12 |
| ECONO LODGE | 15920 NW US HWY 441, <br> ALACHUA, FL 32615 | 0.39 |
| QUALITY INN | 15960 NW US HWY 441 <br> ALACHUA, FL 32615 | 0.36 |
| SCULTURA HOME <br> DÉCOR | 15981 NW 129 <br> TH TERR., <br> ALACHUA, FL 32615 | 0.24 |

The proposed use will continue the pattern and character of the existing surrounding development. Future development to the east and south will be governed by the same City design and performance standards as the subject site.
(3) Design minimizes adverse impact. The design of the proposed special exception minimizes adverse effects, including visual impacts of the proposed use on adjacent lands; furthermore, the proposed special exception avoids significant adverse impact on surrounding lands regarding service delivery, parking and loading, odors, noise, glare, and vibration, and does not create a nuisance.

## RESPONSE:

Adverse impact on surrounding properties is avoided as follows:

## Visual Impact

Architecture - Proposed building materials include architectural masonry and integral color split face Concrete Masonry Unit (CMU) in earth tone colors. Architectural accents include Exterior Insulation and Finish System (EIFS) cornices and metal awnings. The building design and selected materials create a visually appealing structure. A vast majority of the surrounding land is vacant and this project may set the standard of review for future adjacent commercial projects.

Equipment Screening - Compactors are screened with a masonry wall. The site mechanical equipment is screened with landscaping designed in accordance with the City's LDRs.

Buffers - Buffers are provided at all property boundaries in accordance with City standards (Section 6.2 of the City's LDRs Tree Protection I Landscape I Xeriscape Standards).

## Service Delivery / Loading

Deliveries will access the site via US Hwy 441. Back of houselloading operations are located on the south side of the building. On-site circulation patterns have been designed to ensure the safety of patron, employee, and delivery vehicles. Extensive buffering has been provided along the southern boundary of the site to visually shield the adjoining property.

## Parking

Parking is located on the west, north, and east sides of the building. Parking is designed in accordance with City standards, to include interior parking lot landscaping. The parking lot landscaping, in
addition to landscape buffers provided at the periphery of the site, will eliminate any adverse impacts on surrounding properties. Odors

No odors are associated with the proposed Walmart Supercenter.

## Noise

The project is designed to minimize adverse noise impacts on adjacent lands. The truck delivery docks will be equipped with screen walls and will be separated from adjacent properties by landscaped earth berms. The Tire and Lube Express (TLE) is oriented facing towards Interstate 75 and away from other adjacent properties. The TLE will also be separated from adjacent properties with landscaped earth berms. Mechanical equipment is proposed to be located on the roof of the building and screened by parapet walls.

## Glare

Lighting is designed in accordance with City standards (Section 6.4 of the City's LDRs - Exterior Lighting Standards). See Lighting Plan Sheet LP-1 prepared by CESO, Inc., for the Walmart site and Sheets E-9, E-10, E-11, and E-12 prepared by William T. Stormant, P.E., for the service roads.

The lighting design for the proposed Walmart site proposes to use poles thirty-nine (39) feet in height mounted on a three (3) foot base; below the maximum of forty-five (45) feet mandated by the City's LDRs.

The light fixtures being used to illuminate the Walmart building will be in accordance with Section 6.4.4(B) of the City's LDRs.

The service road's lighting design proposes to use poles with thirtyone (31) foot maximum mounted height; below the maximum of fortyfive (45) feet mandated by the City's LDRs.

Total proposed lumens are less than total allowable lumens.

## Vibration

Vibration or vibration-inducing activities are not anticipated.

## Nuisance

The proposed use is appropriately located within an area designated for a mixture of general, intense, and highway commercial uses. The proposed use will not create a nuisance to existing or future uses on surrounding properties.
(4) Design minimizes environmental impact. The proposed special exception minimizes environmental impacts and does not cause significant deterioration of light, water and air resources, wildlife habitat, stormwater management, scenic resources, and other natural resources.

## RESPONSE:

The site is not located in a flood prone area and no wetlands, lakes, ponds, canals, or other waters or waterways were identified on the property. There are no unique features or resources which constrain site development. The site does not contain known habitat for listed species.

Impacts will be minimized by installing forebay catch basins at each of the two (2) stormwater pipe inflow locations and monthly visual inspections of the stormwater pond will be mandated in the operation and maintenance requirements of the store. Pervious pavement will be installed in no less than $25 \%$ of the parking spaces and an approximately 5,000 gallon cistern will be installed and maintained to collect rainwater from the rooftop for use in irrigation.

To further minimize impacts, a detailed surface water pollution prevention plan will be prepared prior to the start of construction. If sinkholes are observed on-site, an inspection by a qualified Geotechnical Engineer will be performed and the City of Alachua, Alachua County, and the Suwannee River Water Management District will be notified within two (2) business days.

The City's LDRs require that at least ten percent (10\%) of the gross site area be designated open space. The proposed project will provide approximately fifty percent (50\%) open space. The "Florida-friendly best management practices for protection of water resources by the green industries" will be incorporated in all new landscaping. All fertilizers and/or potentially hazardous substances will be kept under roof.

The site has been designed to meet both the City's and the Suwannee River Water Management District's stormwater criteria. Full details of the stormwater design are included in the stormwater report submitted to the City.
(5) Roads and other public facilities. There is adequate public facility capacity available to serve the proposed special exception, and the proposed special exception use is designed to ensure safe ingress and egress onto the site and safe road conditions around the site.

## RESPONSE:

The proposed Walmart Supercenter was analyzed in the Traffic Impact Analysis prepared by Traffic \& Mobility Consultants (TMC), included with this submittal. All intersections and roadway segments will operate at an acceptable LOS under the proposed conditions. Ingress and egress onto the site and on-site circulation patterns have been designed to ensure the safety of patron, employee, and delivery vehicles.

A Concurrency Impact Analysis of potable water, wastewater, transportation, stormwater, and solid waste is included with this submittal. The analysis demonstrates that the proposed Walmart Supercenter will not adversely impact the adopted Level of Service for the City of Alachua's public facilities.
(6) Not injure neighboring land or property values. The proposed special exception will not substantially injure the use of neighboring land for those uses that are permitted in the zone district, or reduce land values.

## RESPONSE:

The site is surrounded on three (3) sides by properties that include the same Commercial Future Land Use designation and Commercial Intensive zoning. The Commercial Future Land Use designation and the Commercial Intensive zoning allow for a mixture of general, intense, and highway commercial uses. Compatibility with existing and future surrounding uses is established through the use of setbacks, buffers, landscaping, architectural design, and site design. Approval of the special exception will not result in detriment to adjacent land, the character of the zone district, or a reduction of land values.

Site Plan. A site plan (Subsection 2.4 .9 of this section) has been prepared that demonstrates how the proposed special exception use complies with the other standards of this subsection.

## RESPONSE:

The attached site plan has been prepared in accordance with Section 2.4.9 of the City's LDRs and complies with both the Large-Scale Retail Establishment Standards of Section 4.3.4(G)(7) of the City's LDRs (ATTACHMENT A) and Article 6: Development Standards of the City's LDRs.

The proposed use for this property is a Walmart Supercenter with a building area of approximately 160,000 square feet. The building will provide a front setback of $+/-707$ feet, a rear setback of $+/-223$ feet, an east
side setback of $+/-265$ feet, and a west side setback of $+/-181$ feet. The building coverage and floor area ratio are approximately twelve percent (12\%). Accordingly, the proposed use is consistent with the approved zoning.

The proposed use is required to provide parking at a ratio of one (1) space per 305 square feet of floor area with a maximum not to exceed 125 percent of this ratio. For the proposed use, a minimum of 520 spaces would be required with a maximum of 650 allowed. The proposed Site Plan contains 622 spaces.

Bicycle parking is required at one (1) space per 10 required parking spaces. 112 bicycle spaces are being provided, which exceeds the required 52 spaces.

The proposed Site Plan protects trees where possible and provides for mitigation of any removed trees in accordance with the City's LDRs.
(8) Complies with all other relevant laws and ordinances. The proposed special exception use complies with all other relevant City laws and ordinances, State and Federal laws, and regulations.

## RESPONSE:

The proposed special exception use complies with all other relevant and applicable City laws and ordinances, state and federal laws, and regulations not specifically addressed in this report.

## ATTACHMENT A

## Analysis of Compliance with Section 4.3.4(G)(7)

 of the City of Alachua's Land Development Regulations
### 4.3.4. Business uses.

(G) Retail sales and services. Retail sales and services uses located in a singleTenant building of 20,000 square feet size or larger shall comply with the standards in Subsection 6.8.3, Design standards for business uses, as well as the standards in this section.
(7) Large-scale retail establishments. Large-scale retail establishments shall comply with the following standards:
(a) Design standards. All large-scale retail establishments shall comply with the design standards in Subsection 6.8.3, Design standards for business uses.

RESPONSE: Refer to Attachment B.
(b) Large-scale retail establishments of greater than or equal to 80,000 square feet of gross floor area.
(i) Large-scale retail establishments of greater than or equal to 80,000 square feet of gross floor area shall be special exceptions in the CC and Cl zoning districts.

RESPONSE: The project is a large scale retail establishment greater than 80,000 square feet and is located in the Cl zoning district. Accordingly, the Applicant is seeking approval of a special exception permit.
(ii) As part of the application for special exception, a market and impact study shall be submitted. The study shall be based upon an agreed upon methodology utilizing commonly accepted data sources. Data are to be taken from professionally accepted existing sources, such as the United States Census, State Data Center, State University System of Florida, regional planning councils, water management districts, or existing technical studies. The data used shall be the best available existing data. Where data augmentation, updates, or special studies or surveys are deemed necessary by the City, appropriate methodologies shall be clearly described or referenced and shall meet professionally accepted standards for such methodologies.

RESPONSE: Please see attached Market and Impact Study prepared by Florida Economic Advisors, dated March 2016.
(iii) At a minimum the market and impact study shall include:
a. Inventory of local retail base.

RESPONSE: Refer to Sections 3.6-3.8 of the Market and Impact Study and the Study's Appendix.
b. Assess market areas and market impacts.

RESPONSE: Refer to Sections 3.3 - 3.8 and Table 3.1 of the Market and Impact Study.
c. Services and capital expenditures: Calculate cost of infrastructure and utilities (e.g., streets, sewer connections, water lines, etc.).

RESPONSE: See attached cost estimate for Utilities and Infrastructure.
d. Traffic and other service impacts.

RESPONSE: A Concurrency Impact Analysis of potable water, wastewater, transportation, stormwater, and solid waste is included with this submittal. The analysis demonstrates that the proposed Walmart Supercenter will not adversely impact the adopted Level of Service for the City of Alachua's public facilities.
e. Calculate the cost of associated economic development incentives (i.e., tax credits).

RESPONSE: Not Applicable. The Applicant is not seeking any incentives or tax credits.
f. Assess the impact of redevelopment zone tax-increment financing.

RESPONSE: Not Applicable. The Applicant is not requesting redevelopment zone tax-increment financing.
g. Inventory locations of competing retailers.

RESPONSE: Refer to Sections 3.6-3.8 of the Market and Impact Study and the Study's Appendix.
h. Assess impact on existing local retailers.

RESPONSE: Refer to Sections 3.6 - 3.8 of the Market and Impact Study.

## ATTACHMENT B

## Analysis of Compliance with Section 6.8.3

 of the City of Alachua's Land Development Regulations6.8.3 Design standards for single tenant retail sales and service uses greater than or equal to 20,000 square feet.
(A) Facade and material design.
(1) Generally. All facades facing a street, lands containing existing residential uses, or vacant land classified as CSV, A, RSF-1, RSF-3, RSF-4, RSF-6, RMH-5, RMH-P, RMF-8, or RMF-15, shall be subject to the standards set forth in Subsection 6.8.3(B)(2).

RESPONSE: Subsection 6.8.3(B)(2) of the City's LDRs is addressed below.
(2) Standards.
(a) Glazing.
(i) Glazing of the front façade in the following amounts:
a. Thirty percent of the ground floor facade area when it faces a street or a publicly-accessible parking area which is a part of the development and consists of 15 percent or more of the development's minimum off-street parking requirement pursuant to Section 6.1.4(B);

RESPONSE: Alternatives allowed in Section 6.8.3(A)(2)(a)(iv) of the City's LDRs below were chosen.
b. Twenty percent of the ground floor facade area when it faces any vacant land classified as CSV, A, RSF-1, RSF-3, RSF-4, RSF-6, RMH-5, RMH-P, RMF-8 or RMF-15, or lands containing existing residential uses.
(ii) For the purposes of this section, the ground floor facade area of single-story buildings shall be calculated by measuring the applicable building wall between the finished grade and the underside of the roof, wall, or parapet of the facade. For buildings with more than one story, the ground floor façade area shall be calculated by measuring the applicable building wall between the finished grade and the underside of the floor above the ground level floor.

RESPONSE: The eligible area of windows to the bottom of the roof is shown in our submitted Elevations.
(iii) Windows shall not use reflective or heavily tinted glass that obstructs views into the building.

## RESPONSE: The proposed windows are transparent.

(iv) Glazing alternatives. The amount of glazing required pursuant to Subsection 6.8.3(A)(2)(a)(i)a. may be reduced to a minimum of 20 percent when the façade incorporates all of the following architectural elements:

RESPONSE: This option was utilized; please see our calculations for $20 \%$ glass and $20 \%$ brick on the proposed building elevations.
a. The use of natural brick, a natural brick product, natural stone, or a natural stone product in at least 20 percent of the façade, and;

RESPONSE: The use of a natural brick product is proposed on at least $20 \%$ of the façade.
b. Window shutters/plantation-style shutters or a canopy/portico in accordance with the following:
i. Window shutters or plantation-style shutters which span a minimum of 10 percent of the length of the façade, or

RESPONSE: There are 110 linear feet of shutters proposed which is in excess of the minimum requirement for the proposed 504 linear feet façade.
ii. A canopy or portico which provides a covered pedestrian walkway adjacent to the façade which spans a minimum of 50 percent of the length of the facade, and;
c. Customer entrances which include no less than six of the design features provided in Subsection 6.8.3(C)(2)d. The amount of glazing required pursuant to this subsection may be further reduced by up to 5 percent when the façade incorporates a corresponding increase in the percentage of natural brick, natural brick product, natural stone, or natural stone product in
addition to the minimum amount required pursuant to Subsection 6.8.3(A)(2)(a)(iv)a.

RESPONSE: This option was utilized; please see our calculations for $20 \%$ glass and $20 \%$ brick on the proposed building elevations.
(b) Facade massing.
(i) Offset required. Front facades 60 feet wide or wider shall incorporate wall offsets of at least two feet in depth (projections or recesses) a minimum of every 40 feet. Each required offset shall have a minimum width of 20 feet.

RESPONSE: Alternative (ii) below was utilized to satisfy this requirement.
(ii) Offset alternatives. The following alternatives can be used in place of the required front facade offsets:
a. Facade color changes following the same dimensional standards as the offset requirements;
b. Pilasters having a minimum depth of one foot, a minimum width of one foot, and a minimum height of 80 percent of the facade's height; and/or
c. Roofline changes when coupled with correspondingly aligned facade material changes.

RESPONSE: On the proposed building elevations, façade color changes following the same dimensional standards as the offset requirements are provided. Pilasters having a minimum depth of one (1) foot and a minimum width of one (1) foot, and a minimum height of 80 percent of the façade's height are proposed. Also, roofline changes are coupled with correspondingly aligned façade material changes.
(c) Roof line changes.
(i) Roof line changes shall include changes in roof planes or changes in the top of a parapet wall, such as extending the top of pilasters above the top of the parapet wall.
(ii) When roofline changes are included on a facade that incorporates wall offsets or material or color changes, roofline
changes shall be vertically aligned with the corresponding wall offset or material or color changes.

RESPONSE: On the proposed building elevations, roof line changes are proposed that include changes in the top of the parapet walls and roof planes.
(d) Colors. Facade colors shall be in accordance with the City's adopted color palate. This palate features colors that are low reflectance, subtle, neutral, and/or earth tone colors, while high-intensity colors, bright colors, metallic colors, or black or fluorescent colors are prohibited except for building trim.

RESPONSE: The proposed Earth Tone colors as depicted on the Building Elevations meet this requirement.
(e) Prohibited materials. The following materials shall be prohibited:
(i) Metal siding and exposed smooth-finished concrete block, when visible from a street, existing single-family attached or detached dwellings, or vacant land classified as CSV, A, RSF-1, RSF-3, and RSF-4; and

## RESPONSE: These prohibited materials are not proposed.

(ii) Synthetic stucco (EIFS) within two feet of the grade level and within two feet of any exterior door jamb.

RESPONSE: The proposed EIFS as depicted on the Building Elevations complies with this requirement.
(f) Vinyl siding. Vinyl siding shall be limited to 60 percent or less of any single facade, and all vinyl siding shall have a smooth surface with no visible grained pattern.

## RESPONSE: Vinyl siding is not proposed as part of this project.

(B) Roofs.
(1) Roof planes. Except for mansard roofs, cupolas and steeples, sloped roofs shall include two or more sloping roof planes with greater than or equal to one foot of vertical rise for every three feet of horizontal run, and less than or equal to one foot of vertical rise for every one foot of horizontal run.

RESPONSE: This requirement is not applicable. The proposed roof is flat.
(2) Flat roofs. When flat roofs are used, parapet walls with three-dimensional cornice treatments shall conceal them. The cornice shall include a perpendicular projection a minimum of eight inches from the parapet facade plane.

RESPONSE: The proposed flat roof includes a three-dimensional cornice treatment with a perpendicular projection at least eight (8) inches from the parapet façade plane.
(3) Roof penetrations and equipment. All roof-based mechanical equipment, as well as vents, pipes, antennas, satellite dishes and other roof penetrations (with the exception of chimneys), shall be located on the rear elevations or screened with a parapet wall having a three-dimensional cornice treatment so as to have a minimal visual impact as seen from:
(a) A public street;
(b) Vacant land classified as CSV, A, RSF-1, RSF-3, RSF-4, RSF-6, RMH-5, RMH-P, RMF-8 or RMF-15; and
(c) Lands containing single-family detached, attached, townhouse or twoto four-family dwelling developments.

RESPONSE: Roof-based mechanical equipment, etc., is proposed to be screened with parapet walls having a threedimensional cornice treatment.
(C) Customer entrances.
(1) Required entrances. Each side of a building facing a public street shall include at least one customer entrance, except that no large retail establishment shall be required to provide entrances on more than two sides of the structure which face public streets.

RESPONSE: The left façade includes one customer entrance as required.
(2) Entrance design. Buildings shall have clearly-defined, highly visible customer entrances that include no less than three of the following design features:
(a) Canopies/porticos above the entrance;
(b) Roof overhangs above the entrance;
(c) Entry recesses/projections;
(d) Arcades that are physically integrated with the entrance;
(e) Raised corniced parapets above the entrance;
(f) Gabled roof forms or arches above the entrance;
(g) Outdoor plaza adjacent to the entrance having seating and a minimum depth of 20 feet;
(h) Display windows that are directly adjacent to the entrance
(i) Architectural details, such as tile work and moldings, that are integrated into the building structure and design and are above and/or directly adjacent to the entrance; or
(j) Integral planters or wing walls that incorporate landscaped areas or seating areas. A wing wall is a wall secondary in scale projecting from a primary wall and not having a roof.

RESPONSE: The proposed Building Elevations meet this requirement with the inclusion of elements (b), (c), \& (h) above.
(D) Off-street parking.
(1) Location. No more than 50 percent of the required off-street parking shall be located between the building's primary facade and the street it fronts.

RESPONSE: As depicted on the Site Plan, the property does not have street frontage, however, 275 of the 622 required parking spaces are proposed between the primary façade and the north property line. Thus, less than 50 percent of the required off-street parking will be located between the primary façade and the north property line.
(2) Screening. Off-street surface parking areas serving a large retail establishment shall be screened in accordance with Section 6.2, in addition to the following:
(a) In cases where a wall or fence is provided in lieu of a continuous opaque screen of shrub material, such fence or wall shall have a minimum height of 36 inches, and be constructed of stone, brick, stucco, wood or similar material designed to resemble such materials;
(b) Any fence or wall shall be located at least four feet from the edge of the lot line; and
(c) All required canopy and understory/ornamental trees shall be located between the fence or wall and the edge of the street right-of-way.

RESPONSE: See separate analysis of compliance with Section 6.2 of the City's LDRs (ATTACHMENT C), otherwise no fence or wall is proposed in lieu of continuous opaque screen of shrub material.
(E) Pedestrian Circulation.
(1) Sidewalks required. New large retail establishments shall provide sidewalks constructed in accordance with Subsection 7.3.2(B), Configuration, on all sides of the lot which abut a public street.

RESPONSE: As depicted on the Site Plan, sidewalks are proposed on the side of the lot that abuts the proposed public streets as required. Additionally, in accordance with Subsection 7.3.2(B) of the City's LDRs, the proposed sidewalks are concrete, provide curb cuts for handicapped access, and are proposed to be five (5) feet wide and four (4) inches thick.
(2) Pedestrian pathways. The on-site pedestrian circulation system shall comply with the standards in Subsection 6.10(A), Required improvements, and Subsection 7.3.2(C), Connection.

RESPONSE: As depicted on the Site Plan and the Landscape Plans, pedestrian crosswalks consisting of Stamped Concrete are proposed in accordance with Subsection 6.1.10(A) of the City LDRs and continuous landscaped parking islands are proposed every fourth row of parking. The Applicant is requesting a variance from the requirements of Section 7.3.2(c) of the City's LDRs.
(3) Connection to public sidewalk system. In the case of corner lots, a connection shall be made to the sidewalk of both streets.

RESPONSE: The project is not located on a corner lot.
(4) Distinguished from driving surfaces. All internal pedestrian walkways shall be distinguished from driving surfaces through the use of durable, lowmaintenance surface materials such as pavers, bricks, or scored/stamped concrete or asphalt to enhance pedestrian safety and comfort, as well as the attractiveness of the walkways.

RESPONSE: As depicted on the Site Plan, pedestrian walkways are distinguished from driving surfaces through the use of stamped concrete.

## ATTACHMENT C

## Analysis of Compliance with Section 6.2

 of the City of Alachua's Land Development RegulationsOff-street surface parking areas serving a large retail establishment shall be screened in accordance with Section 6.2. The following analysis includes applicable subsections of Section 6.2:
6.2.2(D)(2) Parking lot landscaping.
(a) Interior landscaping. All parking lots shall provide and maintain the following landscaped planting areas within the interior of the parking lot. These standards shall not apply to parking structures or vehicle display areas.
(i) Each planting area shall contain an area adequate to accommodate the root growth of the plant material used. The size of the planting area and size of plant material at maturity shall allow for a $21 / 2$-foot bumper overhang from the face of the curb.

RESPONSE: As depicted on the Landscape Plans, a minimum 2$1 / 2$ foot bumper overhang from the face of curb is proposed within the interior of the parking lot.
(ii) Interior planting areas shall be designed within parking areas as:
a. Islands located at the end of parking bays;
b. Islands located between parallel rows of cars, used to visually separate parking areas; or
c. Driveway medians, which shall have a minimum width of four feet for medians with shrubs, six feet for medians with shrubs and intermediate trees and nine feet for medians with large trees.

RESPONSE: As depicted on the Landscape Plans, islands are proposed at the end of parking bays and between parallel rows of cars. No driveway medians are proposed within the interior of the parking lot.
(iii) Each interior planting area shall contain locally adapted trees and shrubs at the following rate:
a. Trees shall be required at the minimum rate of one canopy or ornamental/understory tree for every 2,000 square feet, or portion thereof, of the total parking lot area;
b. Shrubs shall be required at the minimum rate of ten shrubs per canopy or ornamental/understory tree. They may be massed around the tree, and are encouraged to be planted toward the interior of the islands, so as not to interfere with vehicle doors opening and closing;
c. As a general guide, one tree island should be located at approximately ten space intervals;
d. No parking space shall be separated from the trunk of an interior parking lot ornamental or canopy tree by more than 90 feet;
e. In cases where the configuration or topographical constraints of an existing site make the placement of required site landscaping impractical, the LDR Administrator may approve up to 50 percent of the required landscaping to be planted on an adjacent public property in accordance with Subsection 6.2.2(D)(9) of this section, Alternative landscape plan.

RESPONSE: As depicted on the Landscape Plans, a minimum of one (1) canopy or understorylornamental tree for every 2,000 square feet is proposed in the total parking lot area. Additionally, shrubs are proposed meeting the minimum rate of ten (10) shrubs per canopy or ornamental/understory tree. One (1) tree island is proposed to be located approximately every ten (10) parking spaces and no parking space will be separated from the trunk of an interior parking lot ornamental or canopy tree by more than 90 feet.
(iv) All planting areas shall be stabilized with ground covers, mulching, or other approved materials to prevent soil erosion and allow rainwater infiltration, and shall be irrigated or utilize a xeriscape irrigation alternative.

RESPONSE: As depicted on the Landscape Plans, ground cover and mulch are proposed and will be irrigated utilizing xeriscape design.
(v) Landscape planting areas shall be distributed throughout the parking area for the purpose of heat abatement.

RESPONSE: As depicted on the Landscape Plans, planting areas are proposed to be distributed throughout the parking area.
(vi) All planting areas shall be protected from vehicle damage by the installation of curbing, wheel stops or other comparable methods.

RESPONSE: As depicted on the Site Plan and the Landscape Plans, 18-inch curb and gutter is proposed throughout the Walmart Property, which will protect all planting areas from vehicle damage.
(vii) Earthen berms may also be incorporated into the design of any required planting area. Any berm installed shall have a side slope of no greater than 2:1.

RESPONSE: All earthen berms are proposed to have side slopes no greater than 2:1.
(b) Parking lot buffer. All parking lots shall have landscape buffers around their exterior perimeter that shall be composed of trees, shrubs, ground cover and turfgrass as follows:
(i) The buffer shall form a continuous visual screen, excluding required site clearances at driveways. It shall be placed and located to ensure visibility and safety of pedestrians on the public street and persons in the parking lot.

RESPONSE: As depicted on the Landscape Plans, landscape buffers around the exterior perimeter of the parking lot consisting of trees, shrubs, ground cover, and turf grass are proposed and configured to provide a continuous visual screen. With regard to placement of landscape material, consideration was given to ensure visibility and safety of pedestrians in areas of pedestrian and vehicle conflict throughout the site.
(ii) The buffer for the parking lot shall be located on the exterior of the parking lot, adjacent to the curbed and paved areas.

RESPONSE: As depicted on the Landscape Plans, a perimeter buffer around the exterior of the parking lot is proposed adjacent to curbed and paved areas.
(iii) The buffer for the parking lot shall be a minimum of five feet, and an average of seven feet in width along the entire length of the perimeter of the parking lot. The width of the buffer may vary to allow for design creativity, as long as a minimum width of five feet is maintained.

RESPONSE: As depicted on the Landscape Plans, the proposed buffer exceeds the required minimums of five (5) feet, and an
average of seven (7) feet in width along the entire length of the perimeter of the parking lot.
(iv) The parking lot buffer shall have a minimum of:
a. Four canopy trees for every 100 lineal feet of buffer.
b. Two understory/ornamental trees per 100 lineal feet of buffer;
c. A continuous opaque screen of shrub material parallel to the parking lot area. The shrubs may be arranged in a linear or curvilinear pattern, as long as the screen does not have any visual breaks. The parking lot screen shall reach 36 inches in height within three years.

RESPONSE: As depicted on the Landscape Plans, the parking lot buffer contains at least (4) four canopy trees every 100 lineal feet and two (2) understorylornamental trees are proposed at least every 100 lineal feet consisting of a mixture of Forest Pansy Redbud, American Sweet Gum, Crape Myrtle, Southern Magnolia, Winged Elm, Slash Pine, and Longleaf Pine. Additionally, a continuous opaque screen is proposed with a Sweet Viburnum shrub that will reach at least thirty-six (36) inches in height within three (3) years.
(v) Any area of the parking lot buffer that is not covered in trees or shrubs shall be planted in ground cover, turfgrass or mulch. It is recommended that the area adjacent to the wheel stop is planted in turfgrass for maintenance purposes.

RESPONSE: As depicted on the Landscape Plans, the portions of the buffer areas that are not covered in trees or shrubs are proposed to be planted with turfgrass.
(vi) Except for large retail establishments, up to 50 percent of the parking lot buffer on any single lot side may be replaced with a short fence or wall that is a minimum height of three feet. The wall may be wood, decorative stucco or brick that matches the theme or materials of the development it is associated with. The minimum tree canopy requirements still apply.

RESPONSE: The proposed project is a large retail establishment. Therefore, this requirement is not applicable.

## WAL-MART STORES EAST, LP

## CERTIFICATE OF ASSISTANT SECRETARY

The undersigned, Amber Graham, an Assistant Secretary of WSE Management, LLC, a Delaware limited liability company, the General Partner of Wal-Mart Stores East, LP, a Delaware limited partnership (collectively, "Walmart"), hereby certifies that he has been elected, qualified, and is acting in such capacity and that he is familiar with the facts certified herein and is duly authorized to certify the same, and thus, he hereby certifies the following:

1. Exhibit A contains a true and correct copy of Article 3, Section 3.3 of the Operating Agreement of WSE Management, LLC as amended.
2. John P. Suarez currently serves as Senior Vice President for Walmart. Under the above referenced section, John P. Suarez is authorized to execute documents on behalf of Walmart and delegate the ability to execute documents on behalf of Walmart, and she has delegated such ability to those positions shown on the attached Exhibit B.
3. Volker Heimeshoff currently serves as Vice President for Walmart. Under the above referenced section, and pursuant to the delegation attached on Exhibit B, Volker Heimeshoff is authorized to delegate the signing of documents on behalf of Walmart to the manager level for his team and has delegated such ability to those positions shown on the attached Exhibit C.
4. Michael Thomas currently serves as Director of Project Design \& Management and pursuant to the delegation attached on Exhibit C, Michael Thomas is authorized to execute documents on behalf of Walmart which includes, among other things, permit applications.

In witness thereof, I have executed this document as of this 11th day of April 2016.


Subscribed and sworn before me this $\qquad$ day of


## EXHIBIT A

## WSE Management, LLC

Article 3, Section 3.3. Management rights of Assistant Managers. The Assistant Managers shall be entitled to exercise all of the rights, authority and powers of the Manager under the LLC Act and under this Agreement if and to the extent that the Manager fails to provide otherwise in writing.

## Delegation of Signature Authorty

1. John P. Suarez, as Senior Vice President of Wal-Mart Real Estate Business Trust, Wal-Mart TRs, LLC. Wal-Mart Realty Company, Wal-Mart Property Co, Sam's Real Estate Business Trust Sam's TRS, LLC. Sams Property Co.; Benchmark Realty Advisors, Inc.; North Arkansas Wholesale Co. Inc.; Sam's PW. Inc: Wal-Mart Stores, Inc. Wal-Mant Stores Arkansas, LLC, Wal-Mart Stores Texas, LLC, WalMart Stores East, LP. Wal-Mart Louisiana, LLC, WSE Management, LLC. Wal-Mart Stores East, LLC, Sam's East, Inc: Sams West Inc, WatMart com USA LLC, and Wal-Mart Puento Rico, Inc. thereinatter collectively referred to as the Company" hereby delegate to:
Vice President, Sam's Real Estate and Facilty Support Vice President, Real Esfate
Vice President, Real Estate West
Vice President, Real Estate East
Vice President, Construction
Vice President, Protolype and New Format Dovelopment
Vice President, Facilities Wanagement and Environmental Services
Vice President, Real Eatate Strategy \& Analytics
Vice Prestdent, Store Planning
Vice President, Energy
Vice President, Realy Procurement Sarvices
Vice President, Remodels and Special Profects
the authority to sign documents and to delegate the signing of documents on behalf of the Company to their respective teams down to manager level, in compliance with Walmart US Governance and Operating Standards and Walmart Realty Division Corporate Governance.

Additionally, the authority to sign financial guarantees on behalf of the Company is hereby delegated those positions above.

This delegation shall supersede and revole the sgnature authority l previously granted in the Delegation of Signature Authority signed on November 3, 2015 as of the date below. All acis and transactions of individuals in the positions above which were taken or made in good falth and prior to the formal delegation of authority to such position that are consistent with this delegation are hereby ratified and approved

## ExHibit C

## DE1. GUATION OF SICNATURE AUTHORTY

1. Valker Heimeshoff, being a Viee Prosident of Wal-Mart Stores, Inc; Wal-Mart Real Estate Business Trus; Wal-Mart TRS. LLEC, Wal-Mart Rualty Company, Wal-Mart Property Company, Wal-Man Stores Arhancas, LLe: Wal-Mart Stome Texas IIX Wal-Mart Stores Lat IP, Wal-

 Marteom LISA. I Lx . and Wal-Mart Puerto Rico Inc. thereinafter cellectively referred to as the ("mopany"). do hereby delunte to:

Sr . Director of Projer Design \& Manngement<br>Sr. Director of E. ngineering \& Estimating<br>Sr. Director of Architccture \& Design<br>Director of Project Design a Management Directur Special Projects and Design<br>Senior Manager of Project Dosign and Management (remodel team)

authority to excute, implemem, maintain. amend or rencw the follon ing documents, in comection with the design and consiruction of new stores. site relocations, expansiuns, remodels. and toheovers, including hut not limited to civil engineering agrements archifeetural agreements: easememt, deeds, municipal maintenance agreements, minicipal improvement development agrecments, plats and any pernit, application of sther document required by various furisdictions as fong a such contracts are for amomst les than $\$ 750,000,00$, and in compliance with Wulmart Realty Division Corpurate Governanec ("Governance") on belialf of the Compay, on their respecive capaeity for the Company. Nothithstanding the forgoiny the Senior Managers of Proget I)exigh and Management on the fomodel tean may thly sign such items related to remedel profects.
All sening authurity contained hecein must the done in compliance with Governance and agnements siencd may not commit the Company fumounts in excess of the individuals invoice approval authrity as maintained by the VP at Real lestate finance. All acts and trancaetions of individuals in the posiliens ahole which were taken wo made in good fatth and prior to the formal delegation of autherity is such position that are consistent with this delegation are berthy ratitied and approved.


## AGENT AUTHORIZATION

## Wal-Mart Store \#3873-00 Alachua, FL Located at the SE quadrant of the intersection of 1-75 \& Hwy 441 Alachua, FL

On behalf of Wal-Mart Stores East, LP ("Wal-Mari"), I hereby authorize CPH, Inc., to serve as WalMart's authorized agent for the purpose of seeking all requisite permits and approvals related to the proposed development of the above-referenced site.

This authorization is expressly limited to (1) signing and delivering applications for permits and approvals that are related to the development of the above-referenced site, and (2) advancing the requisite funds on behalf of Wal-Mart to file such applications. Further, this authorization does not empower CPH, Inc. to either negotiate on Wal-Mart's behalf or otherwise obligate Wal-Mart in any manner whatsoever, including any attempt to obligate Wal-Mart to pay for or construct improvements in connection with its development of the site.

Should you need additional information or have any questions regarding this authorization, please do not hesitate to contact Wal-Mart's design manager.

Respectfully,

WAL-MART STORES EAST, LP,
a Delaware limited partnership
By: WSE Management, LLC, a Delaware limited liability company and general partner
Sinhulthome
Signature
Hichued Thames Director
Printed Name, Title

STATE OF $\qquad$
COUNTY OF $\qquad$
BEFORE ME, the undersigned Notary Public in and for said County and State, appeared Michael Thomas, who is personally known to me or who has produced personably as identification, and who executed the foregoing instrument. Given under my hand and seal this $12^{\text {th }}$ day of April 2016.


Signed Name of Notary Public


Printed Name of Notary Public

\{Seal\}

## Legal Description: (Parcel 03869-013-000 - Walmart Parcel)

A TRACT OF LAND SITUATED IN FRACTIONAL SECTIONS 9, 10, 15, AND 16, TOWNSHIP 8 SOUTH, RANGE 18 EAST, AND THE WILLIAM GARVIN GRANT, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA, SAID TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF THE AFOREMENTIONED FRACTIONAL SECTION 9, TOWNSHIP 8 SOUTH, RANGE 18 EAST FOR THE POINT OF REFERENCE AND RUN S. $00^{\circ} 51$ '49"E., A DISTANCE OF 3.91 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED SEABOARD COASTLINE RAILROAD (200 FOOT RIGHT OF WAY); THENCE RUN N. $88^{\circ} 377^{\prime} 47$ "W., ALONG SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 790.35 FEET TO THE INTERSECTION OF SAID SOUTHERLY RIGHT OF WAY LINE WITH THE EASTERLY RIGHT OF WAY LINE OF INTERSTATE HIGHWAY NO. 75 (300 FOOT LIMITED ACCESS RIGHT OF WAY) AND THE TRUE POINT OF BEGINNING; THENCE RUN N. $04^{\circ} 30^{\prime} 53^{\prime \prime} E$., ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 49.91 FEET; THENCE RUN S. $88^{\circ} 32^{\prime} 46^{\prime \prime} E$., A DISTANCE OF 49.98 FEET; THENCE RUN N. $04{ }^{\circ} 58$ '37"E., A DISTANCE OF 50.15 FEET TO THE CENTERLINE OF THE AFOREMENTIONED ABANDONED SEABOARD COASTLINE RAILROAD; THENCE RUN S. $88^{\circ} 36^{\prime} 33^{\prime \prime}$ E., ALONG SAID CENTERLINE, A DISTANCE OF 379.41 FEET TO THE SOUTHWEST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORD BOOK 1620, PAGE 1020 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, SAID PARCEL OF LAND BEING HEREINAFTER REFERRED TO AS PARCEL "A"; THENCE RUN N. $04^{\circ} 14{ }^{\prime} 21$ "E., A DISTANCE OF 179.48 FEET TO THE NORTHWEST CORNER OF SAID PARCEL "A"; THENCE RUN S.79³8'59"E., ALONG THE NORTH LINE OF SAID PARCEL "A", A DISTANCE OF 505.22 FEET TO THE NORTHEAST CORNER OF SAID PARCEL "A"; THENCE RUN S.88³5'59"E., ALONG THE NORTH RIGHT OF WAY LINE OF THE AFOREMENTIONED ABANDONED SEABOARD COASTLINE RAILROAD, A DISTANCE OF 19.74 FEET; THENCE DEPARTING SAID RIGHT OF WAY LINE RUN S.04¹1'43"W., A DISTANCE OF 1431.98 FEET; THENCE RUN N. $85^{\circ} 48^{\prime} 17{ }^{\prime \prime}$ 'W., FOR A DISTANCE OF 952.11 FEET TO THE EASTERLY RIGHT OF WAY LINE OF INTERSTATE HIGHWAY NO. 75 (300 FOOT LIMITED ACCESS RIGHT OF WAY); THENCE RUN N. $04^{\circ} 11^{\prime} 43$ "E., ALONG SAID EASTERLY RIGHT OF WAY LINE, FOR A DISTANCE OF 1184.62 FEET TO THE POINT OF BEGINNING.

Clearwater, FL 33763 DB|J
Prepared by and when
reorder retry
David J. Edwards
Edwards Cohen
6 East Bay Street, Suite 500
Jacksonville, Florida 32202
7016.47

RE Parcel ID Nos. 03869-000-00


## GENERAL WARRANTY DEED

THIS INDENTURE, made as of this $14^{\text {h }}$ day of August, 2006, between FIRST STREET GROUP, L.C., a Florida limited liability company, whose address is P. O. Box 1990, Alachua, FL 32616 (the "Grantor"), and WAL-MART STORES EAST, LP, a Delaware limited partnership, with offices located at Property Tax Dept. 8013, 1301 S.E. $10^{\text {th }}$ Street, Store No. 1205-01, Bentonville, Arkansas 72716-8013 (the "Grantee").

## WITNESSETH:

That the said Grantor, for and in consideration of the sum of Ten Dollars and other good and valuable consideration, to it in hand paid by the said Grantee, the receipt and adequacy of which is hereby acknowledged, has granted, bargained and sold to the said Grantee, its successors and assigns forever, the following described land located in Alachua County, Florida, to wit:

## See Exhibit A attached.

TOGETHER WITH all the tenements, hereditaments, easements and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.
Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said lands in fee simple; that the Grantor has good right and lawful authority to sell and convey the lands; Grantor does hereby fully warrant title to said land, and will defend the same against the lawful claims of all persons whomsoever. This conveyance of the Property is made subject only to those matters listed on Exhibit B attached hereto and made a part hereof.

## Alachua, Florida

Wal-Mart Store No. 3873-00
5 pegs
44,0

IN WITNESS WHEREOF，Grantor has executed this Deed as of the day and year first above written．

Signed，sealed and delivered in the presence of：

# FIRST STREET GROUP，L．C．，a Florida limited liability company 



By：


STATE OF FLORIDA
COUNTY OF Alachua
The foregoing instrument was acknowledged before me on August 11，2006，by James W． Shaw，as Vice President and Manager of the FIRST STREET GROUP，L．C．，a Florida limited liability company，on behalf of the limited liability company，who $\square$ is personally known to me or $\square$ has produced Florida drivers licenseas identification

［NOTARIAL SEAL］


Alachua，Florida
Wal－Mart Store No．3873－00

## EXHIBIT A

WAL MART STORE TRACT
A TRACT OF LAND SITUATED IN FRACTIONAL SECTIONS 9, 10, 15, AND 16, TOWNSHIP 8 SOUTH, RANGE 18 EAST, AND THE WILLIAM GARVIN GRANT, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA, SAID TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF THE AFOREMENTIONED FRACTIONAL SECTION 9, TOWNSHIP 8 SOUTH, RANGE 18 EAST FOR THE POINT OF REFERENCE AND RUN S. $00^{\circ} 51^{\prime} 49^{\prime \prime} E$., A DISTANCE OF 3.91 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED SEABOARD COASTLINE RAILROAD (200 FOOT RIGHT OF WAY); THENCE RUN N. $88^{\circ} 37^{\prime} 47^{\prime \prime}$ W., ALONG SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 790.35 FEET TO THE INTERSECTION OF SAID SOUTHERLY RIGHT OF WAY LINE WITH THE EASTERLY RIGHT OF WAY LINE OF INTERSTATE HIGHWAY NO. 75 (300 FOOT LIMITED ACCESS RIGHT OF WAY) AND THE TRUE POINT OF BEGINNING; THENCE RUN N. $04^{\circ} 30^{\prime} 53^{\prime \prime}$ E., ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 49.91 FEET; THENCE RUN S. $88^{\circ} 32^{\prime} 46^{\prime \prime}$ E., A DISTANCE OF 49.98 FEET; THENCE RUN N. $04^{\circ} 58^{\prime} 37^{\prime \prime} \mathrm{E}$., A DISTANCE OF 50.15 FEET TO THE CENTERLINE OF THE AFOREMENTIONED ABANDONED SEABOARD COASTLINE RAILROAD; THENCE RUN S. $88^{\circ} 36^{\prime} 33^{\prime \prime}$ E., ALONG SAID CENTERLINE, A DISTANCE OF 379.41 FEET TO THE SOUTHWEST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORD BOOK 1620, PAGE 1020 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, SAID PARCEL OF LAND BEING HEREINAFTER REFERRED TO AS PARCEL "A"; THENCE RUN N. $04^{\circ} 14^{\prime} 21$ "E., A DISTANCE OF 179.48 FEET TO THE NORTHWEST CORNER OF SAID PARCEL "A"; THENCE RUN S. $79^{\circ} 38^{\prime} 59^{\prime \prime}$ E., ALONG THE NORTH LINE OF SAID PARCEL "A", A DISTANCE OF 505.22 FEET TO THE NORTHEAST CORNER OF SAID PARCEL "A"; THENCE RUN S. $88^{\circ} 35^{\prime} 59^{\prime \prime}$ E., ALONG THE NORTH RIGHT OF WAY LINE OF THE AFOREMENTIONED ABANDONED SEABOARD COASTLINE RAILROAD, A DISTANCE OF 19.74 FEET; THENCE DEPARTING SAID RIGHT OF WAY LINE RUN S. $04^{\circ} 11^{\prime} 43^{\prime \prime}$ W., A DISTANCE OF 1431.98 FEET; THENCE RUN N. $85^{\circ} 48^{\prime} 17^{\prime}$ W., FOR A DISTANCE OF 952.11 FEET TO THE EASTERLY RIGHT OF WAY LINE OF INTERSTATE HIGHWAY NO. 75 ( 300 FOOT LIMITED ACCESS RIGHT OF WAY); THENCE RUN N. $04^{\circ} 11^{\prime} 43^{\prime \prime}$ E., ALONG SAID EASTERLY RIGHT OF WAY LINE, FOR A DISTANCE OF 1184.62 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH:

## WAL MART OUTPARCEL TRACT

A TRACT OF LAND SITUATED IN FRACTIONAL SECTIONS 9, 10, 15, AND 16, TOWNSHIP 8 SOUTH, RANGE 18 EAST, AND THE WILLIAM GARVIN GRANT, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA, SAID TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF THE AFOREMENTIONED FRACTIONAL SECTION 9, TOWNSHIP 8 SOUTH, RANGE 18 EAST FOR THE POINT OF REFERENCE AND RUN S.0051'49'E., A DISTANCE OF 3.91 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED SEABOARD COASTLINE RAILROAD (200 FOOT RIGHT OF WAY); THENCE RUN N. $88^{\circ} 37^{\prime} 47^{\prime \prime}$ W., ALONG SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 790.35 FEET TO THE INTERSECTION OF SAID SOUTHERLY RIGHT OF WAY LINE WITH THE EASTERLY RIGHT OF WAY LINE OF INTERSTATE HIGHWAY NO. 75 ( 300 FOOT LIMITED ACCESS RIGHT OF WAY); THENCE RUN N. $04^{\circ} 30^{\prime} 53^{\prime \prime} E$. ., ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 49.91 FEET; THENCE RUN S. $88^{\circ} 32^{\prime} 46^{\prime \prime} E$., A DISTANCE OF 49.98 FEET; THENCE RUN N. $04^{\circ} 58^{\prime} 37^{\prime \prime} E$. , A DISTANCE OF 50.15 FEET TO THE CENTERLINE OF THE AFOREMENTIONED ABANDONED SEABOARD COASTLINE RAILROAD; THENCE RUN S. $88^{\circ} 36^{\prime} 33^{\prime \prime}$ E., ALONG SAID CENTERLINE, A DISTANCE OF 379.41 FEET TO THE SOUTHWEST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORD BOOK 1620, PAGE 1020 OF THE

PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, SAID PARCEL OF LAND BEING HEREINAFTER REFERRED TO AS PARCEL "A"; THENCE RUN N. $04^{\circ} 14^{\prime} 21^{\prime \prime}$ E., A DISTANCE OF 179.48 FEET TO THE NORTHWEST CORNER OF SAID PARCEL "A"; THENCE RUN S.793 $38^{\prime} 59^{\prime \prime} E$., ALONG THE NORTH LINE OF SAID PARCEL "A", A DISTANCE OF 505.22 FEET TO THE NORTHEAST CORNER OF SAID PARCEL "A"; THENCE RUN S. $88^{\circ} 35^{\prime} 59$ "E., ALONG THE NORTH RIGHT OF WAY LINE OF THE AFOREMENTIONED ABANDONED SEABOARD COASTLINE RAILROAD, A DISTANCE OF 852.24 FEET; THENCE DEPARTING SAID RIGHT OF WAY LINE RUN S. $10^{\circ} 38^{\prime} 41^{\prime \prime}$ W., A DISTANCE OF 127.20 FEET; THENCE RUN S. $02^{\circ} 06^{\prime} 51^{\prime \prime}$ W., A DISTANCE OF 33.71 FEET; THENCE RUN S. $10^{\circ} 38^{\prime} 41^{\prime \prime}$ W., A DISTANCE OF 104.50 FEET TO THE POINT OF BEGINNING; THENCE RUN S. $10^{\circ} 38^{\prime} 41^{\prime \prime}$ W., A DISTANCE OF 191.52 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE NORTHWESTERLY AND HAVING A RADIUS OF 25.00 FEET, THENCE RUN SOUTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF $83^{\circ} 33^{\prime} 02^{\prime \prime}$ AN ARC DISTANCE OF 36.46 FEET TO THE PONNT OF TANGENCY OF SAID CURVE; THENCE RUN N. $85^{\circ} 48^{\prime} 17^{\prime \prime}$ W., A DISTANCE OF 186.42 FEET; THENCE RUN N. $04^{\circ} 11^{\prime} 43^{\prime \prime} \mathrm{E}$., A DISTANCE OF 212.50 FEET; THENCE RUN S. $85^{\circ} 48^{\prime} 17^{\prime}$ 'E., A DISTANCE OF 232.77 FEET TO THE POINT OF BEGINNING.

## EXHIBIT B PERMITTED ENCUMBRANCES

1. Taxes for the year 2006 and subsequent years, which are not yet due and payable.
2. Those matters which a correct survey would disclose and which are not shown by the public records.

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2015 PAID REAL ESTATE

## ESCROW CD

MILLAGE CODE 03869013000

APPLICABLE VALUES AND EXEMPTIONS BELOW

## UNKNOWN

WAL-MART STORES EAST LP
PROPERTY TAX DEPT 8013
1301 SE 10TH ST
STORE NO 1205-01
BENTONVILLE, AR 72716-8013

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51 MIN 49 SEC E 3.91 FT N 88 DEG
See Additional Legal on Tax Roll


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## NEIGHBORHOOD MEETING

A Neighborhood meeting will be held to discuss the proposed Walmart Supercenter \#3873 on 43.73 acres at Southeast Quadrant of US 441 \& I-75, Alachua, FL.

Date: March 15, 2016

Time: 5:30 P.M. to 7:30 P.M.

Place: The Swick House, 15010 NW 142 Terrace, Alachua, FL 32615

Contact: Brian Cassidy 904-332-0999
Mr. Cassidy will be holding a meeting to discuss the Special Exception Permits that are required for the project. This is not a public hearing. The required Special Exception Permits are as follows:

1. Special Exception Permit for a Repair Establishment to allow for the proposed Tire and Lube Express Automotive Repair Establishment that is a component of the proposed Walmart Supercenter \#3873 Building.
2. Special Exception Permit for Large Scale Retail Establishment greater than or equal to 80,000 square feet.

The meeting will be held Tuesday, March 15, 2016, at 5:30 pm at The Swick House, 15010 NW 142 Terrace, Alachua, FL 32615.

Contact Person: Brian Cassidy bcassidy@cphcorp.com 904-332-0999.

A6 Alachua County Today LOCAL NEWS Thursday, March 03, 2016
Credits parents for life successes SUPER BOWL:

| He said Nattiel's | well as an athlete. |
| :---: | :---: |
| mother, who was sitting | "His mama made sure |
| next to her son on stage, | of that because she would |
| wasn't too keen on the | come up here and make |
| idea of her son becoming | sure Ricky was in line," he |
| quarterback at first. | said. "And that's the kind |
| "But we convinced | of parents we need in the |
| him to do it," Baths said. | school system here today." |
| "He was reluctant to begin | Nattiel thanked |
| with, but Ricky was always | faculty and acknowledg |
| up for a new challenge. | the efforts of his moth |
| and really the rest of it is | and late father, who pas |
| history." <br> Baths then commended | away last year, for success. |
| Nattiel's dedication to | "Most importan |
| being a good student as | God has blessed me |
| "Get in the | classroom and |
| [listen] to the | achers [and] to |
| the principals..." |  |
|  | Ricky Nattiel |


| Alachua County residents get free | Exit 399 overnight I-75 ramp closures at U.S. 441 Sunday-Thursday |
| :---: | :---: |
| re disposal |  |
|  | 为 |
|  |  |
|  |  |
|  | 为 |
|  |  |

passenger vehicle tires at no charge. There is ground for thousands of
a limit of four tires per
person and tires with rims will not be accepted. No
commercial vehicle tires will be accepted and tires from businesses will not be accepted.
In Alachua County,
approximately approximately 750 tons
of tires are collected and recycled each year Recycled tires are made into rubber mulch, which can be used for playgrounds and gardens and asphalt additives for road paving
and landfill liners. and landfill liners.
good people, including this
young lady right here, my
mom,", he said.
Nattiel shared advice
with the students,
encouraging them to work
hard even when no one
is watching and give full
effort in everything they do
so they don't have regrets
later in life.
"Get in the classroom
and [listen] to the teachers
[and to te princiapas," he
said. "If those teachers hee
you get your butt in that
classroom [and] you're
engaged [when] class is
over, you stay five minutes
late. I promise you, they
notice. Every littte thing,
guys, people wath."
\# \# \#
Email Korrego@



SIGN IN

FULL NAME
EMAIL ADDRESS
MAILING ADDRESS
CITY, STATE, ZIP


## Neighborhood Meeting Summary

Proposed Walmart Supercenter \#3873-00
Meeting Date: March 15, 2016
Meeting Time: 5:30pm
Meeting Location: The Swick House
Please see attached Sign-In sheet. Only one citizen attended the meeting and she declined to provide her contact information for the sign in sheet.

The Applicant's representatives at the meeting included:

Larry Wray, CPH, Inc.
Brian Cassidy, CPH, Inc.
Brent Spain, Theriaque and Spain Law Firm

The neighborhood meeting was set-up as individual stations, each addressing a specific aspect of the proposed project. The stations included: General / Site and Architecture \& Special Exceptions (for buildings greater than 80,000 sf $\&$ for Auto Servicing Use. The Applicants representatives were available at each station to answer citizen questions. This allowed one-on-one attention for each attendee and schedule flexibility for those arriving at different times.

Those in attendance at the neighborhood meeting expressed the following:
1.) How big is the Tire and Lube Express?
2.) Where is the Tire and Lube Express located?
3.) What is the 80,000 square foot building?

TOMOKA HILLS FARMS INC 1301 DIXIANA DOMINO RD LEXINGTON, KY 40511
PARCELS 03873-000-000 \& 03873-001-000

REBECCA H AND KENNETH J FICKETT 3001 NE $20^{\text {TH }}$ WAY GAINESVILLE, FL 32606

PARCEL 03054-001-000

MCDONALD'S CORP (009/0551)
16018 NW US HIGHWAY 441
ALACHUA, FL 32615
PARCELS 03059-001-000 \& 03059-005-000

# AMERICAN PETROLEUM INVESTMENTS 380 COMMERCE PARKWAY <br> ROCKLEDGE, FL 32955 <br> PARCEL 03066-007-000 

## MOHAN-LERRA FAMILY PARTNERSHIP 16715 NW $129^{\text {TH }}$ TERRACE <br> ALACHUA, FL 32615 <br> PARCEL 03066-006-000

## TEMPLE HILL INC

11149 CONISTON WAY
WINDERMERE, FL 34786-5410
PARCELS 03066-008-002 \& 03066-008-000

A S SHEILA PATEL 15920 NW US HIGHWAY 441

ALACHUA, FL 32615
PARCEL 03066-008-001

FIRST STREET GROUP LC
PO BOX 1990
ALACHUA, FL 32616-1990
PARCELS 03066-000-000 \& 03869-000-000

## CHRISTOPHER ALLAN KOROSIC

 15710 NW US HIGHWAY 441ALACHUA, FL 32615
PARCEL 03868-000-000
10.47 LLC 14110 NW $21^{\text {ST }}$ LANE GAINESVILLE, FL 32606

PARCEL 03868-002-000

## CITY OF ALACHUA <br> PO BOX 9

ALACHUA, FL 32616
PARCEL 03868-002-001

TLC PROPERTIES INC 2065 NW $57^{\text {TH }}$ STREET

OCALA, FL 34475
PARCEL 03869-001-000

JAMES E JR \& RENEE HARKINS PO BOX 6307
MARIANNA, FL 32447-6307
PARCEL 03869-002-000

ALACHUA HOLDINGS LTD
PO BOX 1990
ALACHUA, FL 32616
PARCEL 03863-000-000

## ALACHUA BBQ LAND LLC

PO BOX 2495
OCALA, FL 34478
PARCEL 03066-004-002

R \& J MCCAULEY LLC
15260 NW $147^{\text {Th }}$ DRIVE
ALACHUA, FL 32615
PARCEL 03863-002-000

THOMAS STALBAUM 4526 SW 63 ${ }^{\text {RD }}$ BLVD GAINESVILLE, FL 32608-3879 PARCEL 03066-001-000

PINE ACRES LLC
2632 NW 43 ${ }^{\text {RD }}$ ST \#2138
GAINESVILLE, FL 32606
PARCEL 03066-004-001

NATIONAL SPELEOLOGICAL SOCIETY INC
6001 TULASKI PIKE NW
HUNTSVILLE, AL 35810-1122
PARCEL 03066-002-001

## LUTHER ACQUISITIONS LLC

2632 NW 43RD ST UNIT\# 2138
GAINESVILLE, FL 32606
PARCEL 03066-002-000

MEGAHEE ENTERPRISES LTD.,LLLP
2632 NW 43RD ST \# 2138
GAINESVILLE, FL 32606
PARCELS 03067-001-000, 03066-006-002, 03066-004-000

ANTOINETTE ENDELICATO
5562 NW $93{ }^{\text {RD }}$ AVENUE
GAINESVILLE, FL 32653

DAN RHINE 288 TURKEY CREEK ALACHUA, FL 32615

TOM GORMAN 9210 NW $59{ }^{\text {TH }}$ STREET ALACHUA, FL 32653

RICHARD GORMAN 5716 NW $93^{\text {RD }}$ AVENUE
ALACHUA, FL 32653

PEGGY ARNOLD
410 TURKEY CREEK
ALACHUA, FL 32615

DAVID FOREST
23 TURKEY CREEK
ALACHUA, FL 32615

JOHN TINGUE
333 TURKEY CREEK
ALACHUA, FL 32615
tCMOA
1000 TURKEY CREEK ALACHUA, FL 32615

DR. LEE A. NIBLOCK, COUNTY MGR
ALACHUA COUNTY
12 SE $1^{\text {ST }}$ STREET GAINESVILLE, FL 32601

LINDA DIXON AICP
PO BOX 115050
GAINESVILLE, FL 32611

## CRAIG PARENTEAU

FDEP
4801 CAMP RANCH ROAD
GAINESVILLE, FL 32641

JEANNETTE HINSDALE
PO BOX 1156
ALACHUA, FL 32616

## LYNN COULLIAS

7406 NW $126^{\text {TH }}$ AVENUE
ALACHUA, FL 32615

LYNDA COON
7216 NW 126 AVENUE
ALACHUA, FL 32615

Lighting

# Evolve"' LED Area Light <br> Scalable Area Light (EASC) 



60 imagination at work

## Product Features

The next evolution of the GE Evolve ${ }^{\text {TM }}$ LED Area Light continues to deliver outstanding features, while adding greater flexibility, style and scalability. This latest design offers higher lumen outputs and provides photometric combinations with high efficacy, providing the ability to meet even a wider range of area lighting needs. Additionally, the new EASC Evolve Luminaire comes with a specially designed auto dealership optic for exceptional illuminance on the dealership's front row. Optional programmable motion sensing for Title 24 compliance is available.

## Applications

- Site, area, and general lighting applications utilizing advanced LED optical system providing high uniformity, excellent vertical light distribution, reduced offsite visibility, reduced on-site glare and effective security light levels.
- Ideal for small to large retailers, commercial to medical properties, and big box retailers.


## Housing

- Die-cast aluminum housing.
- Slim architectural design incorporates an integral heat sink and light engine, ensuring maximum heat transfer, long LED life, and a reduced Effective Projected Area (EPA).
- Meets 3G vibration standards per ANSI C136.31-2010 for Slipfitter and Mounting Arm configurations. Meets 1.5G vibration standards for Knuckle Slipfitter Mounting.


## LED \& Optical Assembly

- Structured LED arrays for optimized area light photometric distribution.
- Evolve light engine with directional reflectors designed to optimize application efficiency and minimize glare.
- Utilizes high brightness LEDs, 70 CRI at 4000 K and 5000 K typical.

Lumen Maintenance

| Lumen Maintenance ( $25^{\circ} \mathrm{C}$ Ambient) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Optical Code | 50,000 hr | $\begin{aligned} & \text { ulated } \\ & 100,000 \mathrm{hr} \end{aligned}$ | Calcula <br> L70 | $\begin{aligned} & \text { d Hours } \\ & \text { L-90 } \end{aligned}$ |
| L5, V5, L4, L3, L2 | 0.98 | 0.95 | >100,000 | >100,000 |
| LA | 0.90 | 0.81 | >100,000 | 49,000 |
| All others | 0.99 | 0.97 | >100,000 | >100,000 |

Lumen Maintenance per IES TM-21.

## Ratings

- (4LI) listed, suitable for wet locations.
- ©(LT) listed with option code "J" SKUs.
- IP65 rated optical enclosure per ANSI C136.25-2009.
- Temperature rated at $-40^{\circ}$ to $50^{\circ} \mathrm{C}\left(-40^{\circ}\right.$ to $35^{\circ} \mathrm{C}$ for fixtures over 390 watts).
- Upward Light Output Ratio (ULOR) $=0$.
- Title 24 compliant with "H" motion sensor option.
- Compliant with the material restriction requirements of RoHS.
- DLC Listed

Please refer to the DLC QPL website for the latest and most complete information. www.designlights.org/QPL

## Mounting

## Option A

- 10-inch ( 254 mm ) mounting arm for square pole prewired with 24-inch ( 610 mm ) leads.
Option B
- 10 -inch ( 254 mm ) mounting arm for round pole prewired with 24 -inch ( 610 mm ) leads.


## Option C

- Slipfitter mounting for $23 / 8$-inch ( 60 mm ) O.D. pipe prewired with 24-inch (610mm) leads.


## Option D

- 10 -inch $(254 \mathrm{~mm})$ mounting arm for round or square pole prewired with 24 -inch ( 610 mm ) leads.


## Option S

- Knuckle Slipfitter mounting for 2.3-3" O.D. pipe, pre-wired with 24 -inch $(610 \mathrm{~mm})$ leads.


## Finish

- Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
- Standard colors: Black \& Dark Bronze.
- RAL \& custom colors available.


## Electrical

- 120-277 volt and 347-480 volt available.
- System power factor is $>90 \%$ and THD $<20 \%$.*
- Class "A" sound rating.
- Photo electric sensors (PE) available for all voltages.
- ANSI C136.41 dimmable PE receptacle is available making the unit "adaptive controls ready."
- Surge Protection Options:

For 120-277VAC and 347-480VAC per IEEE/ANSI C136.2-2015.

- $6 \mathrm{kV} / 3 \mathrm{kA}$ "Basic" surge protection, standard.
- 10kV/5kA "Enhanced" surge protection available with R option.

[^0]
## EAS

prod. id photometric volitac optical ilitibution orive led color pefunction


|  | OPTICALCODE | TYPE | TYPICAL INITIAL LUMENS | TYPICAL SYSTEM WATTAGE <br> $120-277 \mathrm{~V}$ \& 347-480V | DISTRIBUTION ORIENTATION AVAILABLE | BUG RATING* 4000 K \& 5000 K |  |  | IES FILE NUMBER |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 4000K \& 5000K |  |  | B | U | G | 4000K |  | 5000K |  |
|  | D5 | Symmetric Medium | 8300 | 82 | N | 3 | 0 | 2 | EASC_D5N540 | .IES | EASC_D5N550 | IES |
|  | E5 | Symmetric Medium | 12700 | 119 | N | 4 | 0 | 2 | EASC_E5N540 | .IES | EASC_E5N550 | IES |
|  | F5 | Symmetric Medium | 15000 | 137 | N | 4 | 0 | 2 | EASC_F5N540 | .IES | EASC_F5N550 | IES |
|  | G5 | Symmetric Medium | 17100 | 156 | N | 4 | 0 | 2 | EASC_G5N540 | .IES | EASC_G5N550 | IES |
|  | H5 | Symmetric Medium | 21200 | 199 | N | 4 | 0 | 2 | EASC_H5N540 | .IES | EASC_H5N550 | IES |
|  | J5 | Symmetric Medium | 25200 | 235 | N | 5 | 0 | 3 | EASC_J5N540 | IES | EASC_J5N550 | IES |
|  | K5 | Symmetric Medium | 30000 | 283 | N | 5 | 0 | 3 | EASC_K5N540 | .IES | EASC_K5N550 | IES |
| 㞻 | L5 | Symmetric Medium | 38000 | 395 | N | 5 | 0 | 4 | EASC_L5N740 | IES | EASC_L5N750 | IES |
| $\stackrel{1}{2}$ | N5 | Symmetric Short | 9200 | 82 | N | 3 | 0 | 1 | EASC_N5N540 | .IES | EASC_N5N550 | IES |
|  | P5 | Symmetric Short | 13800 | 119 | N | 3 | 0 | 2 | EASC_P5N540 | .IES | EASC_P5N550 | IES |
|  | Q5 | Symmetric Short | 16400 | 137 | N | 4 | 0 | 2 | EASC_Q5N540 | .IES | EASC_Q5N550 | IES |
|  | R5 | Symmetric Short | 18700 | 156 | N | 4 | 0 | 2 | EASC_R5N540 | . IES | EASC_R5N550 | IES |
|  | S5 | Symmetric Short | 23100 | 199 | N | 4 | 0 | 2 | EASC_S5N540 | .IES | EASC_S5N550 | IES |
|  | T5 | Symmetric Short | 27400 | 235 | N | 4 | 0 | 2 | EASC_T5N540 | IES | EASC_T5N550 | IES |
|  | U5 | Symmetric Short | 33000 | 283 | N | 5 | 0 | 2 | EASC_U5N540 | IES | EASC_U5N550 | IES |
|  | V5 | Symmetric Short | 41500 | 395 | N | 5 | 0 | 3 | EASC V5N740 | .IES | EASC V5N750 | IES |
|  | A4 | Asymmetric Forward | 4200 | 44 | F, L, R | 1 | 0 | 1 | EASC_A4F540 | IES | EASC_A4F550 | IES |
|  | B4 | Asymmetric Forward | 6500 | 62 | F, L, R | 1 | 0 | 2 | EASC_B4F540 | IES | EASC_B4F550 | .IES |
|  | C4 | Asymmetric Forward | 7600 | 72 | F, L, R | 1 | 0 | 2 | EASC_C4F540 | IES | EASC_C4F550 | IES |
|  | D4 | Asymmetric Forward | 8700 | 82 | F, L, R | 1 | 0 | 2 | EASC_D4F540 | IES | EASC_D4F550 | IES |
| $\geq$ | E4 | Asymmetric Forward | 12900 | 119 | F, L, R | 2 | 0 | 3 | EASC_E4F540 | IES | EASC_E4F550 | IES |
| 岗 | F4 | Asymmetric Forward | 15400 | 144 | F, L, R | 2 | 0 | 3 | EASC_F4F540 | IES | EASC F4F550 | IES |
| $\stackrel{2}{2}$ | G4 | Asymmetric Forward | 17100 | 156 | F, L, R | 2 | 0 | 3 | EASC_G4F540 | IES | EASC_G4F550 | .IES |
|  | H4 | Asymmetric Forward | 21200 | 199 | F, L, R | 3 | 0 | 4 | EASC_H4F540 | .IES | EASC_H4F550 | .IES |
|  | J4 | Asymmetric Forward | 25200 | 235 | F, L, R | 3 | 0 | 4 | EASC_J4F540 | IES | EASC J JF550 | .IES |
|  | K4 | Asymmetric Forward | 30000 | 283 | F, L, R | 3 | 0 | 5 | EASC_K4F540 | IES | EASC_K4F550 | .IES |
|  | 14 | Asymmetric Forward | 38300 | 395 | F, L, R | 3 | 0 | 5 | EASC_L4F740 | .IES | EASC_L4F750 | .IES |
|  | A3 | Asymmetric Wide | 4700 | 44 | F, L, R | 1 | 0 | 1 | EASC_A3F540 | IES | EASC_A3F550 | .IES |
|  | B3 | Asymmetric Wide | 7100 | 62 | F, L, R | 1 | 0 | 1 | EASC_B3F540 | IES | EASC_B3F550 | .IES |
|  | C3 | Asymmetric Wide | 8300 | 72 | F, L, R | 1 | 0 | 2 | EASC_C3F540 | IES | EASC_C3F550 | .IES |
|  | D3 | Asymmetric Wide | 9500 | 82 | F, L, R | 2 | 0 | 2 | EASC D3F540 | IES | EASC D3F550 | IES |
| $\equiv$ | E3 | Asymmetric Wide | 13900 | 119 | F, L, R | 2 | 0 | 2 | EASC_E3F540 | IES | EASC_E3F550 | .IES |
| 쓸 | F3 | Asymmetric Wide | 16800 | 144 | F, L, R | 2 | 0 | 2 | EASC_F3F540 | .IES | EASC_F3F550 | IES |
| $\stackrel{2}{2}$ | G3 | Asymmetric Wide | 18700 | 156 | F, L, R | 2 | 0 | 2 | EASC_G3F540 | IES | EASC_G3F550 | .IES |
|  | H3 | Asymmetric Wide | 23100 | 199 | F, L, R | 3 | 0 | 3 | EASC_H3F540 | IES | EASC_H3F550 | IES |
|  | J3 | Asymmetric Wide | 27400 | 235 | F, L, R | 3 | 0 | 3 | EASC J3F540 | IES | EASC J3F550 | IES |
|  | K3 | Asymmetric Wide | 33000 | 283 | F, L, R | 3 | 0 | 4 | EASC_K3F540 | .IES | EASC_K3F550 | .IES |
|  | L3 | Asymmetric Wide | 41500 | 395 | F, L, R | 3 | 0 | 4 | EASC L3F740 | IES | EASC L3F750 | IES |
|  | A2 | Asymmetric Narrow | 4600 | 44 | F, L, R | 1 | 0 | 1 | EASC_A2F540 | IES | EASC_A2F550 | .IES |
|  | B2 | Asymmetric Narrow | 6800 | 62 | F, L, R | 1 | 0 | 1 | EASC_B2F540 | IES | EASC_B2F550 | .IES |
|  | C2 | Asymmetric Narrow | 8000 | 72 | F, L, R | 2 | 0 | 2 | EASC_C2F540 | IES | EASC_C2F550 | . IES |
|  | D2 | Asymmetric Narrow | 9100 | 82 | F, L, R | 2 | 0 | 2 | EASC_D2F540 | IES | EASC_D2F550 | IES |
|  | E2 | Asymmetric Narrow | 13400 | 119 | F, L, R | 2 | 0 | 2 | EASC_E2F540 | IES | EASC_E2F550 | .IES |
| 핀 | F2 | Asymmetric Narrow | 16200 | 144 | F, L, R | 3 | 0 | 3 | EASC_F2F540 | IES | EASC_F2F550 | .IES |
| 2 | G2 | Asymmetric Narrow | 18000 | 156 | F, L, R | 3 | 0 | 3 | EASC_G2F540 | .IES | EASC_G2F550 | IES |
|  | H2 | Asymmetric Narrow | 22300 | 199 | F, L, R | 3 | 0 | 3 | EASC_H2F540 | .IES | EASC_H2F550 | .IES |
|  | J2 | Asymmetric Narrow | 26500 | 235 | F, L, R | 3 | 0 | 3 | EASC_J2F540 | IES | EASC_J2F550 | IES |
|  | K2 | Asymmetric Narrow | 31900 | 283 | F, L, R | 3 | 0 | 4 | EASC_K2F540 | IES | EASC_K2F550 | .IES |
|  | L2 | Asymmetric Narrow | 40000 | 395 | F, L, R | 4 | 0 | 4 | EASC_L2F740 | IES | EASC_L2F750 | IES |
|  | KA | Asymmetric $100^{\circ}$ Wide Auto | 35400 | 283 | F, L, R | 4 | 0 | 3 | EASC_KAF540 | .IES | EASC_KAF550 | .IES |
|  | LA | Asymmetric $100^{\circ}$ Wide Auto | 46900 | 398 | F, L, R | 5 | 0 | 4 | EASC_LAF740 | IES | EASC_LAF750 | .IES |

## Photometrics

EASC Type V - Symmetric Medium (K5) 30,000 Lumens, 5000K (EASC_K5N550__.ies)


EASC Type IV - Asymmetric Forward (K4
30,000 Lumens, 5000K (EASC_K4F550_ _.ies)


Grid Distance in Units of
Mounting Height at $40^{\prime}$ Initial
Mounting Height at $40^{\prime}$ Initial
Footcandle Values at Grade


- Vertical plane through horizontal angle of maximum candlepower at $45^{\circ}$

EASC Type III - Asymmetric Wide (K3)
33,000 Lumens, 5000K (EASC_K3F550_ _.ies)


Grid Distance in Units of
Mounting Height at $40^{\prime}$ Initial
Footcandle Values at Grade


- Vertical plane through horizontal angle of maximum candlepower at $20^{\circ}$ - Vertical plane through horizontal angle of $52^{\circ}$

EASC Type II - Asymmetric Narrow (K2) 31,900 Lumens, 5000K (EASC_K2F550__.ies)


Grid Distance in Units of Mounting Height at $40^{\prime}$ Initial Footcandle Values at Grade


- Vertical plane through horizontal angle of maximum candlepower at $65^{\circ}$ - Vertical plane through horizontal angle of $60^{\circ}$

EASC Type V - Symmetric Short (U5)
33,000 Lumens, 5000K (EASC_U5N550 $\qquad$


EASC Type IV - Asymmetric Forward (E4) 12,900 Lumens, 5000K (EASC_E4F550_ .ies)


Grid Distance in Units of
Mounting Height at $30^{\prime}$ Initial
Footcandle Values at Grade


- Vertical plane through horizontal angle of maximum candlepower at $45^{\circ}$
- Vertical plane through horizontal angle of $72^{\circ}$

EASC Type III - Asymmetric Wide (E3) 13,900 Lumens, 5000K (EASC_E3F550__.ies)


Grid Distance in Units of Mounting Height at $30^{\prime}$ Initial Footcandle Values at Grade


- Vertical plane through horizontal angle of maximum candlepower at $20^{\circ}$ - Vertical plane through horizontal angle of $52^{\circ}$

EASC Type II - Asymmetric Narrow (E2) 13,400 Lumens, 5000K (EASC_E2F550__.ies)


Grid Distance in Units of
Mounting Height at $30^{\prime}$ Initial
Footcandle Values at Grade


- Vertical plane through horizontal angle of maximum candlepower at $65^{\circ}$ - Vertical plane through horizontal angle of $60^{\circ}$


## Photometrics

EASC Type II - Assymetric Auto (KA)
35,400 Lumens, 5000K (EASC_KAF550 $\qquad$ .ies)

EASC Type II - Assymetric Auto (LA) 46,900 Lumens, 5000K (EASC_LAF750__.ies)


Grid Distance in Units
of Mounting Height at $40^{\prime}$ Initial
Footcandle Values at Grade


- Vertical plane through horizontal angle of maximum candlepower at $0^{\circ}$
- Vertical plane through horizontal angle of $37^{\circ}$


## H-Motion Sensing Option:

- Intended for high mounting applications, between 15-30ft (4.57-9.14m). For mounting heights exceeding 30ft, pole mounted sensors are recommended.
- Provides a coverage area radius for walking motion of 15-20ft (4.57-6.10m).
- Provides $270^{\circ}$ of coverage ( $90^{\circ}$ is blocked by the pole).
- Comes standard with $50 \%$ dimmed light output with no occupancy, and full power at occupancy.
- Comes standard with photocell function. Note: It is not necessary to also purchase PE receptacle or control.
- Comes standard with a 5 minute occupancy time delay and a 5 minute ramp-down to the $50 \%$ dimmed level.
- Must order with decorative mounting arm options "A" or "B".
- Fixture power increase of 1 W expected with sensor use.

Note: Standard options may be reprogrammed in the field. Reprogramming instructions included in product shipment.

## Sensor Pattern:



## Sensing Pattern Area Fixture Up to 30 ft .

## Product Dimensions

## (Option A) 10" Arm for Square Pole Mount <br> (Option B) 10" Arm for Round Pole Mount <br> (Option D) 10" Arm for Square Pole Mount or Round Pole Mount Option D includes all mounting hardware in Option A and Option B



TOP VIEW



BACK VIEW
Option A and D Square Pole
3.5 inch - 4.5 inch Pole
$(89 \mathrm{~mm}-115 \mathrm{~mm}$ )


## BACK VIEW

Option B and D Round Pole
3.5 inch - 4.5 inch OD Pole
( 89 mm OD - 115 mm OD)

- Approximate net weight: $43-47 \mathrm{lbs}(19.50-21.32 \mathrm{kgs})$ Contact manufacturer for specific configuration weight.
- Effective Projected Area (EPA) with $10^{\prime \prime}$ Mounting Arm: $0.97 \mathrm{sq} \mathrm{ft} \max (0.09 \mathrm{sq} \mathrm{m})$


## Product Dimensions

## (Option C) Slipfitter Arm Mount


$\frac{\square}{⿺}$

- Approximate net weight: $41-45 \mathrm{lbs}(18.60-20.41 \mathrm{kgs})$ Contact manufacturer for specific configuration weight.
- Effective Projected Area (EPA) with Slipfitter: 0.47 sq ft max (0.04 sq m)
(Option S) Knuckle Arm Mount



BACK VIEW


- Approximate net weight: 41-45 lbs (18.60-20.41 kgs)

Contact manufacturer for specific configuration weight.

- Effective Projected Area (EPA) with fixture mounted at $45^{\circ}$ upward: 1.97 sq ft max


## Mounting Information

## Mounting Arms for Slipfitter

Order separately with Mounting Option C (External Slipfitter)

## SQUARE POLE MOUNTING ARM

3.5 TO 4.5-inch ( 89 to 114 mm ) SQUARE
(WILL ALLOW 4 FIXTURES PER POLE @ 90 DEGREES.)


ORDER SEPARATELY FROM FIXTURE AS CATALOG NUMBER
SPA-EAMT10BLCK "Black"
SPA-EAMT10DKBZ "Dark Bronze"

## ROUND POLE MOUNTING ARM

3.5 TO 4.5-inch ( 89 to 114 mm ) OD
(WILL ALLOW 4 FIXTURES PER POLE @ 90 DEGREES.)


ORDER SEPARATELY FROM FIXTURE AS CATALOG NUMBER
RPA-EAMT10BLCK "Black"
RPA-EAMT10DKBZ "Dark Bronze"
Wall Mounting Bracket Adapter Plate
ORDER SEPERATELY FROM FIXTURE AS CATALOG NUMBER
WMB-EAMT06
*NOTE: For Wall Mounting, order luminaire with mounting arm: C = EXT Slip-fitter 2" Pipe (2.378 in. OD) supplied with leads.

Other mounting patterns are available for retrofit installations Contact manufacturing for other available mounting patterns.
www.gelighting.com
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OLP3090 (Rev 03/24/16)

ESTIMATED COSTS OF INFRASTRUCTURE AND UTILITIES
OFF-SITE IMPROVEMENTS

Highway_Entrance Roads_improvements:

| a) Demo of existing roadway | 400 | SY | \$8.00 | \$3,200 |
| :---: | :---: | :---: | :---: | :---: |
| b) Earthwork Cut / Fill / Grading | 1 | LUMP SUM | \$1,000,000.00 | \$1,000,000 |
| c) Sub base and paving | 16199 | SY | \$43.00 | \$696,557 |
| d) Markings striping and signs | 1 | LUMP SUM | \$12,000.00 | \$12,000 |
| e) Curbs and Gutters | 8062 | LF | \$14.00 | \$112,868 |
| f) Off site water lines |  |  |  | \$0 |
| g) Off site San. Sewer lines |  |  |  | \$0 |
| h) Misc highway items not listed above |  |  |  | \$0 |
| Creek Relocation/wetlands creation |  |  |  | \$0 |
| Off-Site Fences |  |  |  | \$0 |
| Entrance Drive Improvements at parking lot |  |  |  | \$0 |
| Mobilization | 1 | LUMP SUM | \$69,000.00 | \$69,000 |
| Site prep., clearing, grubbing, soil removal | 57.15 | AC | \$6,500.00 | \$371,475 |
| 15 inch dia._RCP R - Pipe | 2181 | LF | \$12.40 | \$27,044 |
| 18 inch dia. RCP - Pipe | 1264 | LF | \$13.90 | \$17,570 |
| 24 inch dia._-RCP_Pipe | 1427 | LF | \$19.40 | \$27,684 |
| 30 inch dia._-RCP_Pipe | 3343 | LF | \$31.22 | \$104,368 |
| 36 inch dia.-RCP_Pipe |  |  |  | \$0 |
| $14 \times 23$ inch -_ERCP--Pipe |  |  |  | \$0 |
| $19 \times 30 \mathrm{inch}$ _ERCP_Pipe |  |  |  | \$0 |
| $24 \times 38$ inch ERCP - Pipe |  |  |  | \$0 |
| $34 \times 53$ inch_ERCP_Pipe |  |  |  | \$0 |
| Underdrain System |  |  |  | \$0 |
| Manhole | 11 | EACH | \$2,875.00 | \$31,625 |
| Area Inlet Small ( $4 \times 4 \times 4$ depth $)$ | 5 | EACH | \$2,300.00 | \$11,500 |
| Area Inlet Med ( $5 \times 5 \times 8$ depth) | 14 | EACH | \$2,800.00 | \$39,200 |
| Curb Inlet Small ( $4 \times 4 \times 4$ depth $)$ | 21 | EACH | \$3,775.00 | \$79,275 |
| Flared end sections for 24 " - 48 " pipe | 5 | EACH | \$3,325.00 | \$16,625 |
| Cable-Block System | 1 | Lump Sum | \$5,000.00 | \$5,000 |
| Basin Outlet | 1 | EACH | \$5,025.00 | \$5,025 |
| Landscaping (Sod, seed, mulch) | 1 | Lump Sum | \$75,000.00 | \$75,000 |
| Survey Stake Out, As-Built Survey | 57.15 | Acre | \$4,500.00 | \$257,175 |
| Silt-fence | 3000 | LF | \$6.00 | \$18,000 |
| Gateway Brick Wall | 648 | SF | \$50.00 | \$32,400 |
| Holophane Lights | 7 | EACH | \$3,500.00 | \$24,500 |
| Predator Flood Lights | 13 | EACH | \$2,000.00 | \$26,000 |
| 8 8"Water Line | 2842 | LF | \$18.00 | \$51,156 |
| 12" Water Line | 1657 | LF | \$26.75 | \$44,325 |
| $1{ }^{16}$ "Water Line | 1678 | LF | \$38.65 | \$64,855 |
| Bends | 9 | EACH | \$750.00 | \$6,750 |
| Tees | 14 | EACH | \$825.00 | \$11,550 |


| Reducers/Increasers | 3 | EACH | \$450.00 | \$1,350 |
| :---: | :---: | :---: | :---: | :---: |
| Blow Offs | 5 | EACH | \$790.00 | \$3,950 |
| 8" Gate Valve | 6 | EACH | \$1,426.00 | \$8,556 |
| 12" Gate Valve | 6 | EACH | \$1,865.00 | \$11,190 |
| 16"Gate Valve | 7 | EACH | \$2,740.00 | \$19,180 |
| Hydrant (including main-line tee, pipe/fittind | 5 | EACH | \$3,160.00 | \$15,800 |
| Water Main Connection | 2 | EACH | \$3,250.00 | \$6,500 |
| 6" San. Sewer PVC | 400 | LF | \$12.00 | \$4,800 |
| San. Sewer Manhole | 15 | EACH | \$5,350.00 | \$80,250 |
| Clean Out | 13 | EACH | \$450.00 | \$5,850 |
| Fittings | 1 | Lump Sum | \$5,700.00 | \$5,700 |
| Monument Sign | 1 | EACH | \$50,000.00 | \$50,000 |
| Sidewalk | 3075 | SY | \$37.00 | \$113,775 |
| Guard Rail - P\&R |  | LF |  | \$0 |
| Retaining wall - P\&R |  | SF |  | \$0 |
| Erosion Control | 1 | Lump Sum | \$27,600.00 | \$27,600 |
| Irrigation | 1 | Lump Sum | \$30,000.00 | \$30,000 |
| Pedestrian Walkway - 10ft asphalt |  | Lump Sum |  | \$0 |
| Electric Service | 1950 | LF | \$20.00 | \$39,000 |
| Telephone/Data Service | 1950 | LF | \$15.00 | \$29,250 |
| Informational Kiosk | 1 | EACH | \$10,000.00 | \$10,000 |
| Cut (not done with scraper) |  | SY | \$2.50 |  |
| Fill ( not done with scraper) |  | SY | \$2.00 |  |
| Off-Site Disposal Unsuitable Soils |  | CY | \$8.00 |  |
| Import Select Fill |  | CY | \$12.34 |  |
|  |  |  |  |  |
| Utility Trench Undercut | 21,450 | CY | \$18.00 | \$386,100 |
| Other-Offsite improvements |  |  |  | \$0 |
| Sub-total |  |  |  | \$4,090,578 |
| Traffic signal - 3-way [ ] 4 way [] qty of intersection |  |  |  | \$0 |
|  |  |  |  | \$0 |
| Other-Traffic signal |  |  |  | \$0 |
| Sub-total |  |  |  | \$0 |


| Highway_441_improvements |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| a) Demo of existing roadway | 1800 | SY | \$9.00 | \$16,200 |
| b) Earthwork Cut / Fill / Grading | 470 | CY | \$12.00 | \$5,640 |
| c) Sub base and paving | 3500 | SY | \$76.00 | \$266,000 |
| d) Markings striping and signs | 1 | lot | \$7,600.00 | \$7,600 |
| e) Curbs and Gutters | 80 | LF | \$16.00 | \$1,280 |
| f) Off site water lines |  | LF |  | \$0 |
| g) Off site San. Sewer lines |  | LF |  | \$0 |
| h) Misc highway items not listed above |  | lot |  | \$0 |
| Creek Relocation/wetlands creation |  | Lump Sum |  | \$0 |


|  |  | SF |  | \$0 |
| :---: | :---: | :---: | :---: | :---: |
| Entrance Drive Improvements at parking lot |  | SY |  | \$0 |
| added off site improvements |  |  |  | \$0 |
| Remove Esisting Storm Structures | 1 | Lump Sum | \$9,600.00 | \$9,600 |
| FDOT Type "A" Ditch Bottom Inlet | 1 | EACH | \$5,670.00 | \$5,670 |
| Erosion Control | 1 | Lump Sum | \$7,600.00 | \$7,600 |
| Landscaping | 1 | Lump Sum | \$25,000.00 | \$25,000 |
| M.O.T. | 1 | Lump Sum | \$19,800.00 | \$19,800 |
| Pavement Milling | 8573 | SY | \$1.75 | \$15,003 |
| Concrete Sidewalk | 260 | SY | \$40.50 | \$10,530 |
| $24 \times 38$ ERCP Storm Pipe | 101 | LF | \$78.90 | \$7,969 |
| $24 \times 38$ MES | 4 | EACH | \$3,325.00 | \$13,300 |
| 16" Water Line | 2600 | LF | \$42.70 | \$111,020 |
| Water Line Connection | 1 | EACH | \$4,366.00 | \$4,366 |
| Water Line Fittings | 1 | Lump Sum | \$6,500.00 | \$6,500 |
| Jack and Bore - Water Line | 220 | LF | \$345.00 | \$75,900 |
| Fiber Optic Signal Coordination | 2.1 | mile | \$15,000.00 | \$31,500 |
| Replace existing Railroad tie retaining wall | 500 | SF | \$5.00 | \$2,500 |
| Demo Existing Sidewalk | 230 | SY | \$3.00 | \$690 |
| Cut (not done with scraper) |  | SY | \$2.50 |  |
| Fill ( not done with scraper) |  | SY | \$2.00 |  |
| Off-Site Disposal Unsuitable Soils |  | CY | \$8.00 |  |
| Import Select Fill |  | CY | \$12.34 |  |
| Other |  |  |  | \$0 |
| Sub-total |  |  |  | \$643,668 |


| Traffic signal - 3-way [] 4 way [] | qty of intersection |  |  | \$0 |
| :---: | :---: | :---: | :---: | :---: |
| Traffic signal - 3-way [] 4 way [] | sec |  |  | \$0 |
| Other-Traffic signal | 1 | Lump Sum | \$225,000.00 | \$225,000 |
| Sub-total |  |  |  | \$225,000 |


| Highway_151st Blvd._improvements: _ _ wide __ \# Lanes __ approx LF (ROAD 4: DUPLICATE FOR EACH ROAD TO BE IMPROVED-DO NOT COMBINE) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| a) Demo of existing roadway | 1 | SY | \$7.00 | \$7 |
| b) Earthwork Cut / Fill / Grading | 1 | CY | \$3.00 | \$3 |
| c) Sub base and paving | 116 | SY | \$54.00 | \$6,264 |
| d) Markings striping and signs | 1 | lot | \$12,500.00 | \$12,500 |
| e) Curbs and Gutters | 851 | LF | \$14.00 | \$11,914 |
| f) Off site water lines |  | LF |  | \$0 |
| g) Off site San. Sewer lines |  | LF |  | \$0 |
| h) Misc highway items not listed |  | lot |  | \$0 |
| Creek Relocation/wetlands creation |  | Lump Sum |  | \$0 |
| Off-Site Fences |  | SF |  | \$0 |


| Entrance Drive Improvements at parking lot |  | SY |  | \$0 |
| :---: | :---: | :---: | :---: | :---: |
| 15 Storm pipe | 23 | LF | \$20.50 | \$472 |
| 18" Storm pipe | 173 | LF | \$24.00 | \$4,152 |
| 54" Storm pipe | 185 | LF | \$135.00 | \$24,975 |
| Type 5 Curb Inlet | 4 | EA | \$4,600.00 | \$18,400 |
| Type E Inlet | 1 | EA | \$5,025.00 | \$5,025 |
| Flared End Section | 1 | EA | \$8,300.00 | \$8,300 |
| Cable Block System | 1 | Lump Sum | \$10,000.00 | \$10,000 |
| Sidewalk | 210 | SY | \$40.50 | \$8,505 |
| 2-Inch Water Line (PVC) | 85 | LF | \$6.75 | \$574 |
| Cut (not done with scraper) |  | SY | \$2.50 |  |
| Fill ( not done with scraper) |  | SY | \$2.00 |  |
| Off-Site Disposal Unsuitable Soils |  | CY | \$8.00 |  |
| Import Select Fill |  | CY | \$12.34 |  |
|  |  |  |  | \$0 |
| Other-Offsite improvements | 1 | Lump Sum |  | \$0 |
| Sub-total |  |  |  | \$111,090 |


| Traffic signal - 3-way [] 4 way [] | qty of intersection | \$0 |
| :---: | :---: | :---: |
| Traffic signal - 3-way [] 4 way [] | qty of intersection Qty signals | \$0 |
| Other-Traffic signal |  | \$0 |
| Sub-total |  | \$0 |



# COMPLIANCE with Standards for Gateway Overlay District 

## JUSTIFICATION / RESPONSES

## Presented to:

City of Alachua
Planning \& Community Development
P.O. Box 9

Alachua, Florida 32616

Prepared by:
CPH, Inc.
5200 Belfort Road
Suite 220
Jacksonville, FL 32256

January 30, 2017

Walmart \#3873-00
COMPLIANCE with Standards for Gateway Overlay District

As required by Section 3.7.2(C)(5) - Gateway Overlay District of the City of Alachua's Land Development Regulations ("LDRs"), an applicant must demonstrate that the following standards have been satisfied prior to approval of a zoning permit:
(A) Building Design \& Orientation
(i) Architectural elevation plans, drawn to scale, shall be required for all projects involving exterior renovation or new construction.

RESPONSE: All architectural plans, elevations, and details for this project will be drawn to scale.
(ii) Except for roofs, metal shall not be used as a finish building material.

RESPONSE: Metal has not been used as a finish building material for anything except the roof on this project.
(iii) When two or more buildings are proposed on a single lot of record, the primary building shall be oriented to face the public right-of-way.

RESPONSE: There is only one building proposed for this single lot of record. Thus, this requirement is not applicable to this project.
(iv) All accessory structures shall be of comparable design and building materials to the principal structure.

RESPONSE: The pick-up canopy will be of similar design and building materials to the principal structure.
(v) Glazing shall constitute a minimum of 35 percent of the ground floor area when a building faces and is substantially visible from U.S. 441 or I-75.

RESPONSE: This project does not front U.S. 441 and is only visible on the west side of the property adjacent to I-75. Based on Section 6.8.3(A)(2)(a)(iv) of the City's LDRs, glazing may be reduced to a minimum of $20 \%$ when the façade incorporates certain architectural elements. Such elements include the use of natural brick product or stone for at least 20\% of the façade, window shutters, and customer entrances which include no less than six (6) design features as provided in Section 6.8.3(C)(2) of the City's LDRs. The customer entrances on the Front Building Elevation and East Building Elevation comply with the requirement of six (6) design
features per Section 6.8.3(C)(2) of the City's LDRs. The six (6) design features incorporated into the customer entrances are as follows:

- (a) Canopies above the entrance
- (b) Roof overhangs above the entrance
- (c) Entry Recesses
- (e) Raised Cornice Parapets
- (i) Architectural details/tile work
- (j) Integral planters
(vi) Exterior building walls facing a public right-of-way shall incorporate no fewer than three architectural elements comparable to those listed below. Architectural elements contributing to this requirement shall have sufficient visual impact to be noticeable from the public right-of-way, and may include, but not be limited to:
a. Accent materials.

RESPONSE: A tile accent material will be used at the customer entrances on the North and East Building Elevations to help define those spaces.
b. Public art

RESPONSE: Public art is not proposed for this project.
c. Architectural details, such as tile work and molding integrate into the building facade.

RESPONSE: Architectural details (tile work) is included as called for by Section 6.8.3(C) of the City's LDRs on both the North and East Building Elevations.
d. Recesses and/or projections.

RESPONSE: The building design incorporates recesses and projections across the entire façade which help to bring focus to the customer entrance areas. Pilasters are provided on the East Building Elevation giving some variation to the building façade.
e. Roof overhang, which shall vary according to building width, as follows: one-foot overhang for buildings less than 50 feet in width, two-foot overhang for buildings 50 to 100 feet in width, and three-foot overhang for buildings greater than 100 feet in width.

RESPONSE: The roof overhangs at all three (3) customer entrances are three (3) feet in width.
f. Varied roof lines.

RESPONSE: The raised parapets around the entire length of the building façade incorporate varied roof lines. The raised parapets on the east façade change height four (4) times.
g. Articulated cornice lines.

RESPONSE: Articulated cornices, which are at least eight (8) inches in depth, are located on all raised parapets around the entire length of the building façade, including the east side of the building.
h. Canopies, awnings, and/or porticos.

RESPONSE: Canopies are used at the main building entrances located on the Front and East Elevations of this project. There is also one (1) canopy on the east side of the building.
i. Use of brick in at least 30 percent of the facade.

RESPONSE: As part of the glazing alternative requirement, at least 20\% of the façade will use a natural brick product, including the east side of the building.
j. Window shutters.

RESPONSE: A plantation-style shutter is used at all windows located on the Front Elevation of this project. Window shutters are provided on $10 \%$ of the overall length of the east façade.
k. Change in building materials.

RESPONSE: The building is designed with three (3) major materials for the façade: "Promenade Blend" Quik Brick, integrally colored split face masonry and EIFS (man-made stucco) including the East Building Elevation.
I. Prominent public entrances defined by substantive architectural features.

RESPONSE: Public entrances on the Front and East Elevations are defined by substantive architectural features as called for by Section 6.8.3(C) of the City's LDRs. The customer entrances on the Front Elevation and East Elevation comply with the requirement of six (6) design features per Section 6.8.3(C)(2) of the City's LDRs. The six (6) design features incorporated into the customer entrances are as follows:

- (a) Canopies above the entrance
- (b) Roof overhangs above the entrance
- (c) Entry Recesses
- (e) Raised Cornice Parapets
- (i) Architectural details/tile work
- (j) Integral planters
m. Fountain or other water feature.

RESPONSE: A fountain/water feature is not proposed for this project.
(B) Fencing
(i) With the exception of ornamental fencing, fences erected after the effective date of these regulations for property with frontage along U.S. 441 shall be installed in the side or rear yard only. Ornamental fencing may be erected inside the front yard.
RESPONSE: The property does not have frontage along U.S. 441. Therefore, this requirement is not applicable to this project.
(C) Outside Storage Areas
(i) All accessory outdoor storage areas shall be screened in accordance with Section 4.4.4(E). Such screening requirements shall apply to the parking of all vehicles used for commercial purposes.

RESPONSE: Pursuant to Section 4.4.4(E)(4) of the City's LDRs, a landscaped earth berm is being proposed to address screening requirements for the west and south sides of the building. See Landscape Plans, Site Grading Plan, and Cross Sections Sheets contained within the Construction Plans. Due to the proposed finished topography, a landscaped earth berm will provide additional screening along the west and south sides of the property.
(ii) Areas for outdoor storage, trash collection, and loading shall be incorporated into the primary building design. Construction materials for such areas shall be of comparable quality and appearance as the primary building.

RESPONSE: The outdoor storage, trash collection, and loading dock areas are incorporated into the building design and use the same construction materials as those of the primary building.

## (D) Street Buffer

(i) Buffering for properties with frontage along I-75 and U.S. 441 shall meet the requirements of Section 6.2.3(E).

RESPONSE: The project does not have frontage along U.S. 441. The west side of the property is adjacent to I-75. The Landscape Plans propose a series of canopy and understory trees, shrubs, and ground cover along the west buffer. Additionally, due to the existing and proposed topography, a berm along the west side of the property will be created, thereby providing additional screening.
(ii) The minimum landscaped buffer width shall be 15 feet. No existing, dedicated, or reserved public or private right-of-way shall be included in the calculation of the buffer width.

RESPONSE: The proposed landscape buffer exceeds this requirement. See proposed Landscape Plans.
(iii) The planting requirements contained in Appendix 6.2.2(A) shall apply. Live Oak shall be used as the required canopy tree. Applicants shall use the following plant materials, in order to create a consistent and uniform planting program for the Gateway Overlay District:
a. American Holly.
b. Crape Myrtle.
c. Drake Elm.
d. Ligustrum.
e. Red Maple.
f. Southern Magnolia.
g. Southern Red Cedar.
h. Oak.
i. Bradford Pear.

RESPONSE: The proposed landscaping complies with this requirement. See proposed Landscape Plans.

## (E) Parking Areas

(i) All parking areas shall be designed to avoid the appearance of a large expanse of pavement, and shall be conducive to safe pedestrian access and circulation.

RESPONSE: The proposed Site Plans provide safe pedestrian access through the use of ten (10) foot wide crosswalks, sidewalks every fourth row of parking, sidewalks on both sides of the access road, and appropriate signage and pavement markings to direct pedestrians. Large expanse of pavement is avoided. The site is designed to allow for safe and efficient operations of the delivery trucks, pedestrians, vehicles using pharmacy drive thru, etc.
(ii) No more than 25 percent of required parking shall be located in the front of the principal structure, for properties with frontage along U.S. 441. The percentage may be adjusted by the LDR Administrator if the applicant provides written information demonstrating that the property's characteristics, such as size and/or site topography, prevent the applicant from meeting this requirement. Under no circumstances shall be percentage of required parking located in front of the principal structure exceed 50 percent, and shall be the minimum necessary.

RESPONSE: Although the property does not have frontage along U.S. 441, less than 25 percent of the required parking is located in front of the principal structure. See proposed Site Plans.
(iii) Parking spaces shall not be located within a public right-of-way.

RESPONSE: No parking is proposed to be located within a public right-of-way.
(F) Loading Areas
(i) Loading areas shall not face a public right-of-way and shall be located at the rear of the principal structure when feasible.

RESPONSE: Loading areas are proposed at the rear of the building and do not face a public right-of-way. See proposed Site Plans and Building Elevations.
(G) Access
(i) Any parcel or assembly of parcels having frontage along U.S. 441 shall be permitted only one direct access. New development shall be designed for cross access to adjacent parcels.

RESPONSE: The property does not have frontage along U.S. 441. The proposed service roads are designed to provide access to adjacent parcels.

## (H) Signage

(i) Prohibited Signs
a. Billboards.
b. Signs that display video or images or changeable copy.
c. Balloons, streamers, and air- or gas-filled figures.
d. Promotional beacons, searchlights, and/or laser lights/images.
e. Signs that emit audible sounds, smoke, vapor, particles, or odor.
f. Signs on utility poles or trees.
g. Signs or advertising devices attached to any vehicle or trailer so as to be visible from public right-of-way, including vehicles with for sale signs and excluding vehicles used for daily transportation, deliveries, or parked while business is being conducted on-site.
h. Neon tubing used to line the windows, highlight architectural features on the building, or used as part of a sign, excluding incidental signs as provided for in Section 2.4.11.

## RESPONSE: This project does not incorporate any of the prohibited signs listed above.

(ii) Freestanding Signs

Monument signs shall be permitted within the Gateway Overlay District.
a. A monument sign, including its structure, shall not exceed 16 feet in height.
b. A sign and its structure shall be composed of materials identical to or similar in appearance, color, and texture to the materials used for the building to which the sign is accessory.
c. A sign and its structure shall not exceed 100 square feet per side. Changeable copy signs shall only be allowed to comprise up to 50 percent of the total sign area.
d. Properties with buildings containing multiple tenants or shopping centers shall be limited to one freestanding sign for any one premises, except that a parcel with more than 400 feet of frontage on one or more roads may have two freestanding signs, which must be separated from each other by at least 150 feet of road frontage. A sign and its structure shall not exceed 150 square feet per side. Changeable copy signs shall only be allowed to comprise up to 30 percent of the total sign area.

RESPONSE: Acknowledged. The proposed monument sign will comply with these requirements.
(iii) Window Signs
a. Window signs shall be incorporated into the overall sign area allowed for wall signage as per Section 6.5.4(C)(2).
b. Signage on any individual window shall not comprise more than 25 percent of the window area.

RESPONSE: Window signs will not be incorporated in the design of this project and will not be included as part of the overall sign area allowed for wall signage.
(iv) Landscaping and buffering
a. All freestanding signs shall provide a landscaped area around base of the sign meeting the following standards:
i. Installation of a three-foot landscaped buffer around the base of the sign.
ii. Such buffer must be landscaped with a mixture of shrubs, flowers, and/or other plantings native to the area.
iii. Xeriscaping shall be utilized to the fullest extent possible to promote sustainable landscaping.
iv. Provisions shall be made for irrigation if xeriscaping is not utilized.

RESPONSE: The base of the monument sign is proposed to have a three (3) foot buffer landscaped with native plantings. Irrigation will be provided as reflected on the proposed Irrigation Plans. See proposed Landscape Plans.
(v) Nonconforming signs
a. Nonconforming signs shall be subject to the nonconforming standards as established in Article 8.

RESPONSE: There are not any non-conforming signs proposed for this project.

Ms. Kathy Winburn, AICP
City of Alachua

5200 Belfort Road

Planning \& Community Development Director
Alachua, Florida 32615
(386) 418-6121

RE: Concurrency Impact Analysis (Site Plan Application)
Walmart \#3873-00, Alachua, FL
CPH Project No. W13392
Dear Ms. Winburn:
The Concurrency Impact Analysis calculations have been performed for the proposed 161,397 SF Walmart Supercenter. Public facility capacities are based on the January 2017 Monitoring Report supplied by the City's Planning and Zoning staff.

The proposed Walmart Supercenter will not adversely impact the adopted Level of Service ("LOS") for the City of Alachua's public facilities. In accordance with Section 2.4.14 of the City of Alachua Land Development Regulations ("LDRs"), the following summary addresses the proposed infrastructure impacts based on available information.

The proposed Walmart Supercenter is projected to generate 5,898 new daily trips, of which 506 trips occur during the PM peak hour. Trip generation calculations are provided in Table 1A.

Table 1A: Trip Generation Calculations

| ITE | $\begin{gathered} \text { Units } \\ (1,000 \\ \text { s.f. }) \end{gathered}$ | Daily |  | Peak Hour |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Land Use ${ }^{1}$ |  | Rate* | Trips | Rate* | Trips |
| Discount Superstore <br> (ITE 813) | 161.40 | 50.75 | 8,191 | 4.35 | 702 |
| Total Pass-by Trips for Superstore (28\%) |  |  | 2,293 |  | 196 |
|  |  |  | 5,898 | - | 506 |

*Source: ITE Trip Generation $9^{\text {th }}$ Edition and ITE Trip Generation Manual, $3^{\text {rd }}$ Edition
Per Section 2.4.14(H)(2)(b) of the City's LDRs, the affected roadways for developments generating more than 1,000 external average daily trips are as follows:

- Those on which the development's impacts are five percent (5\%) or greater of the maximum service volume of the roadway; and
- All roadway segments located partially or wholly within one-half (1/2) mile of the development's ingress / egress, or to the nearest major intersection, whichever is greater.

The following conditions and assumptions were utilized to estimate impacts to roadway segments tracked in the City of Alachua Concurrency Monitoring Report. These assumptions are also reflected on the Transportation Concurrency Map provided as Appendix A to this report.

Table 1B: Significance Test

| Roadway | Segment | Lanes | Project |  | Segment <br> Capacity | Project Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Distrib | Trips |  |  |
| US 441 | NW 188th St to CR 235A | 4 | 20\% | 101 | 3,200 | 3.2\% |
|  | CR 235A to I-75 | 4 | 37\% | 187 | 3,200 | 5.8\% |
|  | I-75 to NW 147th Dr | 4 | 52\% | 263 | 3,200 | 8.2\% |
|  | NW 147th Dr to SR 235 | 4 | 34\% | 172 | 3,200 | 5.4\% |
|  | SR 235 to Rachael Blvd | 4 | 19\% | 96 | 3,200 | 3.0\% |
| CR 235A | NW 138th Ave to US 441 | 2 | 5\% | 25 | 1,050 | 2.4\% |
|  | US 441 to I-75 | 2 | 7\% | 35 | 1,050 | 3.3\% |
| SR 235 | Peggy Rd to US 441 | 2 | 8\% | 41 | 960 | 4.3\% |
|  | US 441 to NW 140th St | 2 | 6\% | 30 | 960 | 3.1\% |

*Significance is defined as an impact of 5\% or more of the segment's capacity; data obtained from the Traffic
Impact Analysis prepared by Traffic and Mobility Consultants dated September 2016.

- The roadway segment along US 441 from CR 235A to I-75 is within the $1 / 2$-mile radius of the project's ingress / egress point.
- The roadway segment along US 441 from I- 75 to NW $147^{\text {th }}$ Drive is within the $1 / 2$-mile radius of the project's ingress / egress point.
- The roadway segment along US 441 from NW $147^{\text {th }}$ Drive to SR 235 is within the $1 / 2$ mile radius of the project's ingress / egress point.
- The affected roadway segments are only those accessible within the $1 / 2$-mile radius of the project's ingress / egress point: US Hwy 441.
- The roadway segments along US 441 from CR 235A to I-75, along US 441 from I-75 to NW $147^{\text {th }}$ Drive, and along US 441 from NW $147^{\text {th }}$ Drive to SR 235 also qualify as affected roadways because the proposed Walmart Supercenter's impacts will be five percent (5\%) or greater of the maximum service volume of such roadway segments.

Table 1C: Impacted Roadway Segments

| Segment Description | Comp Plan <br> MSV* $^{*}$ | Existing <br> Traffic* | Reserved <br> Trips* | Available <br> Capacity* |
| :---: | :---: | :---: | :---: | :---: |
| US Hwy 441 | 35,500 AADT | 24,411 AADT | $2,260 \mathrm{AADT}$ | $8,829 \mathrm{AADT}$ |
| (SR235 to NCL of Alachua) | $3,200 \mathrm{PHr}$ | $2,319 \mathrm{PHr}$ | 214 PHr | 667 PHr |

*Source: City of Alachua January 2017 Development Monitoring Report

Table 1D: Roadway Capacity

| Segment Description | Available Capacity | Additional Trips | Residual Capacity |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| US Hwy 441 | $8,829 \mathrm{AADT}$ | $5,898 \mathrm{AADT}$ | $2,931 \mathrm{AADT}$ |
| (SR235 to NCL of Alachua) | 667 PHr | 506 PHr | 161 PHr |

Conclusion: As evident by the available capacities identified in Tables 1C and 1D, the trips generated by the proposed Walmart Supercenter will not exceed the adopted LOS standards. Capacity exists to handle the additional trips resulting from the proposed Walmart Supercenter.

Table 2: Potable Water Impact

| System Category | Gallons Per Day |
| :--- | :---: |
| Current Permitted Capacity* | $2,300,000$ |
| Less Actual Potable Water Flow* | $1,190,000$ |
| Reserved Capacity* | 135,912 |
| Residual Capacity* | 974,088 |
| Residual Capacity with Walmart Supercenter | $\mathbf{9 7 0 , 7 4 1}$ |
| 469 fixture units x 7.136 GPD** $=3,347$ GPD | $\mathbf{5 8 \%}$ |
| Percentage of Permitted Design Capacity Utilized |  |

*Source: City of Alachua January 2017 Development Monitoring Report.
**Source: Wal-Mart Proto Utility Loads, Appendix B
Conclusion: The demand generated by the proposed Walmart Supercenter will not exceed the adopted LOS standard for potable water. Capacity exists to handle the additional demand resulting from the proposed Walmart Supercenter.

Table 3: Sanitary Sewer Impact

| System Category | Gallons Per Day |
| :--- | :---: |
| Current Permitted Capacity* | $1,500,000$ |
| Less Actual Treatment Plant Flows* | 615,000 |
| Reserved Capacity* | 96,322 |
| Residual Capacity* | 788,678 |
| Residual Capacity with Walmart Supercenter | $\mathbf{7 8 5 , 6 6 6}$ |
| 469 fixture units x 6.422 GPD* $=3,012$ GPD | $\mathbf{4 8 \%}$ |
| Percentage of Permitted Design Capacity Utilized |  |

*Source: City of Alachua January 2017 Development Monitoring Report.
**Source: Ch. 64E-6.008, F.A.C.
Conclusion: The demand generated by the proposed Walmart Supercenter will not exceed the adopted LOS standard for sanitary sewer. Capacity exists to handle the additional demand resulting from the proposed Walmart Supercenter.

Table 4: Solid Waste Impact

| System Category | Tons Per Year |
| :--- | :---: |
| 12 tons per month* | 144 |
| Existing Demand** | $7,221.16$ |
| Reserved Capacity** | $1,162.75$ |
| Total Average Solid Waste Disposal for the Facility** | $\mathbf{5 0 - Y e a r}$ Capacity |

*Source: Based on Historical Data of Store Operations, provided by Doug Sanders, Store Innovations and Sustainability Division for Walmart, Appendix B.
**Source: City of Alachua January 2017 Development Monitoring Report
Conclusion: The demand generated by the proposed Walmart Supercenter will not exceed the adopted LOS standard for solid waste. Capacity exists to handle the additional demand resulting from the proposed Walmart Supercenter.

## Recreational Impacts

Conclusion: The subject project is commercial and will not generate any recreational impacts.
Table 5: Stormwater Impacts

| Attenuation |  |  |
| :---: | :---: | :---: |
| Storm Event <br> (YR/HR) | Discharge Rate Pre/Post <br> (CFS) | Discharge Volume Pre/Post <br> (AC-FT) |
| $100 / 24$ | $85.05 / 4.18$ | $14.4 / 3.3$ |
| $100 / 72$ | $66.58 / 5.13$ | $21.1 / 12.1$ |
| $100 / 168$ | $42.27 / 6.34$ | $26.7 / 19.1$ |
| $100 / 240$ | $35.7 / 10.82$ | $31.8 / 25.9$ |

## Water Quality

Required Treatment Volume
(AC-FT)
Provided Treatment Volume
(AC-FT)
7.13
21.35

Conclusion: The post-development discharge rate and volume are less than the predevelopment discharge rate and volume at the US Hwy 441 boundary for the critical 100-year storm events. Additionally, water quality treatment volume is provided on-site.

The above information establishes that the proposed Walmart Supercenter will not have any adverse impacts to the City of Alachua's adopted Level of Service for public facilities.

We appreciate your consideration of Walmart's application for its proposed Supercenter. Please do not hesitate to contact me if you have any questions or need further information.

Sincerely,
CPH, INC.

cc: file
David Theriaque, ESQ

## APPENDIX A

$$
\begin{gathered}
\text { PROJECT } \\
\text { DISTRIBUTION MAP } \\
\text { (a.k.a. TRANSPORTATION } \\
\text { CONCURRENCY MAP) }
\end{gathered}
$$



# APPENDIX B 

WALMART
PROTOTYPICAL UTILITY LOADS

| WAL-MART PROTOTYPI CAL UTI LITY LOADS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Prototype } \\ & \text { \& Size } \end{aligned}$ | $\begin{array}{\|c} \hline \text { Water } \\ \text { Fixture } \\ \text { Units } \end{array}$ | $\begin{gathered} \hline \text { Domestic Wtr } \\ \text { Instantaneous } \\ \text { Peak Flow } \\ \text { (GPM) } \\ \hline \end{gathered}$ | Average Sewer Load $\sim 90 \%$ Dom (GPD) | Average <br> Domestic ater Dema (GPD) | Average <br> Irrigation <br> Water Demand <br> (GPD) | Minimum <br> Residual Press. <br> FRONT ENTRY <br> (PSI) | Minimum <br> Residual Press. <br> REAR ENTRY <br> (PSI) | Connected Gas Load <br> (MBH) | Actual Avg Zone 3 Peak Gas Load (MBH) | Actual Avg <br> Zone 4 Peak <br> Gas Load <br> (MBH) <br> (, | Actual Avg Zone 5 Peak Gas Load (MBH) | Connected Electric (kVA) |  | $\begin{gathered} \hline \text { Actual Avg } \\ \text { Zone 3 Peak } \\ \text { Electric Load } \\ \text { (kVA) } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Actual Avg } \\ & \text { Zone 4 Peak } \\ & \text { Electric Load } \\ & \text { (kVA) } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Actual Avg } \\ \text { Zone } 5 \text { Peak } \\ \text { Electric Load } \\ \text { (kVA) } \\ \hline \end{gathered}$ |
| Sam's 136 | 399 | 130 | 2,813 | 3,125 | 4,400 | N/A psi | 45 psi | 10,409 | 1,381 | 1,750 | 2,289 | 1,829 | 1,893 | 758 | 754 | 729 |
| Supercenter 70 | 148 | 79 | 1,323 | 1,470 | No Utility Bills Available for 70 | N/A psi | 45 psi | 3,824 | 530 | 831 | 938 | 1,157 | 1,108 | 310 | 312 | 292 |
| Supercenter 102 | 364 | 119 | 2,020 | 2,244 | 3,490 | N/A psi | 45 psi | 7,729 | 763 | 1,256 | 1,560 | 1,649 | 1,586 | 629 | 629 | 576 |
| Supercenter 122 | 429 | 117 | 2,274 | 2,526 | 4,653 | N/A psi | 44 psi | 8,609 | 907 | 1,319 | 1,685 | 1,923 | 1,860 | 717 | 541 | 541 |
| Supercenter 151 | 469 | 125 | 3,012 | 3,347 | 5,379 | N/A psi | 45 psi | 13,079 | 1,368 | 1,817 | 2,118 | 2,385 | 2,253 | 777 | 739 | 659 |
| Supercenter 182 | 458 | 125 | 4,513 | 5,015 | 8,693 | N/A psi | 45 psi | 11,359 | 1,554 | 1,877 | 2,322 | 2,577 | 2,448 | 844 | 834 | 767 |
| WNM 41 | 171 | 81 | 1,109 | 1,232 | 4,400 | N/A psi | 37 psi | 2,669 | 644 | 820 | 993 | 978 | 937 | 334 | 319 | 319 |
| XPS | 30 | 23 | 184 | 205 | $\begin{aligned} & \text { No Utility Bills } \\ & \text { Available for } \\ & \text { XPS } \end{aligned}$ | N/A psi | $37 \quad \mathrm{psi}$ | 517 | 73 | 129 | 129 | 328 | 334 | 116 | 110 | 110 |
| Sams Fuel Station | 12 | 16 | 36 | 40 | N/A | N/A psi | 45 psi | N/A | N/A | N/A | N/A | 34 | 34 | 14 | 14 | 14 |
| SUP8-740 Fuel Station | 27 | 40 | 225 | 250 | N/A | N/A psi | 45 psi | N/A | N/A | N/A | N/A | 96 | 90 | 35 | 35 | 35 |
| SUP8-1440 Fuel Station | 39 | 47 | 270 | 300 | N/A | N/A psi | 45 psi | N/A | N/A | N/A | N/A | 126 | 119 | 46 | 46 | 46 |
| WNM-740 Fuel Station | 27 | 40 | 225 | 250 | N/A | N/A psi | 45 psi | N/A | N/A | N/A | N/A | 91 | 84 | 38 | 38 | 38 |
| WNM-192 Fuel Station | 12 | 16 | 36 | 40 | N/A | N/A psi | 45 psi | N/A | N/A | N/A | N/A | 40 | 41 | 14 | 14 | 14 |

## Comparison of GPD flow ratios for all the Prototypes

Comparing Gallons Per day / Water Fixture Unit Ratio and Gallons Per day / Square Feet area

| SF | WFU | GPD | GPD/SF <br> Ratio | GPD/WF <br> U Ratio | Notes |
| :---: | :---: | ---: | ---: | ---: | ---: |
| 41 | 171 | 1,232 | 30 | 7 |  |
| 102 | 364 | 2,244 | 22 | 6 | 1,2 |
| 122 | 429 | 2,526 | 21 | 6 |  |
| 136 | 399 | 3,125 | 23 | 8 |  |
| 151 | 469 | 3,347 | 22 | 7 |  |
| 182 | 458 | 5,015 | 28 | 11 |  |

1) The 102 prototype had only 12 sample stores data and the GPD appears to be low.
2) The GPD for the 102 prototype was determined by using a 22 GPD/ SF ratio of 22 and prorating.


# Walmart Supercenter Alachua, Florida Market and Impact Study 

Prepared For: THERIAQUE \& SPAIN<br>433 North Magnolia Drive Tallahassee, FL 32308

## Prepared by

FLORIDA<br>ECONOMIC<br>ADVISORS<br>Real Estate \& Corporate Economics

March, 2016

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## 1.0: Study Introduction and Outline

Florida Economic Advisors was retained to conduct an economic analysis that investigates the market supportability and fiscal impacts of a proposed Walmart Supercenter in the City of Alachua, Florida (Alachua County). The proposed Supercenter would be constructed on a site located immediately southeast of the Interstate 75 - US Highway 441 interchange.

Proposed Walmart Supercenter Site


The principal objective of this study is to address the following issues:

1. The market supportability of the proposed Walmart Supercenter, given local area demographics and existing commercial businesses within the Walmart Supercenter's principal trade area of influence.
2. Local economic and fiscal impacts to the City of Alachua from ongoing operation of the proposed Walmart Supercenter. These impacts include property tax revenue, employment generation, earnings, and annual business output (sales).

This report includes 4 sections with an associated appendix. Section 2 defines the regional area of economic influence for the subject property, and provides an overview of historical and projected economic conditions influencing development in the region. Section 3 discusses demand and supply factors contributing to market support for the Walmart Supercenter. Finally, Section 4 presents a summary of economic and fiscal analysis impacts to the City of Alachua from project development.

Section 4.3.4(G)(7)(b)(iii) of the City of Alachua Land Development Regulations ("LDRs") establishes the requirements for a market and impact study. This report satisfies impact study requirements a., b., g., and h.
a. Inventory of local retail base
(Presented in appendix and discussed in Sections 3.6 through 3.8)
b. Assessment of market areas and market impacts
(Presented in Table 3.1 and discussed in Sections 3.3 through 3.8)
c. Services and capital expenditures
(Presented in work products submitted by team planners/engineers)
d. Traffic and other service impacts
(Presented in work products submitted by team planners/engineers)
e. Cost of associated economic development incentives
(The Applicant is not seeking any incentives or tax credits)
f. Impact of redevelopment zone tax-increment financing
(The project does not meet qualification criteria for this program)
g. $\frac{\text { Inventory locations of competing retailers }}{\text { (Presented in appendix and discussed in Sections } 3.6 \text { through 3.8) }}$
h. Assessment of impact on existing local retailers
(Discussed in Sections 3.6 through 3.8)
This report provides additional economic and fiscal assessments beyond those required by the LDRs, but which are important in evaluating the economic and fiscal impacts of the proposed Walmart Supercenter.

## 2.0: Overview of Area Economic Conditions

### 2.1 The Regional Marketplace

A market area is defined in the Dictionary of Real Estate Terms, 4th Edition, as "a geographic region from which one can expect primary demand for a specific product or service provided at a fixed location." For purposes of this report, the regional area of economic influence for the subject property is Alachua County, although the specific trade area is smaller in size (discussed in Section 3 of the report).


This regional market area was established with the recognition of the subject property's geographic location and access to major thoroughfares that serve the entirety of the County. The trade area
draw of the proposed Walmart Supercenter will extend beyond the municipal boundaries of the City of Alachua, into the County domain. Based on these factors, and standard practices for evaluating long-range economic trends at the county level of geography, economic history and projections presented in this section focus on the larger local geography of Alachua County.

### 2.2 Alachua County Introductory Profile

Home to the University of Florida and 3 of northern Florida's premier medical centers, Alachua County is an area whose economy relies heavily on the industry sectors of education and healthcare services. These industries, which are less sensitive to changes in the state and national economy, have provided Alachua County with a degree of long-term economic stability that other Florida counties have not enjoyed. Conversely, the County has not realized the development surge experienced by other Florida markets with a rapidly-urbanizing population base, such as Miami, Orlando, Tampa, or Jacksonville. Economic growth in Alachua County is best characterized as modest and steady, with the potential for some expansion of the real estate market as urban markets to the south reach buildout levels.

Current estimates place the population of Alachua County at 258,780 , with an attendant employment base of 162,440 . The County's largest employers include the University of Florida, UF Health, the Alachua County School Board, the VA Medical Center, the City of Gainesville, Walmart, Alachua County Government, Publix Supermarkets, Gator Dining Services, RTI Surgical, Dollar General, North Florida Regional Medical Center, and Nationwide Insurance. These organizations employ 58,112 persons, or 36 percent of the total County workforce.

### 2.3 Growth Patterns in Alachua County, 1980 to 2015

Future development potential in Alachua County is closely tied to the continued demand for additional housing. Population growth is the major determinant of the long-range trend for housing demand in the area.

The shaded portion of Table 2.1 provides the base historical economic conditions for this market.

| Table 2.1: Alachua County Economic Growth 1980-2015 | 1980 | 1990 | $\underline{2000}$ | 2015 | $\underline{2020}$ | $\underline{2030}$ | 2040 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Population (Thousands) | 152.23 | 182.72 | 218.61 | 258.78 | 273.58 | 304.98 | 335.55 |
| Age Under 5 Years | 9.79 | 12.51 | 11.11 | 14.49 | 14.86 | 16.13 | 17.06 |
| 5 to 9 Years | 9.29 | 12.13 | 12.01 | 12.97 | 14.19 | 15.96 | 17.17 |
| 10 to 14 Years | 9.70 | 10.50 | 12.97 | 11.47 | 12.59 | 15.62 | 16.67 |
| 15 to 19 Years | 18.12 | 18.06 | 22.51 | 20.03 | 19.44 | 20.61 | 21.46 |
| 20 to 24 Years | 28.82 | 27.92 | 36.40 | 44.85 | 43.18 | 41.98 | 44.60 |
| 25 to 29 Years | 17.55 | 17.05 | 17.55 | 22.48 | 25.23 | 18.62 | 22.96 |
| 30 to 34 Years | 12.86 | 15.51 | 13.75 | 17.83 | 21.70 | 17.31 | 19.77 |
| 35 to 39 Years | 8.48 | 14.04 | 14.22 | 14.06 | 17.00 | 24.04 | 17.18 |
| 40 to 44 Years | 6.24 | 11.82 | 14.72 | 12.54 | 13.50 | 22.28 | 17.45 |
| 45 to 49 Years | 5.45 | 8.46 | 14.36 | 12.27 | 12.29 | 17.86 | 25.15 |
| 50 to 54 Years | 5.36 | 6.33 | 12.51 | 13.77 | 11.96 | 14.43 | 23.46 |
| 55 to 59 Years | 5.32 | 5.66 | 8.80 | 14.78 | 13.43 | 13.04 | 18.69 |
| 60 to 64 Years | 4.36 | 5.79 | 6.67 | 14.27 | 14.29 | 12.51 | 14.91 |
| 65 to 69 Years | 3.93 | 5.70 | 5.66 | 11.75 | 13.67 | 13.74 | 13.11 |
| 70 to 74 Years | 2.95 | 4.31 | 5.24 | 7.75 | 10.41 | 13.43 | 11.50 |
| 75 to 79 Years | 2.01 | 3.22 | 4.52 | 5.24 | 6.77 | 11.85 | 11.66 |
| 80 to 84 Years | 1.15 | 2.10 | 3.09 | 3.76 | 4.27 | 8.38 | 10.66 |
| 85 Years and Over | 0.85 | 1.62 | 2.52 | 4.45 | 4.80 | 7.18 | 12.10 |
| Median Age of Population | 25.10 | 27.92 | 29.03 | 30.82 | 31.53 | 36.55 | 37.34 |
| Caucasian Population | n.a. | 136.42 | 153.87 | 165.01 | 169.90 | 187.79 | 205.86 |
| African-American Population | n.a. | 34.54 | 42.82 | 53.94 | 58.68 | 69.15 | 79.65 |
| Native American Population | n.a. | 0.33 | 0.56 | 0.68 | 0.70 | 0.74 | 0.71 |
| Asian and Pacific Islander Population | n.a. | 4.55 | 8.57 | 15.96 | 18.30 | 20.88 | 23.27 |
| Hispanic Population | 4.72 | 6.88 | 12.80 | 23.20 | 26.00 | 26.41 | 26.05 |
| Total Employment (Thousands) | 79.97 | 113.57 | 144.63 | 162.44 | 175.72 | 201.41 | 224.96 |
| Farm | 1.62 | 1.47 | 1.87 | 2.15 | 2.25 | 2.42 | 2.55 |
| Forestry, Fishing, \& Other | 0.29 | 0.53 | 0.60 | 0.65 | 0.68 | 0.72 | 0.77 |
| Mining | 0.04 | 0.04 | 0.05 | 0.42 | 0.45 | 0.52 | 0.60 |
| Utilities | 0.11 | 0.13 | 0.12 | 0.48 | 0.55 | 0.71 | 0.88 |
| Construction | 4.54 | 5.44 | 5.96 | 5.82 | 6.42 | 7.23 | 7.60 |
| Manufacturing | 3.30 | 3.70 | 4.46 | 4.84 | 4.97 | 5.11 | 5.06 |
| Wholesale Trade | 1.82 | 2.04 | 2.34 | 2.89 | 3.10 | 3.47 | 3.75 |
| Retail Trade | 8.96 | 12.88 | 16.40 | 15.62 | 16.90 | 18.97 | 21.20 |
| Transportation \& Warehousing | 0.76 | 0.89 | 1.34 | 2.69 | 2.96 | 3.59 | 4.25 |
| Information | 1.15 | 1.94 | 2.82 | 1.55 | 1.64 | 1.82 | 2.03 |
| Finance \& Insurance | 3.33 | 4.46 | 5.54 | 6.57 | 7.17 | 8.35 | 9.13 |
| Real Estate, Rental \& Lease | 2.69 | 3.60 | 4.47 | 5.97 | 6.53 | 7.81 | 9.33 |
| Professional \& Tech Services | 2.86 | 5.42 | 7.99 | 9.63 | 10.25 | 11.65 | 13.26 |
| Management \& Enterprises | 0.05 | 0.10 | 0.17 | 1.46 | 1.71 | 2.33 | 3.14 |
| Administrative \& Waste Services | 1.71 | 3.11 | 7.29 | 7.34 | 7.85 | 8.79 | 9.42 |
| Educational Services | 0.67 | 1.27 | 2.04 | 2.77 | 2.99 | 3.37 | 3.66 |
| Health Care \& Social Assistance | 7.37 | 13.95 | 19.23 | 24.19 | 26.71 | 32.46 | 38.40 |
| Arts, Entertainment \& Recreation | 1.17 | 1.98 | 2.82 | 3.40 | 3.64 | 4.08 | 4.43 |
| Accomodation \& Food Services | 5.50 | 9.28 | 10.81 | 12.88 | 13.95 | 16.03 | 17.72 |
| Other Services | 2.64 | 4.98 | 6.29 | 7.46 | 8.16 | 9.75 | 11.58 |
| Federal Civilian Government | 2.49 | 3.08 | 3.05 | 4.51 | 4.76 | 5.28 | 5.85 |
| Federal Military Government | 0.49 | 0.66 | 0.54 | 0.56 | 0.56 | 0.56 | 0.56 |
| State and Local Government | 26.43 | 32.62 | 38.43 | 37.33 | 41.52 | 46.38 | 49.77 |
| Total Earnings (Millions 2009\$) | 2,306.08 | 3,777.25 | 5,417.90 | 7,272.79 | 8,298.87 | 10,209.50 | 12,384.52 |
| Per Capita Income (2009\$) | 18,414.00 | 25,914.00 | 30,267.00 | 36,608.00 | 39,314.00 | 44,734.00 | 49,015.00 |
| Avg. Household Income (2009\$) | 48,072.00 | 62,818.00 | 71,784.00 | 83,062.00 | 88,722.00 | 102,663.00 | 115,094.00 |
| Per Capita Income (Current\$) | 8,098.00 | 17,476.00 | 25,161.00 | 40,396.00 | 48,037.00 | 73,967.00 | 117,940.00 |
| Avg. Household Income (Current\$) | 21,141.00 | 42,364.00 | 59,675.00 | 91,657.00 | 108,409.00 | 169,750.00 | 276,941.00 |
| Retail Sales Per Household (2009\$) | 30,769.00 | 31,386.00 | 34,878.00 | 36,807.00 | 38,058.00 | 40,830.00 | 44,034.00 |
| Number of Households (Thousands) | 55.35 | 71.79 | 87.84 | 100.56 | 116.05 | 127.02 | 136.58 |
| Persons Per Household | 2.58 | 2.39 | 2.34 | 2.26 | 2.23 | 2.27 | 2.32 |
| Households With Money Income (Thousands) | 55.35 | 71.79 | 87.84 | 100.56 | 116.05 | 127.02 | 136.58 |
| Less than \$10,000 (2009\$) | n.a. | 10.59 | 12.34 | 14.81 | 15.38 | 13.92 | 12.35 |
| \$10,000-\$29,999 | n.a. | 20.72 | 23.17 | 26.16 | 25.89 | 23.43 | 20.79 |
| \$30,000-\$44,999 | n.a. | 10.48 | 12.49 | 15.35 | 16.26 | 14.72 | 13.06 |
| \$45,000-\$59,999 | n.a. | 8.92 | 10.35 | 10.93 | 15.30 | 17.53 | 16.00 |
| \$60,000-\$74,999 | n.a. | 5.91 | 7.02 | 8.79 | 10.68 | 14.18 | 17.82 |
| \$75,000-\$99,999 | n.a. | 6.92 | 8.44 | 8.92 | 12.14 | 16.13 | 21.10 |
| \$100,000-\$124,999 | n.a. | 4.10 | 5.74 | 5.84 | 7.58 | 10.07 | 13.17 |
| \$125,000-\$149,999 | n.a. | 1.44 | 2.93 | 3.46 | 4.67 | 6.21 | 8.12 |
| \$150,000-\$199,999 | n.a. | 1.65 | 2.56 | 3.01 | 3.90 | 5.19 | 6.78 |
| \$200,000 or more | n.a. | 1.05 | 2.80 | 3.30 | 4.24 | 5.64 | 7.37 |

Data Sources: Woods \& Poole Economics, Inc.

2015 estimates indicate Alachua County has a population of $258,780^{1}$ persons and 162,440 attendant employees. These totals comprise 1.3 percent of the state's population, and 1.5 percent of the state's employment base. From 1980 through 2015, population growth within the market area accounted for 1.04 percent of state growth, or 106,550 persons. This equates to average annual population growth of 3,044 persons per year.

During this period, 82,470 net new jobs were created in Alachua County, resulting in 1.3 percent of Florida's employment growth. The annualized rate of employment growth from 1980-2015 was 2,356 jobs.

Figure 1 presents a graphic summary of population growth by age within the County. It is quite interesting to note that the growth in Alachua County's population was quite balanced among these age groups. Few counties in Florida experienced such balanced population change over this time period.


Figure 2 presents the profile of area population growth by race/ethnic status. Caucasian residents accounted for the largest share of population growth during the 1990-2015 period, at 37.6 percent. African-Americans accounted for 25.5 percent of

[^1]population growth over the previous 25 years, and Hispanics accounted for 21.5 percent of the population growth during this period. This growth trend differs from many urban locales in Central and South Florida, where Hispanic cohorts comprise considerably larger shares of county population growth.

Fig. 2: Alachua County Population Growth by Ethnicity 1990-2015


Fig. 3: Alachua County HH Growth by Income 1990-2015 (Year 2009\$)


$$
\text { םUnder } \$ 60 \mathrm{~K} \quad \square \$ 60-\$ 124.9 \mathrm{~K} \quad \square \$ 125 \mathrm{~K}+
$$

The profile of household growth by income status is presented in Figure 3. From 1990 through 2015, the proportion of household growth with inflation-adjusted incomes ${ }^{2}$ of under $\$ 60,000$ per year accounted for 57.5 percent of Alachua County's household growth. Middle to upper-middle income households, those in the $\$ 60,000$ to $\$ 124,999$ annual income range, held a noticeable but smaller share of growth at 23.0 percent. Upper income households (those with annual incomes of $\$ 125,000$ or more) made up 19.6 percent of the County's household formation during this 25 -year period. In inflation-adjusted dollars, the average household income has increased by 72.8 percent since 1980. 2015 estimates show that the average household income within the region is $\$ 91,657$.

With a considerable population of non-family households, Alachua County's household size has historically been lower than other areas within the state. In fact, the persons-per-household estimate has declined from 2.58 in 1980 to 2.26 in 2015.


Prior to the mid-1990s, Alachua County typically ${ }^{3}$ achieved between 1,000 and 1,500 housing starts annually. Substantial inventories of multifamily units were delivered in the latter half of the 1990s, effectively doubling the rate of new residential construction within the County. Alachua was not immune to the effects of the

[^2]national housing market collapse and subsequent recession. By 2010 residential construction activity had fallen off by nearly 75 percent from the first half of the decade. A modest recovery began in 2012; over the past three years, annual starts have approached the 1,000 -unit mark.

Of the 73,680 new jobs created during the $1980-2015$ period, industry sectors with the largest growth included health care \& social services $(16,820)$ and government $(13,000)$. These 2 sectors have accounted for 36.2 percent of Alachua County's employment growth since 1980.


Fig. 5(a)
Industry Sector Abbreviations

Fm = Farm
FF\&O = Forestry, Fishing, \& Other
$\mathrm{Mn}=$ Mining
Ut $=$ Utilities
Cns = Construction
Mfg = Manufacturing
Who = Wholesale Trade
Ret $=$ Retail Trade
Tr\&W = Transportation \& Warehousing $\operatorname{lnf}=$ Information
Fin/In = Finance \& Insurance

RE = Real Estate, Rental \& Lease
Pro.Tec = Professional \& Tech Services
Mgt.En = Management \& Enterprises
Ad\&Ws = Administrative \& Waste Services
EdSv = Educational Services
HI\&So = Health Care \& Social Assistance
AE\&Rec $=$ Arts, Entertainment \& Recreation
Ac\&F = Accomodation \& Food Services
Ot $\mathrm{Sv}=$ Other Services
Govt $=$ Government


The average wage in Alachua County, when adjusted for inflation, has risen by 57.9 percent since 1980. The 2015 average wage in Alachua County was $\$ 49,049$, approximately 2 percent higher than the statewide average.

### 2.4 Growth Forecasts for Alachua County, 2015 to 2040

The long-range forecasts presented for Alachua County reflect a market whose economic base will continue to grow steadily relative to the levels realized during the 1980-2015 period. Annual population and employment growth from 2015 to 2040 will generally maintain the pace of 1980-2015 historic growth. Population change will be influenced slightly more by increases in the 35-54 and $55+$ age groups. Middle income households will account for more than two-thirds of resident expansion over the next quarter century. Finally, the ethnic composition of new residents is expected to reflect the county's historic trend of diverse growth.

Over the 2015-2040 period, population growth within Alachua County will account for 1.01 percent of state growth, or 76,770 persons. The area will see 62,520 net new jobs created by 2040, which will equate to 1.24 percent of Florida's projected employment growth. The shaded portion of Table 2.2 provides the statistical detail of these economic forecasts.

| Table 2.2: Alachua County Economic Growth 2015-2040 | 1980 | 1990 | $\underline{2000}$ | 2015 | $\underline{2020}$ | $\underline{2030}$ | 2040 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Population (Thousands) | 152.23 | 182.72 | 218.61 | 258.78 | 273.58 | 304.98 | 335.55 |
| Age Under 5 Years | 9.79 | 12.51 | 11.11 | 14.49 | 14.86 | 16.13 | 17.06 |
| 5 to 9 Years | 9.29 | 12.13 | 12.01 | 12.97 | 14.19 | 15.96 | 17.17 |
| 10 to 14 Years | 9.70 | 10.50 | 12.97 | 11.47 | 12.59 | 15.62 | 16.67 |
| 15 to 19 Years | 18.12 | 18.06 | 22.51 | 20.03 | 19.44 | 20.61 | 21.46 |
| 20 to 24 Years | 28.82 | 27.92 | 36.40 | 44.85 | 43.18 | 41.98 | 44.60 |
| 25 to 29 Years | 17.55 | 17.05 | 17.55 | 22.48 | 25.23 | 18.62 | 22.96 |
| 30 to 34 Years | 12.86 | 15.51 | 13.75 | 17.83 | 21.70 | 17.31 | 19.77 |
| 35 to 39 Years | 8.48 | 14.04 | 14.22 | 14.06 | 17.00 | 24.04 | 17.18 |
| 40 to 44 Years | 6.24 | 11.82 | 14.72 | 12.54 | 13.50 | 22.28 | 17.45 |
| 45 to 49 Years | 5.45 | 8.46 | 14.36 | 12.27 | 12.29 | 17.86 | 25.15 |
| 50 to 54 Years | 5.36 | 6.33 | 12.51 | 13.77 | 11.96 | 14.43 | 23.46 |
| 55 to 59 Years | 5.32 | 5.66 | 8.80 | 14.78 | 13.43 | 13.04 | 18.69 |
| 60 to 64 Years | 4.36 | 5.79 | 6.67 | 14.27 | 14.29 | 12.51 | 14.91 |
| 65 to 69 Years | 3.93 | 5.70 | 5.66 | 11.75 | 13.67 | 13.74 | 13.11 |
| 70 to 74 Years | 2.95 | 4.31 | 5.24 | 7.75 | 10.41 | 13.43 | 11.50 |
| 75 to 79 Years | 2.01 | 3.22 | 4.52 | 5.24 | 6.77 | 11.85 | 11.66 |
| 80 to 84 Years | 1.15 | 2.10 | 3.09 | 3.76 | 4.27 | 8.38 | 10.66 |
| 85 Years and Over | 0.85 | 1.62 | 2.52 | 4.45 | 4.80 | 7.18 | 12.10 |
| Median Age of Population | 25.10 | 27.92 | 29.03 | 30.82 | 31.53 | 36.55 | 37.34 |
| Caucasian Population | n.a. | 136.42 | 153.87 | 165.01 | 169.90 | 187.79 | 205.86 |
| African-American Population | n.a. | 34.54 | 42.82 | 53.94 | 58.68 | 69.15 | 79.65 |
| Native American Population | n.a. | 0.33 | 0.56 | 0.68 | 0.70 | 0.74 | 0.71 |
| Asian and Pacific Islander Population | n.a. | 4.55 | 8.57 | 15.96 | 18.30 | 20.88 | 23.27 |
| Hispanic Population | 4.72 | 6.88 | 12.80 | 23.20 | 26.00 | 26.41 | 26.05 |
| Total Employment (Thousands) | 79.97 | 113.57 | 144.63 | 162.44 | 175.72 | 201.41 | 224.96 |
| Farm | 1.62 | 1.47 | 1.87 | 2.15 | 2.25 | 2.42 | 2.55 |
| Forestry, Fishing, \& Other | 0.29 | 0.53 | 0.60 | 0.65 | 0.68 | 0.72 | 0.77 |
| Mining | 0.04 | 0.04 | 0.05 | 0.42 | 0.45 | 0.52 | 0.60 |
| Utilities | 0.11 | 0.13 | 0.12 | 0.48 | 0.55 | 0.71 | 0.88 |
| Construction | 4.54 | 5.44 | 5.96 | 5.82 | 6.42 | 7.23 | 7.60 |
| Manufacturing | 3.30 | 3.70 | 4.46 | 4.84 | 4.97 | 5.11 | 5.06 |
| Wholesale Trade | 1.82 | 2.04 | 2.34 | 2.89 | 3.10 | 3.47 | 3.75 |
| Retail Trade | 8.96 | 12.88 | 16.40 | 15.62 | 16.90 | 18.97 | 21.20 |
| Transportation \& Warehousing | 0.76 | 0.89 | 1.34 | 2.69 | 2.96 | 3.59 | 4.25 |
| Information | 1.15 | 1.94 | 2.82 | 1.55 | 1.64 | 1.82 | 2.03 |
| Finance \& Insurance | 3.33 | 4.46 | 5.54 | 6.57 | 7.17 | 8.35 | 9.13 |
| Real Estate, Rental \& Lease | 2.69 | 3.60 | 4.47 | 5.97 | 6.53 | 7.81 | 9.33 |
| Professional \& Tech Services | 2.86 | 5.42 | 7.99 | 9.63 | 10.25 | 11.65 | 13.26 |
| Management \& Enterprises | 0.05 | 0.10 | 0.17 | 1.46 | 1.71 | 2.33 | 3.14 |
| Administrative \& Waste Services | 1.71 | 3.11 | 7.29 | 7.34 | 7.85 | 8.79 | 9.42 |
| Educational Services | 0.67 | 1.27 | 2.04 | 2.77 | 2.99 | 3.37 | 3.66 |
| Health Care \& Social Assistance | 7.37 | 13.95 | 19.23 | 24.19 | 26.71 | 32.46 | 38.40 |
| Arts, Entertainment \& Recreation | 1.17 | 1.98 | 2.82 | 3.40 | 3.64 | 4.08 | 4.43 |
| Accomodation \& Food Services | 5.50 | 9.28 | 10.81 | 12.88 | 13.95 | 16.03 | 17.72 |
| Other Services | 2.64 | 4.98 | 6.29 | 7.46 | 8.16 | 9.75 | 11.58 |
| Federal Civilian Government | 2.49 | 3.08 | 3.05 | 4.51 | 4.76 | 5.28 | 5.85 |
| Federal Military Government | 0.49 | 0.66 | 0.54 | 0.56 | 0.56 | 0.56 | 0.56 |
| State and Local Government | 26.43 | 32.62 | 38.43 | 37.33 | 41.52 | 46.38 | 49.77 |
| Total Earnings (Millions 2009\$) | 2,306.08 | 3,777.25 | 5,417.90 | 7,272.79 | 8,298.87 | 10,209.50 | 12,384.52 |
| Per Capita Income (2009\$) | 18,414.00 | 25,914.00 | 30,267.00 | 36,608.00 | 39,314.00 | 44,734.00 | 49,015.00 |
| Avg. Household Income (2009\$) | 48,072.00 | 62,818.00 | 71,784.00 | 83,062.00 | 88,722.00 | 102,663.00 | 115,094.00 |
| Per Capita Income (Current\$) | 8,098.00 | 17,476.00 | 25,161.00 | 40,396.00 | 48,037.00 | 73,967.00 | 117,940.00 |
| Avg. Household Income (Current\$) | 21,141.00 | 42,364.00 | 59,675.00 | 91,657.00 | 108,409.00 | 169,750.00 | 276,941.00 |
| Retail Sales Per Household (2009\$) | 30,769.00 | 31,386.00 | 34,878.00 | 36,807.00 | 38,058.00 | 40,830.00 | 44,034.00 |
| Number of Households (Thousands) | 55.35 | 71.79 | 87.84 | 100.56 | 116.05 | 127.02 | 136.58 |
| Persons Per Household | 2.58 | 2.39 | 2.34 | 2.26 | 2.23 | 2.27 | 2.32 |
| Households With Money Income (Thousands) | 55.35 | 71.79 | 87.84 | 100.56 | 116.05 | 127.02 | 136.58 |
| Less than \$10,000 (2009\$) | n.a. | 10.59 | 12.34 | 14.81 | 15.38 | 13.92 | 12.35 |
| \$10,000-\$29,999 | n.a. | 20.72 | 23.17 | 26.16 | 25.89 | 23.43 | 20.79 |
| \$30,000-\$44,999 | n.a. | 10.48 | 12.49 | 15.35 | 16.26 | 14.72 | 13.06 |
| \$45,000-\$59,999 | n.a. | 8.92 | 10.35 | 10.93 | 15.30 | 17.53 | 16.00 |
| \$60,000-\$74,999 | n.a. | 5.91 | 7.02 | 8.79 | 10.68 | 14.18 | 17.82 |
| \$75,000-\$99,999 | n.a. | 6.92 | 8.44 | 8.92 | 12.14 | 16.13 | 21.10 |
| \$100,000-\$124,999 | n.a. | 4.10 | 5.74 | 5.84 | 7.58 | 10.07 | 13.17 |
| \$125,000-\$149,999 | n.a. | 1.44 | 2.93 | 3.46 | 4.67 | 6.21 | 8.12 |
| \$150,000-\$199,999 | n.a. | 1.65 | 2.56 | 3.01 | 3.90 | 5.19 | 6.78 |
| \$200,000 or more | n.a. | 1.05 | 2.80 | 3.30 | 4.24 | 5.64 | 7.37 |

Data Sources: Woods \& Poole Economics, Inc.


Figure 7 indicates an anticipated shift in the distribution of population growth by age. Alachua County will see a slightly larger share of growth in the 55+ age group over the forecast horizon, relative to the historic trend. 39.9 percent of forecasted population growth will occur in the 55+ age range. This growth will come from a combination of in-migration from older households and aging of the local population base. In addition, residents of the "working adult" age cohort (35-54) will account for 39.8 percent of the projected resident increase, which reflects an 14.3 percent increase in forecasted growth share relative to the historic period.

Figure 8 suggests that the future demographic profile of area residents will be more diverse than ever. During the 2015-2040 period, minority ethnic and racial segments will comprise 46.8 percent of Alachua County's population growth. This is an impressive statistic, considering the 1990 population of Alachua County was 75 percent Caucasian. Minority growth shares will increase across the board, including the African-American, Hispanic, and Asian ethnic cohorts.

Fig. 8: Alachua County Population Growth by Ethnicity 2015-2040


Forecasts of household growth by income suggest that Alachua County's wealth will be expanding considerably, as virtually all residential growth is expected to occur in households with incomes in excess of $\$ 60,000$ per year.

Fig. 9: Alachua County
HH Growth by Income 2015-2040 (Year 2009\$)


The under \$60,000 income segment, accounting for nearly half of 1990-2014 household growth, is projected to decline over the next 24 years.

The historic trend of annual housing starts reflects an average construction pace of 1,630 units per year. The 2015-2040 forecasts of household formation suggest growth of 1,441 occupied units per year. A forecasted long-range annual average of 1,536 starts per year for Alachua County would be consistent with these trends, although we would expect to see cycles of rapid construction (as was been the case during the late 1990s) and below average construction rates (as witnessed recently) during the forecast period.

53.7 percent of forecasted job growth ( 33,570 jobs by 2040) is expected to occur in the following sectors: retail $(5,580)$, health \& social services (14,210), and government (13,780). Alachua County's economy is expected to expand its base of industries, serving a growing and demographically evolving population. In total, service and government occupations will account for 74 percent of County jobs created between 2015 and 2040.

## 3.0: Market Conditions for Retail Shopping

### 3.1 Defining the Retail Shopping Center: Primary Center Characteristics

The Urban Land Institute, in its "Dollars and Cents of Shopping Centers" publication, provides category-based classifications of modern shopping centers, outlining center size and store mix characteristics that define a center's type and function. These classifications and associated characteristics are outlined in this section.

As the shopping center evolved, 5 basic types emerged, each distinctive in its own function: the convenience, the neighborhood, the community, the regional, and the super regional. In all cases, a shopping center's type and function are determined by its major tenant or tenants and the size of the trade area; they are never based solely on the area of the site or the square footage of the structure.

A convenience center provides for the sale of personal services and convenience goods similar to those of a neighborhood center. It contains a minimum of 3 stores, with a gross leasable area ("GLA") of up to 30,000 square feet. Instead of being anchored by a supermarket, a convenience center usually is anchored by some other type of personal/convenience service such as a minimarket.

A neighborhood center provides for the sale of convenience goods (foods, drugs, and sundries) and personal services (laundry and dry cleaning, barbering, shoe repairing, etc.) for the day-to-day living needs of the immediate neighborhood. It is built around the supermarket as the principal tenant and typically contains a GLA of about 60,000 square feet. In practice, it may range in size from 30,000 to 100,000 square feet.

In addition to the convenience goods and personal services offered by the neighborhood center, a community center provides a wider range of soft lines (wearing apparel for men, women, and children), and hard lines (hardware and appliances). The community center makes merchandise available in a greater variety of sizes, styles, colors, and prices. Many centers are built around a junior department store, variety store, super drugstore, or discount department store as the major tenant, in addition to a supermarket. Although a community center does not have a full
line department store, it may have a strong specialty store or stores. Its typical size is about 150,000 square feet, but in practice, it may range from 100,000 to 500,000 or more square feet. Centers that fit the general profile of a community center but contain more than 250,000 square feet are classified as super community centers. In some cases, these centers contain more than 1 million square feet. As a result, the community center is the most difficult to estimate for size and pulling power.

A power center is a type of super community center. It contains category-specific, off-price anchors of 20,000 or more square feet. These anchors typically emphasize hard goods such as consumer electronics, sporting goods, office supplies, home furnishings, home improvement goods, bulk foods, drugs, health and beauty aids, toys, and personal computer hardware/software. They tend to have narrowly focused but deeply merchandised category offerings together with more broadly merchandised, price oriented warehouse club and discount department stores. Anchors in power centers typically occupy 85 percent or more of the total GLA. A center such as Walmart could be best represented within this category classification.

A regional center provides general merchandise, apparel, furniture, and home furnishings in depth and variety, as well as a range of services and recreational facilities. It is built around 1 or 2 full line department stores of generally not less than 50,000 square feet. Its typical size is about 500,000 square feet of GLA; in practice, it may range from 250,000 to more than 900,000 square feet. The regional center provides services typical of a business district yet not as extensive as those of the super regional center.

A super regional center offers extensive variety in general merchandise, apparel, furniture, and home furnishings, as well as a variety of services and recreation facilities. It is built around 3 or more full-line department stores generally of not less than 75,000 square feet each. The typical size of a super regional center is about 1 million square feet of GLA. In practice, the size ranges from about 500,000 to more than 1.5 million square feet.

### 3.2 Retail Shopping Center Trade Areas

The ULI "Shopping Center Development Handbook" contains a detailed discussion of shopping center trade area analysis that outlines the complexities involved in the assessment of appropriate
retail trade areas. The following paragraphs from Page 46 of the handbook include excerpts of this text discussion.

> "The character of a prospective retail trade area and the nature of the competition in it shape the character of a shopping center, including type, quality, and tone. The trade area traditionally is the geographic area that provides the majority of the steady customers necessary to support a shopping center.

As new shopping centers do not create buying power, they must attract existing customers from their trade areas and capture a portion of the new buying power as those areas grow. Hence, the extent of the area from which a new center can be expected to draw the most significant number of its customers - whether residents, workers, tourists, or business travelers - must first be established. Within a shopping center's trade area, customers closest to the site affect the center most strongly, with their influence diminishing gradually as the distance increases. Trade areas are usually divided into 3 categories or zones of influence, although the following general guidelines describing these categories vary depending on the type of center and other factors."

A center's primary trade area is the geographical area from which the center derives its largest share of repeat sales. This area typically extends to 1.5 miles for neighborhood centers, 3 to 5 miles for community and super community centers, and 8 to 12 miles for regional malls. Driving time within the primary trade area ranges correspondingly from 5 to 30 minutes, and 70 to 80 percent of the center's regular customers are drawn from this area.

The secondary trade area generates 15 to 20 percent of the total sales of an average shopping center. The extent of the secondary trade area is heavily influenced by the existence of similar centers nearby, and, as a result, the extent of secondary trade areas varies widely, depending on the center's type and size, and the competition. For the largest centers, it may extend 3 to 7 miles beyond the primary trade area.

The tertiary or fringe trade area is the broadest area from which consumers may be drawn. A small but sometimes significant share of a center's customers - particularly for large specialty centers,
downtown centers, off-price centers, and entertainment centers, may be drawn from tourists and other travelers who do not live in the market at all. Although customers who live in the tertiary trade area must travel greater distances, they may be attracted to a center because it is more accessible or it offers unusual goods, greater parking, more stores, better value, or higher quality merchandise than closer centers. For the largest centers, driving time from the tertiary market area to the site can be an hour or more, extending 15 miles beyond the primary trade area in major metropolitan markets. In much smaller markets, however, it may extend 50 miles or more.

### 3.3 Defining the Walmart Supercenter Primary Retail Trade Area

Defining geographic markets or economic trade areas is, at best, an imprecise science. Advanced spatial theory in the study of urban and regional economics provides us with some foundation for this exercise. Distinct economic markets generally exist in geographic areas with largely homogenous demographic, political, and transportation elements.

In the case of the proposed Walmart Supercenter, the above factors are considered in establishing the trade area boundary, but they are not the "limiting factors" in determining the extent of the market's influence on this property (and vice versa).

As a guide for the development of these trade area boundaries, we again turn to the ULI as an authoritative data source. In its series of development handbooks for commercial uses, the ULI has stated that the primary trade area for super community retail centers extends a distance from 3 to 5 miles outward from the site. For purposes of this analysis, we consider demographic, expenditure, and sales patterns within a 5 -mile radius of the proposed Supercenter site in order to evaluate the state of the retail market as it applies to this shopping location.

### 3.4 Economic and Demographic Trends in the Walmart Supercenter Primary Retail Trade Area

Table 3.1: Walmart Supercenter Primary Trade Area
Economic Trends and Estimates of Retail Shopping Demand and Supply


Consumer Retail Expenditures,
Plus Eating \& Drinking Places
192,253,448
Estimated Store Sales Per
Square Foot
Estimated Sq. Footage
Demand for Retail Space 640,845
Estimated Supply of Retail Sq.
Footage
513,949
EXISTING PRIMARY TRADE AREA UNMET DEMAND
126,896 sq. feet

From 2000 through 2015, the population of the 5 -mile primary trade area increased by 27.6 percent. 2015 estimates place the permanent population of this area at 11,666, residing in 4,596 households. As Table 3.1 illustrates, the rate of growth in this trade area has been noticeable over the last 15 years, and it should remain steady for the foreseeable future.

Year 2020 forecasts project the 5 -mile primary trade area at a population of 12,315 persons, with 4,886 households, and 5,382 housing units. These forecasts indicate that, over the next 5 years, the trade area will grow by 649 persons, 290 households, and 290 housing units. 2015 estimates indicate that households within the 5mile primary trade area have an average annual income of $\$ 67,187$. Five-year forecasts suggest that average annual income of households within this trade area will approach $\$ 69,350$ by 2020.

The U.S. Bureau of the Census Censtats business database indicates that businesses within the 5 -mile primary trade area employ 6,622 persons in a variety of industries. These businesses generate $\$ 267.5$ million annually in employee earnings.

### 3.5 Average Daily Traffic Volumes

In the process of retail site selection, the assessment of traffic flow in front of a candidate parcel is an important element in the determination of a site's viability. Strong pass-by traffic volumes can support, or in some cases even supplant, trade area population as the most important criterion for a development location decision. In the case of the proposed project, the site's superior frontage and visibility along I-75 at the US 441 interchange is a major factor influencing development opportunities for a Walmart Supercenter.

The Florida Department of Transportation's 2014 Annual Average Daily Traffic report ${ }^{2}$ indicates an average daily traffic volume of 55,500 vehicles at the I-75 reporting station closest to the subject property (FDOT Counter 0454). On US 441, the counter closest to the subject property has an average daily traffic count of 20,000 (FDOT Counter 5106). This volume of traffic is substantial, and more than adequate to meet basic site selection thresholds for the considered uses.

[^3]
### 3.6 Primary Trade Area Retail Purchasing Potential and Net Demand Estimation

According to estimates generated by Nielsen Claritas, the 4,596 households within the 5 -mile primary retail trade area spent $\$ 192.3$ million in 2015 on purchases at retail stores and eating/drinking establishments. This is represented in Table 3.1. The "typical" household within the trade area spent $\$ 41,830$ in 2015 at these venues.

This $\$ 192.3$ million volume of consumer expenditures, at a store sales volume of $\$ 300$ per square foot, translates to gross retail trade area demand of 640,845 square feet.

In order to account for dollars spent in local businesses that may offer competitive or complimentary services, FEA obtained an inventory of local commercial establishments engaging in retail sales and dining activities from the Alachua County property appraiser database. This database search identified a total of 70 businesses, with an aggregate space inventory of 513,949 square feet. The inventory of these retail uses is presented in Appendix A of this report.

To arrive at a current day "net demand" estimate for the primary trade area, the local retail supply of 513,949 square feet was subtracted from the gross retail demand estimate of 640,845 square feet. This yields a current-day unmet demand for 126,896 square feet of retail shopping within the primary trade area. The Walmart Supercenter is planned for 158,562 square feet, plus 2,835 square feet for the garden center. The analysis indicates that the unmet shopping demand ( 126,896 sq. feet) within the primary trade area would support 79 percent of retail activity at the proposed Walmart Supercenter. Referring to the ULI retail center trade area guidelines (previously referenced in Section 3.2 of this report), a primary trade area should support 70 to 80 percent of the total shopping activity at a retail center.

The unmet trade area demand previously noted exceeds the requirements necessary to successfully support shopping for the Walmart Supercenter at its proposed size. The quantitative conclusion reached by this analysis is that local demand for the proposed Walmart is legitimate, with sufficient local shopper dollars remaining to support existing area businesses, thus eliminating tangible competitive concerns.

### 3.7 Other Market Demand Considerations

In addition to the primary trade area demand supporting the proposed Walmart site, an important consideration involves the variety of retail product lines the proposed Supercenter will offer, that are currently in very limited supply or non-existent within the local marketplace. Examples of these product lines include:

- Home and Office Electronics
- Business/Office Supplies and Stationery
- Sporting Goods
- Toys and Children's Games
- Full lines of women's, men's, and children's apparel

The local Walmart will fill these under-served market segments, as local residents presently must drive as far as Gainesville to find stores that offer full lines of the aforementioned merchandise.

The access and visibility that will be enjoyed by the Walmart location generates the potential to draw consumers from outside of the trade area. A majority of these "out-of-market" consumers would be interstate auto travelers, including many tourists, who are coming to or from other Florida destinations (e.g., Orlando, Tampa, Miami, Ft. Myers). Interstate traveler demand will help to provide additional support for the Walmart Supercenter, beyond the primary trade area net demand of 126,896 square feet.

The recently opened Lowe's home and building supply store (Lowes) near the subject property does not present a competitive issue for Walmart or its primary trade area, based on 2 important factors. Home and building supply stores serve a very specific and narrow portion of the retail consumer market. Data from the U.S. Consumer Expenditure Survey indicates that less than 5 percent of a typical household's annual retail spending is for items found in these stores. As a result, the primary geographic trade area for a large building supply store is much larger than the primary trade area outlined for Walmart in this study, often extending outward to 10 miles or more. Notwithstanding these considerations, the 129,734 square foot Lowe's store is still included in the competitive supply analysis, for purposes of conservatism. If this store is eliminated from the competitive inventory, the unmet retail demand within the 5mile trade area would increase from 126,896 to 256,630 square feet.

### 3.8 Market Demand Conclusions

The conclusions drawn by this analysis include the following:

- Sufficient unmet demand currently exists within the 5 -mile primary retail trade area to develop a Walmart Supercenter on the subject property.
- Businesses within this primary trade area have been factored into the demand estimation, and sufficient shopper dollars exist to support the Walmart Supercenter, as well as the existing local businesses. Simply put, market area support for the Walmart Supercenter includes the continued successful operation of local area businesses.
- Notwithstanding the abundance of local purchasing power, the 40+/- businesses located along Main Street are mostly noncompetitive with the proposed Walmart Supercenter due to the nature of their consumer offerings. These include specialty retail, restaurants, personal services, and civic services.
- The location of the Walmart Supercenter is advantageous to capture "out-of-market" interstate traveler commerce, which will create additional support above and beyond that generated from primary trade area households.
- The Walmart Supercenter will offer full retail product lines for local shoppers that are not readily available within the local market, and that area residents presently have to travel as far as Gainesville to obtain.
- Uses such as home and building supply stores, which serve a narrow retail market segment, with larger primary trade areas, are not directly competitive with the proposed Walmart Supercenter.
- Future population and household growth will occur within the 5mile primary trade area, providing further support for the Walmart Supercenter and other local businesses.
- Market demand is only one business consideration affecting the sustainability of local area businesses. Other factors that significantly impact store success, not directly attributable to trade area demand, include effective merchandise mix, store management practices, and responsive business plans.
- Based on these factors, the proposed Walmart Supercenter poses no direct competitive threat to existing businesses within the local market, and could actually increase business volume, based on positive traffic generation and capture.


## 4.0: Analysis of Project Local Benefits: Economic and Fiscal Impacts to the City of Alachua from the Walmart Supercenter

### 4.1 Assumptions Used to Estimate Direct Economic and Fiscal Impacts

Table 4.1 below provides a summary of the various assumptions utilized in the formulation of the summary of economic and fiscal impacts for the proposed Walmart Supercenter.

## Table 4.1: Walmart Economic and Fiscal Analysis Background Information and Assumptions

| Proposed Walmart Supercenter Size |  |
| :--- | ---: |
| Store | 158,562 sq. feet |
| Garden Center | 2,835 sq. feet |
| Total | 161,397 sq. feet |

Square feet of Store Space per Full-Time Equivalent Employee

Store Sales Per Square Foot $\$ 300.00$

Avg. Wage, Alachua Co, Retail/Gen Mdse. \$23,956
(Source: Agency for Workforce Innov., Q2 15)
City of Alachua Operating Millage, General Fund (Source: City of Alachua FY 15-16 Budget)
5.9900

RIMS-II Economic Impact Multipliers

| Output | 1.4598 |
| :--- | :--- |

Earnings 0.3917
Employment 13.8786
(Source: U.S. Department of Commerce, Bureau of Economic Analysis)

Average Taxable Value Per Building Sq. Foot
The total economic impacts to Alachua County from the proposed Walmart supercenter were estimated using the RIMS-II economic impact model methodology. RIMS II multipliers can be estimated for any region composed of one or more counties and for any industry, or group of industries, in the national l-O table. These multipliers are best suited for estimating the impacts of small changes on a regional economy. To effectively use the multipliers
for impact analysis, users must provide geographically and industrially detailed information on the initial changes in output, earnings, or employment that are associated with the project or program under study. The multipliers can then be used to estimate the total impact of the project or program on regional output, earnings, and employment.

Systematic analysis of economic impacts must account for the inter-industry relationships within regions because these relationships largely determine how regional economies are likely to respond to project and program changes. Thus, regional input-output (l-O) multipliers, which account for inter-industry relationships within regions, are useful tools for conducting economic impact analysis.

RIMS II is based on an accounting framework called an I-O table. For each industry, an I-O table shows the industrial distribution of inputs purchased and outputs sold. A typical I-O table in RIMS II is derived mainly from two data sources: The U.S. Bureau of Economic Analysis (BEA) national I-O table, which shows the input and output structure of nearly 500 U.S. industries, and BEA's regional economic accounts, which are used to adjust the national I-O table to show a region's industrial structure and trading patterns.

The national I-O table, which shows the input and output structure for approximately 500 industries. Since a particular region may not contain all the industries found at the national level, some direct input requirements cannot be supplied by that region's industries. Input requirements that are not produced in a study region are identified using BEA's regional economic accounts.

The RIMS II method for estimating regional I-O multipliers can be viewed as a three-step process. In the first step, the producer portion of the national I-O table is made region-specific by using four-digit SIC location quotients. In the second-step, the household column from the national I-O table is made region-specific. In the last step, the Leontief inversion approach is used to estimate multipliers. This inversion approach produces output, earnings, and employment multipliers, which can be used to trace the impacts of changes in final demand on the directly and indirectly affected industries.

Empirical tests indicate that RIMS II yields multipliers that are not substantially different in magnitude from those generated by regional I-O models based on highly specified and expensive
surveys. For example, a comparison of 224 industry-specific multipliers from survey-based tables for Texas, Washington, and West Virginia indicates that RIMS II average multipliers overstate the average multipliers from the survey-based tables by approximately 5 percent. For the majority of individual industry-specific multipliers, the difference between RIMS II and survey-based multipliers is less than 10 percent. In addition, RIMS II and survey multipliers show statistically similar distributions of affected industries.

| Industry <br> Category | Spending has to be classified by spending category <br> consistent with the industry classification used by <br> RIMS (see section below on spending categories). |
| :--- | :--- |
| Year of <br> Expenditure | The time of expenditure needs to be specified in <br> order to determine the time period of the <br> economic consequences and in order to adjust the <br> spending to current dollars for use in the estimation <br> of jobs. The RIMS models were calibrated on current <br> dollars and the estimate of jobs requires spending <br> inputs in terms of current dollars. |
| Location | The spending location also needs to be specified so <br> that the multipliers for the appropriate region can <br> be applied. |

In order to apply RIMS II multipliers, direct economic data for the project in question is required. The results of a RIMS II analysis are expressed in terms of three measures of economic activity: Earnings (sometimes expressed as wages and salaries), Output (sometimes referred to as economic activity, or sales), and Jobs.

| Earnings | Earnings refers to a measure, expressed in millions of <br> dollars, of the change in the value earnings that are <br> received by households from the production of regional <br> goods and services for the time period covered by the <br> cost estimate. |
| :--- | :--- |
| Output | This is a measure of the economic activity created by <br> the spending. It refers to the change in the dollar value <br> of production in all sectors of the economy to satisfy the <br> new demands resulting from spending. Each time a <br> dollar changes hands for products or services it increases <br> the measure of output. By including products as well as <br> labor, the output measure is inclusive of and typically <br> significantly larger than the measure of earnings. <br> Economic output is typically referred to as the Gross <br> Domestic Product (GDP) at the national level. |


| Jobs | This measure refers to the employment or jobs expressed <br> as full time person years of employment. The measure <br> refers to person years of employment, regardless of the <br> term over which spending is aggregated in the input. <br> Jobs are estimated by adjusting the year of spending to <br> calibration year dollars. The jobs multiplier is expressed in <br> terms of jobs per million dollars of spending. |
| :--- | :--- |

### 4.2 Local Benefits from Walmart's Presence

A 2005 study published by Global Insight Advisory Services concluded that Walmart's U.S. presence over the 1985-2004 period resulted in consumer savings in excess of $\$ 263$ billion. These savings resulted in a 9.1 percent decline in food-at-home prices, a 4.2 percent decline in commodities prices, and a 3.1 percent overall decline in inflation, as measured by the Consumer Price Index. Walmart's U.S. presence is estimated to have increased aggregate real disposable income by 0.9 percent. This study also estimated that each direct job at Walmart generates an additional 0.39 to 0.55 jobs in the local economy, and creates overall consumer cost savings of approximately 4.0 percent in the local economy. In addition, another 2005 study published jointly by MIT and the U.S. Department of Agriculture Economic Research Service concluded that discount general merchandise retailers such as Walmart create significant benefits to consumers, particularly those with lower and moderate incomes. Taking a direct quote from the final sentence of the MIT/USDA study, "a significant decrease in consumer surplus arises from zoning regulations and pressure group tactics that restrict the entry and expansion of supercenters into particular geographic markets" 3 .

[^4]
### 4.3 Summary of Economic and Fiscal Impacts to the City of Alachua from the Walmart Supercenter

It is estimated that Walmart would employ approximately 403 employees with total annual earnings of $\$ 9.7$ million. Direct business output, measured in store sales, should exceed $\$ 48.4$ million annually. Indirect economic impacts include an additional 268 jobs, $\$ 9.3$ million in annual earnings, and $\$ 22.3$ million in annual output, from area businesses supported by Walmart's presence. Although the indirect impacts would occur throughout the metro area, some component of this spinoff impact would occur within the City of Alachua. With an estimated taxable property value of $\$ 12.5$ million, the Walmart Supercenter is expected to generate more than $\$ 75,000$ per year in ad valorem revenue to the City of Alachua. These impacts are presented in Table 4.2 below.

## Table 4.2 <br> Walmart Economic and Fiscal Summary

Direct Economic Impacts

| Employment | 403 |
| :--- | ---: |
| Annual Earnings | $\$ 9,666,066$ |
| Annual Business Output (Sales) | $\$ 48,419,100$ |

Indirect (Spin-off) Economic Impacts

| Employment (@ 0.47 multiplier) | 268 |
| :--- | ---: |
| Annual Earnings | $\$ 9,299,695$ |
| Annual Business Output (Sales) | $\$ 22,263,102$ |

Fiscal Impacts to City of Alachua
Annual Ad Valorem Revenue, City of Alachua

All Estimates are in 2015-16 Dollars

## APPENDIX:

MARKET AREA COMMERCIAL/RETAIL INVENTORY SOURCE: ALACHUA COUNTY PROPERTY APPRAISER




Property Owner Name


00318013000
00449001000
00473000000
03049002000
03053001003
03061010002
03066006000
03066007000
03067003000
03067006010
03210006000
03210007000
03226001000
03388005000
03534000000
03583000000
03583001000
03584001000
03591000000
03595020001
03595200000
03595200001
03606001000
03610000000
03617000000
03617001000
03617002000
03617004000
03630000000
03631000000
03632000000
03633000000
03644000000
03645000000
03646000000


# WALMART \#3873 -ALACHUA <br> Project № 16-016 (v1.2) <br> November 2016 <br> <br> TRAFFIC IMPACTT ANALYSIS <br> <br> TRAFFIC IMPACTT ANALYSIS CITY OF ALACHUA CITY OF ALACHUA FLORIDA 

 FLORIDA}


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Sanford, FL 32771

## EXECUTIVE SUMMARY

This traffic impact study was conducted to assess the traffic impacts for the proposed Walmart Supercenter in the City of Alachua, Florida. The results of the study documented herein are summarized below:

## Trip Generation

- The proposed 161,397 square foot Walmart Supercenter is projected to generate 5,898 new daily trips and 506 new PM peak hour trips.


## Roadways

- All roadway segments analyzed currently operate at acceptable levels of service during the peak hour and are expected to continue to do so at project build-out (2018).


## Intersections

- All study intersections currently operate at acceptable levels of service during the peak hour and are expected to continue to do so at project build-out.


## Access

- The proposed site driveway on US 441 is projected to operate at an acceptable level of service with the proposed signal control.
- The recommended configuration for the intersection includes dual westbound left-turn lanes and an eastbound right-turn lane serving traffic entering the site. Traffic exiting onto US 441 is served by dual northbound left-turn lanes and dual northbound right-turn lanes.
- The site driveway on US 441 was reviewed to determine the recommended turn lane lengths for each approach. The following turn lane lengths are recommended:

| Turn Lane | Length |
| :--- | :--- |
| EB Right | 330 ft |
| WB Left | 330 ft |
| NB Left | 265 ft |
| NB Right | 185 ft |

The proposed Walmant Superstore in the City of Alachua will not adversely impact the transportation network, which is adequate to support the development.

## PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic \& Mobility Consultants, LLC, a corporation authorized to operate as an engineering business, EB-30024, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

PROJECT: Walmart Store \#3873 Alachua
LOCATION: City of Alachua, Florida
CLIENT: CPH Engineers Inc.

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.


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### 1.0 INTRODUCTION

This Traffic Impact Analysis was prepared to evaluate the transportation impact of the proposed Walmart Supercenter in the City of Alachua, Florida. The analysis was revised and updated in response to comments received from the City of Alachua and the Florida Department of Transportation. The comments and responses are included in Appendix A.

The proposed development is a 158,562 square foot Walmart Supercenter building with a 2,835 square foot seasonal garden center. Therefore, the total gross floor area of the Walmart Supercenter is 161,397 square feet.

The site is located in the southeast quadrant of the I-75/US 441 interchange. Site access will be provided via US 441, which is anticipated to have signal control to serve the development. In addition, secondary access will be provided via the extension of NW 151st Boulevard. The buildout date is anticipated to occur by 2017. However, for purposes of the traffic analysis, the buildout year was conservatively established as the year 2018. Site location and the surrounding roadway network are illustrated in Figure 1. The proposed site plan is included in Appendix B.

The analysis was conducted generally in accordance with the initial study methodology approved for the project, the City of Alachua's requirements, and standard engineering practice. Information used in the analysis includes traffic volumes collected by Traffic \& Mobility Consultants, LLC (TMC), and data obtained from the City of Alachua (City), Alachua County (County), and/or the Florida Department of Transportation (FDOT).

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### 1.1 Study Area

Based on the City of Alachua's Land Development Code, the primary influence area of the proposed development includes all primary roadway segments within $1 / 2$ mile of the site access and any segment where project traffic exceeds $5 \%$ of the segment's capacity. Table 1 summarizes the significance test performed for the study area.

Table 1
Significance Test

| Roadway | Segment | Lanes | Project |  | Segment Capacity | Project Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Distrib | Trips |  |  |
| US 441 | NW 188th St to CR 235A | 4 | 20\% | 101 | 3,200 | 3.2\% |
|  | CR 235A to l-75 | 4 | 37\% | 187 | 3,200 | 5.8\% |
|  | 1-75 to NW 147th Dr | 4 | 52\% | 263 | 3,200 | 8.2\% |
|  | NW 147th Dr to SR 235 | 4 | 34\% | 172 | 3,200 | 5.4\% |
|  | SR 235 to Rachael Blvd | 4 | 19\% | 96 | 3,200 | 3.0\% |
| CR 235A | NWV 138th Ave to US 441 | 2 | 5\% | 25 | 1,050 | 2.4\% |
|  | US 441 to l-75 | 2 | 7\% | 35 | 1,050 | 3.3\% |
| SR 235 | Peggy Rd to US 441 | 2 | 8\% | 41 | 960 | 4.3\% |
|  | US 441 to NW 140th St | 2 | 6\% | 30 | 960 | 3.1\% |

*Significance is defined as an impact of $5 \%$ or more of the segment's capacity

The study includes the following roadway segments and intersections in the vicinity of the site:

Roadways/Limits
US 441 - CR 235A to SR 235

Intersections
US 441 \& CR 235A (Signalized)
US 441 \& NW 167 ${ }^{\text {th }}$ Boulevard (Signalized)
US 441 \& I-75 SB Ramps (Signalized)
US 441 \& I-75 NB Ramps (Signalized)
US 441 \& NW 147th Drive (Signalized)
US 441 \& Main Street (Signalized)
US 441 \& NW 140 ${ }^{\text {th }}$ Street (Signalized)
US 441 \& Site Access (Proposed Signal)

Walmart \#3873 - Alachua

### 2.0 EXISTING ROADWAY ANALYSIS

### 2.1 Existing Traffic Volumes

Existing traffic volumes at the study intersections were collected by TMC for use in this analysis. Intersection turning movement counts were performed on Tuesday, March 8, 2016. A supplemental count was performed at the intersection of US 441 \& NW $167^{\text {th }}$ Boulevard on August 17, 2016. A review of the FDOT peak season factors indicates that the traffic counts were made during the peak season. Therefore, no seasonal adjustment was applied to the field volumes.

The PM peak hour intersection volumes are illustrated in Figure 2. For the most part, the peak hour was observed to occur at 5:00 pm to 6:00 pm, except for the intersection of I-75 northbound ramp and US 441 which peaked at $4: 45 \mathrm{pm}$ to $5: 45 \mathrm{pm}$. For purposes of this analysis, the peak hour was considered to be 5:00 pm to 6:00 pm.

Segment traffic volumes were calculated from the existing intersection approach and departure volumes. The existing turning movement counts, seasonal factor data, and the Q/LOS service volume table are provided in Appendix C.

### 2.2 Roadway Segment Analysis

The existing roadway conditions analysis was performed for the PM peak hour from 5:00 pm to 6:00 pm. The roadway capacity volumes for the study roadway segments were obtained from FDOT's 2013 Generalized Service Volume Tables. The results of the existing PM peak hour roadway analysis are shown in Table 2, which indicates that all roadway segments analyzed are currently operating at an acceptable LOS.

Table 2
Existing Roadway Conditions

| Roadway | Segment | Lanes | Existing Volume | LOS Std | Adopted Capacity | Existing LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US 441 | CR 235A to I-75 | 4 | 2,381 | D | 3,200 | C |
|  | 1-75 to NW 147th Dr | 4 | 2,111 | D | 3,200 | C |
|  | NW 147 ${ }^{\text {th }}$ Dr to SR 235 | 4 | 2,185 | D | 3,200 | C |

Peak hour volumes obtained from existing intersection counts


### 2.3 Intersection Analysis

The study intersections were analyzed in accordance with the procedures of the 2000 Highway Capacity Manual with the use of the Synchro Software (version 9.0). The analysis was conducted using existing PM peak hour volumes and intersection geometry. The results of this analysis, as summarized in Table 3, show that all study intersections currently operate at an acceptable LOS. The Synchro output sheets are included in Appendix D.

Table 3
Existing Intersection Conditions

| Intersection | Control | $\begin{aligned} & \text { LOS } \\ & \text { STD } \end{aligned}$ | EB |  | WB |  | NB |  | SB |  | Overall |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Delay | LOS | Delay | LOS | Delay | Los | Delay | LOS | Delay | Los |
| US 441 \& CR 235A | Signal | D | 15.5 | B | 21.0 | C | 45.8 | D | 45.6 | D | 22.0 | C |
| US 441 \& NW 167th Blvd | Signal | D | 4.6 | A | 2.1 | A | -- | -- | 42.8 | D | 5.8 | A |
| US 441 \& I-75 SB Ramp | Signal | D | 30.2 | C | 4.8 | A | 46.6 | D | 53.0 | D | 16.7 | B |
| US 441 \& I-75 NB Ramp | Signal | D | 6.8 | A | 31.7 | C | 68.6 | E | 51.6 | D | 29.1 | C |
| US 441 \& NW 147th Dr | Signal | D | 19.8 | B | 4.7 | A | 40.6 | D | 48.1 | D | 16.2 | B |
| US 441 \& Main St | Signal | D | 1.4 | A | 2.7 | A | 38.5 | D | 38.2 | D | 5.2 | A |
| US 441 \& NW 140th St | Signal | D | 9.2 | A | 32.4 | C | 42.0 | D | 49.9 | D | 29.0 | C |

All average delay values are in seconds/vehicle

### 3.0 PROJECT TRAFFIC

### 3.1 Trip Generation

The proposed development is a 161,397 square foot Walmart Supercenter. The Institute of Transportation Engineers' Trip Generation Manual, gth Edition was used to calculate the Daily and PM peak hour trip generation of the proposed development. Since the analysis was conducted for a single land use, it is not necessary or appropriate to calculate internal captured trips. The results of the Daily and PM peak hour trip generation for the project are presented in Table \&

Table 4
Trip Generation Analysis

| Description | LU | Quantity | Daily |  | PM Peak Hour Trips |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Rate | Trips | Rate | Enter | Exit | Total |
| Discount Superstore | 813 | 161,397 SF | 50.75 | 8,191 | 4.35 | 344 | 358 | 702 |
| Pass-by Trips for Superstore (28\%) |  |  |  | 2,293 |  | 98 | 98 | 196 |
| Net New Trips |  |  |  | 5,898 |  | 246 | 260 | 506 |

ITE Trip Generation, $9^{\text {th }}$ Edition and ITE Trip Generation Manual, $3^{\text {rd }}$ Edition
The proposed Walmart Supercenter is projected to generate 5,898 new daily trips, of which 506 trips occur during the PM peak hour. The detailed trip generation information sheets are included in Appendix E.

### 3.2 Trip Distribution/Assignment

The trip distribution pattern was developed using the Alachua County Transportation Demand Model and the Florida Standard Urban Transportation Model Structure (FSUTMS). The adopted model structure was modified to include a project specific Traffic Analysis Zone (TAZ). A Select Zone Analysis (SZA) was performed for the project specific TAZ to determine the distribution and assignment of project trips on the transportation network.

Figure 3 illustrates the resulting trip distribution pattern and the model generated trip distribution plot is provided in Appendix F.


### 4.0 PROJECTED TRAFFIC CONDITIONS

The critical intersections and roadway segments were analyzed based on the existing roadway geometry to determine potential impacts and to investigate mitigation possibilities, if necessary. The total projected traffic volumes, which consist of future background traffic and project trips, were assigned to the roadway network.

### 4.1 Background Traffic Growth

In order to estimate background traffic in the build-out year 2018, historical growth rates were calculated based on a review of historical traffic volumes on US 441. Based on historical traffic volumes, a $3 \%$ annual growth rate was applied to all existing traffic volumes in order to obtain the projected 2018 background traffic. Additionally, vested trips provided by the City of Alachua were checked against the $3 \%$ annual growth rate. If the vested trips on the study segment were determined to be greater than the $3 \%$ annual growth rate, then the growth from vested trips was applied to ensure that the maximum potential growth is assumed in the analysis without double counting trips. The volumes projected using the growth rate were determined to be higher than vested trips, therefore, projected 2018 background traffic was based on a 3\% annual growth rate. The growth trend analysis worksheets and the vested trips table are included in Appendix $\mathbb{G}$.

### 4.2 Roadway Segment Analysis

Projected conditions on the roadway segments within the study area were determined by comparing the total projected volume to the segment's service volumes and adopted capacity. Table 5 summarizes the analysis and the projected level of service per roadway segment. All study segments are projected to operate at an acceptable level of service at the build-out year 2018.

Table 5
Projected Roadway Conditions

| Roadway | Segment | Lns | Existing Volume | $\begin{gathered} 3 \% \\ \text { AGR } \end{gathered}$ | Vested <br> Trips | $2018$ <br> Volume* | $\begin{aligned} & \text { LOS } \\ & \text { Std } \end{aligned}$ | Adopted Capacity | Trip Distrib | Project <br> Trips | Total <br> Traffic | $\begin{aligned} & 2018 \\ & \text { LOS } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US 441 | CR 235A to 175 | 4 | 2,381 | 143 | 67 | 2,524 | D | 3,200 | 37\% | 187 | 2,711 | C |
|  | $1-75$ to Access | 4 | 2,111 | 127 | 67 | 2,238 | D | 3,200 | 52\% | 263 | 2,501 | C |
|  | Access to NW 147th Dr | 4 | 2,185 | 131 | 67 | 2,238 | D | 3,200 | 38\% | 192 | 2,430 | C |
|  | NW 147th Dr to SR 235 | 4 | 1,899 | 114 | 67 | 2,316 | D | 3,200 | 34\% | 172 | 2,488 | C |

### 4.3 Intersection Analysis

The study intersections, including the proposed signal at the site access on US 441, were analyzed to determine whether improvements would be required to accommodate the projected traffic volumes at project build-out. Future intersection turning movement volumes were determined by projecting the existing PM peak hour volume to the buildout year 2018 using the $3 \%$ annual growth rate. The projected turning movement volumes are illustrated in Figure 4 and the detailed projected traffic volume calculations are included in Appendix $\mathbf{H}$.

The operating conditions at the intersections were analyzed using the Synchro Software and the methods of the Highway Capacity Manual (2010). Table 6 summarizes the results of the projected intersection conditions at project buildout. The analysis reveals that all study intersections are projected to operate at adequate overall LOS in the year 2018. The detailed Synchro output sheets are provided in Appendix I.

Table 6
Projected Intersection Conditions

| Intersection | Control | $\begin{aligned} & \text { LOS } \\ & \text { STD } \end{aligned}$ | EB |  | WB |  | NB |  | SB |  | Overall |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | Los |
| US 441 \& CR 235A | Signal | D | 16.2 | B | 23.7 | C | 47.7 | D | 46.5 | D | 24.1 | C |
| US 441 \& NW 167th Blvd | Signal | D | 4.5 | A | 16.0 | B | -- | -- | 43.4 | D | 14.2 | B |
| US 441 \& I-75 SB Ramp | Signal | D | 12.1 | B | 8.3 | A | 46.7 | D | 56.1 | E | 13.5 | B |
| US 441 \& I-75 NB Ramp | Signal | D | 6.7 | A | 14.4 | B | 70.5 | $E$ | 60.4 | E | 20.1 | C |
| US 441 \& Access | Signal | D | 24.3 | C | 4.8 | A | 36.9 | D | - | -- | 14.3 | B |
| US 441 \& NW 147th Dr | Signal | D | 3.8 | A | 21.3 | C | 41.2 | D | 49.1 | D | 19.5 | B |
| US 441 \& Main St | Signal | D | 1.7 | A | 3.6 | A | 39.2 | D | 38.6 | D | 6.1 | A |
| US 441 \& NW 140th St | Signal | D | 10.9 | B | 36.9 | D | 45.9 | D | 53.8 | D | 32.2 | C |

All average delay values are in seconds/vehicle

Walmart \#3873 - Alachua Traffic Impact Analysis (v1.2)

Project № 16-016
Page 10
Legend:


Background + [Pass-by] + (Project) = Total

### 4.4 Turn Lane Length Analysis

The site access intersection at US 441 was reviewed to determine the required left turn lane lengths. The recommended and proposed configuration for the intersection is dual westbound left-turn lanes and an eastbound right-turn lane on the US 441 approaches. On the access drive, the approach is recommended with dual northbound left-turn lanes and dual northbound rightturn lanes. Turn lane dimensions were calculated to accommodate queue storage and deceleration distance.

The recommended queue storage was based on the $95^{\text {th }}$ percentile queue from the signal analysis. Deceleration length requirements were obtained from Index 301 of the FDOT Design Standards. The results of the calculations are summarized in Table 7.

Table 7
Recommended Turn Lane Dimensions

| Intersection | Movement | Peak <br> Hour <br> Volume | 95th \%ile Queue | Queue <br> Length ${ }^{1}$ | Design Speed | Decel Distance ${ }^{2}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  <br> Site Access | EB Right | 172 | 3.7 veh | 90 ft | 50 mph | 240 ft | 330 ft |
|  | WB Left | 148 | 3.6 veh | 90 ft | 50 mph | 240 ft | 330 ft |
|  | NB Left | 189 | 4.9 veh | 120 ft | 35 mph | 145 ft | 265 ft |
|  | NB Right | 143 | 1.6 veh | 40 ft | 35 mph | 145 ft | 185 ft |

1. Queue lengths based on signal operations analysis
2. Deceleration length based on FDOT Design Standards, Index 301
3. Turn lane dimensions include taper lengths

It should be noted that all lane lengths listed above include standard 50 -foot tapers for single lanes and 100 -foot tapers for dual lanes. The lane lengths calculated above present minimum required lengths. All applicable FDOT design standards must be adhered to in the design of the project's deceleration lanes.

Walmart \#3873 - Alachua

### 5.0 STUDY CONCEUSIONS

This traffic impact study was conducted to assess the traffic impacts for the proposed Walmart Supercenter in the City of Alachua, Florida. The results of the study documented herein are summarized below:

## Trip Generation

- The proposed 161,397 square foot Walmart Supercenter is projected to generate 5,898 new daily trips and 506 new PM peak hour trips.
Roadways
- All roadway segments analyzed currently operate at acceptable levels of service during the peak hour and are expected to continue to do so at project build-out (2018).
Intersections
- All study intersections currently operate at acceptable levels of service during the peak hour and are expected to continue to do so at project build-out.


## Access

- The proposed site driveway on US 441 is projected to operate at an acceptable level of service with the proposed signal control.
- The recommended configuration for the intersection includes dual westbound left-turn lanes and an eastbound right-turn lane serving traffic entering the site. Traffic exiting onto US 441 is served by dual northbound left-turn lanes and dual northbound right-turn lanes.
- The site driveway on US 441 was reviewed to determine the recommended turn lane lengths for each approach. The following turn lane lengths are recommended:

| Turn Lane | Length |
| :--- | :---: |
| EB Right | 330 ft |
| WB Left | 330 ft |
| NB Left | 265 ft |
| NB Right | 185 ft |

## The proposed Walmart Superstore in the City of Alachua will not adversely impact the transportation network, which is adequate to support the development.

Appendix A
Responses to Comments

November 3, 2016

Ms. Ameera Sayeed, Growth Management
Mr. Tom Cavin, Traffic Operations
FDOT - District 2
2198 Edison Avenue
Jacksonville, Florida 32204
Re: $\quad$ Traffic Impact Study Review for Walmart Store 3873-00, Alachua (US 441 East of I-75) TMC Project № 16-016, FDOT Section No. 26020
City of Alachua, Florida

Dear Ms. Sayeed and Mr. Cavin,
Please find below the response to the comments from the FDOT review memorandum dated August 19, 2016, regarding the above-referenced Traffic Impact Analysis prepared by Traffic \& Mobility Consultants (TMC) dated March, 2016. The FDOT comments are listed in bold typeface and the TMC responses follow in normal typeface.

## TRAFFIC OPERATIONS COMMENTS

Comment 48: The figures should be labeled as Figure 1: not just 1 .
TMC Response: The figures in the revised report were labeled.

Comment 49: Most of the study uses the pm yolumes for impacts/improvements; however, many times throughout the study there is no reference to the volumes being pm volumes. Please describe them as such. And, label them as pm in the tables and figures.

TMC Response: The revised report labels the peak hour trips as PM peak hour trips.

Comment 50: Table 5 should reference project trips as Net New Trips.
TMC Response: Table 5 has been updated to reflect "Net New Trips."

Comment 51: Figure 4 needs to reference as to what the $\square$ and () volumes are.
TMC Response: Figure 4 has been revised to include a legend of trips.

Ms. Ameera Sayeed and Mr. Tom Cavin
Traffic Impact Study Review for Walmart Store 3873-00, Alachua (US 441 East of 1-75)
Response to Comments dated August 19, 2016
Project № 16-016
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Page 2 of 3
Comment 52: The trips shown in Table 4 along with the trip distribution \%'s shown in Figure 3 do not seem to match the turning movements in Figure 4.

TMC Response: The trips were checked and were found to match.

Comment 53: WalMart is just a small portion of the total development. Will this intersection handle the future developments along this connection?

TMC Response: This study considers only the proposed Walmart development. There are currently no known development plans for the other parcels, which are not owned by Walmart. When development is proposed for those parcels, the intersection should be revaluated with those plans.

## GROWTH MANAGEMENT COMMENTS

Comment 54: The land uses and trips calculated are only reported and analyzed for the Walmart. There are two other parcels that should be included in the analysis and total trips added into the analysis.

TMC Response: This study considers only the proposed Walmart development. There are currently no known development plans for the other parcels, which are not owned by Walmart. When development is proposed for those parcels, the intersection should be revaluated with those plans.

Comment 55: What year of the model was used?
TMC Response: The Alachua County Model adjusted for the year 2020 was used.

Comment 56: Walmart has build-out of 2018 but the out parcels and build out date is not accounted for in the TIA.

TMC Response: This study considers the only the proposed Walmart development. There are currently no known development plans for the other parcels, which are not owned by Walmart. When development is proposed for those parcels, the intersection should be revaluated with those plans.

Comment 57: Please provide the model and Synchro files.
TMC Response: The files will be provided by ftp link.

Comment 58: The pass by capture rates are not reasonable and are far too high, given the area, and the travel patterns and especially since the analysis only accounted for the

Ms. Ameera Sayeed and Mr. Tom Cavin
Traffic Impact Study Review for Walmart Store 3873-00, Alachua (US 441 East of I-75)
Response to Comments dated August 19, 2016
Project № 16-016
November 3, 2016
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Walmart and not the out parcels.
TMC Response: The pass-by rates were agreed with the City and are based on ITE information for similar stores. Pass-by trips are included in the analysis of the primary intersection's movements.

Comment 59: The site plans shows a double left and a right and the analyses is based on this - we may need to revisit this once the out parcels and the Walmart trips are calculated and analyses re-calculated.

TMC Response: Noted. The adjacent parcels, which are not owned by Walmart, will be required to perform a traffic analysis and address any additional capacity or operational needs at the intersection.

Comment 60: Two areas of concern at the interchange of 175 and US441. The numbers may change and as well as the analysis after the comments above are addressed. The two turns are the I 75 southbound left turn and the 175 NN ramp - SB left turn at the signal. I beilieve there maybe 1,250 approximately from the interchange to the proposed access point and proposed signalization.

TMC Response: The I-75 ramp intersections were analyzed and they are projected to operate adequately at buildout.

## END OF COMMENTS

We trust these responses adequately address the review comments. A revised analysis has been provided under separate cover. We remain available to discuss this matter further or to answer any questions.


Mr. Brian D. Kanely, P.E.
Volkert, Inc.
3501 South Main Street, Suite 2
Gainesville, Florida 32601
Re: Traffic Impact Study Review for Walmart Store 3873-00, Alachua
TMC Project № 16-016
City of Alachua, Florida

Dear Mr. Kanely,
Please find below the response to the comments from the Volkert, Inc. review memorandum dated May 31, 2016, regarding the above-referenced Traffic Impact Analysis prepared by Traffic \& Mobility Consultants (TMC) dated March, 2016. The Volkert, Inc. comments are listed in bold typeface and the TMC responses follow in normal typeface.

## SECTION 1.1 -STUDY AREA/SIGNIFICANCE TEST

This section of the report describes the study area for the traffic impact analysis. The study area for the project is based on the City's Land Development Code and includes:

- Primary roadway segments within 0.5 miles of the site.
- Any roadway segment where the percent of the project traffic exceeds $5 \%$ of the roadway segment's capacity based on the approved level of service standard (LOS D for US 441).

The calculation of the number of trips assigned (distributed) to each roadway segment is based on the trip distribution plot, which is derived from the Alachua County Transportation Demand Model and the Florida Standard Urban Transportation Model Structure (FSUTMS). A review of the trip generation data and the trip distribution plot demonstrated that the project trips were correctly distributed and assigned to the roadway network. The three roadway segments that require analysis were correctly identified (significance test). Once the limits of the roadway segments for analysis were identified, any existing and proposed traffic signals in those roadway segments must also be analyzed.

Mr. Brian D Kanely, P.E.
Traffic Impact Study Review for Walmart Store 3873-00, Alachua
Response to Comments dated May 31, 2016
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The report identifies seven traffic signals that are within the project limits (significant roadway segments) that need to be reviewed/analyzed. However, the report did not include the new traffic signal at the Public just west of 1-75 (US $441 \&$ NW 167th Blvd). This signal was operational on the day the intersection turning movement counts were obtained (March 8, 2016) and should have been included in the intersections to be analyzed.

The analysis of the roadway segments and intersections (traffic signals) is based on the PM peak hour volumes. The reference to the PM peak hour was omitted from this section of the report (this information is provided in Section 2.2) and should be included in this section for informational purposes.

Report Deficiencies \& Recommended Action:

1. Omitted traffic signal for analysis:
a. The existing traffic signal at US 441 \& NW 157th Blvd (Publix) was omitted from the list of intersections to be analyzed.
b. Add the intersection of US 441 \& NW 157th Blvd to the list of intersections to be analyzed.

TMC Response: The revised analysis includes the intersection of US 441 \& NW $167^{\text {th }}$ Blva.
2. PM peak hour analysis period not stated:
a. This section does not state that the analysis period is the PM peak hour.
b. Include in this section that the analysis period is the PM peak hour and state the time period (5:00-6:00 PM, for example).

TMC Response: The revised analysis states that the PM peak hour on the network generally occurs between the hours of $5: 00 \mathrm{pm}$ to $6: 00 \mathrm{pm}$.

## SECTION 2.1 - EXISTING TRAFFIC VOLUMES

This section of the report describes and documents the existing traffic volumes that are used in the traffic impact analysis and whether or not a seasonal adjustment factor needs to be applied to the traffic volumes. This information is correctly stated.

This section should also state that the analysis period is the PM peak hour and state what that hour is. The PM peak hour information should also be documented on Figure $\mathbf{2}$ which shows the existing intersection volumes. Also, the traffic signal at US 441 \& NW 157th Blvd needs to be included in the analysis.

Report Deficiencies \& Recommended Action:

1. PM peak hour analysis period not stated
a. This section does not state that the analysis period is the PM peak hour.

Mr. Brian D Kanely, P.E.
Traffic Impact Study Review for Walmart Store 3873-00, Alachua
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Project № 16-016
November 3, 2016
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b. Include in this section that the analysis period is the PM peak hour and state the time period (5:00-6:00 PM, for example).

TMC Response: The revised analysis states that the PM peak hour on the network generally occurs between the hours of $5: 00 \mathrm{pm}$ to $6: 00 \mathrm{pm}$.
2. Include the peak hour information in Figure 2.

TMC Response: The revised analysis states on Figure 2 that the PM peak hour on the network generally occurs between the hours of $5: 00 \mathrm{pm}$ to $6: 00 \mathrm{pm}$.
3. Omitted traffic signal for analysis:
a. The existing traffic signal at US 441 \& NW 157th Blvd (Publix) was omitted from the list of intersections to be analyzed.
b. Add the intersection of US 441 \& NW 157th Blvd to the list of intersections to be analyzed and add the traffic volume information for this intersection to Figure 2.

TMC Response: The revised analysis includes the intersection of US 441 \& NW $167^{\text {th }}$ Blvd.

## SECTION 2.2-ROADWAY SEGMENT ANALYSIS

This section of the report describes and documents whether or not the roadway segments meet the level of service (LOS) criteria for US 441. This information is correctly stated on Table 2. The actual time period for the PM peak hour should be stated.

## Report Deficiencies \& Recommended Action:

1. PM peak hour analysis period:
a. This section does not state the actual PM peak hour analysis period.
b. Include in this section the actual PM peak hour time period (5:00-6:00 PM, for example).

TMC Response: The revised analysis states that the PM peak hour on the network generally occurs between the hours of $5: 00 \mathrm{pm}$ to $6: 00 \mathrm{pm}$.

## SECTION 2.3-INTERSECTION ANALYSIS

This section of the report describes and documents whether or not the intersections (traffic signals) meet the LOS criteria for US 441. This information is correctly stated in Table 3. However, the traffic signal at US 441 \& NW 167th Blvd (Publix) was not included in the analysis and needs to be added to Table 3.

Mr. Brian D Kanely, P.E.
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Table 3 shows the existing intersection conditions. For informational purposes, a column should be added to Table 3 that shows the level of service standard for the intersections is LOS $D$.

## Report Deficiencies \& Recommended Action:

1. Omitted traffic signal for analysis:
a. The existing traffic signal at US 441 \& NW 167th Blvd (Publix) was omitted from the list of intersections to be analyzed.
b. Add the intersection of US 441 \& NW 157th BIvd to the list of intersections to be analyzed.

TMC Response: The revised analysis includes the intersection of US 441 \& NW 167 ${ }^{\text {th }}$ Blvd.
2. LOS standard not shown:
a. The intersection LOS standard is not shown on Table 3.
b. Add the LOS standard (LOS D) to Table 3 for informational purposes.

TMC Response: The LOS Standard has been added to Table 3.

## SECTION 3.1 TRIP GENERATION

This section of the report describes and documents the trip generation for the Project. The total and PM peak hour trips are correctly calculated per the ITE Trip Generation Manual, 9th Edition. The report correctly states that the pass-by trip percentage is $28 \%$, per the Trip Generation Manual, and correctly calculates the trip reductions for the pass-by trips that are shown on Table 4 (Pass-by trips are trips that are already on the roadway and passing by the project, and enter/exit the project for convenience rather than make a separate trip to the project at another time.) The only issue with the pass-by trip percentage is whether or not the approving agency arbitrarily places a limit on the pass-by trip percentage. The City of Alachua staff advised they utilize the ITE pass-by trip percentage. After the reduction for pass-by trips, the project will generate a total of 5,898 new net daily trips (506 new PM peak hour trips),

TMC Response: Noted.

## SECTION 3.2 - TRIP DISTRIBUTION/ ASSIGNMENT

This section of the report describes and documents the Project trip distribution and assignment. This information is derived from the Alachua County Transportation Demand Model (long range transportation planning model) and the FSUTMS. The trip distribution is correctly obtained from the trip distribution plot and shown on Figure 3.

The trip distribution shows that $52 \%$ of the trips have an origin/destination (O/D) from west of the new site access road (toward High Springs and I-75) and 48\% of the trips have an

Mr. Brian D Kanely, P.E.
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O/D from east of the new site access road (toward Alachua). Also, of the $\mathbf{5 2 \%}$ of the trips that have an O/D west of the Project, one-third (33\%) of those trips have an O/D on/off l-75.

TMC Response: Noted.

## SECTION 4.1 - BACKGROUND TRAFFIC GROWTH

This section of the report describes and documents the background traffic growth on US 441. Background traffic growth is the increase in traffic volumes that occur on a roadway
due to population increases and travel patterns in the due to population increases and travel patterns in the area that are not related to the Project. The report uses FOOT traffic counts on US 441 to determine the annual increase in background traffic. A growth rate of $3 \%$ was calculated and correctly applied to the future traffic projections.

TMC Response: Noted.

## SECTION 4.2 - ROADWAY SEGMENT ANALYSIS

This section of the report describes and documents the future traffic volumes for the buildout year and calculates the LOS for the roadway segments. The 2018 traffic volumes on the roadway segments (US441) for the buildout year have been correctly calculated (existing traffic volume plus background traffic growth). The total traffic (2018 traffic plus project trips) have been correctly calculated and the 2018 LOS has been correctly determined for 2018.

TMC Response: Noted.

## OTHER ISSUES/COMMENTS ON THE ROADWAY SEGMENT ANALYSIS

The methodology in the report that is used to calculate the future traffic at project buildout (future traffic on US 441 plus project traffic) does not address the following issues:

1. Reserved Trips: The City of Alachua maintains a list of reserved trips on the roadway network. A reserved trip is a trip from a future project that has not yet been built but the trips for that project are already assigned to the roadway network. If the project has not been built by its stated buildout year, the project trips are then removed from the roadway network. The City periodically updates the approved reserved trips on the roadway network in the City. The Report does not include any reserved trips on the impacted roadway segments (US 441). The approved reserved trips should be added to the roadway segments listed in Table 1(Significance Test) to determine the following:
a. If any additional roadway segments meet the $5 \%$ test.
b. Update the LOS for the three roadway segments in Table 1.
c. Update the LOS for the eight signalized intersections being reviewed.

Mr. Brian D Kanely, P.E.
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TMC Response: As agreed in the follow up discussions, the reserved trips were considered and compared to the growth rate applied. In order not to double count and overestimate growth, the higher of either the $3 \%$ annual growth rate or the resenved trips was applied in the revised analysis.
2. Internal Capture Trips: The Report has no discussion of internal capture trips. When a large site has multiple land uses within its boundary (shopping, eating establishments, motor vehicle services, etc.), customers do not have to leave the site boundaries to conduct business at multiple sites; they drive from one establishment to another without using the external pubic road system. These internal trips are called internal capture trips. The number of internal capture trips may or may not impact the total number of project trips at the build out year. The Report should have a short discussion on whether or not internal capture trips were required to be calculated for the Walmart site and the adjacent parcels to the Walmart site.

TMC Response: While ultimately it is anticipated that some internalization of traffic will occur with additional development of the site, this analysis is only for the development of the Walmart Site. There is no information about anticipated development on the adjacent parcels. Therefore, it is not appropriate to address internally captured trips at this juncture.
3. Traffic from Adjacent Land Uses: On the project site plan there are parcels adjacent to the Walmart site that are called "Proposed Seller Retained Property". These parcels are locations for future businesses \{retail/professional business offices/etc.) that will generate future trips that will primarily impact US 441 and the signalized intersection at US 441 \& the new site access road. Per the City, the seller retained parcels adjacent to the Walmart site will be required to produce their own traffic impact statement as they are developed. The issue with a parcel by parcel approach is the geometry of the site access road approaches and the left/right turn lane approaches on US 441 at the new traffic signal are being determined based on only the traffic from the proposed Walmart, not all the traffic from the Walmart and adjacent future development. Once the new site access road, the roadway modifications on US 441 and the new traffic signal is constructed, it would be very difficult to make future roadway and traffic signal modifications at this location due to physical and/or right of way constraints. Although the traffic from the adjacent land uses is not technically an issue for the Walmart project, it is discussed in this independent review because requiring the future adjacent developments to make roadway and/or traffic signal modifications to the site access road and/or the new traffic signal at US 441 may not be practical. Therefore, the design of the site access road and the associated traffic signalization should be designed to provide as much future capacity as possible, even though the design may initially exceed the design requirements for just the Walmart project. The design of the traffic signal and roadway modifications on US 441 should be closely coordinated with the Florida Department of Transportation (FOOT).

Mr. Brian D Kanely, P.E.
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TMC Response: This analysis is only for the development of the Walmart Site. There is no information about anticipated development on the adjacent parcels. The design of the signal is being coordinated with FDOT.

## Report Deficiencies \& Recommended Action:

1. Reserved trips not included in the Report:
a. The City approved reserved trips were not included in the Report.
b. Include the reserved trips in the calculation of future (2018) traffic.

TMC Response: As agreed in the follow up discussions, the reserved trips were considered and compared to the growth rate applied. In order not to double count and overestimate growth, the higher of either the 3\% annual growth rate or the reserved trips was applied in the revised analysis.
2. Internal capture trips not included in the Report:
a. Internal capture trips were not discussed in the Report.
b. Add a short discussion stating internal capture trips were not required to be a component of the Report.

TMC Response: A statement has been added to the revised report explaining that internal capture trips are not a component of this analysis.
3. Traffic from adjacent land uses:
a. There is no discussion in the Report about the traffic impact from the adjacent land uses.
b. Add a discussion in the report about the traffic impact from the development of the adjacent land uses and the need to maximize the turn lane approaches at the new traffic signal at US 441 \& the site access road.

TMC Response: This analysis is only for the development of the Walmart Site. There is no information about anticipated development on the adjacent parcels. The design of the signal is being coordinated with FDOT.

## SECTION 4.3 - INTERSECTION ANALYSIS

This section of the report describes and documents the future traffic volumes for the buildout year and calculates the LOS for the intersections (traffic signals). The methodology utilized to calculate the future intersection LOS was correctly applied. The traffic signal at the new Publix (US 441 \& NW 167th Blvd) and a column stating the intersection LOS standard should be added to Table 6. The approved reserved trips need to be added to the intersection analysis.

Mr. Brian D Kanely, P.E.
Traffic Impact Study Review for Walmart Store 3873-00, Alachua
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Report Deficiencies \& Recommended Action:

1. Omitted traffic signal for analysis:
a. The existing traffic signal at US 441 \& NW 157th Blvd (Publix) was omitted from the list of intersections to be analyzed.
b. Add the intersection of US 441 \& NW 157th Blvd to the list of intersections to be analyzed and to Figure 4.

TMC Response: The revised analysis includes the intersection of US 441 \& NW $167^{\text {th }}$ Blvd.
2. LOS standard not shown:
a. The intersection LOS standard is not shown on' Table 6.
b. Add the LOS standard (LOS D) to Table 6 for informational purposes.

TMC Response: The LOS Standard has been added to Table 6.
3. Reserved trips omitted from the intersection analysis:
a. The reserved trips were omitted from the intersection analysis.
b. Add the approved reserved trips to the intersection analysis for the 2018 buildout year traffic.

TMC Response: As agreed in the follow up discussions, the reserved trips were considered and compared to the growth rate applied. In order not to double count and overestimate growth, the higher of either the 3\% annual growth rate or the reserved trips was applied in the revised analysis.

## SECTION 4.4 - TURN LANE LENGTH ANALYSIS

This section of the Report describes and documents the calculation of the turn lanes for the new traffic signal at US 441 \& the site access road. The methodology utilized to calculate the turn lane lengths was correctly applied.

The issue with the turn lane lengths is the future traffic volumes at project build out are calculated for only the Walmart development (see discussion in Section 4.2). A discussion on the appropriate lengths for the turn lanes at this location needs to occur with the City and the FDOT that will anticipate future traffic from the parcels adjacent to the Walmart project that will be developed in future years.

TMC Response: This analysis is only for the development of the Walmart Site. There is no information about anticipated development on the adjacent parcels. Those developments may be required to evaluate and modify the turn lanes in the future. The design of the signal is being coordinated with FDOT.

Mr. Brian D Kanely, P.E.
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## SECTION 5.0-STUDY CONCLUSIONS AND EXECUTIVE SUMMARY

The Study Conclusions and the Executive Summary need to be modified to reflect the recommended changes discussed in this independent review.

TMC Response: The Conclusions and Executive Summary have been updated to reflect the updated analysis.

## OTHER COMMENTS

## METHODOLOGY LETTER

The City of Alachua did not require a methodology letter for the traffic impact analysis for the Walmart project. Although not required, a methodology letter is beneficial for large development projects because it address up front the components the traffic impact analysis must address. This includes trip generation, reserved trips, internal capture trips, acceptable software for data computations, other agencies involved in the project, etc. By knowing the study requirements and components before the study is started, it makes the job easier for all involved parties. The

City should be encouraged to address the methodology letter issue for large development projects like the Walmart project.

TMC Response: Noted.

## END OF COMMENTS

We trust these responses adequately address the review comments. A revised analysis has been provided under separate cover. We remain available to discuss this matter further or to answer any questions.


Cc: Mr. Justin Tabor, AICP, City of Alachua

Appendix B
Proposed Site Plan


## Appendix C

Existing Intersection Counts, Seasonal Factors, and Service Volumes



15 MINUTE TURNING MOVEMENT COUNTS







CITY: Alachua
county: Alachua Co
(Trucks Only)
US 441
an甘y $M / 3$ _
7













2014 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 2600 ALACHUA COUNTYWIDE

| WEEK | DATES |  | SF | MOCF : PSCF | 0.98 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 01/01/2014 | - 01/04/2014 | 1.01 | 1.03 |  |  |
| 2 | 01/05/2014 | - 01/11/2014 | 1.04 | 1.06 |  |  |
| 3 | 01/12/2014 | - 01/18/2014 | 1.07 | 1.09 |  |  |
| 4 | 01/19/2014 | - 01/25/2014 | 1.05 | 1.07 |  |  |
| 5 | 01/26/2014 | - 02/01/2014 | 1.04 | 1.06 |  |  |
| 6 | 02/02/2014 | - 02/08/2014 | 1.02 | 1.04 |  |  |
| 7 | 02/09/2014 | - 02/15/2014 | 1.01 | 1.03 |  |  |
| * 8 | 02/16/2014 | - 02/22/2014 | 0.99 | 1.01 |  |  |
| * 9 | 02/23/2014 | - 03/01/2014 | 0.99 | 1.01 |  |  |
| *10 | 03/02/2014 | - 03/08/2014 | 0.98 | 1.00 |  |  |
| *11 | 03/09/2014 | - 03/15/2014 | 0.98 | 1.00 |  |  |
| *12 | 03/16/2014 | - 03/22/2014 | 0.97 | 0.99 |  |  |
| *13 | 03/23/2014 | - 03/29/2014 | 0.97 | 0.99 |  |  |
| * 14 | 03/30/2014 | - 04/05/2014 | 0.96 | 0.98 |  |  |
| *15 | 04/06/2014 | - 04/12/2014 | 0.96 | 0.98 |  |  |
| *16 | 04/13/2014 | - 04/19/2014 | 0.95 | 0.97 |  |  |
| *17 | 04/20/2014 | - 04/26/2014 | 0.97 | 0.99 |  |  |
| *18 | 04/27/2014 | - 05/03/2014 | 0.98 | 1.00 |  |  |
| *19 | 05/04/2014 | - 05/10/2014 | 0.99 | 1.01 |  |  |
| *20 | 05/11/2014 | - 05/17/2014 | 1.00 | 1.02 |  |  |
| 21 | 05/18/2014 | - 05/24/2014 | 1.01 | 1.03 |  |  |
| 22 | 05/25/2014 | - 05/31/2014 | 1.01 | 1.03 |  |  |
| 23 | 06/01/2014 | - 06/07/2014 | 1.01 | 1.03 |  |  |
| 24 | 06/08/2014 | - 06/14/2014 | 1.02 | 1.04 |  |  |
| 25 | 06/15/2014 | - 06/21/2014 | 1.02 | 1.04 |  |  |
| 26 | 06/22/2014 | - 06/28/2014 | 1.03 | 1.05 |  |  |
| 27 | 06/29/2014 | - 07/05/2014 | 1.03 | 1.05 |  |  |
| 28 | 07/06/2014 | - 07/12/2014 | 1.04 | 1.06 |  |  |
| 29 | 07/13/2014 | - 07/19/2014 | 1.05 | 1.07 |  |  |
| 30 | 07/20/2014 | - 07/26/2014 | 1.04 | 1.06 |  |  |
| 31 | 07/27/2014 | - 08/02/2014 | 1.03 | 1.05 |  |  |
| 32 | 08/03/2014 | - 08/09/2014 | 1.02 | 1.04 |  |  |
| 33 | 08/10/2014 | - 08/16/2014 | 1.01 | 1.03 |  |  |
| 34 | 08/17/2014 | - 08/23/2014 | 1.00 | 1.02 |  |  |
| 35 | 08/24/2014 | - 08/30/2014 | 1.01 | 1.03 |  |  |
| 36 | 08/31/2014 | - 09/06/2014 | 1.01 | 1.03 |  |  |
| 37 | 09/07/2014 | - 09/13/2014 | 1.01 | 1.03 |  |  |
| 38 | 09/14/2014 | - 09/20/2014 | 1.01 | 1.03 |  |  |
| 39 | 09/21/2014 | - 09/27/2014 | 1.00 | 1.02 |  |  |
| 40 | 09/28/2014 | - 10/04/2014 | 0.99 | 1.01 |  |  |
| 41 | 10/05/2014 | - 10/11/2014 | 0.97 | 0.99 |  |  |
| 42 | 10/12/2014 | - 10/18/2014 | 0.96 | 0.98 |  |  |
| 43 | 10/19/2014 | - 10/25/2014 | 0.97 | 0.99 |  |  |
| 44 | 10/26/2014 | - 11/01/2014 | 0.98 | 1.00 |  |  |
| 45 | 11/02/2014 | - 11/08/2014 | 0.98 | 1.00 |  |  |
| 46 | 11/09/2014 | - 11/15/2014 | 0.99 | 1.01 |  |  |
| 47 | 11/16/2014 | - 11/22/2014 | 1.00 | 1.02 |  |  |
| 48 | 11/23/2014 | - 11/29/2014 | 1.00 | 1.02 |  |  |
| 49 | 11/30/2014 | - 12/06/2014 | 1.01 | 1.03 |  |  |
| 50 | 12/07/2014 - | - 12/13/2014 | 1.01 | 1.03 |  |  |
| 51 | 12/14/2014 - | - 12/20/2014 | 1.01 | 1.03 |  |  |
| 52 | 12/21/2014 - | - 12/27/2014 | 1.04 | 1.06 |  |  |
| 53 | 12/28/2014 - | - 12/31/2014 | 1.07 | 1.09 |  |  |
| * PEAK | SEASON |  |  |  |  |  |
| 09-MAR | 2015 16:07:50 |  |  | 830 UPD |  | 22600 PKSEASON.TXT |

## TABLE 5

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STATE SIGNALIZED ARTERIALS |  |  |  |  |  |  |
| Class 1 ( 40 mph or higher posted speed limit) |  |  |  |  |  |  |
| Lanes | Median | B | C |  |  | E |
| 2 | Undivided | * | 1,300 |  |  | ** |
| 4 | Divided | * | 3,060 |  |  | ** |
| 6 | Divided | * | 4,690 | 4 |  | ** |
| Class III ( 35 mph or slower posted speed limit) |  |  |  |  |  |  |
| Lanes | Median | B | C |  |  | E |
| 2 | Undivided | B | 580 |  |  | 1,280 |
| 4 | Divided | * | 890 |  |  | 2,850 |
| 6 | Divided | * | 1,440 | 4 |  | 4,280 |
| Nom-State Signalizedi Roadway Adjustments <br> (Alter corresponding state volumes by the indicated percent.) <br> Non-State Signalized Roadways - $10 \%$ |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Median \& Turn Lane Adjustments |  |  |  |  |  |  |
|  |  | Exclusive | Exclu |  |  | ment |
| Lanes | Median | Left Lanes | Right |  |  |  |
| 2 | Divided | Yes | No |  |  |  |
| 2 | Undivided | No | No |  |  |  |
| Multi | Undivided | Yes | No |  |  |  |
| Multi | Undivided | No | No |  |  |  |
| - | - | - | Ye |  |  |  |



## BICYCLE MODE ${ }^{2}$

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)
Paved Shoulder/Bicycle

| Lane Coverage | B | C | D | E |
| :---: | :---: | :---: | :---: | :---: |
| $0-49 \%$ | $*$ | 140 | 550 | 1,760 |
| $50-84 \%$ | 170 | 500 | 1,650 | $>1,760$ |
| $85-100 \%$ | 670 | 1,760 | $>1,760$ | $* *$ |

## PEDESTRIAN MODE ${ }^{2}$

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

| Sidewalk Coverage | B | C | D | E |
| :---: | :---: | :---: | :---: | :---: |
| $0-49 \%$ | $*$ | $*$ | 250 | 850 |
| $50-84 \%$ | $*$ | 150 | 780 | 1,410 |
| $85-100 \%$ | 340 | 950 | 1,540 | $>1,760$ |

## BUS MODE (Scheduled Fixed Route) ${ }^{3}$

(Buses in peak hour in peak direction)

| Sidewalk Coverage | $B$ | $C$ | $D$ | E |
| :---: | :---: | :---: | :---: | :---: |
| $0-84 \%$ | $>5$ | $\geq 4$ | $\geq 3$ | $\geq 2$ |
| $85-100 \%$ | $>4$ | $\geq 3$ | $\geq 2$ | $\geq 1$ |

${ }^{1}$ Values shown are presented as peak hour two-way volumes for levels of service and are for the automobile/truch modes unless specifically stated. This table does not constitute a standard and shonld be used only for general plamnuag applections. The computer modek from which this table is derived should be used for more specifie planning applications. The table and deriving computer models should not be used for conidor or intersection design, where more refmed techniques exist Cakulations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual
${ }^{2}$ Level of service for the bis yck and pedestrian modes in this table is based on number of motorized vehicles, not nunber of beychists or pedestrians using the facility
"Buses per hour shown are onty for the peak hour in the single dreetion of the hiyher traffic fow

* Cannot be achieved using table input value defaults.
** Not applicable for that level of service letter grade For the auto mobile mode. volumes greater than level of service D become F because infersection capacites have been reached For the bicycle mode, the level of service letter grade (inclucting F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

[^5]Appendix D
Existing Intersection Analysis

HCM 2010 Signalized Intersection Summary
3: CR 235A \& US441

|  | 4 | $\rightarrow$ | * | 7 | - | 4 | 4 | 4 | 7 | b | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EEL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | T | + | r | \% | 种 | F | \% | 产 | ${ }^{\text {fr }}$ | \% | \% |  |
| Traffic Volume (veh/h) | 28 | 651 | 50 | 123 | 1471 | 82 | 50 | 17 | 79 | 97 | 23 | 48 |
| Future Volume (veh/h) | 28 | 651 | 50 | 123 | 1471 | 82 | 50 | 17 | 79 | 97 | 23 | 48 |
| Number | 7 | 4 | 14 | 3 |  | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | , | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/n | 1863 | 1863 | 1863 | 1583 | 1863 | 1863 | 1863 | 1863 | 1583 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 29 | 685 | 37 | 129 | 1548 | 49 | 53 | 18 | 36 | 102 | 24 | 46 |
| Adj No. of Lanes | 1 | 2 | 1 | 1 | - 2 | , | 1 | 1 | 1 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, \% | 2 | 2 | 2 | 20 | 2 | 2 | 2 | 2 | 20 | 2 | 2 | 2 |
| Cap, veh/h | 197 | 1947 | 871 | 421 | 2035 | 910 | 283 | 248 | 179 | 331 | 86 | 165 |
| Arrive On Green | 0.03 | 0.55 | 0.55 | 0.06 | 0.57 | 0.57 | 0.04 | 0.13 | 0.13 | 0.06 | 0.15 | 0.15 |
| Sat Flow, veh/h | 1774 | 3539 | 1583 | 1508 | 3539 | 1583 | 1774 | 1863 | 1346 | 1774 | 572 | 1097 |
| Grp Volume(v), veh/h | 29 | 685 | 37 | 129 | 1548 | 49 | 53 | 18 | 36 | 102 | 0 | 70 |
| Grp Sat Flow(s), veh/h/ln | 1774 | 1770 | 1583 | 1508 | 1770 | 1583 | 1774 | 1863 | 1346 | 1774 | 0 | 1669 |
| Q Serve(g_s), s | 0.8 | 13.0 | 1.3 | 4.4 | 39.6 | 1.6 | 3.0 | 1.0 | 2.9 | 5.9 | 0.0 | 4.5 |
| Cycle Q Clear(g_c), s | 0.8 | 13.0 | 1.3 | 4.4 | 39.6 | 1.6 | 3.0 | 1.0 | 2.9 | 5.9 | 0.0 | 4.5 |
| Prop in Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.66 |
| Lane Grp Cap(c), veh/h | 197 | 1947 | 871 | 421 | 2035 | 910 | 283 | 248 | 179 | 331 | 0 | 250 |
| VIC Ratio( X ) | 0.15 | 0.35 | 0.04 | 0.31 | 0.76 | 0.05 | 0.18 | 0.07 | 0.20 | 0.31 | 0.00 | 0.28 |
| Avail Cap(c_a), veh/h | 197 | 1947 | 871 | 421 | 2035 | 910 | 283 | 248 | 179 | 331 | 0 | 250 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 16.7 | 15.1 | 12.4 | 10.9 | 19.3 | 11.2 | 42.1 | 45.5 | 46.3 | 41.6 | 0.0 | 45.2 |
| Incr Delay (d2), s/veh | 1.6 | 0.5 | 0.1 | 1.9 | 2.7 | 0.1 | 1.5 | 0.6 | 2.5 | 2.4 | 0.0 | 2.8 |
| Initial Q Delay (d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(95\%),veh/ln | 0.9 | 10.6 | 1.1 | 3.6 | 27.2 | 1.3 | 2.9 | 1.0 | 2.1 | 5.5 | 0.0 | 4.1 |
| LnGrp Delay (d),s/veh | 18.3 | 15.6 | 12.5 | 12.8 | 22.0 | 11.3 | 43.6 | 46.1 | 48.8 | 44.0 | 0.0 | 48.0 |
| LnGrp LOS | B | B | B | B | c | B | D | D | D | D |  | D |
| Approach Vol, veh/h |  | 751 |  |  | 1726 |  |  | 107 |  |  | 172 |  |
| Approach Delay, s/veh |  | 15.5 |  |  | 21.0 |  |  | 45.8 |  |  | 45.6 |  |
| Approach LOS |  | B |  |  | C |  |  | D |  |  | D |  |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration ( $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ), s | 13.0 | 22.0 | 13.0 | 72.0 | 11.0 | 24.0 | 10.0 | 75.0 |  |  |  |  |
| Change Period ( $Y+R \mathrm{Rc}$ ), $s$ | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting (Gmax), s | 7.0 | 16.0 | 7.0 | 66.0 | 5.0 | 18.0 | 4.0 | 69.0 |  |  |  |  |
| Max Q Clear Time (g_c+1), s | 7.9 | 4.9 | 6.4 | 15.0 | 5.0 | 6.5 | 2.8 | 41.6 |  |  |  |  |
| Green Ext Time (p_c), s | 0.0 | 0.4 | 0.0 | 27.4 | 0.0 | 0.4 | 0.0 | 18.8 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 2010 Ctrl Delay |  |  | 22.0 |  |  |  |  |  |  |  |  |  |
| HCM 2010 LOS |  |  | C |  |  |  |  |  |  |  |  |  |

Wal-Mart 3873 5:00 pm 3/8/2016
Synchro 9 Report
Existing v1.1

HCM 2010 Signalized Intersection Summary
12：US441 \＆NW 167th Blvd

|  | ＊ | － | 5 | ＋ | 禹 | （ | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | WBU | WBT | WBR | SBL | SBR |  |  |
| Lane Configurations | \％ | 鯗 | 4 | 产 | 7 | 每年 |  |  |  |
| Traffic Volume（veh／h） | 113 | 629 | 2 | 1214 | 267 | 132 | 36 |  |  |
| Future Volume（veh／h） | 113 | 629 | 2 | 1214 | 267 | 132 | 36 |  |  |
| Number | 7 | 4 |  | 8 | 18 | 1 | 16 |  |  |
| Initial Q（Qb），veh | 0 | 0 |  | 0 | 0 | 0 | 0 |  |  |
| Ped－Bike Adj（A＿pbT） | 1.00 |  |  |  | 1.00 | 1.00 | 1.00 |  |  |
| Parking Bus，Adj | 1.00 | 1.00 |  | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
| Adj Sat Flow，veh／h／ln | 1863 | 1863 |  | 1863 | 1863 | 1863 | 1900 |  |  |
| Adj Flow Rate，veh／h | 126 | 699 |  | 1349 | 297 | 94 | 97 |  |  |
| Adj No．of Lanes | 1 | 2 |  | 2 | 1 | 1 | 1 |  |  |
| Peak Hour Factor | 0.90 | 0.90 |  | 0.90 | 0.90 | 0.90 | 0.90 |  |  |
| Percent Heavy Veh，\％ | 2 | 2 |  | 2 | 2 | 2 | 0 |  |  |
| Cap，veh／h | 307 | 2477 |  | 1888 | 844 | 355 | 323 |  |  |
| Arrive On Green | 0.23 | 1.00 |  | 1.00 | 1.00 | 0.20 | 0.20 |  |  |
| Sat Flow，veh／h | 1774 | 3632 |  | 3632 | 1583 | 1774 | 1615 |  |  |
| Grp Volume（v），veh／h | 126 | 699 |  | 1349 | 297 | 94 | 97 |  |  |
| Grp Sat Flow（s），veh／h／n | 1774 | 1770 |  | 1770 | 1583 | 1774 | 1615 |  |  |
| Q Serve（g＿s），s | 1.6 | 0.0 |  | 0.0 | 0.0 | 5.4 | 6.1 |  |  |
| Cycle Q Clear（g＿c），s | 1.6 | 0.0 |  | 0.0 | 0.0 | 5.4 | 6.1 |  |  |
| Prop In Lane | 1.00 |  |  |  | 1.00 | 1.00 | 1.00 |  |  |
| Lane Grp Cap（c），veh／h | 307 | 2477 |  | 1888 | 844 | 355 | 323 |  |  |
| VIC Ratio（X） | 0.41 | 0.28 |  | 0.71 | 0.35 | 0.26 | 0.30 |  |  |
| Avail Cap（c＿a），veh／h | 307 | 2477 |  | 1888 | 844 | 355 | 323 |  |  |
| HCM Platoon Ratio | 2.00 | 2.00 |  | 2.00 | 2.00 | 1.00 | 1.00 |  |  |
| Upstream Filter（I） | 1.00 | 1.00 |  | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
| Uniform Delay（d），s／veh | 24.8 | 0.0 |  | 0.0 | 0.0 | 40.5 | 40.9 |  |  |
| Incr Delay．（d2），s／veh | 4.0 | 0.3 |  | 2.3 | 1.2 | 1.8 | 2.4 |  |  |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 |  |  |
| \％ile BackOfQ（95\％），veh／ln | 5.2 | 0.2 |  | 1.1 | 0.5 | 5.1 | 10.0 |  |  |
| LnGrp Delay（d），s／veh | 28.8 | 0.3 |  | 2.3 | 1.2 | 42.4 | 43.2 |  |  |
| LnGrp LOS | C | A |  | A | A | D | D |  |  |
| Approach Vol，veh／h |  | 825 |  | 1646 |  | 191 |  |  |  |
| Approach Delay，s／veh |  | 4.6 |  | 2.1 |  | 42.8 |  |  |  |
| Approach LOS |  | A |  | A |  | D |  |  |  |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |
| Assigned Phs |  |  |  | 4 |  | 6 | 7 | 8 |  |
| Phs Duration（ $G+Y+R \mathrm{c}$ ），s |  |  |  | 90.0 |  | 30.0 | 20.0 | 70.0 |  |
| Change Period（Y＋Rc），s |  |  |  | 6.0 |  | 6.0 | 6.0 | 6.0 |  |
| Max Green Setting（Gmax），s |  |  |  | 74.0 |  | 24.0 | 14.0 | 64.0 |  |
| Max Q Clear Time（g＿c＋11），s |  |  |  | 2.0 |  | 8.1 | 3.6 | 2.0 |  |
| Green Ext Time（p＿c），s |  |  |  | 29.3 |  | 0.5 | 0.2 | 27.8 |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |
| HCM 2010 Ctrl Delay |  |  | 5.8 |  |  |  |  |  |  |
| HCM 2010 LOS |  |  | A |  |  |  |  |  |  |

## Notes

HCM 2010 Signalized Intersection Summary
6：US441 \＆I－75 SB Ramp

|  | 3 | $\rightarrow$ | 7 | 1 | ＋ | 4 | － | $\dagger$ | $P$ | \％ | $\frac{1}{1}$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | 受圱 |  | 奇 | 狺 | $\stackrel{7}{1}$ |  | 4 | P |  | ＊ | $\stackrel{7}{7}$ |
| Traffic Volume（veh／h） | 0 | 759 | 42 | 44 | 1510 | 311 | 14 | 7 | 52 | 147 | 5 | 56 |
| Future Volume（veh／h） | 0 | 759 | 42 | 44 | 1510 | 311 | 14 | 7 | 52 | 147 | 5 | 56 |
| Number | 7 | 4 | 14 | 3 | ， | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow，veh／h／n | 0 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 |
| Adj Flow Rate，veh／h | 0 | 799 | 23 | 46 | 1589 | 0 | 15 | 7 | 23 | 155 | 5 | 33 |
| Adj No．of Lanes | 0 | 2 | 0 | 1 |  | 1 |  | 1 | 1 | 0 | 1 | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh，\％ | － | 2 |  |  | 2 |  |  | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 0 | 1435 | 41 | 177 | 1976 | 884 | 164 | 76 | 211 | 273 | 9 | 251 |
| Arrive On Green | 0.00 | 0.82 | 0.82 | 0.20 | 1.00 | 0.00 | 0.13 | 0.13 | 0.13 | 0.16 | 0.16 | 0.16 |
| Sat Flow，veh／h | 0 | 3607 | 101 | 1774 | 3539 | 1583 | 1228 | 573 | 1583 | 1721 | 56 | 1583 |
| Grp Volume（v），veh／h | 0 | 402 | 420 | 46 | 1589 | 0 | 22 | 0 | 23 | 160 | 0 | 33 |
| Grp Sat Flow（s），veh／h／ln | 0 | 1770 | 1845 | 1774 | 1770 | 1583 | 1801 | 0 | 1583 | 1777 | 0 | 1583 |
| Q Serve（g＿s）， s | 0.0 | 9.2 | 9.2 | 2.6 | 0.0 | 0.0 | 1.3 | 0.0 | 1.5 | 10.0 | 0.0 | 2.1 |
| Cycle Q Clear（g＿c），s | 0.0 | 9.2 | 9.2 | 2.6 | 0.0 | 0.0 | 1.3 | 0.0 | 1.5 | 10.0 | 0.0 | 2.1 |
| Prop In Lane | 0.00 |  | 0.05 | 1.00 |  | 1.00 | 0.68 |  | 1.00 | 0.97 |  | 1.00 |
| Lane Grp Cap（c），veh／h | 0 | 723 | 753 | 177 | 1976 | 884 | 240 | 0 | 211 | 281 | 0 | 251 |
| VIC Ratio（ X ） | 0.00 | 0.56 | 0.56 | 0.26 | 0.80 | 0.00 | 0.09 | 0.00 | 0.11 | 0.57 | 0.00 | 0.13 |
| Avail Cap（c＿a），veh／h | 0 | 723 | 753 | 177 | 1976 | 884 | 240 | 0 | 211 | 281 | 0 | 251 |
| HCM Platoon Ratio | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（l） | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay（d），s／veh | 0.0 | 7.3 | 7.3 | 44.3 | 0.0 | 0.0 | 45.6 | 0.0 | 45.7 | 46.7 | 0.0 | 43.4 |
| Incr Delay（d2），s／veh | 0.0 | 3.1 | 3.0 | 3.5 | 3.6 | 0.0 | 0.8 | 0.0 | 1.0 | 8.1 | 0.0 | 1.1 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（95\％），veh／ln | 0.0 | 8.5 | 8.7 | 2.6 | 1.8 | 0.0 | 1.2 | 0.0 | 1.3 | 9.4 | 0.0 | 1.8 |
| LnGrp Delay（d），s／veh | 0.0 | 10.4 | 10.3 | 47.8 | 3.6 | 0.0 | 46.4 | 0.0 | 46.8 | 54.8 | 0.0 | 44.5 |
| LnGrp LOS |  | B | B | D | A |  | D |  | D | D |  | ． |
| Approach Vol，veh／h |  | 822 |  |  | 1635 |  |  | 45 |  |  | 193 |  |
| Approach Delay，s／veh |  | 10.4 |  |  | 4.8 |  |  | 46.6 |  |  | 53.0 |  |
| Approach LOS |  | B |  |  | A |  |  | D |  |  | D |  |
| IImer | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |  |  |  |  |
| Assigned Phs |  | 2 | 3 | 4 |  | 6 |  | 8 |  |  |  |  |
| Phs Duration（ $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ），s |  | 22.0 | 18.0 | 55.0 |  | 25.0 |  | 73.0 |  |  |  |  |
| Change Period（ $Y+\mathrm{Rc}$ ），$s$ |  | 6.0 | 6.0 | 6.0 |  | 6.0 |  | 6.0 |  |  |  |  |
| Max Green Setting（Gmax），s |  | 16.0 | 12.0 | 49.0 |  | 19.0 |  | 67.0 |  |  |  |  |
| Max Q Clear Time（g＿c＋1），s |  | 3.5 | 4.6 | 11.2 |  | 12.0 |  | 2.0 |  |  |  |  |
| Green Ext Time（p＿c），s |  | 0.1 | 0.0 | 24.1 |  | 0.5 |  | 32.2 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 2010 Ctrl Delay |  |  | 10.7 |  |  |  |  |  |  |  |  |  |
| HCM 2010 LOS |  |  | B |  |  |  |  |  |  |  |  |  |

## Notes

Wal－Mart 3873 5：00 pm 3／8／2016
Existing v1．1

HCM 2010 Signalized Intersection Summary
9: US441 \& I-75 NB Ramp

|  | \% | $\rightarrow$ | * | 7 | *- | 4 | 4 | $\dagger$ | $p$ | * | $\frac{1}{1}$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | \% |  | 4 | 骨鱼 | ग7 |  | 4 |  |  | 4 | $\mathrm{T}^{\text {T }}$ |
| Traffic Volume (veh/h) | 58 | 494 | 12 | 38 | 1191 | 108 | 53 | 13 | 8 | 273 | 21 | 643 |
| Future Volume (veh/h) | 58 | 494 | 12 | 38 | 1191 | 108 | 53 | 13 | 8 | 273 | 21 | 643 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 | 1900 | 1863 | 1900 | 1900 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 61 | 520 | 4 | 40 | 1254 | 0 | 56 | 14 | 3 | 287 | 22 | 0 |
| Adj No. of Lanes | 1 | 2 | 0 | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 1 | 2 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 184 | 1620 | 12 | 495 | 1593 | 712 | 102 | 26 | 5 | 400 | 31 | 673 |
| Arrive On Green | 0.07 | 0.90 | 0.90 | 0.03 | 0.45 | 0.00 | 0.08 | 0.08 | 0.08 | 0.24 | 0.24 | 0.00 |
| Sat Flow, veh/h | 1774 | 3600 | 28 | 1774 | 3539 | 1583 | 1367 | 342 | 73 | 1653 | 127 | 2787 |
| Grp Volume(v), veh/h | 61 | 256 | 268 | 40 | 1254 | 0 | 73 | 0 | 0 | 309 | 0 | 0 |
| Grp Sat Flow(s), veh/h/ln | 1774 | 1770 | 1858 | 1774 | 1770 | 1583 | 1781 | 0 | 0 | 1780 | 0 | 1393 |
| Q Serve (g_s), s | 2.2 | 2.4 | 2.4 | 1.4 | 36.2 | 0.0 | 4.7 | 0.0 | 0.0 | 19.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.2 | 2.4 | 2.4 | 1.4 | 36.2 | 0.0 | 4.7 | 0.0 | 0.0 | 19.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 |  | 0.01 | 1.00 |  | 1.00 | 0.77 |  | 0.04 | 0.93 |  | 1.00 |
| Lane Grp Cap(c), veh/h | 184 | 796 | 836 | 495 | 1593 | 712 | 134 | 0 | 0 | 430 | 0 | 673 |
| VIC Ratio(X) | 0.33 | 0.32 | 0.32 | 0.08 | 0.79 | 0.00 | 0.55 | 0.00 | 0.00 | 0.72 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 184 | 796 | 836 | 495 | 1593 | 712 | 134 | 0 | 0 | 430 | 0 | 673 |
| HCM Platoon Ratio | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 22.1 | 3.4 | 3.4 | 16.4 | 28.1 | 0.0 | 53.5 | 0.0 | 0.0 | 41.8 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 4.7 | 1.1 | 1.0 | 0.3 | 4.0 | 0.0 | 15.1 | 0.0 | 0.0 | 9.9 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(95\%),veh/ln | 2.4 | 2.5 | 2.6 | 1.3 | 25.5 | 0.0 | 5.2 | 0.0 | 0.0 | 15.9 | 0.0 | 0.0 |
| LnGrp Delay(d),s/veh | 26.9 | 4.5 | 4.4 | 16.7 | 32.1 | 0.0 | 68.6 | 0.0 | 0.0 | 51.6 | 0.0 | 0.0 |
| LnGrp LOS | C | A | A | B | C |  | E |  |  | D |  |  |
| Approach Vol, veh/h |  | 585 |  |  | 1294 |  |  | 73 |  |  | 309 |  |
| Approach Delay, s/veh |  | 6.8 |  |  | 31.7 |  |  | 68.6 |  |  | 51.6 |  |
| Approach LOS |  | A |  |  | C |  |  | E |  |  | D |  |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Assigned Phs |  | 2 | 3 | 4 |  | 6 | 7 | 8 |  |  |  |  |
| Phs Duration (G+Y+Rc), s |  | 15.0 | 10.0 | 60.0 |  | 35.0 | 10.0 | 60.0 |  |  |  |  |
| Change Period ( $\mathrm{Y}+\mathrm{Rc}$ ) , s |  | 6.0 | 6.0 | 6.0 |  | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting (Gmax), s |  | 9.0 | 4.0 | 54.0 |  | 29.0 | 4.0 | 54.0 |  |  |  |  |
| Max Q Clear Time (g_c+11), s |  | 6.7 | 3.4 | 4.4 |  | 21.1 | 4.2 | 38.2 |  |  |  |  |
| Green Ext Time (p_c), s |  | 0.0 | 0.0 | 17.3 |  | 1.1 | 0.0 | 9.9 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 2010 Ctrl Delay |  |  | 29.1 |  |  |  |  |  |  |  |  |  |
| HCM 2010 LOS |  |  | C |  |  |  |  |  |  |  |  |  |

HCM 2010 Signalized Intersection Summary
13: NW 147th St \& US441

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

HCM 2010 Signalized Intersection Summary
17: Main St \& US441

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

HCM 2010 Signalized Intersection Summary

|  | 4 | $\cdots$ | $\cdots$ | 7 | 4－ | ， | 4 | $\dagger$ | $P$ | \％ | － | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | ED | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SEL | SBT | SBR |
| Lane Configurations | $\cdots$ | 产\} |  | 年 | 早 |  | 年 | 8 |  | 易 | 両 |  |
| Traffic Volume（veh／h） | 121 | 457 | 137 | 138 | 1059 | 101 | 151 | 110 | 95 | 49 | 129 | 76 |
| Future Volume（veh／h） | 121 | 457 | 137 | 138 | 1059 | 101 | 151 | 110 | 95 | 49 | 129 | 76 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow，veh／h／ln | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate，veh／h | 127 | 481 | 102 | 145 | 1115 | 77 | 159 | 116 | 68 | 52 | 136 | 57 |
| Adj No．of Lanes | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 299 | 1261 | 266 | 569 | 1484 | 102 | 307 | 257 | 151 | 290 | 229 | 96 |
| Arrive On Green | 0.18 | 0.87 | 0.87 | 0.10 | 0.44 | 0.44 | 0.08 | 0.23 | 0.23 | 0.03 | 0.18 | 0.18 |
| Sat Flow，veh／h | 1774 | 2910 | 614 | 1774 | 3360 | 232 | 1774 | 1102 | 646 | 1774 | 1248 | 523 |
| Grp Volume（v），veh／h | 127 | 291 | 292 | 145 | 587 | 605 | 159 | 0 | 184 | 52 | 0 | 193 |
| Grp Sat Flow（s），veh／h／ln | 1774 | 1770 | 1754 | 1774 | 1770 | 1822 | 1774 | 0 | 1749 | 1774 | 0 | 1770 |
| Q Serve（ $\mathrm{g}_{\text {＿}} \mathrm{s}$ ， s | 4.3 | 3.9 | 4.0 | 5.0 | 33.3 | 33.3 | 8.5 | 0.0 | 10.8 | 2.8 | 0.0 | 12.0 |
| Cycle Q Clear（g＿c），s | 4.3 | 3.9 | 4.0 | 5.0 | 33.3 | 33.3 | 8.5 | 0.0 | 10.8 | 2.8 | 0.0 | 12.0 |
| Prop In Lane | 1.00 |  | 0.35 | 1.00 |  | 0.13 | 1.00 |  | 0.37 | 1.00 |  | 0.30 |
| Lane Grp Cap（c），veh／h | 299 | 767 | 760 | 569 | 782 | 805 | 307 | 0 | 408 | 290 | 0 | 325 |
| V／C Ratio（X） | 0.42 | 0.38 | 0.38 | 0.25 | 0.75 | 0.75 | 0.52 | 0.00 | 0.45 | 0.18 | 0.00 | 0.59 |
| Avail Cap（c＿a），veh／h | 299 | 767 | 760 | 569 | 782 | 805 | 307 | 0 | 408 | 290 | 0 | 325 |
| HCM Platoon Ratio | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（1） | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay（d），s／veh | 18.3 | 4.8 | 4.8 | 14.3 | 28.0 | 28.0 | 34.8 | 0.0 | 39.4 | 38.0 | 0.0 | 44.9 |
| Incr Delay（d2），s／veh | 4.4 | 1.4 | 1.5 | 1.1 | 6.6 | 6.4 | 6.1 | 0.0 | 3.6 | 1.3 | 0.0 | 7.8 |
| initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（95\％），veh／ln | 4.4 | 3.8 | 3.8 | 4.6 | 24.4 | 25.0 | 8.2 | 0.0 | 9.5 | 2.7 | 0.0 | 10.7 |
| LnGrp Delay（d），s／veh | 22.6 | 6.2 | 6.3 | 15.4 | 34.6 | 34.4 | 40.9 | 0.0 | 43.0 | 39.4 | 0.0 | 52.7 |
| LnGrp LOS | C | A | A | B | C | C | D |  | D | D |  | D |
| Approach Vol，veh／h |  | 710 |  |  | 1337 |  |  | 343 |  |  | 245 |  |
| Approach Delay，s／veh |  | 9.2 |  |  | 32.4 |  |  | 42.0 |  |  | 49.9 |  |
| Approach LOS |  | A |  |  | C |  |  | D |  |  | D |  |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration（ $G+Y+R \mathrm{c}$ ）， s | 10.0 | 34.0 | 18.0 | 58.0 | 16.0 | 28.0 | 17.0 | 59.0 |  |  |  |  |
| Change Period（ $Y+R \mathrm{c}$ ），s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting（Gmax），s | 4.0 | 28.0 | 12.0 | 52.0 | 10.0 | 22.0 | 11.0 | 53.0 |  |  |  |  |
| Max Q Clear Time（g＿c＋11），s | 4.8 | 12.8 | 7.0 | 6.0 | 10.5 | 14.0 | 6.3 | 35.3 |  |  |  |  |
| Green Ext Time（p＿c），s | 0.0 | 2.0 | 0.1 | 15.4 | 0.0 | 1.4 | 0.1 | 10.1 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 2010 Ctrl Delay |  |  | 29.0 |  |  |  |  |  |  |  |  |  |
| HCM 2010 LOS |  |  | C |  |  |  |  |  |  |  |  |  |

## Appendix E

ITE Trip Generation Information

# Land Use: 813 Free-Standing Discount Superstore 

## Description

The discount superstores in this category are similar to the free-standing discount stores described in Land Use 815 with the exception that they also contain a full service grocery department under the same roof that shares entrances and exits with the discount slore area The stores usually offer a variety of customer sevices. centralized cashiering and a wide range of products. They rypically maintain long store hours 7 days a week The stores included in this land use are often the only ones on the site. but they can also be found in mutuai operation with a pelated or unreated garden center andor service station, or as a part of a shopping center, with or without their own dedicated parking area Free-standing discount store (Land Use 815 is a related use.

## Additional Data

Peak hours of the generator- -
The weekday A.M peak nour was generally between 10.00 a m , and 11.00 am . The weekday PM peak hour vared between 12.00 pm and 5.00 pm The Saturday anc Sunday peak hours varied between $12: 00 \mathrm{pm}$ and $5.00 \mathrm{p} . \mathrm{m}$

The weighted average tuck trip generation rates from approxmately 30 sites surveyed for this land use are summarized in the table below. The average gross noor area of these faclities is 206,000 square feet.

| Weighted Average Truck Trip <br> Generation Rate |
| :--- | :---: |
| Weekday (trip ends per 1,000 square feet) <br> Weekday A.M. Peak Hour of Adjacent Street Traffic 0.87 <br> Weekday P.M Peak Hour of Adjacent Street Traffic 0.05 <br> Weekday A.M. Peak Hour of Generator 0.03 <br> Weekday PM. Peak Hour of Generator 0.06 <br> Saturday 0.04 <br> Saturday Peak Hour of Generator 0.59 <br> Sunday 0.04 <br> Sunday Peak Hour of Generator 0.43\begin{tabular}{l\|l|}
\hline
\end{tabular} |

One source provided information on trip generation rates for what the study defined as "typical" and "peak" seasons. These data indicated that weekcay trip generation rates were similar in both seasons. However, trip generation rates on Saturdays during peak season were 13 to 20 percent higher than a typucal season, Sunday tates were found to be 6 to 10 percent higher. For the purposes of this analysis peak' season was defined as the period petween the week after

Thanksgivng and the week prio to Christmat, "ypical" season was cefined as September through mod-November when tronsutions are close to average The seasonal trip generation information provided was basec on a smple of five sites
information on approxtm ate nouply variation in free-standing discount superstore traffic is shown in the table below. It shoute be noted however, that the information contained in this table is based on a limited sample size. Therefore caution should be exercised when appiying the data. Also, some informatoon provided in the table may conflict with the results obtained by applying the average rate or regression equations When this occurs it is suggested that the results from the average rate or regression equations be used as they are based on a larger number of studtes

Hourly Variation in Freessanding Discoun Superstore Traftic

| Time | Average Weahday |  | Average Sakurdey ${ }^{\text {a }}$ |  | Average Sunday: |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | percent of 24-Hour Entering Traffic | Percant of 2-Hour Exiting Tratic | Parcent of 24.hour Entering Traffic |  24- B (our Exiting Tratilie | Perceme of 2 2. Hour Entaring Traffic | Parcant of 24.How Exiting Traflic |
| 6am-7am | 1.5 | 1.2 | 1.0 | 11 | 0.9 | 1.3 |
| 7am-8am | 26 | 24 | 22 | 2.1 | 20 | 2.3 |
| 8am-9am | 41 | 3.3 | 38 | 32 | 3.4 | 3.4 |
| 9am-10am | 6.0 | 46 | 57 | 4.6 | 5.4 | 5.1 |
| 10am-11 am | 7.3 | 6.0 | 70 | 6.2 | 7.2 | 5.8 |
| 11am-12pm | 75 | 73 | 34 | 7.4 | 8.6 | 7.5 |
| 12p.m-1pm | 83 | 7.7 | 9.0 | 8.0 | 9.4 | 8.0 |
| 10.m-2pm | 78 | 77 | 8.9 | 8.6 | 9.5 | 92 |
| 2pm-3pm | 80 | 7.7 | 84 | 75 | 8.3 | 8.6 |
| 3pm-4pm. | 77 | 7.7 | 7.6 | 79 | 8.4 | 8.7 |
| 4pm-5pm. | 78 | 8.0 | 74 | 7.7 | 7.9 | 7.8 |
| 5 pm .6 pm . | 7.1 | 73 | 70 | 7.5 | 6.9 | 7.2 |
| 6p.m-7pm. | 6.7 | 67 | 63 | 6.8 | 6.4 | 6.7 |
| $7 \mathrm{p} . \mathrm{m} .-8 \mathrm{pm}$ | 57 | 6.1 | 5.4 | 5.9 | 5.0 | 5.1 |
| 8p.m. $\because \mathrm{pm}$ | 4.4 | 5.2 | 44 | 50 | 4.0 | 3.6 |
| 9p.m-10pm | 3.0 | 40 | 35 | 3.7 | 29 | 2.9 |
| 10pm-6a.m. | 4.5 | 7.2 | 3.9 | 6.4 | 38 | 6.8 |

Sites ranged in sze from 123.000 to 224.000 square feet gross floor atea

- Source mumbers - 354,595 and 018 based on 11 studies

Source numbers - 354 anc 618 based on nome stwes

- Source number - 354 , based an eigry studies

Garden centers conained with the principal outside faces of the exterior building walls were included in the gross square floor areas reported Outdoor or fenced-in areas outside the principal
faces of the exterior walls were exchuded Please refer to Voume 1, User's Guide, for a more detailed defintion of gross floor area.

Several sites included in this land use indicated the presence of fencedicovered space
The sites were surveyed between the 1990 s and the 2000 s throughout the United States
To assist in the future analysis of this land use. it is important to collect and include intormation on the presence and size of garden centers. outdoor fenced-in space and service stations in trip generation data submissions.

## Source Numbers

$354,522,577,595,607,609,612618625630636654,652,661,700,731,735$

# Free-Standing Discount Superstore 

(813)

Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area On a: Weskday

Number of Studies: 65<br>Average 1000 Sq. Feet GFA: 196<br>Directional Distribution: $50 \%$ entering, $50 \%$ exiting

Trip Ceneration per 1000 Sq. Feet Cross Floor Area

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 50.75 | $21.39 \cdot 85.01$ | 14.73 |

## Data Plot and Equation



# Free-Standing Discount Superstore (813) 

Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area On a: Weekday,<br>Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

Number of Studies: 86
Average 1000 Sq. Feet GFA: 200
Directional Distribution: $49 \%$ entering, $51 \%$ exiting
Trip Generation per 1000 Sq. Feet Grose Fioor Area

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 4.35 | $1.83 \cdot 7.40$ | 2.36 |

Data Plol and Equation

Table 5.2
Pass-By Trips and Diverted Linked Trips
Land Use 813-Free-Standing Discount Superstore

| BITE <br> $11,000 \mathrm{Sa}$. FT. GRA | LOCATHON | WEEKDAY sumvey DATE | NO. OF NTERVEWS | $\begin{aligned} & \text { TIME } \\ & \text { PERYOD } \end{aligned}$ | PRIMARY TRIP (\%) | NON-PASSBy trup (\%) | DVERTED LINKED TRAP (\%) | $\begin{aligned} & \text { PASSEEV } \\ & \text { TAIP }(\%) \end{aligned}$ | SOURCE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 146 | North Oimstead, OH | Sept. 1996 | 210 | 2:45-6:45 p.m. | - | 69 | - | 31 | Mid-Ohio Regional Planning Commission |
| 130 | Ashtabula, OH | Sept. 1996 | 204 | 2:45-6:45 pm. | - | 75 | - | 25 | Mid-Ohio Regional Planning Commission |
| 102 | Bryan, OH | Nov. 1996 | 100 | 2:46-6:45 p.m. | - | 60 | - | 40 | Mid-Ohio Regional Planning Commission |
| 102 | Oxford, OH | Oct. 1996 | 137 | 2:45-6:45 cm | - | 72 | - | 28 | Mid-Ohlo Reglonal Planning Commission |
| 218 | Euclid, OH | Sept. 1996 | 185 | 2:45-6:45 pm. | - | 77 | - | 23 | Mild-Ohio Regional Planning Commission |
| 173 | Mansfield, OH | Oct. 1996 | 158 | 2:45-6:45 p.m. | - | 76 | - | 24 | Mid-Ohio Regional Planning Commission |
| 167 | Hillsboro. OH | Oct. 1996 | 172 | 2:45-6:45 p.m. | - | 70 | - | 30 | Mid-Ohio Regional Planning Commission |
| 167 | Mentor, OH | Sept. 1996 | 205 | 2:45-6:45 pm | - | 75 | - | 25 | Mid-Ohio Regional Planning Commission |

Appendix F
Trip Distribution Plot


## Appendix G

Growth Rate Calculations

| *K FACTOR | D FACTOR | T FACTOR |
| ---: | ---: | ---: |
| $\cdots-----\cdots-\cdots$ | 5.40 |  |
| 9.50 | 57.40 | 5.00 |
| 9.50 | 57.80 | 4.90 |
| 9.50 | 58.40 | 5.50 |
| 9.50 | 58.80 | 5.10 |
| 10.13 | 59.87 | 6.20 |
| 10.04 | 57.81 | 7.30 |
| 10.17 | 57.73 | 5.70 |
| 10.22 | 58.44 | 6.70 |
| 9.98 | 59.05 | 19.60 |
| 10.10 | 58.20 | 9.10 |
| 10.20 | 62.30 | 12.10 |
| 10.20 | 59.50 | 11.80 |
| 10.00 | 56.10 | 8.70 |
| 10.50 | 61.30 | 7.50 |
| 10.30 | 61.40 | 6.80 |



TRAFFIC TRENDS
US 441 -- 0.2 MI NW of SR 93

| County: | Alachua |
| :--- | :---: |
| Station \#: | 461 |
| Highway: | US 441 |





[^0]:    * System power factor and THD is tested and specified at 120 V input and maximum load conditions.

[^1]:    ${ }^{1}$ Source: Woods \& Poole Economics. 2015 estimate as reported the University of Florida Bureau of Economic and Business Research: 254,893

[^2]:    ${ }^{2}$ In Year 2009 dollars. Source: Woods and Poole Economics, Inc.
    ${ }^{3}$ In 1988, there were 2,300 housing starts in the County.

[^3]:    ${ }^{2}$ Source: FDOT website http://www2.dot.state.fl.us/FloridaTrafficOnline. Represents most recent data available.

[^4]:    ${ }^{3}$ "Consumer Benefits from the Increased Competition in Shopping Outlets: Measuring the Effect of Wal-Mart". Hausman, J. and Leibtag, E. October, 2005.

[^5]:    Source:
    Florida Department of Transportation
    Systems Planning Office
    

