

## REVISED City of Apopka Planning Commission Meeting Agenda October 13, 2015 5:01 PM @ CITY COUNCIL CHAMBERS

## I. CALL TO ORDER

If you wish to appear before the Planning Commission, please submit a "Notice of Intent to Speak" card to the Recording Secretary.

## **II. OPENING AND INVOCATION**

## **III. APPROVAL OF MINUTES:**

<u>1</u> Approve minutes of the Planning Commission special meeting held August 25, 2015, at 5:01 p.m.

## IV. SITE PLANS:

- <u>1.</u> FINAL DEVELOPMENT PLAN (MINOR) PLYMOUTH SOUTH POWER SUBSTATION – Duke Eneregy, c/o Poulos & Bennett, LLC, for property located at 620 Superior Commerce Boulevard. (Parcel ID #: 06-21-28-8468-04-002)
- 2. SUBDIVISION REPLAT COOPER PALMS COMMERCE PARK REPLAT LOTS 7 & 9 – Property Industrial Enterprises, Inc., c/o Michael Cooper, located south of 1st Street, north of 3rd Street, east of South Bradshaw Road, and west of S. Hawthorne Avenue.

## V. PUBLIC HEARING:

 COMPREHENSIVE PLAN – SMALL SCALE – FUTURE LAND USE AMENDMENT – Ever Meadow - Littlejohn Engineering Associates, c/o George Kramer, from Residential Very Low Suburban (0-2 du/ac) to Commercial (Max. 0.25 FAR), for property at 4448 Chandler Road. (Parcel ID #: 18-20-28-0000-00-117)

## VI. OLD BUSINESS:

## VII. NEW BUSINESS:

## VIII. ADJOURNMENT:

All interested parties may appear and be heard with respect to this agenda. Please be advised that, under state law, if you decide to appeal any decision made by the City Council with respect to any matter considered at this meeting or hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which record includes a testimony and evidence upon which the appeal is to be based. The City of Apopka does not provide a verbatim record.

In accordance with the American with Disabilities Act (ADA), persons with disabilities needing a special accommodation to participate in any of these proceedings should contact the City Clerk's Office at 120 East Main Street, Apopka, FL 32703, telephone (407) 703-1704, no less than 48 hours prior to the proceeding.

## Page 3

## Backup material for agenda item:

1 Approve minutes of the Planning Commission special meeting held August 25, 2015, at 5:01 p.m.

## MINUTES OF THE PLANNING COMMISSION SPECIAL MEETING HELD ON AUGUST 25, 2015, AT 5:01 P.M. IN THE CITY COUNCIL CHAMBERS, APOPKA, FLORIDA.

**MEMBERS PRESENT:** James Greene, Robert Ryan, Tony Foster, Jeremiah Jaspon, Linda Laurendeau, and Pam Toler

**ABSENT:** Melvin Birdsong, Orange County Public Schools (Non-voting)

**OTHERS PRESENT:** David Moon, AICP - Planning Manager, Rogers Beckett - Special Projects Coordinator, Kyle Wilkes - Planner II, Robert Sargent - Public Information Officer, Andrew Hand, Esq., John Herbert, Jeff Banker, Jose' Cantero, Suzanne Kidd, Steve Francis, Ed Velazquez, Teresa Sargeant, and Jeanne Green – Community Development Department Office Manager/Recording Secretary.

**OPENING AND INVOCATION:** Chairperson Greene called the meeting to order and asked for a moment of silent prayer. The Pledge of Allegiance followed.

**APPROVAL OF MINUTES:** Chairperson Greene asked if there were any corrections or additions to the regular meeting minutes of August 11, 2015, at 5:01 p.m. minutes.

Motion: Tony Foster made a motion to approve the Planning Commission minutes from the regular meeting on August 11, 2015, meeting at 5:01 and seconded by Pam Toler. Aye votes were cast by James Greene, Robert Ryan, Tony Foster, Jeremiah Jaspon, Linda Laurendeau, and Pam Toler (6-0). (Vote taken by poll.)

SWEARING-IN - Mr. Hand swore-in staff, the petitioners, and affected parties.

**CHANGE OF ZONING – CANTERO HOLDINGS LLC** – Mr. Greene stated this is a request to recommend approval of the change of zoning for Cantero Holdings, LLC, from AG (Agriculture) to AG-E (Agriculture Estates) for the property located east of Golden Gem Road, north of Ponkan Road.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak. No one spoke.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item. No one spoke.

<u>Staff Presentation</u>: David Moon, AICP, Planning Manager, stated this is a request for a change of zoning from AG (Agriculture) to AG-E (Agriculture Estates) for the property owned by Cantero Holdings, LLC and the applicant is the City of Apopka. The property is located east of Golden Gem Road, north of Ponkan Road. The existing use is timberland and the proposed use is single-family homes. The Future Land Use is Rural Settlement (1 du/5 acres). The tract size is 81.39 +/- acres. The existing maximum allowable development is 16 Residential Units and the proposed is 32 Residential Units.

The subject properties were annexed into the City of Apopka on December 1, 2004, through the adoption of Ordinance No. 1692, 1693, 1694 and 1695.

The proposed city zoning category is comparable to the densities and intensities and uses allowed under the existing "county" zoning classification, and the proposed zoning change is compatible with the character of the surrounding area. The property owner intends to develop the property as twelve (12) single-family residential lots. The AG-E zoning category does not allow for trailer homes and requires a minimum house livable area of 2,200 sq. ft., a minimum lot area of two and a half acres, and a minimum lot width of 150 feet.

Staff has analyzed the proposed amendment and determined that adequate public facilities exist to support this zoning change (see attached Zoning Report).

The proposed zoning classification is consistent with the Future Land Use Designation assigned to the property.

The impact on the number of residential units under the proposed rezoning will be de minimus and, therefore, a school capacity enhancement agreement with OCPS is not necessary.

The subject properties are located within the "Northern Area" of the Joint Planning Area with Orange County. The subject properties are not located within any other city zoning overlay or protection area.

The JPA requires the City to notify the County 30 days before any public hearing or advisory board. The City properly notified Orange County on July 24, 2015.

Land Use & Traffic Compatibility: The subject property fronts and is accessed by a local roadway (Golden Gem Road).

*Comprehensive plan compliance*: The proposed AG-E zoning is consistent with the City's Rural Settlement (1 du/5 acres) Future Land Use designation and with the character of the surrounding area and future proposed development. The AG-E zoning classification is one of the acceptable zoning categories allowed within the Rural Settlement Future Land Use category. Development Plans shall not exceed the density allowed in the adopted Future Land Use Designation.

AG-E District Requirements:

Minimum Liv	ing Area:	2,200 sq. ft.
Minimum Site Area:		At 2.5 acres (or 108,900 sq. ft.)
Minimum Lot	Width	150
Setbacks:	Front:	45 ft.
	Rear:	50 ft.
	Side:	35 ft.
	Corner	35 ft.

Based on the above zoning standards, the subject parcels comply with code requirements for the AG-E district.

## Bufferyard Requirements:

- 1. Developments shall provide a minimum six-foot high brick or stone finished wall adjacent to all external roadways, erected inside a minimum ten-foot landscaped bufferyard. Landscape materials shall be placed adjacent to the right-of-way, on the exterior of the buffer wall.
- 2. Areas adjacent to agriculture districts or activities shall provide a minimum five foot bufferyard and a minimum six-foot high brick or stone finished wall unless acceptable alternatives are submitted for approval.

*Allowable Uses*: Single-family dwellings providing they are consistent with the stated purpose of this zoning district, commercial wholesale foliage plant production nursery, livestock barns and stables, crop and animal production and the buildings and structures necessary to support such production and other accessory uses in accordance with article VII of the Apopka Land Development Code.

The Development Review Committee recommends approval of the change in zoning from AG to AG-E for Cantero Holdings, LLC subject to the information and findings in this staff report.

This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

The Planning Commission's Role is advisory to City Council. The Planning Commission may recommend to approve, deny or to approve with conditions.

Petitioner Presentation: Jose' Cantero, Cantero Holdings LLC, 12601 Avalon Road, Winter Garden, Florida, stated that they were in agreement with staffs' recommendation and was available to answer any questions the Commission may have.

Affected Party Presentation: None.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

In response to a comment by Mr. Foster, Mr. Moon stated that the current AG (Agricultural) zoning would allow mobile homes to be installed on this property. The applicant requested the change of zoning to AG-E (Agricultural Estates) which does not allow mobile homes. Additionally, the minimum living area for the single-family residences under the AG-E zoning category is 2,200 sq. ft.

Motion: Tony Foster made a motion to recommend approval of the Change in Zoning from AG (Agriculture) to AG-E (Agriculture Estates) for the property owned by Cantero Holdings, LLC, located east of Golden Gem Road, north of Ponkan Road; subject to the information and findings in the staff report; and Linda Laurendeau seconded the motion. Aye votes were cast by James Greene, Robert Ryan, Tony Foster, Jeremiah Jaspon, Linda Laurendeau, and Pam Toler (6-0). (Vote taken by poll.)

**CHANGE OF ZONING – 3<sup>rd</sup> AMENDMENT TO PLANNED UNIT DEVELOPMENT MASTER PLAN – MULLINAX FORD OF CENTRAL FLORIDA, INC. –** Mr. Greene stated this is a request to recommend approval of the Change of Zoning for Mullinax Ford of Central Florida, Inc. for the 3<sup>rd</sup> Amendment to the Planned Unit Development Master Plan, for property located north of S.R. 436 (a.k.a. Semoran Boulevard) and east of Roger Williams Road.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak. No one spoke.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item. No one spoke.

<u>Staff Presentation</u>: Mr. Moon stated this is a request to recommend approval of the Change of Zoning for Mullinax Ford of Central Florida, Inc. for the 3<sup>rd</sup> Amendment to the Planned Unit Development Master Plan, for property located north of S.R. 436 (a.k.a. Semoran Boulevard) and east of Roger Williams Road. The engineer is American Civil Engineering Company c/o John Herbert, P.E. The future land use is Commercial. The existing use is an automobile dealership. The proposed development is to construct a truck display mountain, service building, paved employee parking spaces and vehicle inventory storage area. The tract size is 21.51 +/- Acres.

The original PUD Master Plan was adopted on January 2, 2003, through Ordinance # 1552, allowing automotive sales and associated uses. The PUD Master Plan amendment identifies four development

phases for the site. The first phase includes the construction of a 203' x 73' truck display mountain 23' in height and 96 paved employee parking spaces. The second phase of the proposed PUD Master Plan includes the development of a 6,290 sq. ft. service building with phases 3 and 4 expanding the employee parking and vehicle inventory storage area.

Comprehensive Plan Compliance: The proposed PUD zoning is consistent with the City's Commercial Land Use designation. The development plan shall not exceed the intensity allowed within the adopted Future Land Use designation.

Land Use Compatibility: The property fronts an urban principle arterial roadway (Semoran Blvd, S.R. 436). The properties to the south, east and west have established commercial uses.

Buffer yard Requirements: Areas adjacent to all road right of ways shall provide a minimum ten foot landscape bufferyard. Areas adjacent to residential uses or districts shall provide a six foot high masonry wall within a ten-foot landscape buffer.

*Proposed PUD Recommendations*: The PUD recommendations are that the zoning classification of the following described property be designated as Planned Unit Development (PUD), as defined in the Apopka Land Development Code, and with the following Master Plan provisions:

Section I. That the zoning classification of the following described property be designated as Planned Unit Development (PUD), as defined in the Apopka Land Development Code, and with the following Master Plan provisions subject to the following zoning provisions:

- A. The uses permitted within the PUD district shall be those allowed within the C-2 zoning category.
- B. All development standards set forth in the Land Development Code and Development Design Guidelines shall apply to development within the PUD unless as otherwise allowed and defined as follows:
  - 1. The truck display mountain shall not exceed a height of twenty-five (25) feet above ground elevation. (The vehicle is not considered part of the height of the truck display mountain when a truck(s) is parked on this structure.)
  - 2. Signage shall comply with the City's sign codes unless otherwise approved through a master sign plan. No business identification shall be placed on the vehicle display mountain or vehicles parked thereon.
  - 3. No outdoor light poles shall be placed on the truck display mountain. Any ground lighting placed there on or projected on to the truck display mountain must be approved with a preliminary or final development plan.
  - 4. Outdoor display of new vehicles allowed within the display areas denoted as "Rock Area" on the Master Plan. No used or pre-owned vehicles shall be placed with the "Rock Area". All vehicles shall only be parked or stored within paved parking areas or designated outdoor display areas appearing on the Master Plan. Landscape areas shall not be used for vehicle parking or storage.
  - 5. Outdoor illumination plan shall be provided with the preliminary or final development plan.
- C. The C-2 zoning standards shall apply to the development of the subject property unless otherwise established herein this ordinance.

The display mountain will be surrounded by fencing and will not be accessible by the public.

The Development Review Committee (DRC) recommended approval of the Mullinax Ford PUD Master Plan Amendment for the property owned by Mullinax Ford of Central Florida, Inc., located north of S.R. 436, east of Roger Williams Road, subject to PUD Recommendations and the information and findings in the staff report.

The Planning Commission's Role is advisory to City Council. The Planning Commission may recommend to approve, deny or to approve with conditions.

This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

In response to a question by Ms. Laurendeau, Mr. Moon stated that if the amendment is approved by the City Council, the existing rock areas at the front of the dealership will be approved by this Master Plan.

In response to a question by Ms. Toler, Mr. Moon stated the length of the truck display mountain is approximately 200 ft.

In response to a question by Mr. Foster, Steve Francis, Vice-President of Operations, for Mullinax Ford of Central Florida, Inc., 1551 East Semoran Boulevard, Apopka, stated that the truck display mountain will be the first for Mullinax in the state of Florida; however, they do have one in Mobile, Alabama that is 80 feet long.

<u>Petitioner Presentation</u>: Mr. Francis stated that this project dates back to 2003 at which time they got approval to expand their property and the display area to the west. This area that we are talking about, Phase 1, will be the employee parking lot and the display mountain is a platform where we thinking about building a brand new dealership prior to 2008. Unfortunately the economic conditions changed and our employees now park on gravel and what they refer to as "the land of little lakes." He said he was available to answer any questions the Commission may have. He introduced John Hebert, Civil Engineer, for the project.

Affected Party Presentation: None.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: Jeremiah Jaspon made a motion to recommend approval of the Change in Zoning for the 3<sup>rd</sup> Amendment to the Planned Unit Development Master Plan for Mullinax Ford of Central Florida, Inc. on property located north of S.R. 436 (a.k.a. Semoran Boulevard) and east of Roger Williams Road; subject to the information and findings in the staff report; and Tony Foster seconded the motion. Aye votes were cast by James Greene, Robert Ryan, Tony Foster, Jeremiah Jaspon, Linda Laurendeau, and Pam Toler (6-0). (Vote taken by poll.)

**REVISED FINAL DEVELOPMENT PLAN - NORTHWEST DISTRIBUTION FACILITY BUILDING "C" -** Mr. Greene stated this is a request to recommend approval of the revised Final Development Plan for Northwest Distribution Facility Building "C" owned by Oakmont Apopka Road, LLC and located at 1349 Ocoee-Apopka Road generally located between S.R. 451 and Ocoee-Apopka Road and east of Boy Scout Road.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak. No one spoke.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item.

Mr. Moon stated that he had received a question via e-mail from Commission member Laurendeau asking with regard to aesthetics and the landscape islands, would the requested waivers be consistent/complimentary with the existing development on the site. He stated that the answer would be provided during that portion of the staff's presentation.

<u>Staff Presentation</u>: Mr. Moon stated that as the City is growing and staff becomes busier, from time to time, Planning staff members, Rogers Beckett, Special Projects Coordinator, and Kyle Wilkes, Planner II, will be making presentations to the Commission. He further stated that Mr. Beckett would be giving the staff report for the Northwest Distribution Facility Building "C."

Mr. Moon stated that this item includes four waivers. The Commission has the option of addressing each waiver separately or if there is a consensus, the Commission may combine them into one motion.

In response to a question by Chairperson Greene, Mr. Moon stated that if the consensus of the Commission is that all of the waivers are going to be approved or all denied, the Commission may make one motion for all four waivers and include them in the overall motion for the action being taken on the Revised Final Development Plan. If the Commission wanted to pull one waiver out for action, then they could make take that action and then make a motion that includes the other three waivers and the development plan.

Mr. Beckett - Special Projects Coordinator, stated this is a request to recommend approval of the revised Final Development Plan for Northwest Distribution Facility Building "C." The owner/applicant is Oakmont Apopka Road, LLC, c/o Thomas A. Cobb, and the property is located at 1349 Ocoee-Apopka Road generally located between S.R. 451 and Ocoee-Apopka Road and east of Boy Scout Road. The engineer is Highland Engineering, Inc. c/o Jeffery W. Banker, P.E. The architect is Smallwood, Reynolds, Stewart, Stewart & Assoc., Inc. The land use is Industrial and the zoning is I-1. The existing use is vacant land and the proposed use is an industrial warehouse (144,148 sq. ft.) with an office complex (5,000 sq. ft.). The tract size is 8.85 +/- acres. The overall site size is 45.09 +/- acres. The combined building size is 149,148 sq. ft.

The Northwest Distribution Facility Building C - Revised Final Development Plan proposes a 149,148 sq. ft. industrial warehouse and office space. A total of 150 parking spaces are provided (300 required by code) of which 6 are reserved as a handicapped parking space. The applicant is requesting a waiver to reduce the parking space requirement for the site. Access to the site is provided by a driveway cut along Ocoee-Apopka Road.

The height of the proposed building is 40' (top of parapet wall). The City approved a variance on October 10, 2006 for the overall building height for this project not to exceed 50'. The proposed height 40' is well below the maximum that could be built. Staff has found the proposed building elevations to be in accordance with the City's Development Design Guidelines.

Stormwater run-off and drainage will be accommodated by a master stormwater drainage system. The master stormwater management system is designed according to standards set forth in the Land Development Code.

A twenty-five foot landscape buffer is provided along Ocoee-Apopka Road. The applicant has provided a detailed landscape and irrigation plan for the property. The planting materials and irrigation system design are consistent with the water-efficient landscape standards set forth in Ordinance No. 2069.

Total inches on-site:	55
Total number of specimen trees:	0
Total inches removed	0
Total inches retained:	55
Total inches required:	340
Total inches replaced:	340
Total inches post development:	340

## Waiver Requests:

- 1. Waiver Request #1: Land Development Code (LDC), Section 6.03.02.A Requires the 2 parking spaces per 1000 square feet of gross floor area up to 150,00 square feet, plus 1 space for each vehicle operating from the premises. The applicant is requesting the required parking to be based on the number of employees working at the facility during the largest shift. The proposed use of facility does not fit the description in the parking code for industrial/warehouse uses. The facility will be mostly used for storage of materials and will have a maximum of 90 employees working during the largest shift and no service provided to the general public. DRC supports this waiver request.
- 2. Waiver Request #2: LDC 5.08.01.C require a landscape island every 20 parking spaces and Development Design Guidelines Section 4.4 require a landscape island every 10 parking spaces. The applicant is requesting not to require landscape islands within the trailer parking and staging area. Justification: Trailer parking/staging is not specifically addressed by the City of Apopka Code, but the 39 trailer staging spaces provided is a specific requirement of the tenant/occupant. DRC supports this waiver request.
- 3. Waiver Request #3: The Development Design Guidelines Section 4.4 which require a landscape every 10 spaces. The applicant is requesting that a landscape island be required every 20 parking spaces for vehicular parking areas, which is consistent with code requirements in 5.08.01.C. The City of Apopka Development Design Guidelines require no more than 10 parking spaces without a landscape island, which conflicts with the criteria specifically addressed by the City of Apopka Code, section 5.08.01.C; which require no more than 20 parking spaces without a landscape island. DRC supports this waiver request.
- 4. Waiver Request #4: The applicant is requesting a waiver from LDC 5.01.10; which requires trees and scrubs to be placed on separate irrigation zones. The applicant is requesting to install bubblers on all trees which will connect to the nearest zone. DRC supports this waiver request.

The Development Review Committee recommends approval of the Northwest Distribution Facility Building C – Revised Final Development Plan and waiver requests, subject to the findings of this staff report.

The role of the Planning Commission for this development application is to advise the City Council to approve, deny, or approve with conditions based on consistency with the Comprehensive Plan and Land Development Code

Recommend approval of the Northwest Distribution Building C - Revised Final Development Plan and the four waivers, subject to the findings of this staff report.

This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

In response to a question by Mr. Foster, Mr. Beckett stated that staff supports the waiver requests.

In response to questions Ms. Toler, Mr. Beckett stated that in certain areas of the project, they exceed the 10 space requirement. The request is to allow a landscape island for every 20 spaces as opposed to the code requirement of one for every 10 spaces. In this case, they are complying with the Land Development Code (LDC), Section 5.08.01.c. The Land Development Code has precedence over the Development Design Guidelines.

In response to a question by Mr. Ryan, Mr. Beckett stated that in his research he did not see this particular waiver request for the Northwest Distribution Center located south of this project. He said that could be due to how the staff report was analyzed when that project was approved.

In response to a question by Ms. Laurendeau, Mr. Beckett stated that this project is consistent with the previously approved plans for the buildings constructed on this site.

Mr. Beckett referred Mr. Jaspon's questions about why the applicant was requesting fewer parking spaces and Mr. Foster's question as to whether it was due to environmental issues or aesthetics to the applicant.

<u>Petitioner Presentation</u>: Jeff Banker, P.E., Highland Engineering, Inc., 79 W Illiana St, Orlando, stated that in some areas the proposed project exceeds the parking requirements. He said this project mirrors what has been approved in the past. He said the other objective of the waiver request is to generate more parking on the site. This building is tenant driven and there is a long term lease on this building. It is a build-to-suit building. A substantial portion of the building that is unutilized by the majority of the staff. There is over 50,000 sq. ft. of refrigerated and freezer areas that are used for product storage. So the nature of the use as a building is a little different than what the Code speaks to. This is why we asked that it be based more in line with the tenant's use of the site which is based on his largest shift on the property. He has two shifts and the largest shift being up to 90 employees. We've still provided up to 150 parking spaces just for growth. The second waiver to limit the number of landscape islands in the trailer parking and staging area is being requested because these spaces are 50 feet deep. If there is landscape islands every 10 spaces with the trucks backing their trailers in, those islands are going to get run over.

In response to a question by Ms. Toler, Mr. Banker stated that the third waiver is for parking spaces for vehicles and does not apply to trucks.

Mr. Banker stated this is very consistent with what was brought before the Planning Commission and City Council in 2007. The building is pretty much the same size and scale to the previous building. It's configured a little differently because it is being built to suit a specific tenant in the long term lease. The site had to be modified slightly to accommodate that building footprint.

In response to questions by Mr. Jaspon, Mr. Banker stated that when the project came through originally, the parking was applied to the office use only. Not necessarily the warehouse space because that space was mostly storage. Not occupied by a lot of staff. The parking was applied a lot less liberally than is being applied today. Originally it did comply with the Codes.

Mr. Beckett stated the original approved plan provided 126 parking spaces. They did that analysis based upon 20,000 sq. ft. of office space being used with the remaining being dead storage space. While the parking is inconsistent with the code, the applicant has made every attempt to apply their parking areas as closely to the code as possible.

Mr. Moon stated that the Land Development Code does provide a provision for the applicant to request fewer parking spaces than what is required. What is required is the general standard but if evidence is submitted that the need for parking is less than the requirement then, in some cases, staff can approve that deviation. In this case the applicant submitted information based on the number of employees that the application of the required number of spaces would yield a significant amount of useable parking.

The risk that the City takes is if the site were to change use. Then there could be parking issues, but as this is a warehouse, we are anticipating that they will be there for a significant period of time.

In response to questions by Mr. Foster, Mr. Banker stated that he is not sure who all the tenants are on the property. There is a mix of tenants that occupy the first two buildings. This building is a specific distribution service that distributes to restaurants and different food service establishments throughout Central Florida. He stated they have signed long term lease agreement for this property.

Affected Party Presentation: None.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Ms. Toler asked that the Commission take action of Waiver No. 3 separately.

In response to a question by Mr. Jaspon, Chairperson Greene suggested that the Commission deal with Waiver No. 3 first before action on the other items.

Ms. Toler expressed her concern regarding the request for landscape islands every 20 spaces rather than the 10 required by Code. She said this is Florida and this is a large tarmac area that gets very, very warm. She said she believes that additional trees would cut down some of that heat and that even the employees who park in the lot would be for favorable to having more trees so their cars aren't as hot.

Chairperson Greene stated there won't be trees for every car and that Ms. Toler may make a motion to deny Waiver No. 3 if that is what she would like.

Motion: Pam Toler made a motion to recommend denial of the waiver request of the Development Design Guidelines, Section 4.4, to allow the applicant to install landscape islands for every 20 parking spaces for vehicular parking areas, for the Northwest Distribution Facility Building "C" owned by Oakmont Apopka Road, LLC; subject to the information and findings in the staff report. Robert Ryan seconded the motion.

Mr. Moon stated that the Planning Commission needs to understand the ramification if you should deny the waiver requiring the additional islands. The Planning Commission is already aware that they have a reduction in the number of parking spaces based on the number of employees. To accommodate the additional islands parking spaces will have to be removed. Applicant of that Code, he said he can't say at this time, how many additional parking spaces will be lost. If that's the case then the consideration would be to, if you choose to deny that waiver, to table it until staff can tell you what those ramifications are. This would mean delaying this project and holding the meeting on September the 8<sup>th</sup>, the day after Labor Day which we were hoping not have a meeting on that day. Or you could approve it, recognizing that you agree in the reduction of the number of parking spaces and let it carry forward to the City Council.

In response to a question by Mr. Jaspon, Mr. Moon stated that typically canopy trees are required in landscape islands because they provide shade. There are several reasons for the trees within the parking areas: 1. Aesthetics; 2. They provide shade for some vehicles. A typical canopy tree is going to take many years to reach a height of canopy that is going to provide significant shade; and 3. On a more urbane area, it helps reduce the heat on the pavement which reduces the heat going into the environment.

In response to a question by Mr. Foster, Mr. Moon stated that one option, which would require a friendly amendment to the motion, is that based on the number of trees that would be lost on those

islands is to ask that they be replanted within the perimeter area creating additionally shade and screening along the perimeter.

In response to questions by Ms. Laurendeau, Mr. Banker stated the tenant will be a 24/7, 365 days a year operation. Shade would only be an issue during the day. He said that for the most part the site does meet the one island for every 10 parking spaces. The parking field to the northwest corner and on the southeast side of the plan meets the parking requirement of the Code. He said there are a total of four (4) total landscape islands in the parking areas. He said they will be giving up four parking spaces to create the four landscape islands.

Aye votes were cast by Robert Ryan and Pam Toler. Nay votes were cast by James Greene, Tony Foster, Jeremiah Jaspon, and Linda Laurendeau. (Vote taken by poll.) Motion failed (2-4).

Motion: Linda Laurendeau made a motion to recommend approval of the four waiver requests and the Revised Final Development Plan for the Northwest Distribution Facility Building "C" owned by Oakmont Apopka Road, LLC and located at 1349 Ocoee-Apopka Road generally located between S.R. 451 and Ocoee-Apopka Road and east of Boy Scout Road; subject to the information and findings in the staff report. Jeremiah Jaspon seconded the motion. Aye votes were cast by James Greene, Robert Ryan, Tony Foster, Jeremiah Jaspon, Linda Laurendeau, and Pam Toler (6-0). (Vote taken by poll.)

**OLD BUSINESS:** None.

**NEW BUSINESS:** None.

ADJOURNMENT: The meeting was adjourned at 5:51 p.m.

James Greene, Chairperson

R. Jay Davoll, P.E. Community Development Director

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## Backup material for agenda item:

1. FINAL DEVELOPMENT PLAN (MINOR) – PLYMOUTH SOUTH POWER SUBSTATION – Duke Eneregy, c/o Poulos & Bennett, LLC, for property located at 620 Superior Commerce Boulevard. (Parcel ID #: 06-21-28-8468-04-002)



## CITY OF APOPKA PLANNING COMMISSION

X PUBLIC HEARING ANNEXATION PLAT APPROVAL OTHER:	MEETING OF: October 13, 2015 FROM: Community Development EXHIBITS: Vicinity Map Aerial Map Site/Landscape Plans Substation Site Photos
PROJECT:	FINAL DEVELOPMENT PLAN (MINOR) - DUKE ENERGY- PLYMOUTH SOUTH POWER SUBSTATION
<u>Request</u> :	RECOMMEND APPROVAL OF THE DUKE ENERGY- PLYMOUTH SOUTH POWER SUBSTATION (MINOR) FINAL DEVELOPMENT PLAN
SUMMARY:	
OWNER/APPLICANT:	Duke Energy, Inc.
ENGINEER:	Poulos & Bennett, LLC., c/o Ricardo A. Ortiz, P.E.
LOCATION:	620 Superior Commerce Boulevard (South of West Orange Ave, East of S.R. 429 and West of Superior Commerce Boulevard)
PARCEL ID #:	06-21-28-8468-04-002
LAND USE:	Industrial
ZONING:	I-1
EXISTING USE:	Vacant Land
PROPOSED USE:	Power Substation
TRACT SIZE:	2.16 +/- acre (94,089 sq. ft.)
BUILDING SIZE:	1,051 sq. ft.

## **DISTRIBUTION**

Mayor Kilsheimer Commissioners (4) City Administrator Irby Community Dev. Director

Finance Director HR Director IT Director Police Chief Public Ser. Director City Clerk Fire Chief

G:\Shared\4020\PLANNING\_ZONING\SITE PLANS\2015\Duke Energy\PC 9.13.15\1 Duke Energy – FDP – PC 10-13-15

Direction	Future Land Use	Zoning	Present Use
North (City)	Industrial	I-1	Industrial Facility
East (City)	Industrial	I-1	Industrial Facility
South (City)	Industrial	I-1	Retention Pond
West (City)	Industrial	I-1	S.R. 429

## **RELATIONSHIP TO ADJACENT PROPERTIES:**

## **ADDITIONAL COMMENTS:**

This proposed Power Substation is located in the heart of Apopka's planned industrial center at S.R. 429/Wekiva Parkway. Proximity of electrical substation is an important consideration when industrial businesses are considering site selection for a new facility. Closer proximity to a power station results in fewer interruptions caused breaks in electric line. It is needed to serve future new industrial and commercial uses near the S.R. 429 interchange with U.S. 441.

The Duke Energy - Plymouth South Power Substation - (Minor) Final Development Plan proposes a High Density Substation with 4 feeders and 3 transmission lines. A preliminary development plan is not required for projects less than 10,000 square feet.

UTILITY/STORMWATER: The site will be serviced by an on-site irrigation well and on-site stormwater management system designed according to standards set forth in the Land Development Code.

BUFFER/TREE PROGRAM: The site has a standard ten (10) foot wide side-yard landscape buffer with a twenty-five (25) foot wide landscape buffer along Superior Commerce Boulevard. The applicant has provided a detailed landscape and irrigation plan for the property. The planting materials and irrigation system design are consistent with the water-efficient landscape standards set forth in Ordinance No. 2069. There is no tree bank mitigation fee payment required for this site.

PARKING AND ACCESS: A total of 3 parking spaces are provided for utility vehicles servicing the site; with access occurring from a driveway connecting to Superior Commerce Boulevard.

## EXTERIOR ELEVATIONS: N/A

<u>WAIVER REQUEST</u>: The applicant is requesting a waiver from section 4.6 and 4.7 of the Development Design Guidelines; which does not allow chain link or barb wire in areas visible from the road and requires utility equipment to be totally screened from view of principal streets. Where fences are intended to screen areas from public view, they shall be constructed of brick, masonry, wrought iron, stone or other decorative materials.

- **Response:** The applicant is proposing a 7' high chain link fence with 3 strands of barb wire. The chain link fence is proposed for safety reason: 1) To allow visual sightlines into the facility in case of injury to personnel. 2) To promote air circulation through the yard to reduce temperature inside the yard for personnel.
  - Staff does not object to this waiver request.

## **PUBLIC HEARING SCHEDULE:**

October 13, 2015 - Planning Commission (5:01 pm) October 21, 2015 - City Council (8:00 pm)

## **<u>RECOMMENDED ACTION</u>**:

The **Development Review Committee** recommends approval of the Duke Energy – Plymouth South Power Substation Final Development Plan and does not object to the waiver request, subject to the findings of this staff report.

**Planning Commission Recommendation:** The role of the Planning Commission for this development application is to advise the City Council to approve, deny, or approve with conditions based on consistency with the Comprehensive Plan and Land Development Code.

## Note: This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

Application:(Minor) Final Development PlanOwner:Duke Energy, Inc.Engineer:Poulos & Bennett, LLC., c/o Ricardo A. Ortiz, P.E.Parcel I.D. No:06-21-28-8468-04-002Location:620 Superior Commerce BoulevardTotal Acres:2.16 +/- Acres

## VICINITY MAP





## **Aerial Map**

# MINOR FINAL DEVELOPMENT PLAN

for

# DUKE ENERGY PLYMOUTH SOUTH POWER SUBSTATION

620 Superior Commerce Blvd, Apopka, Florida 32703 September 2015



		Su	bm	./R	ev.	
Sheet Title	1	2	3	4	5	6
Site Plan						
Clear, Grade & Fill						
Paving, Grading & Drainage Plan						
Typical Sections & Details						
Inlet Details						
rosion Control & Stormwater Pollution Prevention Plan	-					
Landscape Layout						
Irrigation Layout						
Topographic Survey						

Submit to City of Apopka Submit to City of Apopka

,	Variance (V) / Waiver (W) Table	
(V/W)	Request	Justification
		The wall/fence is not a code requirement by City of Apopka. It is a Duke Energy requirement for security purposes due to the nature of the facility. The chain link fence is proposed for the following safety reasons:
Waiver	To allow a 7 ft chain link fence with 3 strands barbed wire in lieu of a solid brick or stone wall.	<ul> <li>To allow visual sightlines into the facility in case of injury to personnel working within the yard.</li> <li>To promote air circulation through the yard to reduce temperatures inside the yard for personnel.</li> </ul>
1.		Additionally, due to the site's location at the end of a cul-de-sac within an industrial park, adjacent to the elevated SR 429 highway and adjacent to a stormwater pond, the need to "provide architectural diversity and visual interest for passerby traffic and pedestrians" is negated.





P&B Job No.: 15-077



21

POULOS Poulos & Bennett, LLC 4625 Halder Lane, Suite B, Orlando, FL 32814 Tel. 407,487.2594 www.poulosandbennett.com Eng. Bus. No. 28567 Seal DATUM: NAVD 88

Legend:

PROPOSED #57 GRANITE
PROPOSED CONTROL EQUIPMENT ENCLOSURE
PROPOSED CONCRETE DRIVEWAY
BUILDING SETBACK & LANDSCAPE BUFFER
PROPOSED SECURITY FENCE (7' CHAINLINK WITH 3 STRANDS OF BARBED WIRE)
PROPOSED 20' GATE

PROPOSED DRAINAGE CONVEYANCE PIPE

	06-21-28-8	468-04-002		
	IND (Ind	lustrial)		
	I-1 (Restricte	ed Industrial)		
IND	East: IND	South: IND	West: N/A	
: I-1	East: I-1	South: I-1	· West: N/A	
2.1	64 ac	94,263.84 sf		
	12.0'	Maximu	m 35'	
126.5'	Side: 80.8' & 257.2'	Rear: 65'	Corner: N/A	
25'	Side: 10'	Rear: 10'	Corner: N/A	
	3	Required	d – 0	
11 sf	0.02 ac	56,558.30 sf Max	1.30 ac Max	
s:	X	No:		
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NO.	DES	CRIPTION	DRAWN	CHKD	APPR	DATE
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$\Delta$ 2 <sup>1/2</sup> "- 3" TOTAL DBH (MULTI-TRUNK), 8' MIN. HEIG	
435 272-3 TOTAL DBH (MULTI-RUNK), 8 MIN. HEIG 65 GALLON CONTAINER OR 36" B&B ROOT BAL 65 GALLON CONTAINER OR 36" B&B ROOT BAL	
> 2 ½" - 3" DBH, 8' MIN. HEIGHT x 2 ½' MIN. CROW 65 GALLON CONTAINER OR 36" B&B ROOF BAL	
24" MIN. HEIGHT AT INSTALLATION, 3 GALLON, 3	24" O.C.
FULL 3 GALLON, 24" O.C.	
SOLID SOD, FREE OF WEEDS REPAIR ALL DISTURBED AREAS	
3" MIN. DEPTH, ALL PLANTING AREAS	
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BUILDING SURFACES, EQUIPMENT AND FURNISHINGS. SON OR PROPERTY WHICH MAY OCCUR AS A RESULT	
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CTED SOIL MIX BED	
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- P - D	
	8-21-15 1:30 SUBSTATION ENGINEERING DATE SCALE LANDSCADE LAYOUT
SCHWEIZER 9/22/15	KBB DRAWN TECH
AROFITECTURE GARDA A. SCHWEIZER, LAFELSTATEREG, #963 SCHWEIZER ROLACK LANDSCAPE ARCHITECTURE LC PO 1002 Y4833 - MATILANI, ROHDA 32774 PrONE (407) 376-1423 - LC26000487	GAS CHECK ENGR PLYMOUTH SOUTH SUBSTATION
<u> </u>	SHEET DWG.





#### Page 24

## Backup material for agenda item:

 SUBDIVISION REPLAT – COOPER PALMS COMMERCE PARK REPLAT LOTS 7 & 9 – Property Industrial Enterprises, Inc., c/o Michael Cooper, located south of 1st Street, north of 3rd Street, east of South Bradshaw Road, and west of S. Hawthorne Avenue.



## CITY OF APOPKA PLANNING COMMISSION

X PUBLIC HEARING SPECIAL REPORTS PLAT APPROVAL X OTHER: Replat

## MEETING OF: October 13, 2015 FROM: Community Development EXHIBITS: Vicinity Map Replat

## PROJECT: COOPER PALMS COMMERCE PARK REPLAT LOTS 7 & 9

## <u>Request</u>: RECOMMEND APPROVAL OF THE COOPER PALMS COMMERCE PARK REPLAT LOTS 7 & 9

## SUMMARY:

OWNER/APPLICANT:	Property Industrial Enterprises, Inc., c/o Michael Cooper
SURVEYOR:	Nieto-Whittaker Surveying, LLC, c/o Ralph A. Nieto, P.S.M
LOCATION:	South of 1 <sup>st</sup> Street, east of South Bradshaw Road, and west of S. Hawthorne Avenue.
LAND USE:	Industrial
ZONING:	PUD (I-1)
EXISTING USE:	Platted subdivision for industrial, commercial and office uses
PROPOSED USE:	Replat of a portion of the Cooper Palms Commerce Park affecting Lots 7, 9, 10, 11, 26 and Tracts A & B.
OVERLAY ZONING:	None
TRACT SIZE:	4.95 +/- Acres

## **DISTRIBUTION**

Mayor Kilshiemer Commissioners (4) CA Glenn Irby Community Dev. Dir. Finance Dir. HR Director IT Director Police Chief Public Ser. Dir. City Clerk Fire Chief

## **ADDITIONAL COMMENTS:**

Owners of lots within the Cooper Palms Commerce Park Plat request approval of a modification to the existing plat to address changes to their development plans for the property. The change is necessary to accommodate a business that desires to locate\expand within the City of Apopka. Changes to the plat are not substantial and involve the shifting of lot lines to accommodate proposed development of lots 7,9,10, 11, 26 and portions of tracts A & B. All property owners affected by the modification are applicants of the replat application. Development of all lots appearing within the Cooper Palms Commerce Park Replat 7 & 9 are subject to zoning and development standards set forth in the assigned PUD zoning (Ordinance No. 2346).

## **PUBLIC HEARING SCHEDULE:**

Planning Commission – October 13, 2015, 5:01 p.m. City Council – October 21, 2015, 7:00 p.m.

## **<u>RECOMMENDED ACTION</u>**:

The **Development Review Committee** recommendation will be provided at the Planning Commission meeting.

Note: This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

Application: Owner/Applicant: Surveyor: Parcel ID No.s:

Project Site: Total Acres: Cooper Palms Replat Lot 7 & 9 Property Industrial Enterprises, Inc., c/o Michael Cooper Nieto-Whittaker Surveying, LLC, c/o Ralph A. Nieto, P.S.M 09-21-28-1675-01-070, 09-21-28-1675-01-090, 09-21-28-1675-00-100 09-21-28-1675-00-002, 09-21-28-1675-00-110 & 09-21-28-0868-01-260 Lots 7,9,10, 11, 26, Tracts A & B 4.95 +/

## **VICINITY MAP**



# COOPER PALMS LOTS 7 & 9

# A REPLAT OF LOTS 9 & 10 & A PORTION OF LOTS 7 & 11 AND TRACTS A & B COOPER COMMERCE CENTER AS RECORDED IN PLAT BOOK 80, PAGES 110 AND 111 AND A REPLAT OF A PORTION OF LOT 26 BLOCK "A" BRADSHAW AND THOMPSON'S ADDITION TO APOPKA CITY, PLAT BOOK "B", PAGE 25 LYING IN SECTION 9, TOWNSHIP 21 SOUTH, RANGE 28 EAST, CITY OF APOPKA, ORANGE COUNTY, FLORIDA

## DESCRIPTION:

Lots 9 & 10, a portion of Lots 7 & 11, a portion of Tract A (Cooper Palms Parkway) and a portion Tract B (Drainage Retention Area) Cooper Palms as recorded in Plat Book 80, pages 110 and 111 of the Public Records of Orange County, Florida and a portion of Lot 26 Block A Bradshaw and Thompson's Addition to Apopka City as recorded in Plat Book B page 25 of the Public Records of Orange County, Florida being more particularly described as follow:

Begin at the Northwest corner of Lot 7 Cooper Palms as recorded in Plat Book 80, pages 110 and 111 of the Public Records of Orange County, Florida; thence run S 89°48'31" E along the South line of Tract A (Cooper Palms Parkway) for a distance of 506.79 feet; thence run S 00°11'29" W for a distance of 385.86 feet to the North right of way line of W. 3rd Street (60' right of way) thence run N 89°48'31" W along said North right of way line for a distance of 58.17 feet; thence leaving said North right of way run S 01°01'56" W for a distance of 60.01 feet to the South right of way line of said W. 3rd Street; said South right of way line also being the South line of lands vacated per Official Records Book 1636, page 176 of the Public Records of Orange County, Florida; thence run N 89°48'31" W along said South line and along the vacated South right of way line of W. 3rd Street for a distance of 228.27 feet; thence run N 00°57'20" E along the West line of said lands vacated in Official Records Book 1636 page 176 for a distance of 30.01 feet to the South line of Lot 10 of Cooper Palms as recorded in Plat Book 80, pages 110 and 111 of the Public Records of Orange County, Florida, said line also being Easterly extension of the South line of Tract B of aforesaid Cooper Palms; thence run N 89°48'31" W along said South line and the Easterly extension thereof for a distance of 219.87 feet; thence leaving said South line run N 00°11'29" E for a distance of 415.86 feet to the Point of Beginning.

Containing 4.955 acres more or less.

ABBREVIATIONS	
(C) = CALCULATED CM = CONCRETE MONUMENT CLF = CHAIN LINK FENCE CONC = CONCRETE C = CENTERLINE (D) = DEED EP = EDGE OF PAVEMENT ELEV = ELEVATION FND = FOUND IR = IRON ROD IP = IRON PIPE LB = LICENSED BUSINESS (M) = MEASURED NO ID = NO IDENTIFICATION ORB = OFFICIAL RECORD BOOK (P) = PLAT PB = PLAT BOOK PC = POINT OF CURVATURE PI = POINT OF INTERSECTION PG = PAGE PCP = PERMANENT CONTROL POINT POL = POINT ON LINE PRM = PERMANENT REFERENCE MONUMENT PRC = POINT OF TANGENCY RP = RADIUS POINT R/W = RIGHT-OF-WAY	
REC = RECOVERED	
SYMBOLS	
SYMBOLS SHOWN ARE NOT TO SCALE FOUND IRON ROD AND CAP (NUMBER AS INDICATED) FOUND 4"x4" CONCRETE MONUMENT (STAMPED LB#7744	
UNLESS NOTED OTHERWISE) SET 4"x4" CONCRETE MONUMENT (LB#7744)	
O STAMPED "LB 7744"	
CHANGE IN DIRECTION OR LOT CORNER INDICATED BY "TICK" MARK SECTION 9-21-28 = SECTION 9, TOWNSHIP 21 SOUTH RANGE 28 EAST	
"NOTICE: THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM IS OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HE AND WILL IN ON CIRCUMSTANCES BE SUPPLANTED IN AUTHOR	REIN ITY

BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAT. THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS

COUNTY.

8. DEVELOPMENT RIGHTS OF THE JURISDICTIONAL WETLAND AREAS SHALL BE DEDICATED TO THE CITY OF APOPKA WITH OWNERSHIP AND MAINTENANCE THE PROPERTY OWNER ASSOCIATION.

## SHEET 1 OF 2

PLAT

BOOK



## GENERAL NOTES;

1. BEARINGS SHOWN HEREON ARE BASED ON THE SOUTH RIGHT OF WAY LINE OF TRACT A COOPER PALMS PARKWAY AS BEING S 89° 48'31" E, AN ASSUMED DATUM.

ALL PLATTED UTILITY EASEMENTS SHALL PROVIDE THAT SUCH EASEMENTS SHALL ALSO BE EASEMENTS FOR THE CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES; PROVIDED, HOWEVER, NO SUCH CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES SHALL INTERFERE WITH THE FACILITIES AND SERVICES OF AN ELECTRIC, TELEPHONE, GAS, OR OTHER PUBLIC UTILITY. IN THE EVENT A CABLE TELEVISION COMPANY DAMAGES THE FACILITIES OF A PUBLIC UTILITY, IT SHALL BE SOLELY RESPONSIBLE FOR THE DAMAGES; THIS SECTION SHALL NOT APPLY TO THOSE PRIVATE EASEMENTS GRANTED TO OR OBTAINED BY A PARTICULAR ELECTRIC, TELEPHONE, GAS, OR OTHER PUBLIC UTILITY. SUCH CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION SHALL COMPLY WITH THE NATIONAL ELECTRICAL SAFETY CODE AS ADOPTED BY THE FLORIDA PUBLIC SERVICE COMMISSION. -FS177.091(28)

3. ALL DRAINAGE EASEMENTS RESERVED OR NOTED ON THIS PLAT ARE PRIVATE UNLESS NOTED OTHERWISE.

4. TRACT B (OPEN SPACE) SHALL BE OWNED AND MAINTAINED BY THE COOPER PALMS PROPERTY OWNERS ASSOCIATION, INC.

5. THE PROPERTY AS DEPICTED HEREON IS HEREBY SUBJECT TO THE DECLARATION OF COVENANTS AND RESTRICTIONS, AS RECORDED IN THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA AT OFFICIAL RECORDS BOOK 10675, PAGE 0355,

6. NO STRUCTURE, EITHER TEMPORARY OF PERMANENT, EXCEPT AS PROVIDED BY THE DECLARATION SHALL BE ERECTED OR CAUSED TO BE PLACED ON ANY PART OF THE COMMON AREA AS SHOWN HEREON.

7. THE POTABLE WATER, SEWER, RECLAIMED WATER, STORMWATER AND ROADWAY ARE TO BE OWNED, OPERATED AND MAINTAINED BY THE COOPER PALMS PROPERTY OWNERS ASSOCIATION, INC,

9. VEHICULAR ACCESS RIGHTS FROM LOT 10 TO W. 3rd STREET ARE HEREBY DEDICATED TO THE CITY OF APOPKA.

10. LANDSCAPE EASEMENTS ARE DEDICATED TO THE COOPER PALMS PROPERTY OWNERS ASSOCIATION.



# NOTARY PUBLIC PRINTED NAME:

QUALIFICATION AND STATEMENT OF SURVEYOR AND MAPPER KNOW ALL MEN BY THESE PRESENTS. That the understaned. being a licensed and Registered Land Surveyor, does hereby certify that on AUGUST 21, 2015, he completed the survey of he said lands shown in the foregoing plat and said survey v made under his responsible direction and that permanent reference monuments have been placed as required by Chapter 177, Florida Statutes; and that said land is located in the City of Apopka, Florida.

Date CERTIFICATE OF REVIEWING SURVEYOR

Signed: Printed Name: Ralph A. Nieto PSM #6025 Nieto-Whittaker Surveying, LLC 562 W. Springtree Way, Lake Mary, FI 32746 Licensed Business #7744 Pursuant to Section 177.081, Florida Statures, I have reviewed this plat for conformity to Chapter 177 of the Florida Statutes and that said plat complies with the technical requirements of that chapter; provided however, that my review does not include field verification of any of the coordinates, points or neasurements shown on this plat. Signed:

Date

Printed Name: Registration No.

CERTIFICATE OF APPROVAL BY APOPKA PLANNING COMMISSION Attest: City Clerk Date: CERTIFICATE OF APPROVAL BY COUNTY COMPTROLLER ..D.C.

THIS IS TO CERTIFY that on \_\_\_\_\_ the foregoing plat was approved by: Signed: printed name: Chairman CERTIFICATE OF APPROVAL BY MUNICIPALITY THIS IS TO CERTIFY that on \_\_\_\_ the foregoing plat was approved Signed: Mayor, City of Apopka CERTIFICATE OF APPROVAL BY CITY ENGINEER THIS IS TO CERTIFIY that on \_\_\_\_\_ the foregoing plat was examined and approved by: City Engineer: JAY DAVOLL HEREBY CERTIFY, That the forgoing plat was recorded in the

Orange County Records on \_\_\_\_\_ as File no.\_\_\_\_\_ County Comptroller in and for Orange County, Florida

PA	٩GE
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COOPER PALMS LOTS 7 & 9

DEDICATION

KNOW ALL MEN BY THESE PRESENTS. That the corporation named below, being the owner in fee simple of the lands described in the forgoing caption to this plat, hereby dedicates said lands and plat for the uses and purposes therein expressed and dedicates

IN WITNESS WHEREOF, has caused these presents to be signed and attested to by the officers named below and its corporate seal to be fixed hereto on.

PROPERTY INDUSTRIAL ENTERPRISES LLC. 517 COOPER OAKS COURT APOPKA, FL. 32703

MICHAEL R. COOPER, Managing Member

Signed and sealed in the presence of:

PRINTED NAME: PRINTED NAME:

STATE OF FLORIDA COUNTY OF ORANGE

THIS IS TO CERTIFY, That on... before me, an officer duly authorized to take acknowledgements in the State and County aforesaid, personally appeared. MICHAEL R. COOPER,

MANAGING MEMBER of the above named corporation incorporated under the laws of the State of......FLORIDA....., to me known to be the individuals and officers described in amd who executed the foregoing Dedication and severally acknowledged the execution thereof to be their free act and deed as such officers thereunto duly authorized; and that the said Dedication is the act and deed of said coporation.

IN WITNESS WHEREOF, I have hereto set my hand and seal on the above date.

My Commission Expires...



## Backup material for agenda item:

 COMPREHENSIVE PLAN – SMALL SCALE – FUTURE LAND USE AMENDMENT – Ever Meadow - Littlejohn Engineering Associates, c/o George Kramer, from Residential Very Low Suburban (0-2 du/ac) to Commercial (Max. 0.25 FAR), for property at 4448 Chandler Road. (Parcel ID #: 18-20-28-0000-00-117)



## **CITY OF APOPKA PLANNING COMMISSION**

X PUBLIC HEARING ANNEXATION PLAT APPROVAL OTHER:	DATE FROM EXHII	Community Development
SUBJECT:	EVER MEADOW – COMPREHENSI FUTURE LAND USE AMENDMENT	
PARCEL ID NUMBER:	18-20-28-0000-00-117 (Portion)	
<u>Request</u> :	COMPREHENSIVE PLAN - SMALL SCFUTURE LAND USE AMENDMENTFROM:RESIDENTIAL VERY LOTO:COMMERCIAL (MAX. FA	W SUBURBAN (0-2 DU/AC)
SUMMARY		
APPLICANT:	Littlejohn Engineering Associates, Inc., c/o	George Kramer
OWNER:	Ever Meadow, LLC	
LOCATION:	4448 Chandler Road	
EXISTING USE:	Vacant	
CURRENT ZONING:	R-1AAA (min. 16,000 sq. ft. lot)	
PROPOSED DEVELOPMENT:	Commercial development	
PROPOSED ZONING:	TBD	
TRACT SIZE:	9.98 +/- acres	
MAXIMUM ALLOWABLE DEVELOPMENT:	EXISTING: 19 Units PROPOSED: 108,682 sq. ft.	

# DISTRIBUTION Mayor Kilsheimer

Commissioners (4) City Administrator Irby Community Dev. Director Finance Director HR Director IT Director **Police Chief** 

Public Ser. Director City Clerk Fire Chief

31 d\4020\PLANNING\_ZONING\Small Scale\2015\Ever Meadow \Planning Commission 10 13 15\Ever Meadow - 4448 Chandler Rd

#### PLANNING COMMISSION – OCTOBER 13, 2015 EVER MEADOW – SMALL SCALE FUTURE LAND USE AMENDMENT PAGE 2

## **ADDITIONAL COMMENTS**:

The subject property was annexed into the City of Apopka on May 2, 1997, through the adoption of Ordinance No. 1074. The proposed Small-Scale Future Land Use Amendment is being requested by the owner/applicant. Pursuant to Florida law, properties containing less than ten acres are eligible to be processed as a small-scale amendment. Such a process does not require review by State planning agencies.

A request to assign a Future Land Use Designation of Commercial is not compatible with the designations assigned to abutting properties. The FLUM application covers approximately 9.98 acres. The property owner intends to use the site for commercial development.

In conjunction with state requirements, staff has analyzed the proposed amendment and determined that adequate public facilities exist to support this land use change (see attached Land Use Report).

<u>COMPREHENSIVE PLAN COMPLIANCE</u>: The existing and proposed use of the property is consistent with the Commercial Future Land Use designation. If the proposed future land use designation is adopted, the site would require a change of zoning to a consistent commercial zoning district. Site development cannot exceed the intensity allowed by the Future Land Use policies. Planning & Zoning staff determines that the below policies do not support a Commercial FLUM designation at the subject site:

## A. Future Land Use Element

**<u>Policy 3.1.c(3)</u>**: Very Low Suburban Residential. ". . . . Planned Development uses may include: (3) Neighborhood commercial uses at a rate not in excess of 25 square feet of gross floor area per residential unit in the PUD. Commercial uses must be completely internalized with the PUD."

**Staff Comment**: Predominant residential character within the surrounding area is single family homes at a density of less than two units per acre. The remaining portion of the parcel containing the proposed Commercial FLUM amendment and the current FLUM designation is Very Low Suburban Residential. The intent of the Comprehensive Plan is to direct commercial development to the Wekiva Parkway Interchange Plan Vision Study Area or to the properties near the intersection of Jason Dwelley Parkway and Ponkan Road. Properties surrounding the Jason Dwelley Parkway\Ponkan Road intersection are assigned a Mixed Use FLUM designation and a Mixed-CC zoning district, which can allow for commercial within a master plan. Planned retail commercial is proposed within a Town Center area of the Wekiva Parkway Interchange Vision Plan. This commercial area is only three-quarters of a mile from the

Without an accompanying zoning application and development plan for this FLUM amendment application, the proposed Commercial FLUM designation can allow commercial intensities beyond Neighborhood Commercial and such commercial intensity do not meet the intent of Policy 3.1.c(3) and the future land use plan for the area north of Ponkan Road to and including the Wekiva Parkway Interchange Vision Plan Study Area.

**Policy 3.1.i:** Commercial. "Primary uses shall be for business, commerce, and convenience shopping which may be neighborhood or community oriented. The maximum floor area ration shall be .25 gross floor area. . . . The expansion of strip commercial areas shall be prohibited except in infill areas."

#### PLANNING COMMISSION – OCTOBER 13, 2015 **EVER MEADOW – SMALL SCALE FUTURE LAND USE AMENDMENT** PAGE 3

Applicant has not provided adequate information or zoning and development Staff Comment: applications to demonstrate that commercial development will be limited to neighborhood commercial at a scale, form and type compatible with existing and future residential areas.

This proposed FLUM amendment, without development and zoning standards to limit building mass and commercial uses, could lead potentially to larger, automobile-oriented strip commercial development or commercial warehousing that is inconsistent with the intent of .

Demonstrated Need -- To support the need for additional Commercial retail at the subject site, the applicant prepared a Small Area Study. Such study is also required by an Interlocal Agreement between Orange County government and the City of Apopka. The Small Area Study, which was prepared by the applicant, contemplates that the entire parcel owned by the applicant will be planned as a Mixed Use Development. The study relies on access to Chandler Road, which is a fifteen foot wide private driveway. Also, the study fails to recognizes that adequate vacant land is available for general commercial uses within the Wekiva Parkway Interchange Vision Plan and at the intersection of Jason Dwelly Parkway and Ponkan Road.

Policy 3.2 states that "Development and redevelopment shall be integrated with adjacent land uses through: "(1) the creation of likes uses; or (2) creation of complementary uses; or (3) mitigation of adverse impacts."

Staff Comment: The subject site is located within a predominantly residential area. A Commercial FLUM designation allows C-3, C-2, and C-3 commercial zoning as well as CN (Neighborhood Commercial). Intensity of uses allowed in C-1 through C-3 are not compatible with adjacent or nearby residential areas because of potential known nuisances, such as outdoor lighting, noise, and odor. Further, the building mass (e.g., vertical and horizontal scale of a building) for many commercial and office buildings will not be in character with the surrounding residential areas.

Policy 3.14: "The City shall consider the following when evaluating land use amendments, especially changes from very low density categories to higher density categories and voluntary annexation requests:

- Whether the amendment demonstrates a functional relationship of the proposed amendment to other • more densely and intensely designated or developed lands;
- The availability of public facilities and water supplies to service a more dense or intense land use; and
- Multi-modal transportation linkages between proposed residential uses and neighborhood."

**Staff Comment:** The proposed future land use change to commercial, without development standards and conditions of approval typically found in the zoning process, provides no functional relationship between the surrounding residential developments of lesser intensity. Adequate multi-modal transportation linkages, particularly adequate pedestrian connections, are currently in place or demonstrated through a development plan to support connectivity with existing nearby residential neighborhoods. The proposed Commercial FLUM designation will promote automobile-related strip commercial. Necessary pedestrian improvements are not included in the City's Five-Year Capital Improvement Program.

## **Transportation Element**

Policy 7.4: "The City shall require the provision of pedestrian and vehicular access to all parts of new 33 velopment projects...."

**Staff Comment:** The proposed commercial location does not have access to a major intersection that could provide pedestrian safety devices, such as marked crosswalks, pedestrian signals and other traffic devices that could enhance pedestrian safety. However, the proposed commercial future land use change would place commercial uses mid-block away from any intersection, encouraging pedestrian to cross mid-block where no pedestrian traffic features are present or planned. A mid-block location of commercial development has the potential to create more automobile/pedestrian conflicts along Jason Dwelley Parkway and Appy Lane.

## **Housing Element**

**Policy 1.4:** "The City of Apopka shall review development proposals to ensure: (1) adequate secondary or emergency access (2) reduction of through traffic in residential areas or limit the number of access points to a residential neighborhood; (3) limit or buffer higher intensity uses and particularly high car volume users in development adjacent to residential areas.

**Staff Comment:** The proposed Commercial FLUM designation may allow higher intensity and\or automobile oriented commercial development adjacent to residential areas. Zoning categories of C-1, C-2, and C-3 as well as Professional Office\Institutional are defined as "Permissible Zoning Districts within Future Land Use Classifications (Table II-1, Chapter II, Apopka Land Development Code.)

<u>SCHOOL CAPACITY REPORT</u>: The proposed future land use and zoning is non-residential and, therefore, a school capacity agreement is not needed.

**ORANGE COUNTY NOTIFICATION:** The JPA requires the City to notify the County 30 days before any public hearing or advisory board. The City properly notified Orange County on September 11, 2015.

## **PUBLIC HEARING SCHEDULE:**

October 13, 2015 - Planning Commission (5:01 pm) November 3, 2015- City Council (1:30 pm) - 1st Reading November 18, 2015 – City Council (7:00 pm) - 2nd Reading

## **DULY ADVERTISED:**

October 2, 2015 – Public Notice and Notification October 23, 2015 – Ordinance Heading <sup>1</sup>/<sub>4</sub> Page Ad w/Map

## **<u>RECOMMENDED ACTION</u>**:

The **Development Review Committee** finds the proposed amendment inconsistent with the Comprehensive Plan and not compatible with the character of the surrounding developed and planned area, and recommends denial of the change in Future Land Use from Residential Very Low Suburban (0-2 du/ac) to Commercial (max. FAR 0.25) for the property owned by Ever Meadow.

Note: This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

## LAND USE REPORT

## I. RELATIONSHIP TO ADJACENT PROPERTIES:

Direction	Future Land Use	Zoning	Present Use
North (City)	Residential Very Low Suburban (0-2 du/ac)	A-1 (ZIP)	Vacant
East (City)	Residential Estates	PUD	Jason Dwelley Pkwy & Single- family residential (Rock Springs Ridge)
South (City)	Residential Very Low Suburban (0-2 du/ac)	PUD	Vacant; Proposed Appy Lane Subdivision.
West (City)	Residential Very Low Suburban (0-2 du/ac)	PUD	Vacant Approved Orchid Estates Residential Community

## II. LAND USE ANALYSIS

The proposed FLUM amendment from Residential Very Low Suburban to Commercial for 9.98 acres abutting a mid-block section of Jason Dwelley Parkway is not compatible with the general character of the surrounding residential area, both existing and planned. A Commercial FLUM designation at the proposed site can create the following conflicts or incompatibility with adjacent and nearby residential areas:

- 1. Intensity of some permissible commercials uses allowed by the Commercial FLUM designation will create noise, illumination and odor nuisances for nearby existing and future residents.
- 2. Assignment of a Commercial FLUM designation at a mid-block location along Jason Dwelley Parkway will encourage the expansion of commercial uses southward to Appy Lane. Commercial development at the subject property will increase traffic volumes at the intersection of Appy Lane and Jason Dwelley Parkway, increasing the interest to expand commercial development to this intersection. Parcels at the Appy Lane intersection, which are currently assigned residential FLUM designations and residential zoning, offer better visibility to patrons visiting Northwest Regional Recreation Center. The traffic/transportation study and the Small Area Study to not evaluate the potential for future pressure to expand commercial land use north and south of the subject site.
- 3. Mid-block location of the Commercial FLUM designation will promote poor pedestrian connection to residential neighborhoods east of Jason Dwelley Parkway.
- 4. Commercial development at the subject site will create potential traffic concerns along Spinfisher Drive that the traffic\transportation study does not evaluate. The City's Five-Year Capital Improvement Program does not include road improvements to disperse westbound traffic within Rock Springs Ridge.
- 5. The proposed Commercial FLUM designation does not include a zoning application to assure that only Neighborhood Commercial will occur compatible in character with surrounding residential neighborhoods.
- 6. The proposed Commercial FLUM designation is not located where multiple roadways can disperse trips generated by commercial development along Jason Dwelley Parkway. Only one roadway Jason Dwelley Parkway -- will absorb all traffic generated by commercial development at the subject property.

#### PLANNING COMMISSION – OCTOBER 13, 2015 EVER MEADOW – SMALL SCALE FUTURE LAND USE AMENDMENT PAGE 6

No new roadway is planned to connect proposed commercial development at the subject site southward to Appy Lane or northwestward to Kelly Park Road. All traffic entering or exiting the subject site will occur adjacent to the Rock Springs Ridge residential community

Wekiva River Protection Area: <u>No</u> Area of Critical State Concern: <u>No</u> DRI / FQD: <u>No</u>

JPA: The City of Apopka and Orange County entered into a Joint Planning Area (JPA) agreement on October 26, 2004. The subject property is not located within "Northern Area" of the JPA.

<u>Wekiva Parkway and Protection Act</u>: The proposed amendment has been evaluated against the adopted Wekiva Study Area Comprehensive Plan policies. While located within the Wekiva River Basin Study Area, the subject property is not located within the Protection Area. The proposed amendment appears to be consistent with the adopted mandates and requirements subject to implementation of development standards at the preliminary and final development plan. The proposed Future Land Use Map (FLUM) amendment has been reviewed against the best available data, with regard to aquifer and groundwater resources. The City of Apopka's adopted Comprehensive Plan addresses aquifer recharge and stormwater run-off through the following policies:

- Future Land Use Element, Policies 4.16, 14.4, 15.1, 16.2 and 18.2
- Infrastructure Element, Policies 1.5.5, 4.2.7, 4.4, 4.4.1, 4.4.2 and 4.4.3
- Conservation Element, Policy 3.18

<u>Karst Features:</u> The Karst Topography Features Map from the Florida Department of Environmental Protection shows that there are no karst features on this property.

<u>Analysis of the character of the Property</u>: The Property fronts Jason Dwelley Pkwy. The vegetative communities present are urban; the soils present are Candler fine and Tavares-millhopper fine sand; and no wetlands occur on the site, and the terrain has a 0-5 percent slope.

<u>Analysis of the relationship of the amendment to the population projections</u>: The proposed future land use designation for the Property is Commercial (max. FAR 0.25). Based on the housing element of the City's Comprehensive Plan, this amendment will not increase the City's future population.

## **CALCULATIONS:**

ADOPTED (City designation):	19 Unit(s) x 2.659 $p/h = 50$ persons
PROPOSED (City designation):	$0 \text{ Unit(s)} \ge 2.659 \text{ p/h} = 0 \text{ persons}$

<u>Housing Needs</u>: This amendment will not negatively impact the housing needs as projected in the Comprehensive Plan.

<u>Habitat for species listed as endangered, threatened or of special concern</u>: Per policy 4.1 of the Conservation Element, a habitat study is required for developments greater than ten (10) acres in size. This site is less than ten acres. A habitat study will not be required at the time of a development plan application.

<u>Transportation</u>: The City of Apopka is a Transportation Concurrency Exception Area. Refer to Chapter the City of Apopka 2010 Comprehensive Plan.
## Sanitary Sewer Analysis

1. Facilities serving the site; current LOS; and LOS standard: <u>City of Apopka</u>; <u>81 GPD/Capita</u>; <u>81 GPD / Capita</u>

If the site is not currently served, please indicate the designated service provider: City of Apopka

- 2. Projected total demand under existing designation: <u>3724</u> GPD
- 3. Projected total demand under proposed designation: <u>16302</u> GPD
- 4. Capacity available: <u>Yes</u>
- 5. Projected LOS under existing designation: <u>81</u>GPD/Capita
- 6. Projected LOS under proposed designation: <u>81</u> GPD/Capita
- 7. Improved/expansions already programmed or needed as a result if proposed amendment: None

## Potable Water Analysis

1. Facilities serving the site; current LOS; and LOS standard: <u>City of Apopka</u>; <u>177</u> GPD/Capita; <u>177</u> GPD/Capita

If the site is not currently served, please indicate the designated service provider: City of Apopka

- 2. Projected total demand under existing designation: <u>3990</u> GPD
- 3. Projected total demand under proposed designation: <u>21736</u> GPD
- 4. Capacity available: <u>Yes</u>
- 5. Projected LOS under existing designation: <u>177</u> GPD/Capita
- 6. Projected LOS under proposed designation: <u>177 GPD/Capita</u>
- 7. Improved/expansions already programmed or needed as a result of the proposed amendment: <u>None</u>
- 8. Parcel located within the reclaimed water service area: <u>No</u>

## Solid Waste

- 1. Facilities serving the site: <u>City of Apopka</u>
- 2. If the site is not currently served, please indicate the designated service provider: <u>City of Apopka</u>
- 3. Projected LOS under existing designation: <u>200</u>lbs./person/day
- 4. Projected LOS under proposed designation: <u>217</u> lbs./1000 SF
- 5. Improved/expansions already programmed or needed as a result of the proposed amendment: <u>None</u>

This initial review does not preclude conformance with concurrency requirements at the time of development approval.

## Infrastructure Information

Water treatment plant permit number: <u>CUP No. 3217</u>

Permitting agency: <u>St. John's River Water Management District</u>

Permitted capacity of the water treatment plant(s): <u>21.981</u> MGPD

Total design capacity of the water treatment plant(s): <u>33.696 MGPD</u>

Availability of distribution lines to serve the property: Yes

Availability of reuse distribution lines available to serve the property: No

## Drainage Analysis

- 1. Facilities serving the site: <u>None</u>
- 2. Projected LOS under existing designation: <u>100 year 24 hour design storm</u>
- 3. Projected LOS under proposed designation: <u>100 year 24 hour design storm</u>
- 4. Improvement/expansion: <u>On-site retention/detention pond</u>

## **Recreation**

- 1. Facilities serving the site; LOS standard: <u>City of Apopka Parks System</u>; <u>3 AC/1000 capita</u>
- 2. Projected facility under existing designation: <u>0.15</u> AC
- 3. Projected facility under proposed designation: <u>N/A AC</u>
- 4. Improvement/expansions already programmed or needed as a result of the proposed amendment: <u>None</u>

This initial review does not preclude conformance with concurrency requirements at the time of development approval.

Ever Meadow 9.98 +/- Acres Existing Maximum Allowable Development: 19 dwelling units Proposed Maximum Allowable Development: 108,682 sq. ft. Proposed Small Scale Future Land Use Change From: Residential Very Low Suburban (0-2 du/ac) To: Commercial (max. FAR 0.25) Parcel ID #: 18-20-28-0000-00-117 (Portion)

# **VICINITY MAP**







## **ADJACENT USES**





## **EXISTING USES**





# **Ever Meadow**

# Small Area Study



Submitted to: City of Apopka 5/29/2015

Prepared by: Littlejohn Engineering Associates, Inc. Prepared for: Ever Meadow, LLC

## Introduction

The purpose of this Small Area Study is to evaluate a proposed change in Future Land Use designation from Residential-Very Low Suburban (R-VLS) to Commercial (C) on 9.98 acres of a 27.81 acre parcel (Parcel ID: 18-20-28-0000-00-117, 4448 Chandler Road) in the City of Apopka. The subject property is located in an area of North Apopka that is in the midst of a transition from rural to more urban development. The proposed change would provide neighborhood commercial uses that would serve both existing and future residents.

With this amendment, Ever Meadow could be the first mixed-use project in North Apopka. Utilizing the existing infrastructure in the area and unique site access to major roadways, the project proposes the development of up to 49 residential units along with a balanced mix of retail and office uses. The project is designed to support not only future Ever Meadow residents but also visitors of the Northwest Recreation Complex and residents of the surrounding neighborhoods.

This small area study will look at the surrounding land uses within a ½ mile radius of the property and evaluate the amendment with regards to Land Use, Transportation, Schools and Utilities. These analyses will examine the current level of infrastructure in the area as well as the compatibility with surrounding land uses. Because the proposed change is in an area of transition it will be important to evaluate future development projections for the area as well as existing conditions evaluating compatibility.

This proposed Future Land Use Amendment asks the Apopka City Council to recognize the current growth trends of the area, existing infrastructure, unique site access and the current lack of housing-type diversity and retail choices in the area and then to evaluate the potential quality of life benefits of this land use change and innovative development plan. This small area study is submitted to the City of Apopka as supporting documentation for this important decision.

## **Existing Conditions**

The 27.81 acre subject property (Parcel ID: 18-20-28-0000-00-117, 4448 Chandler Road) is located in a northern section of the City of Apopka, east of Plymouth Sorrento Road, south of Kelly Park Road, west of Rock Springs Road and north of Ponkan Road and approximately 1.5 miles south east of the programmed Wekiva Parkway/Kelly Park Road Interchange.

#### Exhibit A: Aerial Map



Source: Orange County Property Appraiser, 2012

The current use of the property, as identified by the Orange County Property Appraiser is vacant residential. The Future Land Use designation for the property is Residential-Very Low Suburban (R-VLS) and has a maximum residential density of two units per acre.

The property is located in a burgeoning area of transition within the City of Apopka as evidenced by the surrounding mix of agricultural/horticultural uses and newer homes in neighborhoods such as Rock Springs Ridge, Bluegrass Estates and Spring Hollow. While the transition from agriculture to residential has been distinct, it has not been diverse in housing options. Currently there are no commercial parcels within a three-mile radius of the subject property.



#### **Exhibit B: Study Area Map**

Source: Orange County Property Appraiser, 2012

The subject property is just north of the City's recently completed Northwest Recreation Complex. This facility is a major recreational amenity and activity center serving the residents of Apopka as described on the City's website:

"The Northwest Recreation Complex is located at 3710 Jason Dwelley Parkway, Apopka, 32712. The complex has over 180 acres of land including 6 full sided soccer fields, 4 multi-purpose fields, 2 lacrosse fields, 2 flag football fields, 6 baseball fields, 6 softball fields, 4 tennis courts, 3 basketball courts, 4 sand volleyball courts and 4 pavilions along with a .9 mile walking trail. The complex also has a toddler and youth playground area.

Ever Meadow Small Area Study

The facility is home to the Apopka Pop Warner and Apopka Little League programs along with City run programs such as youth soccer and flag football and adult softball and kickball. The complex is used as the home for several organized teams and leagues for practices and games along with fields available for pick-up games to the general public.

The complex is also home to the Apopka Amphitheater. The amphitheater has a seating capacity of 1,500 and lawn seating for as many as 5,000.

Source: http://www.apopka.net/departments/recreation/recreational-facility-locations/northwest-recreation-complex

Ever Meadow	
Retail	57,740 sf
Office	35,000 sf
Residential	49 units

Despite increased residential development and the opening of the Recreational Complex attracting visitors from throughout the region, significant retail development has not yet entered this market. There are currently no grocery stores within a three mile radius of the subject property. The closest grocery stores are the Mt. Plymouth Grocery located at 31431 County Road 435 in Sorrento and a Publix Supermarket located at 1545 Rock Springs Road in Apopka.

## **Proposed Amendments and Analyses**

This growing area of North Apopka looks much different than it did 20 years ago and will change much more over the next 20 years. Surrounding Future Land Use designations look very similar to recent development in the area: lower density single family residential. As residential growth continues in the area, the City will continue to monitor issues such as the location of neighborhood commercial (to serve the growing market,) road connectivity and diversity in housing options.

Ever Meadow is envisioned as a functional mixed-use community. While different in land use and design form, the project seeks to integrate with and complement surrounding land uses including neighbors such as Rock Springs Ridge, Bluegrass Estates, Spring Hollow and the City's Northwest Recreation Complex: a 180-acre regional activity center. The proposed project seeks to utilize its exceptional access, off of both Chandler Road to the north and Jason Dwelley to the east, to develop the following program on the 27.81-acre site.

#### **Table 1: Development Program**

#### Source: Ever Meadow, LLC

The anchor of Ever Meadow will be the residents of its one hundred and sixty homes. Residents, of what could be the area's first mixed-use neighborhood, will enjoy an array of offices and dailyuse retail amenities such as a grocery store, coffee house, ice cream shop, dry cleaner, bank and a pizza parlor- all within a short walk of their homes. The development will utilize an urban design

Ever Meadow Small Area Study

form which seeks to cater to the pedestrian as well as the automobile. Buildings will face the street, with parking lots in the rear, to shorten the walking distance between buildings. Wide sidewalks with shade trees and aesthetically pleasing landscaping will make walking a more comfortable and popular option, creating a pleasant retail experience for both residents and outside patrons. Ever Meadow is designed as a destination where people can run errands and actually enjoy the experience. This live, work and play model, which has proven to be very successful in other areas of Central Florida and across the country, would be unique in the Apopka market.

The retail amenities of Ever Meadow will not be exclusive to its residents. The market area for Ever Meadow includes residents of surrounding neighborhoods and visitors of the Recreation Complex as the project is intended to serve the neighborhood commercial needs of the area. The subject property's central location to existing and future residential development along with its multiple access points to major roadways make it a well-positioned property for a mixed use project. Ever Meadow is designed to enhance the quality of life for current and future residents of North Apopka.

This section of the Small Area Study will identify the proposed amendments to the City of Apopka Comprehensive Plan necessary to implement the proposed plan and evaluate the suitability and potential impact of the changes in the areas of Land Use, Transportation, Schools and Utilities.

### Amendments

 Through a large scale future land use amendment to Commercial (C) and a zoning change to Planned Unit Development (PUD): *"a flexible, alternative zoning procedure to encourage imaginative and innovative design"* the applicant seeks to provide a walkable, mixed-use project in this developing area of the City.

#### Analyses

#### Land Use

As shown on the following map, the proposed change does not provide *consistency* in Future Land Use designations in that there are no C designations adjacent to the subject property. However contemplation of the way in which a proposed amendment would *complement* surrounding uses is a more pertinent question to consider when evaluating this type of amendment. The subject property is strategically located at the center of a growing residential area. This location combined with its access to both Chandler Road and Jason Dwelley Parkway make this site an ideal location for a mixed-use project providing neighborhood commercial uses to serve the greater, and currently underserved, local market area.

#### Exhibit C: Apopka Future Land Use Map



Source: City of Apopka

The proposed amendment would provide for the development of Ever Meadow which seeks to utilize existing infrastructure and provide the area with a project that will increase housing diversity and retail amenities, including a grocery store.

The utilization of existing infrastructure is a guidepost for growth in Apopka. The City, in its Future Land Use Element, cites the following as a standard used to guide the distribution of growth:

# *"Improve development efficiency by guiding development to existing growth areas where infrastructure systems are in place and where unit costs for public services and facilities are relatively low;"*

The subject property has direct access to both Chandler Road and Jason Dwelley Parkway and is served by four main roadways: Kelly Park Road, Jason Dwelley Parkway, Plymouth Sorrento Road, and Ponkan Road. The proposed amendment both guides development to existing growth areas and utilizes existing infrastructure.

As detailed in the existing conditions section of this study, there are no commercial developments within a 3-mile radius of the subject property. Providing for a diversity of land uses, including neighborhood scale commercial uses, is an essential element of good community planning and one that is recognized in the Future Land Use Element of the City's Comprehensive Plan. This provision of neighborhood scale commercial would expand accessibility for residents to daily consumer needs and help to balance traffic through a more even distribution of automobile trips.

The issue of compatibility of commercial development adjacent to residential development is not new. While some concerns are more perception than reality, the common factor between pitfalls and success is often design. Rather than develop a high intensity big-box or "strip" retail in an area predominantly is projected as largely single family, Ever Meadow seeks to integrate neighborhood scale, walkable, and interconnected retail and office uses and detached single family residential dwelling units as part of a functional and amenitized mixed-use neighborhood. In mixed-use projects, pedestrian-friendly commercial development serves as a crucial element for success by providing consistent activity and base market for retail. The relationship between residential and commercial uses is mutually beneficial and ultimately supports a retail amenity that will serve the greater North Apopka area. This mixed-use design form provides a win-win scenario for the whole community.

Rock Springs Ridge, Bluegrass Estates, Spring Hollow and the City's Recreation Complex have all contributed towards a growing retail market around Ever Meadow. The development of Ever Meadow as a vibrant mixed-use project would increase the quality of life for existing residents, who now drive several miles or more to the nearest grocery store. With its convenient location and thoughtful-walkable design, Ever Meadow will be more than just an errand stop but also a destination retail amenity. The Ever Meadow project and the Northwest Recreation Complex will be mutually beneficial to one another. The complex will provide additional market support during weekly activities and special tournaments. Reciprocally, a vibrant mixed-use node in close proximity to the complex will increase the facility's attractiveness as a tournament location and concert venue.

#### Transportation

As shown below, the subject property has direct access to both Chandler Road and Jason Dwelley Parkway and is served by four main roadways: Kelly Park Road, Jason Dwelley Parkway, Plymouth Sorrento Road, and Ponkan Road.

#### Exhibit D: Road Network Map



Source: Orange County Property Appraiser, 2012

Based on the most recent data available from the City of Apopka (1/31/12), each of these segments have an available Daily Traffic capacity of more than 33% as shown on the following chart.

Roadway Section	# of Lanes	Ado	oted Standard	Daily	Traffic
		LOS	Daily Traffic	Base Volume	Available Capacity
Plymouth Sorrento Road (Kelly Park Rd. to Ponkan Rd.)	2	E	13,900	7,901	4,711 33.9%
Jason Dwelley Parkway (Kelly Park Rd to Ponkan Rd.)	2	E	14,850	1,431	12,796 86.2%
Kelly Park Road(Plymouth Sorrento Rd to Jason Dwelley Parkway)	2	D	20,000	3,069	16,746 83.7%
Kelly Park Road (Jason Dwelley Parkway to Mt. Plymouth Road)	2	D	20,000	3,193	16,692 83.5%
Kelly Park Road (Mt. Plymouth Road to Rock Springs Road)	2	D	20,000	9,145	10,855 54.3%
Ponkan Road (Plymouth Sorrento Road to Vick Road)	2	E	13,900	3,924	8,355 60.1%

#### **Table 2: Roadway Level of Service**

Source: City of Apopka CMS, 1/31/12

A mixed-use project such as Ever Meadow can be expected to yield more internal trips, a concept referred to as internal capture, and thus produce fewer external trips than a similar program with

separate land uses. If required at the time of site planning, a more detailed transportation analysis would project levels of internal capture for the proposed mixed use project. At this initial stage of analysis it is important to recognize the existing road infrastructure and its connectivity, which is essential for a balanced distribution for trips both origin and destination in nature.

#### **Exhibit E: Potential Road Connections Map**



Source: Orange County Property Appraiser, 2012

As shown above, the subject property is uniquely positioned with access to Chandler Road to the north and Jason Dwelley Parkway to east. This access provides the property owner with commercial viability for development and the City with an opportunity to improve road connectivity in the area. As shown below the subject property could provide a western extension of Legg Drive and advance the potential of connecting Chandler Road down to Appy Lane, which would provide a parallel facility to both Plymouth Sorrento Road and Jason Dwelley Parkway.

These potential roadway network improvements are important to the future urbanization of this area and are consistent with Future Land Use Policy 12.3 (3): "Local streets should be designed in a grid system to the maximum extent possible and relate functionally to the surrounding arterial road network."

#### Utilities

The subject property will be provided electrical service by Progress Energy. Water service and wastewater treatment is available from the City of Apopka.

The City of Apopka has planned for potable water to support more than 100% increase in served population over the next eighteen years as detailed in the table below.

Year	<b>Total Estimated Population</b>	Projected Average Daily	Projected Level of
	Served	Flow (mgd)	Service (gpcd)
2010	59,196	10.505	177
2015	74,894	12.059	161
2020	90,633	14.002	154
2025	111,086	16.017	144
2030	129,304	17.659	137

## Table 4: City of Apopka Potable Water Projections

SOURCE: Table 2A, June 2010 CUP Application/City of Apopka 2030 Comprehensive Plan \*Does not include Zellwood Station

## Conclusion

The subject property is located in a growing area North Apopka and is served by significant existing infrastructure. The proposed change in Future Land Use designation from Residential-Very Low Suburban (R-VLS) to Commercial (C) would increase the maximum allowable FAR for 9.98 acres of the parent parcel to 0.5, allowing for sufficient development program to provide for the critical mass, building massing, and interconnectivity to create a vibrant neighborhood commercial development.

With site access to both Chandler Road and Jason Dwelley Parkway, the project proposes the construction of 160 residential dwelling units integrated with a balanced mix of retail and office uses. The project is designed to support not only future Ever Meadow residents but also visitors of the Northwest Recreation Complex and residents of surrounding neighborhoods. The project is designed as a character, mixed-use project that will serve as a retail destination and amenity for the North Apopka community.

The amendment analyses indicate that the proposed project would not have an adverse effect on Transportation Systems, Schools or Utilities. From a Land Use perspective, the Ever Meadow project is both compatible and complementary. It's the right project in the right place. The subject property has access to significant infrastructure and is surrounded by existing neighborhoods, future residential areas and the Recreation Complex that provide a solid base market for commercial and residential development. The proposed plan seeks to leverage these assets to develop an integrated mixed-use center. Ever Meadow would provide an innovative development that would benefit current and future residents of the area and improve the quality of life in North Apopka. Additionally, Ever Meadow would provide for a needed retail destination, including a grocery store, which would serve both residents and visitors.

The proposed change in Future Land Use designation would be of benefit to the City of Apopka. This land use change is supported by surrounding land use and growth patterns, existing infrastructure and the capacity to accommodate the projected impacts of the project. The proposed amendment and project would complement surrounding land uses and serve as amenity to this area. Approval of the amendments needed for the Ever Meadow project would be a wise and prudent decision for the City of Apopka.

## Jeanne Green - Re: Fwd: Ever Meadow Transportation Analysis

From:Jay DavollTo:Green, JeanneDate:10/5/2015 4:53 PMSubject:Re: Fwd: Ever Meadow Transportation AnalysisAttachments:14014 Evermeadows TIA 041014.pdf

FYI

>>> Jay Davoll 10/10/2014 9:00 AM >>> Good morning,

David forwarded me the attached traffic report for Ever Meadows. Since only the Concept Plan has been submitted and it is not a requirement of the Concept Plan submittal to have a traffic report, I will not be reviewing the traffic report at this time. When a Preliminary Development Plan is submitted, the traffic report will be reviewed at that time. Should you have any questions, please contact me.

*R. Jay Davoll*, P.E. Community Development Director City Engineer City of Apopka 120 E. Main Street P.O. Box 1229 Apopka, Florida 32704-1229 407- 703- 1718 (Phone) 407- 703- 1791 (Fax) jdavoll@apopka.net (email)

>>> George Kramer <gkramer@leainc.com> 10/6/2014 2:56 PM >>> David,

Please see the attached.

George

George M. Kramer, AICP, LEED AP Director of Planning- Orlando

# Littlejohn

Nashville | Chattanooga | Decatur | Huntsville | Knoxville | Orlando | Phoenix | Tri-Cities

1615 Edgewater Drive, Suite 180 Orlando, Florida 32804 P: <u>407-975-1273</u> C: <u>407-202-8387</u> F: <u>407-975-1278</u> <u>gkramer@leainc.com</u> www.leainc.com Evermeadows Project № 14-014 April 2014

### TRAFFIC IMPACT ANALYSIS CITY OF APOPKA, FL



1507 S. Hiawassee Road, Suite 212 Orlando, Florida 32835 www.trafficmobility.com (407) 531-5332

### Prepared for:

Ever Meadow, LLC 6000 Turley Lake Road, Suite 102-105 Orlando, Florida 32819

## **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:** Evermeadows
- LOCATION: City of Apopka
- CLIENT: Ever Meadows, LLC

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.

NAME:	Mohammed Abdallah
P.E. No.:	Florida P.E. No. 56169
DATE:	April 10, 2014

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Evermeadows Project № 14-014 Table of Contents ii

## 1.0 INTRODUCTION

This traffic analysis was performed to assess the impact of the proposed Evermeadows mixed use development which comprises 35,000 square feet of office, 47,300 square feet of retail, a 6,240 square foot fast food restaurant, a 4,200 square foot bank, and 49 single family residential units. The site is located on Jason Dwelley Parkway north of Appy Lane in the City of Apopka. **Figure 1** depicts the location of the project site and the surrounding roadway network. A conceptual site layout is provided in **Appendix A**.

The following analysis was conducted in accordance with the City of Apopka's methodology, as agreed with City Staff. The analysis considers the project's impacts on the following roadways and intersections, which are most affected by the development:

#### Roadway Segments

- Plymouth Sorrento Road Kelly Park Road to Ponkan Road
- Kelly Park Road
  - o Plymouth Sorrento Road to Jason Dwelley Parkway
  - o Jason Dwelley Parkway to Mount Plymouth Road
- Ponkan Road Plymouth Sorrento Road to Vick Road
- Jason Dwelley Parkway Kelly Park Road to Ponkan Road
- Appy Lane Plymouth Sorrento Road to Jason Dwelley Parkway

#### Intersections

- Jason Dwelley Parkway and Appy Lane
- Jason Dwelley Parkway and Kelly Park Road
- Jason Dwelley Parkway and Ponkan Road
- Plymouth-Sorrento Road and Appy Lane
- Site Access Intersections

Data used in the analysis consisted of site plan/development information provided by the Project Engineers, PM peak hour traffic counts obtained by Traffic & Mobility Consultants, LLC (TMC) and road segment data obtained from the City of Apopka.





## 2.0 EXISTING CONDITIONS ANALYSIS

Capacity analyses were performed for the study roadway segments and intersections for the existing traffic to establish the current operating conditions of the transportation facilities.

## 2.1 Roadway Capacity Analysis

**Table 1** presents a summary of the existing conditions for the roadway segments examined in this study. Roadway segments were analyzed by comparing the existing Level of Service (LOS) for each roadway segment with the adopted LOS standard. Existing Daily and PM peak hour directional traffic volumes and capacities were obtained from the City of Apopka's *Encumbered Traffic Allocation Worksheets*, which are included in **Appendix B**.

				Daily		i i sta	PM Pea	k Hour	
Roadway Segment	No Lns	LOS Std	Сар	Existing Traffic	LOS	PHPD Cap	Existing Traffic	Peak Dir	LOS
Plymouth Sorrento Road									
Kelly Park Rd to Ponkan Rd	2	Е	14,200	8,672	с	740	548	NB/EB	с
Kelly Park Road									
Plymouth Sorrento Rd to Jason Dwelley Rd	2	Е	31,500	3,278	В	1,640	198	NB/EB	В
Jason Dwelley Rd to Mt. Plymouth Rd	2	E	31,500	3,444	В	1,640	232	NB/EB	В
Ponkan Road									
Plymouth Sorrento Rd to Vick Rd	2	Е	14,200	4,919	С	740	316	SB/WB	С
Jason Dwelley Parkway									
Kelly Park Rd to Ponkan Rd	2	Е	15,900	1,803	С	790	129	SB/WB	с
Appy Lane									
Plymouth Sorrento Rd to Jason Dwelley Pkwy	2	Е	15,900	271	С	790	37	NB/EB	С

Table 1Existing Roadway Capacity Analysis

The existing conditions analysis reveals that the study roadway segments currently operate at satisfactory LOS.



## 2.2 Intersection Capacity Analysis

An intersection analysis was conducted using the *Synchro Software* and the methods of the *2010 Highway Capacity Manual (HCM)*. The capacity analysis was performed using the existing intersection geometries and traffic volumes during the PM peak hour. Existing turning movement counts were obtained by TMC, Inc. and adjusted using seasonal factors from the Florida Department of Transportation's (FDOT) 2013 Traffic Information. The raw intersection turning movement counts are included in **Appendix C**.

The adjusted intersection volumes are displayed in **Figure 2**. A summary of the intersection capacity analysis is shown in **Table 2**.

Intersection	Control	E	В	W	В	N	В	S	В	Ove	rall
	Control	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Ove Delay  23.1	LOS
Jason Dwelley Pkwy and Appy Ln	Stop	9.2	А			7.4	А				
Jason Dwelley Pkwy and Kelly Park Rd	Stop			7.6	А	10.1	В				
Jason Dwelley Pkwy and Ponkan Rd	Signal	19.6	В	28.5	С			7.8	А	23.1	С
Plymouth-Sorrento Rd and Appy Ln	Stop			13.7	В			8.7	А		

 Table 2

 Existing Intersection Capacity Analysis

This analysis indicates that the study intersections currently operate at satisfactory LOS. Detailed analysis worksheets are included in **Appendix D**.





## 3.0 TRIP GENERATION AND DISTRIBUTION

The project's traffic and travel characteristics determine the level of impact it will have on the surrounding transportation facilities. These characteristics include the project's trip generation, the distribution of those trips in the area, then their assignment to the roadway network.

## 3.1 Trip Generation

Information published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual, 9<sup>th</sup> Edition* was used to determine the trip generation of the proposed development as summarized in **Table 3**. Detailed trip generation and internal capture sheets are included in **Appendix E**.

Description	LU	Quantity	Da	ily	F	M Peak H	Hour Trips	5
Description	Code	Quantity	Rate	Trips	Rate	ln	Out	Total
Office	710	35.000 KSF	16.89	591	3.36	20	98	118
Retail	820	47.300 KSF	88.25	4,174	7.67	174	189	363
High Turnover Sit-Down Resturant	932	6.240 KSF	127.15	793	9.85	37	24	61
Drive-In Bank	912	4.200 KSF	148.15	622	24.30	51	51	102
Single Family Residential	210	49 DUs	11.12	545	1.13	35	20	55
		Subtotal		6,725		317	382	699
	Internal	Capture (10%)		673		32	38	70
		Subtotal		6,052		285	344	629
Pass-b	y Trips fo	or Retail (34%)		1,277		53	58	111
Pass-by Trips for High Turnover Sit-	Down Re	esturant (43%)		307		14	9	24
Pass-by Trips	for Drive-	in Bank (47%)		263		22	22	43
		Subtotal		1,847		89	89	178
	N	et New Trips		4,878		228	293	521

Table 3 Trip Generation Analysis

Based on this calculation, the proposed development will generate 4,878 trips per day, of which 521 trips will occur during the PM peak hour.

## 3.2 Trip Distribution/Assignment

To assign the P.M. peak hour trips generated by the proposed development to the study roadways, a distribution pattern was determined based on the development's location, prevailing traffic patterns, and the knowledge of the study area. The proposed trip distribution pattern is provided in **Figure 3** and the distribution calculations are included in **Appendix F**.





## 4.0 PROJECTED CONDITIONS ANALYSIS

Projected traffic conditions for project buildout were analyzed for Daily and PM peak hour traffic. The analyses were conducted for the projected background traffic volumes and project trips. Background traffic consists of existing traffic and committed trips from approved developments in the area, which were obtained from the City's *Encumbered Traffic Allocation Worksheets*.

## 4.1 Roadway Capacity Analysis

The roadway segment analysis was performed by comparing the projected LOS of the roadway with the adopted LOS standard. This analysis is summarized in **Table 4**, which reveals that the segments will continue to operate at satisfactory LOS in the projected condition.



Evermeadows Project № 14-014 Page 8 Table 4 Projected Roadway Capacity Analysis

			•	i of own working or a pacify Allary or		5	apacit		y all							
					_	Daily		Ser SX				PM	PM Peak Hour	r		
Roadway Segment	No Lns	LOS Std	Cap	Existing Traffic	Comm Trips	Trip Distr	Project Trips	T otal T raffic	ros	РНРD Сар	Existing Traffic	Peak Dir	Comm Trips	Project Trips	Total Traffic	ros
Plymouth Sorrento Road																
Kelly Park Rd to Ponkan Rd	2	ш	14,200	8,672	1,138	10%	52	9,862	U	740	548	NB/EB	75	29	652	U
Kelly Park Road									1							Τ
Plymouth Sorrento Rd to Jason Dwelley Rd	2	ш	31,500	3,278	185	13%	68	3,531	B	1,640	198	NB/EB	12	30	240	ш
Jason Dwelley Rd to Mt. Plymouth Rd	2	ш	31,500	3,444	115	30%	156	3,715	8	1,640	232	NB/EB	∞	88	328	m
Ponkan Road									1							Γ
Plymouth Sorrento Rd to Vick Rd	2	ш	14,200	4,919	1,252	30%	156	6,327	U	740	316	SB/WB	93	88	497	υ
Jason Dwelley Parkway									1							Τ
Kelly Park Rd to Ponkan Rd	2	ш	15,900	1,803	623	43%	224	2,650	U	790	129	SB/WB	40	126	295	U
Appy Lane									1	1						Τ
Plymouth Sorrento Rd to Jason Dwelley Pkwy	2	ш	15,900	271	0	15%	78	349	U	790	37	NB/EB	0	34	71	U
									1							1



Evermeadows Project Nº 14-014 Page 9

## 4.2 Intersection Capacity Analysis

To assess the projected operating conditions at the study intersections, an intersection capacity analysis was conducted using projected traffic volumes and projected intersection configurations. The intersections were analyzed using the *Synchro Software*. Projected peak hour volumes were calculated by adding background traffic and project trips at the intersections. Background traffic is comprised of existing and committed traffic at the intersections. Committed trips were estimated by assigning the segment committed trips to the intersection turning movements. The assignment was performed by distributing the approach committed trips and balancing the intersection movements. The projected PM peak intersection turning movements are shown in **Figure 4**, and the intersection analysis is summarized in **Table 5**.

Intersection	Control	E	В	W	'B	N	В	S	В	Ove	rall
		Delay	LOS								
Jason Dwelley Pkwy and Appy Ln	Stop	12.3	В			7.9	А				
Jason Dwelley Pkwy and Kelly Park Rd	Stop			8.0	А	13.5	В				
Jason Dwelley Pkwy and Ponkan Rd	Signal	18.0	В	28.4	С			12.6	В	22.2	С
Plymouth-Sorrento Rd and Appy Ln	Stop			17.2	С			9.2	А		
Jason Dwelley Pkwy and Access Drwy 1	Stop	9.7	А								
Jason Dwelley Pkwy and Access Drwy 2	Stop	17.3	С			8.0	А				
Jason Dwelley Pkwy and Access Drwy 3	Stop	10.1	В								

 Table 5

 Projected Intersection Capacity Analysis

The analysis shows that the intersections will continue to operate at satisfactory LOS in the projected conditions. Detailed printouts of the analysis are included in **Appendix G**.






#### 4.3 Turn Lane Analysis

#### <u>Right Turn Warrant</u>

The need for right turn deceleration lanes on Jason Dwelley Parkway at the proposed project driveways was evaluated. The evaluation was prepared based on the methods of the National Cooperative Highway Research Project (NCHRP) Report 457, *"Evaluating Intersection Improvements – An Engineering Study Guide".* The review determined that southbound right turn lanes are not warranted at project entrances. The warrant worksheets are included in **Appendix H**.

#### Left Turn Storage Length

A northbound left turn lane is required at the proposed full median opening on Jason Dwelley Parkway at the main project access (Driveway 2). The dimensions of the northbound left turn lane are determined by the deceleration length and the queue storage needed to adequately serve projected traffic. The deceleration length is obtained from the FDOT's Design Standards Index 301 for a 35 mph speed, which prescribes a minimum length of 135 feet. The queue storage area is based on the projected 95<sup>th</sup> percentile queue length obtained from the intersection analysis. The analysis indicates a queue of less than 1 vehicles for the northbound left turn movement. However, for design purposes it is recommended that a minimum storage length for 2 vehicles (50 feet) is provided. Therefore, the turn lane dimensions are:

Lane Length = Decel (Index 301) + Q<sub>95th %ile</sub> = 135 feet + 50 feet = 185 feet

Therefore, the northbound left turn lane turn lane should be a minimum of 185 feet long, including a 50 foot taper.



#### 5.0 STUDY CONCLUSIONS

This traffic analysis was performed to assess the impact of the proposed Evermeadows mixed use development which comprises 35,000 square feet of office, 47,300 square feet of retail, a 6,240 square foot fast food restaurant, a 4,200 square foot bank, and 49 single family residential units. The site is located on Jason Dwelley Parkway north of Appy Lane in the City of Apopka.

The analysis also considered the operations at the project access point and the geometric requirements of the driveway intersection. The results of the analysis as documented herein are summarized below:

- The proposed development will generate 4,878 new external trips per day, of which 521 trips will occur during the PM peak hour.
- An analysis of existing conditions reveals that all study roadway segments and intersections currently operate adequately and within their adopted LOS standards.
- At project buildout, the study roadway segments and intersections will continue to operate adequately and within their adopted LOS standards.
- Capacity improvements on the transportation network are not required to accommodate the traffic generated by the proposed development.
- A review of access related improvements at the project driveways reveals:
  - Southbound right turn deceleration lanes are not warranted at the project driveways on Jason Dwelley Parkway
  - A left turn deceleration lane is required to serve the proposed full access median opening at the main project driveway (Driveway 2). The length of the northbound left turn lane turn lane should be a minimum of 185 feet, including a 50 foot taper.

The proposed development <u>does not</u> adversely impact the transportation network and thereby meets the requirements of the City's Concurrency Management System.



#### APPENDICES

# **Appendix A** Preliminary Site Plan



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# Appendix B City of Apopka CMS Data

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County Line to Kelly Park Rd	21,	ω	31,500	1,640			-	7,863	23,502	553	1,079	NB/EB
	A second s			And the second se	Orchid Estates (fka J.B. Nurseries)	135	201		74.61%		65.79%	
Valler Dark Del to Dechan D.1	4	1			Applicant Inventory 1 0tal	135	Ð					
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					Oak Ridge Subdivision	209	45.		37.04%		15.70%	
					Orchid Estates (ika J.B. Nurseries)	231	13					
					Wekiva Run (Phase 1, 2, & 3) (fka Ponkan Ridge)	£	9					
					Applicant Inventory Total	995	66					And the second second
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					Willin Farms	88	4					
					Applicant Inventory Total	910	82					
Lester Rd/Yothers Rd to US 441	21.	45	15,900	790				10,095	4,644	645	38	NB/EB
					Chandler Estates	126	13		29.21%		4.81%	
					Lester Ridge Subdivision	195	21					
					Oak Ridge Subdivision	349	22					
					Schopke Road Subdivision	194	2					
					Wekiva Run (Phase 1, 2, & 3) (fka Ponkan Ridge)	220	22					
					Wilkin Farms	77	20					
والمعاويل والمعاومة والمعالية والمعاومة والمعالية وا					Applicant Inventory Total	1,161	101					
Sheeler Road												
SK 436 to US 441	31	1	16,400	840				9,002	7,398	404	436	NB/EB
					Development Name	0	D		45.11%		51.90%	
					Applicant Inventory Total	0	¢					
US 441 to Apopka Blvd	2L	M	17,700	880				8,958	8,742	400	480	SB/WB
	and the second second				Development Name	0	04		49-39%		54-55%	
					Applicant Inventory Total	D	0					
Apopka Bivd to Cleveland SI	21.	5	17,700	880				8,476	9,185	411	462	SB/WB
					Stonewood Reserve	39	14		51.89%		52.50%	
					Applicant Inventory Total	39	~					
Cleveland St to Keene Rd	21,	þ.	17,700	880				5,696	11,244	280	515	NB/EB
					Alicante Subdivision	102	74		63.53%		58.52%	
					Stonewood Reserve	50	П				N N	
					Applicant Inventory Total	760	1.00					
Wekiva Springs Road/Piedmont-Wekiwa Road/Hiawassee Road	oad/Hiawa	ssee R	oad									
Votaw Rd to SR 436	36	ы	39,800	2,000				23,835	15,834	1,347	647	NB/EB
					Apopka Gateway Center	50	2		39.78%		32.35%	
					North Park (FF Rests)	81	4				2	
					Applicant Inventory Total	131	0					
SR 436 to Piedmont Lakes Blvd	5L	E1	39,800	2,000				25.072	12.207	005.1	<b>5</b> 22	NB/FR
					Apopka Gateway Center	269	12	1210	30.67%	AL DIG	26.10%	and loss of
					Morth Park (FF Rests)	291	23					
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City of Apop	ily and PM Peak Hour/Peak Direction (PH/PD)	FINAL REP
City of Apop	aily and PM Peak Hour/Peak Direction (PH/PD)	FINAL REP
City of Apop	Daily and PM Peak Hour/Peak Direction (PH/PD)	FINAL REP
City of Apop	Daily and PM Peak Hour/Peak Direction (PH/PD) Encumbered Traffic Allocation Workshe	FINAL REP
City of Apop	Daily and PM Peak Hour/Peak Direction (PH/PD)	FINAL REP
City of Apop	Daily and PM Peak Hour/Peak Direction (PH/PD)	FINAL REP
City of Apop	Daily and PM Peak Hour/Peak Direction (PH/PD)	PINAL REP

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Rondway Section	# of Lanes I.	I.OS	Boadway Capacity Daily PHPD		Applicant Inventory	Daily	Qd/Hd Md	Base Volume	Available Capacity	Volume	Available Capacity	Direction	
Minor Collectors Hermit Smith Road Cossent ith Road	15	<u>:</u>	10.000	0.0L				525	14.573	30	638	NB/EB	
466 cor an inv armoster intransar	3	+	ava Liby		Avion Point West A molecularity for the formation of the	802 802	EII EII		91.65%		80.76%		
US 441 to Yothers Rd	21,	ш	15,900	790	Avion Point West	1,692	239	1,083	13,125 82.55%	80	471 59.62%	NB/EB	
					Applicant Inventory Total	1,692	239						
Hogshend Road Hermit Smith Rd to Coarad Rd	21,	<u>ш</u>	15,900	200	Avion Point West Andrease Technic	890 800	126 106	927	14,083 88.57%	62	502 76,20%	SR/WB	
Jason Dwelley Parkway Keliy Park Rd to Ponkan Rd	2ľ.	3	15,900	790	Applicant Inventory Lotae Orchid Estates (fka J.B. Nurseries)	900 100 100	db.	1,841	13,436 84.50%	125	625 79.11%	NB/ER	
					Applicant Inventory Total	623	40						
Keene Road Ocoee-Apopla Rd to Marden Rd	21.	[2]	15,900	200	Emerson Park	257	24	2,959	12,413	6/1	566 71.65%	NB/EB	
می می ایند. این می می می ایند. از مارت این مارد با می ایند می می می می ایند. این مارد می می می می می می می می مارد می می می موجود می میشود می می می می می می مارد مارد می					Emerson Point	89	70						
					Magnuta rati Islatus Uka ratik meter Oakmont Industrial 	120	ত বাদু						
Marden Rd to Clarcona Rd	21	a1	15,900	790	Whatam inventory i was	1000 0000 0000 0000	CF.	4,217	9,830	234	399	NB/EB	
					Alicante Subdivision Emerson Park	1,116	105		61.82%		50.51%		
					Emerson Point	426	29						
					Magnolia Park Estates (Ika Park Place) Oakmont Industrial	120	ю с <b>л</b>						
					Applicant Inventory Total	1,853	157						
Kelly Park Road Round Lake Rd to Plymouth-Sorrento Rd	21	2	23,100	1,200	Development Name	a	Q	2,948	20,152 87.24%	166	1,034 86.17%	NB/EB	
Plymouth-Sorrento Rd to Jason Dwelley Pkwy	31	Q	23,100	1,200	Orchid Estates (fka J.B. Nurseries)	1991 1991	24	3,599	19,316 83.62%	216	972 81.00%	NB/EB	
Juson Dwelley Pkwy to Mt. Plymouth Rd	21,	a	33,100	1,200	Applicant inventory 1 0(a) Orchid Estates (Rea.1.3. Murseries)	105	8	4,944	18,041 78.10%	272	920 76.67%	SB/WB	
		T			Applicant Inventory Total	115	6			C. Market	contract man	6.0 /W/B	
Mt. Plynouth Ra to kock Springs Ra	26	2	\$3,100	1107'1	Development Name Applicant Inventory Total	ō	0		57.74%		51.75%		
Lake Avenue Martin St to Orange St	21	2	15,900	790	Development Name Annifeant Tavantorar Total	0	0 0	2,827	13,073	167	623 78.86%	NB/EB	
Orange St to US 441	21	٩	15,900	790	Development Name Applicant Inventory Total	a o	O, O	1,509	14,391 90.51%	74	716 90.63%	SB/WB	
Lake Doe Boulevard US 441 to Dunn Cove Dr	72	Q	15,900	290	Poe Reserve Applicant Inventory Total	788 788	79	2,896	14,711 92.52%	205	709 89.75%	SB/WB	
Lake Francis Drive Schopke Lester Rd to Errol Pkwy	2L	2	15,900	190	Errol Clubhouse Villas Aodioent Enertone Villa	363 363	43. A3.	826	14,711 92.52%	38	709	NB/EB	
Errol Pkwy to Vick Rd	21	D	15,900	062	Errol Clubhouse Villas	209		3,053	12,638	169	596 75.44%	SB/WB	

Fucumbered

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City of Apopka CMS Daily and PM Peak Hour/Peak Direction (PH/PD) Encumbered Traffic Allocation Worksheets FINAL REPORT

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		AA	Admind Standard	rscharet		Treempo	Freembered Trine	Dally	Dally Traffic	Nd	offert (1d/11d Wd	affic
	1	Re-	inc maido	I SUNI		CHANNEL CONTRACT	edition mail	CITHA	ALLIN .		A 44 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	durit.
Roadway Section	# of Lanes LOS	1. 1. 1. 1.	Daily PHPD	PHPD	Applicant Inventory	Daily	DH/PD	Volume	Capacity [	Volume	Volume Capacity	Direction
Minor Collectors Old Dixie Highwav/Highland Avenue/Orange Street (Continued)	Street (Cr	- Indiana	ed)									
Hawthorne Ave to Park Ave	21,	1	15,900	790				3,825	12,060	188	601	SB/WB
					Charleston Park	9	0		75.85%		76.08%	
					Park Ave Professional Center Applicant Toventory Total	15	-					
Ponkan Road												The second se
Round Lake Rd to Plymonth-Sorrento Rd	21,	ω	31,500	1,640	er e está estas de la construcción de manadar de la constructión de construction de manadar estas entre estas estas estas estas estas de la construcción de la constructión de la constructión de la constructión de la constr estas estas esta			3,354	28,118	149	1,488	NB/EB
					Wekiwa Run (Phase 1, 2, & 3) (fka Ponkan Ridge) Anolicant Inventory Total	28	e2 e		89.26%		90.73%	
Plymouth-Sorrento Rd to Vick Rd	21.	E	14.200	740	The second s			4.013	8,015	264	265	ADI CD
		1			Oak Ridos Sabdinizion	506	01		60 78%	2	E2 07%	and the second se
					Orchid Estates ((ka J.B. Nurseries)	565	36		District I man			the second s
4. A sequence of the second s second second se second second s second second s second second se					Ponkan Reserve - North	122	1					
					Ponkan Reserve - South	62	00					
					Rock Springs Ridge	L'A						
					Wekiva Run (Phase 1, 2, & 3) (Ika Ponkan Ridge)	198	20					
					Applicant Inventory Total	1,272	- 27					
Vick Rd to Rock Springs Rd	21.	14	14,200	740				4,949	8,131	328	314	SB/WB
					Orchid Estates (fka J.B. Nurseries)	462	29		57.26%		42.43%	
					Ponkan Reserve - North	293	ιĘ				And the second se	
					Ponkan Reserve - South	190	20					
				And the second second second	Kock Springs Ridge	9	re					
	The second second				Averline the transforme Total (Total Fritkall Muge)	2011	77	and the second second second				
Condition 2 hod		T			INTER 1 TRANSMITTATION	13450	0.F					
Party provide a Party And the	2L	5	15,400	200				3.842	11.896	316	463	SB/WB
					Sandpiper Road Subdivision	162	11		74.82%		58.61%	
					Applicant Inventory Total	162	II				And the second second second second	
Ustler Rd to Thompson Rd	21,	E	15,900	290				4,605	10,918	377	388	SB/WB
					Sandpiper Road Subdivision	III I	25		68.67%		49.11%	
Schunka, I seter Rand		T			Chipheonican any caucity a trian	31/	64					
Lester Rd to Old Dixie Hwy	21,	L	15,900	790				2,587	13,215	160	620	NB/EB
					Luster Ridge Subdivision	98	30		83.11%		78.48%	
					Applicant Inventory Total	98	10					
Thompson Road Welch Bd to Victow Rd	F	12	14 200	740				0,401	A 700	ំរ ប	187	NR/FR
					Development Name	C	C	- CENT	201102	200	25.27%	
					Applicant Inventory Total	0	3					
Volaw Rd to SR 436	2].	ы	14,200	240				9,235	4,965	280	460	SB/WB
					Development Name	O	O		34.96%		62,16%	
			and the second		Applicant Inventory Total	c	0					
Ustler Road	14	A	11 000					-	Kanal P. (d. 2	0.4	1.2.0	CD /MID
NATIVITY AND IN TRACE NO	2	9	ISING CT	124	Hambert Mann		6	742	101-CT	nh	744	TAL /00

City of Apopka

Encumbered

Appendix C Raw Traffic Counts

> Intersection (N/S): Jason Dewelly Pky Intersection (E/W): Appy La Date: 2/11/2014

			Ja	Jason Dewelly Pky	٧	Ja	Jason Dewelly Pky	ky		Appy Ln			Appy Ln		
				NB			SB			EB			WB		
	Start	End	L	т	R	L	т	R	L	т	R	r	Т	R	TOTAL
4	4:00 PM	4:15 PM	0	12	0	0	9	5	5	0	m	0	0	0	31
4	4:15 PM	4:30 PM	7	15	0	0	10	e	e	0	2	0	0	0	35
4	4:30 PM	4:45 PM	-	13	0	0	12	8	9	0	-	0	0	0	4
4	4:45 PM	5:00 PM	e	17	0	0	10	7	7	0	ю	0	0	0	47
4)	5:00 PM	5:15 PM	4	17	0	0	11	10	10	0	ю	0	0	0	55
4) 	5:15 PM	5:30 PM	0	17	0	0	13	5	5	0	7	0	0	0	42
4)	5:30 PM	5:45 PM	<del>~-</del>	13	0	0	12	9	7	0	5	0	0	0	4
4)	5:45 PM	6:00 PM	3	12	0	0	15	2	Э	0	ო	0	0	0	ĸ
Total for: 4:00 PM	4:00 PM	5:00 PM	9	57	0	0	38	23	21	0	თ	0	0	0	154
Total for: 5:00 PM	5:00 PM	6:00 PM	8	59	0	0	51	23	25	0	13	0	0	0	179
Tota Peak Hour: 4:45 PM	4:45 PM	5:45 PM	8	64	0	0	46	28	29	0	13	0	0	0	188
<b>Overall PHF:</b>	0.85														



Intersection (N/S): Jason Dewelly Pky Intersection (E/W): Kelly Park Rd Date: 2/11/2014

			٩Ę	Jason Deweny FKy	~	ĩ	JASULI DEWELLY LAY	, ,		Nelly Fark RU			Nelly Park Ko		
l				NB			SB			EB			WB		
1	Start	End	L	т	R	L	т	R	L	Т	м	T	T	R	TOTAL
	4:00 PM	4:15 PM	5	1	5	0	0	1	0	26	9	5	30	0	62
	4:15 PM	4:30 PM	9	0	7	0	0	0	0	28	6	4	37	0	91
	4:30 PM	4:45 PM	5	0	9	0	0	0	0	27	14	9	44	0	102
	4:45 PM	5:00 PM	ю	0	80	-	0	0	0	33	10	8	40	0	103
	5:00 PM	5:15 PM	e	0	9	0	0	0	0	29	12	8	39	0	67
	5:15 PM	5:30 PM	5	0	ი	0	0	÷	0	36	80	7	44	0	110
	5:30 PM	5:45 PM	4	0	7	-	0	0	0	30	11	5	36	0	94
	5:45 PM	6:00 PM	3	0	6	0	0	0	0	32	6	9	40	0	96
Total for: 4:00 PM	4:00 PM	5:00 PM	19	F	26	۲	0	-	0	114	39	23	151	0	375
Total for: 5:00 PM	5:00 PM	6:00 PM	15	0	28	-	0	-	0	127	40	26	159	0	397
Tota Peak Hour: 4:30 PM	4:30 PM	5:30 PM	16	0	29	-	0	-	0	125	44	29	167	c	412
<b>Overall PHF:</b>	0.94														



> Intersection (N/S): Jason Dewelly Pky Intersection (E/W): Ponkan Rd Date: 2/11/2014

		Js	Jason Dewelly Pk	ky	Ja	<b>Jason Dewelly Pky</b>	ky		Ponkan Rd			Ponkan Rd		
			NB			SB			EB			WB		
Start		L	F	R	г	т	R	L	т	R	L	T	я	TOTAL
4:00 PM		0	0	0	9	0	٢	8	33	0	0	26	90	104
4:15 PM	A 4:30 PM	0	0	0	12	0	-	10	37	0	0	25	22	107
4:30 PM		0	0	0	7	0	ю	б	40	0	0	32	33	124
4:45 PM	A 5:00 PM	0	0	0	11	0	2	11	36	0	0	40	39	139
5:00 PM	A 5:15 PM	0	0	0	6	0	4	12	44	0	0	39	40	148
5:15 PM	A 5:30 PM	0	0	0	15	0	5	16	38	0	0	35	5. 65	168
5:30 PM	A 5:45 PM	0	0	0	21	0	4	20	36	0	0	47	68	196
5:45 PM	A 6:00 PM	0	0	0	17	0	S	16	39	0	0	39	49	165
Total for: 4:00 PM	A 5:00 PM	0	0	0	96	0	7	38	146	0	0	123	124	474
Total for: 5:00 PM	A 6:00 PM	0	0	0	62	0	18	64	157	0	0	160	216	677
Tota Peak Hour: 5:00 PM	A 6:00 PM	0	0	0	62	0	18	64	157	С	c	160	216	677
Overall PHF: 0.86										,		222	2	



> Intersection (N/S): Plymouth Sorrento Rd Intersection (E/W): Appy Ln

9/12/2013	
Date:	

				Plymouth Sorrento Rd	ento Rd	Plyr	<b>Plymouth Sorrento Rd</b>	o Rd		Appy Ln			Appy Ln		
End         L         T         R         L         L         T         R         L         L         L         L         L         L         L         L <thl< th="">         L         L         L</thl<>				NB			SB			EB			WB		
4:15 PM       0       90       9       2       38       0         4:30 PM       0       88       11       3       49       0         4:45 PM       0       115       12       3       49       0         5:00 PM       0       137       10       4       60       0         5:01 PM       0       137       10       4       60       0         5:01 PM       0       122       13       2       66       0         5:30 PM       0       122       13       2       66       0         5:30 PM       0       103       2       5       49       0         5:30 PM       0       113       10       2       5       90       0         5:30 PM       0       103       2       5       40       0       0         5:30 PM       0       13       207       0       0       14       0         5:30 PM       0       478       46       13       227       0       0         5:30 PM       0       515       46       13       227       0       0	s		1	T	R	L	т	R	L	т	R	L	т	R	TOTAL
4:30 PM     0     88     11     3     49     0       4:45 PM     0     115     12     3     44     0       5:00 PM     0     137     10     4     60     0       5:15 PM     0     137     10     4     60     0       5:15 PM     0     143     13     2     66     0       5:30 PM     0     113     10     2     66     0       5:45 PM     0     113     10     5     49     0       5:00 PM     0     103     10     5     49     0       5:00 PM     0     430     42     12     191     0       5:00 PM     0     478     46     14     207     0       5:45 PM     0     515     46     13     227     0	4:0		×	06	6	2	38	0	0	0	0	2	0	-	142
4:45 PM     0     115     12     3     44     0       5:00 PM     0     137     10     4     60     0       5:15 PM     0     143     13     2     66     0       5:30 PM     0     122     13     2     66     0       5:35 PM     0     122     13     2     66     0       5:36 PM     0     103     10     2     52     0       6:00 PM     0     100     10     2     52     0       6:00 PM     0     430     42     12     14     0       6:00 PM     0     478     46     14     207     0       5:35 PM     0     515     46     13     227     0	4:1		۵ ۲	88	5	n	49	0	0	0	0	2	0	ę	156
5:00 PM         0         137         10         4         60         0           5:15 PM         0         143         13         2         66         0         0           5:30 PM         0         122         13         2         66         0         0           5:30 PM         0         122         13         5         49         0         0           5:30 PM         0         103         10         2         55         49         0         0           6:00 PM         0         100         10         5         40         0         0           5:00 PM         0         430         42         12         13         207         0         6           6:00 PM         0         515         46         13         227         0         0         1	4:3		۵ ۳	115	12	ო	4	0	0	0	0	4	0	7	180
5:15 PM         0         143         13         2         66         0           5:30 PM         0         122         13         5         49         0           5:45 PM         0         122         13         5         49         0           6:0 PM         0         113         10         2         52         0         0           5:0 PM         0         100         10         10         5         40         0         0           5:00 PM         0         430         42         12         191         0         6           6:00 PM         0         478         46         14         207         0         6           5:36 PM         0         515         46         13         227         0         6	4:4		۵ ۲	137	10	4	60	0	0	0	0	0	0	4	215
5:30 PM         0         122         13         5         49         0           5:45 PM         0         113         10         2         52         0           6:00 PM         0         100         10         2         52         0         0           5:00 PM         0         430         42         12         14         0         0           5:00 PM         0         478         46         12         191         0         0           5:00 PM         0         478         46         13         207         0         0           5:45 PM         0         515         46         13         227         0         0	2:0		×	143	13	2	99	0	0	0	0	2	0	<del>.</del>	227
5:45 PM         0         113         10         2         52         0           6:00 PM         0         100         10         10         5         40         0           5:00 PM         0         430         42         12         191         0         1           5:00 PM         0         478         46         14         207         0         5           5:45 PM         0         515         46         13         227         0         0	5:1		٥ ×	122	13	S	49	0	0	0	0	e	0	4	196
6:00 PM         0         100         10         5         40         0           5:00 PM         0         430         42         12         191         0           6:00 PM         0         478         46         14         207         0           5:45 PM         0         515         46         13         227         0	5:3		×	113	10	2	52	0	0	0	0	7	0	2	181
5:00 PM     0     430     42     12     191     0       6:00 PM     0     478     46     14     207     0       5:45 PM     0     515     46     13     227     0	5:4		M	100	10	5	40	0	0	0	0	-	0	5	161
5:00 PM         0         430         42         12         191         0           6:00 PM         0         478         46         14         207         0           5:45 PM         0         515         46         13         227         0															
6:00 PM         0         478         46         14         207         0           5:45 PM         0         515         46         13         227         0	Total for: 4:0		M	430	42	12	191	0	0	0	0	8	0	10	693
5:45 PM 0 515 46 13 227 0	Total for: 5:0		M	478	46	14	207	0	0	0	0	8	0	12	765
	fota Peak Hour: 4:4		N N	515	46	13	227	0	0	0	0	7	0	11	819
Overall PHF: 0.90	Overall PHF: 0	.90													



Appendix D Existing Conditions Analysis Worksheets

# HCM 2010 TWSC 1: JDP & Appy Ln

ntersection Delay, s/veh	2.4									
mersection Delay, s/ven	2.4									
Vovement	EBL		EBR	NBL	NBT		SBT	SBR		
Vol, veh/h	29		13	8	65		46	28		
Conflicting Peds, #/hr	0		0	0	0		0	0		
Sign Control	Stop		Stop	Free	Free		Free	Free		
RT Channelized	-		None	•	None		-	None		
Storage Length	200		0	150	्रियस्य		-			
Veh in Median Storage, #	0		-	-	0		0	-		
Grade, %	0		-	-	0		0	1		
Peak Hour Factor	95		95	95	95		95	95		
Heavy Vehicles, %	2		2	2	2		2			
Mvmt Flow	31		14	8	68		48			
Major/Minor	Minor2			Major1			Major2			
Conflicting Flow All	148		63	78	0			0	di ser che ch	
Stage 1	63		-	-	-		-	-		
Stage 2	85		-	-	- 1. S		-	-		
Follow-up Headway	3.518		3.318	2.218	-		-	-		
Pot Capacity-1 Maneuver	844		1002	1520	-		-	-		
Stage 1	960		-	-	-		-	-		
Stage 2	938		1		1.2014		_	-		
Time blocked-Platoon, %					-		-	-		
Nov Capacity-1 Maneuver	840		1002	1520	1990 - C		-	- 		
Nov Capacity-2 Maneuver	840		-	-	-		-	-		
Stage 1	960		- 1	-	-		-	-		
Stage 2	933		-	· •	-		-	-		
Approach	EB			NB			SB			
ICM Control Delay, s	9.2			0.8		2004 (M	0			
ICM LOS	А									
/inor Lane / Major Mvmt		NBL	NBT	EBLn1	EBLn2	SBT	SBR			
Capacity (veh/h)		1520	- S.	840	1002	2019 <b>2</b> 46				
ICM Lane V/C Ratio		0.006	-	0.036	0.014	-	-			
ICM Control Delay (s)		7.382	-	9.4	8.6	1.00	<u>-</u> 1000			
ICM Lane LOS		А		A	A					
HCM 95th %tile Q(veh)		0.017	19. J.L.	0.113	0.042	-				

Notes ~ : Volume Exceeds Capacity; \$ : Delay Exceeds 300 Seconds; Error : Computation Not Defined

### HCM 2010 TWSC 2: JDP & Kelly Park Rd

ntersection Delay, s/veh	1.6						
Novement	EBT	EBR	WBL	WBT	NBL	NBR	
/ol, veh/h	126	44	29	169	16	29	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	- 10 C	1993.04	175	1.11	0		
/eh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	0.002		0	0		
Peak Hour Factor	95	95	95	95	95	95	
leavy Vehicles, %	2	2	2	2	2	2	
/vmt Flow	133	46	31	178	17	31	
Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	0	0	179	0	395	156	2462.00
Stage 1		-	-	-	156	-	
Stage 2	<u>-</u>	1.00		-	239		
ollow-up Headway	-	-	2.218	-	3.518	3.318	
Pot Capacity-1 Maneuver		1. S. 1	1397	-	610	890	
Stage 1	-		-		872	-	
Stage 2	-	-	- 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10	-	801	-	
ime blocked-Platoon, %	-	- -		-			
Nov Capacity-1 Maneuver	- 10 C	-	1397		596	890	
Nov Capacity-2 Maneuver	-	•••••••••••••••••••••••••••••••••••••••	-	-	596	-	
Stage 1		_	<u></u>		872	-	
Stage 2		-	-	-	783	- -	
olugo z					100		
pproach	EB	ana asaringat asa	WB		NB	zen zur eine ein einen ein zur einen ein der Schlicht der Schlicht der Schlichten zur einen der Schlichten zur	
ICM Control Delay, s	0		1.1		10.1		
ICM LOS	v				B		
					U		
/inor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT		
apacity (veh/h)	757	-	-	1397	-		
ICM Lane V/C Ratio	0.063	-	- -	0.022	-		
ICM Control Delay (s)	10.1	-	-	7.635	-		
ICM Lane LOS	В			A			
ICM 95th %tile Q(veh)	0.2	-	-	0.067	-		

~: Volume Exceeds Capacity; \$ : Delay Exceeds 300 Seconds; Error : Computation Not Defined

# HCM 2010 Signalized Intersection Summary 3: Ponkan Rd & JDP

	۶		-	*	1	-
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	۲	1	1	1	۲	1
Volume (veh/h)	65	159	162	218	63	18
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	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1
Cap, veh/h	295	586	378	321	973	868
Arrive On Green	0.04	0.31	0.20	0.20	0.55	0.55
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	68	167	171	229	66	19
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	2.1	4.9	5.9	9.8	1.3	0.4
Cycle Q Clear(g_c), s	2.1	4.9	5.9	9.8	1.3	0.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	295	586	378	321	973	868
V/C Ratio(X)	0.23	0.29	0.45	0.71	0.07	0.02
Avail Cap(c_a), veh/h	584	2017	1507	1281	973	868
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	20.5	18.8	25.5	27.1	7.7	7.5
Incr Delay (d2), s/veh	0.4	0.3	0.8	2.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/In	0.9	2.3	2.8	4.1	0.5	0.0
Lane Grp Delay (d), s/veh	20.9	19.1	26.4	30.0	7.9	7.6
Lane Grp LOS	C	В	С	C	A	A
Approach Vol, veh/h	-	235	400	an an a	85	
Approach Delay, s/veh		19.6	28.5		7.8	
Approach LOS		В	C		A	
Timer			-			
Assigned Phs	7	4	8			
Phs Duration (G+Y+Rc), s	8.1	27.9	19.8			
Change Period (Y+Rc), s	5.0	5.0	5.0			
Max Green Setting (Gmax), s	15.0	79.0	59.0			
Max Q Clear Time (g_c+l1), s		6.9	11.8			
Green Ext Time (p_c), s	0.1	3.0	3.0			
Intersection Summary						
HCM 2010 Ctrl Delay			23.1			
HCM 2010 LOS			С			

# HCM 2010 TWSC 4: Appy Ln & Plymouth Sorrento Rd

Intersection							
Intersection Delay, s/veh	0.4						
Movement	WBL	WBR		NBT	NBR	SBL	SBT
Vol, veh/h	7	11		520	46	13	229
Conflicting Peds, #/hr	0	0		0	0	0	0
Sign Control	Stop	Stop		Free	Free	Free	Free
RT Channelized		None			None	-	None
Storage Length	0	220		-		1. Sec. 1	
Veh in Median Storage, #	0	-		0	-	-	0
Grade, %	0	1997 (P. 1972) 2		0	-	-	0
Peak Hour Factor	95	95		95	95	95	95
Heavy Vehicles, %	2	2		2	2	2	2
Mvmt Flow	7	12		547	48	14	241
Major/Minor	Minor1			Major1		Major2	
Conflicting Flow All	840	572		0	0	596	0
Stage 1	572	-		-	-	-	-
Stage 2	268	_		_		_	
Follow-up Headway	3.518	3.318				2.218	
Pot Capacity-1 Maneuver	335	520		_	- 15 (N	980	
Stage 1	565	- 020				-	
Stage 2	777			- 10 C	_	-	
Time blocked-Platoon, %					- -		-
Mov Capacity-1 Maneuver	330	520				980	
Mov Capacity-2 Maneuver	330	- 020		1942-012-012-01 -		-	- -
Stage 1	565			- 10 T		<u>_</u>	
Stage 2	765	-		- -	- -	- -	
Approach	WB			NB		SB	nerozupate de testifició
HCM Control Delay, s	13.7			0		0.5	
HCM LOS	B			U		0.0	
	В						
Minor Lane / Major Mvmt		NBT NBR	WBLn1	WBLn2	SBL	SBT	
Capacity (veh/h)			330	520	980	-	
HCM Lane V/C Ratio			0.022	0.022	0.014	-	
HCM Control Delay (s)			16.2	12.1	8.725	-0	
HCM Control Delay (S) HCM Lane LOS			10.2 C	IZ.I B	6.725 A	0 A	
HCM 25th %tile Q(veh)			0.068	0.068	0.042	A _	
			0.000	0.000	0.042		

~: Volume Exceeds Capacity; \$ : Delay Exceeds 300 Seconds; Error : Computation Not Defined

# Appendix E Trip Generation Sheets

# **Shopping Center**

(820)

#### Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area On a: Weekday

Number of Studies:	302
Average 1000 Sq. Feet GLA:	331
Directional Distribution:	50% entering, 50% exiting

#### Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
42.70	12.50 - 270.89	21.25



#### **Data Plot and Equation**

# **Shopping Center**

(820)

Average Vehicle Trip Ends vs: On a:	1000 Sq. Feet Gross Leasable Area Weekday Peak Hour of Adjacent Street Traffic One Hour Between 4 and 6 p.m.
Number of Studies:	426
Average 1000 Sq. Feet GLA:	376
Directional Distribution:	48% entering, 52% exiting

#### Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average R	te Range of Rates	Standard Deviation
3.71	0.68 - 29 27	2.74



#### **Data Plot and Equation**

# **General Office Building**

(710)

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

Number of Studies:	79
Average 1000 Sq. Feet GFA:	197
Directional Distribution:	50% entering, 50% exiting

#### Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
11.03	3.58 - 28.80	6.15





# **General Office Building**

(710)

Average Vehicle Trip Ends vs: On a:	1000 Sq. Feet Gross Floor Area Weekday P.M. Peak Hour of Generator
Number of Studies:	236
Average 1000 Sq. Feet GFA:	215
Directional Distribution:	17% entering, 83% exiting

#### Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
1.49	0.49 - 6.39	1 37



#### **Data Plot and Equation**

# High-Turnover (Sit-Down) Restaurant (932)

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

Number of Studies:	14
Average 1000 Sq. Feet GFA:	7
Directional Distribution:	50% entering, 50% exiting

#### Trip Generation per 1000 Sq. Feet Gross Floor Area

	Average Rate	Range of Rates	Standard Deviation
	127.15	73.51 - 246.00	41.77
har			





# High-Turnover (Sit-Down) Restaurant (932)

Average Vehicle Trip Ends vs: On a:	1000 Sq. Feet Gross Floor Area Weekday Peak Hour of Adjacent Street Traffic One Hour Between 4 and 6 p.m.
Number of Studies:	60
Average 1000 Sq. Feet GFA:	6
Directional Distribution:	60% entering, 40% exiting

#### Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
9,85	0.92 - 62 00	8.54



#### **Data Plot and Equation**

# **Drive-in Bank**

(912)

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

Number of Studies:	7
Average 1000 Sq. Feet GFA:	3
Directional Distribution:	50% entering, 50% exiting

#### Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
148.15	68.23 - 407.21	97.36





Drive-in (91)	
Average Vehicle Trip Ends vs: On a:	1000 Sq. Feet Gross Floor Area Weekday Peak Hour of Adjacent Street Traffic One Hour Between 4 and 6 p.m.
Number of Studies: Average 1000 Sq. Feet GFA: Directional Distribution:	102 4 50% entering, 50% exiting

#### Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation	
24.30	3.09 - 109.68	16.24	





Trid Generation 9th Edition

101

# Single-Family Detached Housing (210)

Average Vehicle Trip Ends vs: Dwelling Units On a: Weekday

Number of Studies: 355 Avg. Number of Dwelling Units: 198 Directional Distribution: 50% entering, 50% exiting

# **Trip Generation per Dwelling Unit**

Average Rate	Range of Rates	Standard Deviation
9.52	4.31 - 21.85	3.70

# **Data Plot and Equation**



	etached Housing
Average Vehicle Trip Ends vs: On a:	Dwelling Units Weekday, Peak Hour of Adjacent Street Traffic One Hour Between 4 and 6 p.m.
Number of Studies:	321
Avg. Number of Dwelling Units:	207
Directional Distribution:	63% entering, 37% exiting

# **Trip Generation per Dwelling Unit**

Average Rate	Range of Rates	Standard Deviation
1.00	0.42 - 2.98	1.05

# **Data Plot and Equation**



Appendix F Trip Distribution Calculations

#### **Trip Distribution Calculations**

The following summarizes the analysis of the existing turning movement volumes used to determine the project trip distribution splits at the study intersections.

1. JDP @ Apply Ln

SBR: SBT volume split => 28 veh : 46 veh => 37% : 73%

This implies a 22% : 38% project trip distribution split

2. JDP @ Kelly Pk Rd

NBL: NBR volume split => 16 veh : 29 veh => 35% : 75%

This implies a 14% : 26% project trip distribution split

3. JDP @ Ponkan Rd

SBL: SBR volume split => 62 veh : 18 veh => 78% : 22%

This implies a 30% : 8% project trip distribution split

#### 4. PSR @ Appy Ln

WBL: WBR volume split => 7 veh : 11 veh => 38% : 62%

This implies a 9% : 13% project trip distribution split

Appendix G Projected Conditions Analysis Worksheets

# HCM 2010 TWSC 1: JDP & Appy Ln

Intersection Delay, s/veh	2.1										
Movement	EBL		EBR	NBL	NBT			SBT	SBR		and the second s
Vol, veh/h	79		13	8	185			198	93		
Conflicting Peds, #/hr	0		0	0	0			0	0		
Sign Control	Stop		Stop	Free	Free			Free	Free		
RT Channelized			None	-	None			199999999999 -	None		
Storage Length	200		0	150	1000						
Veh in Median Storage, #	0		-	-	0			0	-		
Grade, %	0		120 -	6 ( ) <b>-</b> (	0			0	-		
Peak Hour Factor	95		95	95	95			95	95		
Heavy Vehicles, %	2		2	2	2			2	2		
Mvmt Flow	83		14	8	195			208	98		
Major/Minor	Minor2			Major1			Ma	ajor2			
Conflicting Flow All	469		257	306	0			-	0	a second sec	
Stage 1	257		-	-	-			-	-		
Stage 2	212		- 1	-	-			-	-		
Follow-up Headway	3.518		3.318	2.218	-			-	-		
Pot Capacity-1 Maneuver	553		782	1255	- 10 C			-	-		
Stage 1	786			-	-			-	-		
Stage 2	823		-	-				-			
Time blocked-Platoon, %					-			-	-		
Nov Capacity-1 Maneuver	549		782	1255	8 <b>.</b>			1.2	2.0		
Nov Capacity-2 Maneuver	549		-	-	-			-	-		
Stage 1	786		-	-							
Stage 2	818		-	-				- -	-		
pproach	EB			NB				SB			
CM Control Delay, s	12.3			0.3		97 ( 91 K)		0	* 1918 (N. 1978)		
ICM LOS	B										
/linor Lane / Major Mvmt		NBL	NBT	EBLn1	EBLn2	SBT	SBR				
Capacity (veh/h)		1255	-	549	782						
ICM Lane V/C Ratio		0.007	-	0.151	0.017	-	-				
ICM Control Delay (s)		7.888	-	12.7	9.7	-	-				
HCM Lane LOS		А		В	А						
HCM 95th %tile Q(veh)		0.02	1986 <b>-</b> 1	0.531	0.053	-					

Notes ~ : Volume Exceeds Capacity; \$ : Delay Exceeds 300 Seconds; Error : Computation Not Defined

# HCM 2010 TWSC 2: JDP & Kelly Park Rd

Intersection Delay, s/veh Movement Vol, veh/h Conflicting Peds, #/hr Sign Control RT Channelized Storage Length Veh in Median Storage, # Grade, % Peak Hour Factor Heavy Vehicles, % Mvmt Flow	4.8 EBT 138 0 Free - 0 0 95 2 145 Major1 0	EBR 100 0 Free None - - 95 2 105	WBL 104 0 Free - 175 - - 95 2 109	WBT 179 0 Free None - 0 0 95 2 188	NBL 68 0 Stop - 0 0 0 95 2 72	NBR 128 0 Stop None - - - 95 2 135	
Vol, veh/h Conflicting Peds, #/hr Sign Control RT Channelized Storage Length Veh in Median Storage, # Grade, % Peak Hour Factor Heavy Vehicles, %	138 0 Free - 0 0 95 2 145 Major1	100 0 Free None - - - 95 2	104 0 Free - 175 - - 95 2	179 0 Free None - 0 0 95 2	68 0 Stop - 0 0 0 95 2	128 0 Stop - - - 95 2	
Vol, veh/h Conflicting Peds, #/hr Sign Control RT Channelized Storage Length Veh in Median Storage, # Grade, % Peak Hour Factor Heavy Vehicles, %	138 0 Free - 0 0 95 2 145 Major1	100 0 Free None - - - 95 2	104 0 Free - 175 - - 95 2	179 0 Free None - 0 0 95 2	68 0 Stop - 0 0 0 95 2	128 0 Stop - - - 95 2	
Conflicting Peds, #/hr Sign Control RT Channelized Storage Length Veh in Median Storage, # Grade, % Peak Hour Factor Heavy Vehicles, %	0 Free - 0 0 95 2 145 Major1	0 Free None - - 95 2	0 Free - 175 - - 95 2	0 Free None - 0 0 95 2	0 Stop - 0 0 0 95 2	0 Stop - - - 95 2	
Sign Control RT Channelized Storage Length Veh in Median Storage, # Grade, % Peak Hour Factor Heavy Vehicles, %	Free - 0 0 95 2 145 Major1	Free None - - 95 2	Free - 175 - - 95 2	Free None - 0 0 95 2	Stop - 0 0 95 2	Stop None - - 95 2	
RT Channelized Storage Length Veh in Median Storage, # Grade, % Peak Hour Factor Heavy Vehicles, %	- 0 95 2 145 Major1	None - - 95 2	- 175 - - 95 2	None - 0 0 95 2	- 0 0 95 2	None - - - 95 2	
Storage Length Veh in Median Storage, # Grade, % Peak Hour Factor Heavy Vehicles, %	- 0 95 2 145 Major1	- - 95 2	175 - - 95 2	- 0 0 95 2	0 0 95 2	- - - 95 2	
Veh in Median Storage, # Grade, % Peak Hour Factor Heavy Vehicles, %	0 95 2 145 Major1	- - 95 2	- - 95 2	0 0 95 2	0 0 95 2	- 95 2	
Grade, % Peak Hour Factor Heavy Vehicles, %	0 95 2 145 Major1	- 95 2	- 95 2	0 95 2	0 95 2	- 95 2	
Peak Hour Factor Heavy Vehicles, %	95 2 145 Major1	95 2	95 2	95 2	95 2	95 2	
Heavy Vehicles, %	2 145 Major1	2	2	2	2	2	
	145 Major1						
Mvmt Flow	Major1	105	109	188	72	135	
Major/Minor			Major2		Minor1		
Conflicting Flow All	ant where Alternative service and the Alternative States and the States	0	251	0	605	198	
Stage 1	-	-		-	198	-	
Stage 2	<u>_</u>	_	_	_	407		
Follow-up Headway		- -	2.218		3.518	3.318	
Pot Capacity-1 Maneuver		- -	1314		461	843	
Stage 1		_	- 1014	- -	835	-	
Stage 2			-		672	-	
Fime blocked-Platoon, %	- -	ar sha in Th			072		
Mov Capacity-1 Maneuver	-	- 	1314	-	423	843	
Mov Capacity-1 Maneuver		-	- 1314	-	423		
Stage 1				-		-	
	-	-	-	-	835	-	
Stage 2	-	- 1993	- 	- 1998:1998:1999	616	-	
Approach	EB		WB		NB		
ICM Control Delay, s	0		2.9		13.5		
HCM LOS					В		
				a series en			
Ainor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT		
Capacity (veh/h)	627	- C		1314			
ICM Lane V/C Ratio	0.329	-	-	0.083	-		
ICM Control Delay (s)	13.5	(c)394	-	7.989	- 19 <b>-</b> 19 - 19 - 19 - 19 - 19 - 19 - 19 - 19		
ICM Lane LOS	В			А			
ICM 95th %tile Q(veh)	1.432	10.2	-	0.272	-		
lotes							

~: Volume Exceeds Capacity; \$ : Delay Exceeds 300 Seconds; Error : Computation Not Defined

# HCM 2010 Signalized Intersection Summary 3: Ponkan Rd & JDP

	≯		-	•	1	4
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	٢	4	1	1	ሻ	7
Volume (veh/h)	93	219	255	328	163	69
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	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1
Cap, veh/h	316	741	524	445	854	763
Arrive On Green	0.06	0.40	0.28	0.28	0.48	0.48
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	98	231	268	345	172	73
Grp Sat Flow(s), veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	3.1	7.1	10.0	16.6	4.6	2.1
Cycle Q Clear(g_c), s	3.1	7.1	10.0	16.6	4.6	2.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	316	741	524	445	854	763
V/C Ratio(X)	0.31	0.31	0.51	0.77	0.20	0.10
Avail Cap(c_a), veh/h	536	1772	1323	1125	854	763
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	18.9	17.2	25.1	27.4	12.4	11.7
Incr Delay (d2), s/veh	0.6	0.2	0.8	2.9	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/In	1.4	3.2	4.7	6.8	2.0	0.1
Lane Grp Delay (d), s/veh	19.4	17.4	25.8	30.3	12.9	11.9
Lane Grp LOS	В	В	C	C	B	В
Approach Vol, veh/h		329	613		245	
Approach Delay, s/veh		18.0	28.4		12.6	
Approach LOS		B	C		B	
		-			-	
Timer	7	4	8			
Assigned Phs		4				
Phs Duration (G+Y+Rc), s	9.7	38.1	28.4			
Change Period (Y+Rc), s	5.0	5.0	5.0			
Max Green Setting (Gmax), s	15.0	79.0	59.0			
Max Q Clear Time (g_c+l1), s	5.1	9.1	18.6			
Green Ext Time (p_c), s	0.1	4.8	4.7			
Intersection Summary						
HCM 2010 Ctrl Delay			22.2			
HCM 2010 LOS			С			
Notes	lan en er er					

4/2/2014 Projected Buildout

# HCM 2010 TWSC 4: Appy Ln & Plymouth Sorrento Rd

Intersection									
Intersection Delay, s/veh	1.7								
Movement	WBL		WBR		NBT	NBR	SBL	SBT	
Vol, veh/h	33		49	944 T **	595	66	43	263	
Conflicting Peds, #/hr	0		0		0	0	0	0	
Sign Control	Stop		Stop		Free	Free	Free	Free	
RT Channelized	-		None		-	None	-	None	
Storage Length	0		220			- -	10 L		
Veh in Median Storage, #	0		-		0	-	-	0	
Grade, %	0				0	a 1992 -	8.79 g <b>2</b> 1	0	
Peak Hour Factor	95		95		95	95	95	95	
Heavy Vehicles, %	2		2		2	2	2	2	
Mvmt Flow	35		52		626	69	45	277	
Major/Minor	Minor1				Major1		Major2		
Conflicting Flow All	1028		661		0	0	696	0	
Stage 1	661		-			-	-	-	
Stage 2	367		-		- 10 C	- 10	-	-	
Follow-up Headway	3.518		3.318		-	-	2.218		
Pot Capacity-1 Maneuver	259		462		(1997) <b>-</b>	11 14 1 14 <del>-</del>	900	-	
Stage 1	514		-		-	-	-	-	
Stage 2	701		- 15.0		(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	-	-	-	
Time blocked-Platoon, %					-	-		-	
Mov Capacity-1 Maneuver	244		462		1	- (Sec.	900	1. Sec S	
Mov Capacity-2 Maneuver	244		-		-	-	-	-	
Stage 1	514		-		-	-	-	-	
Stage 2	660		-		-	-	-	-	
Approach	WB				NB		SB		
HCM Control Delay, s	17.2				0		1.3		
HCM LOS	С								
Minor Lane / Major Mvmt		NBT	NBR	WBLn1	WBLn2	SBL	SBT		
Capacity (veh/h)		-	-	244	462	900	-	Prode 19	
HCM Lane V/C Ratio			-	0.142	0.112	0.05	-		
HCM Control Delay (s)		1. H. 1.	-	22.2	13.8	9.212	0		
HCM Lane LOS				С	В	А	A		
HCM 95th %tile Q(veh)		-	-	0.489	0.374	0.159	-		

~: Volume Exceeds Capacity; \$ : Delay Exceeds 300 Seconds; Error : Computation Not Defined

4/2/2014 Projected Buildout

# HCM 2010 TWSC 5: JDP & Access Drwy 1

Intersection									
Intersection Delay, s/veh	1.4								
Movement	EBL		EBR	NBL	NBT		SBT	SBR	
Vol, veh/h	0		77	0	245	and the second	159	47	
Conflicting Peds, #/hr	0		0	0	0		0	0	
Sign Control	Stop		Stop	Free	Free		Free	Free	
RT Channelized			None		None		2002-00-000 -	None	
Storage Length	- C		0		0.00020		120.20		
/eh in Median Storage, #	0			-	0		0		
Grade, %	Ő		1999 ( <u>1</u> 9	1999 ( <u>1</u> 99	Ő		Ő		
Peak Hour Factor	95		95	95	95		95	95	
leavy Vehicles, %	2		2	2	2		2	2	
Nymt Flow	0		81	0	258		167	49	
	, i i i i i i i i i i i i i i i i i i i		01	Ū	200		107	τJ	
Major/Minor	Minor2			Major1		٨	Najor2		
Conflicting Flow All	450		192	217	0	"	-	0	
Stage 1	192		-	-	-		-	- -	
Stage 2	258		-	-	-		-	-	
Follow-up Headway	3.518		3.318	2.218	-		-	- -	
Pot Capacity-1 Maneuver	567		850	1353			- New Sector	-	
Stage 1	841		- 050	1333	-		-	-	
Stage 2	785						- 	-	
ime blocked-Platoon, %	700		-	-	•		- 1	-	
	567		850	1353	- 1999:00:00:00:00:00:00:00:00:00:00:00:00:		- 19.462/11049	- 	
Nov Capacity-1 Maneuver	567				- 10 - 10		-	-	
Nov Capacity-2 Maneuver			- 1920-012-00	- 1997:1997:1997:1997:1997:1997:1997:1997	- 1000000000000000000000000000000000000		-	- 580-00-00-00-00-00-00-00-00-00-00-00-00-0	
Stage 1	841		-	-	- 10		-	-	
Stage 2	785		- 1999-1997	-	- 1999 -		- 1970-1970	-	
••••••••••••••••••••••••••••••••••••••									
pproach	EB			NB			SB		
ICM Control Delay, s	9.7			0			0		
ICM LOS	A								
linor Lane / Major Mvmt		NBL	NBT	EBLn1	SBT	SBR			
apacity (veh/h)		1353	-	850	-	-			
ICM Lane V/C Ratio		-	-	0.095	-				
ICM Control Delay (s)		0	(1997) <del>-</del> 1	9.7	(1997) <b>-</b> (1				
ICM Lane LOS		А		А					
ICM 95th %tile Q(veh)		0	11 F	0.315					
otes									
-: Volume Exceeds Capacit		Excode	200 60	oondo: Err	or · Com	autotion Not Defined			

~: Volume Exceeds Capacity; \$ : Delay Exceeds 300 Seconds; Error : Computation Not Defined

# HCM 2010 TWSC 6: JDP & Access Drwy 2

interrection Delay of the	0.0								12.12
ntersection Delay, s/veh	8.2								
Movement	EBL		EBR	NBL	NBT		SBT	SBR	
Vol, veh/h	153		77	190	75		125	47	
Conflicting Peds, #/hr	0		0	0	0		0	0	
Sign Control	Stop		Stop	Free	Free		Free	Free	
RT Channelized	-		None	- Television	None			None	
Storage Length	0		0	250			-		
Veh in Median Storage, #	0				0		0		
Grade, %	0		-		0		0	99 (199 <b>1</b> -1997)	
Peak Hour Factor	95		95	95	95		95	95	
Heavy Vehicles, %	2		2	2	2		2	2	
Mvmt Flow	161		81	200	79		132	49	
Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	635		156	181	0			0	
Stage 1	156		-	-	-			-	
Stage 2	479		- 1 (C	-	- 1. A.		(a) (a) (a) (a)	-	
Follow-up Headway	3.518		3.318	2.218	-			-	
Pot Capacity-1 Maneuver	443		890	1394	- 1 A			- C	
Stage 1	872		-	-	-		9.99.99.70.70.70.20.00.70.20.99.90.00.87.10.20.99.91.00.70.20.99.91.00.20.90.00.70.20.99.91.00.20.90.00.70.20. 	-	
Stage 2	623		-	- 1 C	- 10 S			-	
Time blocked-Platoon, %					-		• • • • • • • • • • • • • • • • • • • •	- -	
Nov Capacity-1 Maneuver	379		890	1394	- 10		6 N. 6 N. 6	20146 <u>-</u> 130	
Nov Capacity-2 Maneuver	379		-	-	-			-	
Stage 1	872		10 ST - 1	- 10				- 11 - 11 - 11 - 11 - 11 - 11 - 11 - 1	
Stage 2	534		-	-	-		an a	-	
- -									
Approach	EB			NB			SB		
HCM Control Delay, s	17.3			5.7			0		
HCMLOS	С								
Minor Lane / Major Mvmt		NBL	NBT	EBLn1	EBLn2	SBT	SBR		
Capacity (veh/h)		1394	-	379	890	-	a la seconda de la seconda		
HCM Lane V/C Ratio		0.143	-	0.425	0.091	-	-		
ICM Control Delay (s)		8.015	-	21.3	9.5	-	-		
ICM Lane LOS		A		C	A				
HCM 95th %tile Q(veh)		0.501	- 1 A	2.061	0.3	1. (A. 1997) - (A. 1997)	e de <del>la p</del> arte de la composition de la c		

Notes ~: Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

# HCM 2010 TWSC 7: JDP & Access Drwy 3

Intersection Delay, s/veh	1.2						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Vol, veh/h	0	70	0	214	207	85	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	_	None	-	None	•• • • • • • • • • • • • • • • • • • • •	None	
Storage Length	- 11	0	14 (A) <b>-</b> (A)	2000 C 20			
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	1.000	-	0	0	1	
Peak Hour Factor	95	95	95	95	95	95	
Heavy Vehicles, %	2	2	2	2	2	2	
Mymt Flow	0	74	0	225	218	89	
							N.
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	488	263	307	0		0	
Stage 1	263	-	-	-	-	-	
Stage 2	225		_	- 10 C	_		
Follow-up Headway	3.518	3.318	2.218		- -	- -	
Pot Capacity-1 Maneuver	539	776	1254			- -	
Stage 1	781		-	- -	_	- -	
Stage 2	812			- -			
Fime blocked-Platoon, %	012	11. ///////////////////////////////////		- -	-	- -	
Nov Capacity-1 Maneuver	539	776	1254	un de la come	-	eachada an	
Nov Capacity-2 Maneuver	539	110	1204	-			
Stage 1	781	-	-	-	•		
Stage 2	812	-		-	-	-	
Slaye Z	012	-	-	-	-	-	
	ED		ND				
Approach	EB		NB		SB		
ICM Control Delay, s	10.1		0		0		
HCM LOS	В						
Minor Lane / Major Mvmt	evention of the second s	NBL NBT	EBLn1	SBT	SBR		
Capacity (veh/h)		1254 -	776	-			
ICM Lane V/C Ratio			0.095	-	-		
ICM Control Delay (s)		0 -	10.1	(19) ( <b>-</b> 1)	an <b>-</b> Call Marson		
ICM Lane LOS		А	В				
ICM 95th %tile Q(veh)		0 -	0.314	_	_		

~: Volume Exceeds Capacity; \$ : Delay Exceeds 300 Seconds; Error : Computation Not Defined

Appendix H Turn Lane Warrant Worksheet Appy Lane Dvwy 1 SB Right Turn Warrant

# Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadw ay	F
Variable	Va	Value
Major-road speed, mph:	3	5
Major-road volume (one direction), veh/h:	5(	206
Right-turn volume, veh/h:	4	2

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	5166
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Source: National Cooperative Highway Research Program (NCHRP) Report 457- Evaluating Intersection Improvements: An Engineering Study Guide

Appy Lane Dvwy 2 SB Right Turn Warrant Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

i	_	2	
•	-	2	
ĺ	1		
1	2	~	

Roadway geometry:	2-lane roadw ay
Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	172
Right-turn volume, veh/h:	47

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	9955
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Source: National Cooperative Highway Research Program (NCHRP) Report 457- Evaluating Intersection Improvements: An Engineering Study Guide

Appy Lane Dvwy 3 SB Right Turn Warrant Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadw ay	idw ay 🔸
Variable		Value
Major-road speed, mph:		35
Major-road volume (one direction), veh/h:		292
Right-turn volume, veh/h:		85

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	1453
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Source: National Cooperative Highway Research Program (NCHRP) Report 457- Evaluating Intersection Improvements: An Engineering Study Guide